DARTMOUTH COLLEGE
♥   EDUCATION 50   ✠
(CROSS-LISTED: COGS 33, LING 11.19, PSYC 52.09)
THE READING BRAIN: EDUCATION AND DEVELOPMENT

Spring Term 2023
Period 9L
Mondays, Wednesdays, & Fridays, 8:50 AM to 9:55 AM
X-hour: Thursdays, 9:05 to 9:55 AM
Moore Hall, room 202
https://canvas.dartmouth.edu/

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Office Hours: on your schedule;
    e-mail to set an appointment

There is no Frigate like a Book
To take us Lands away
Nor any Coursers like a Page
Of prancing Poetry –
    Emily Dickinson

And so to completely analyze what we do when we read would almost be the acme
of a psychologist's achievements, for it would be to describe very many of the most
intricate workings of the human mind, as well as to unravel the tangled story of the
most remarkable specific performance that civilization has learned in all its history.
    Huey, E.B. (1908/1968). *The psychology*
    and pedagogy of reading (p. 6). MIT Press.

♥ Course Description
Many children entering first grade do not know how to read; most children leaving first grade do know how to read, at least at a basic level. Further development of reading skills continues throughout the school years. What is involved in the amazing development of the ability to make meaning of marks on a page? What goes on in the brain during reading and learning to read? What might be happening (or not happening) in the behaviors and brains of children who have difficulty learning how to read? In this course, we will explore answers to all of these questions and more. The course is designed as an introduction to reading development—from orthography and phonology to semantics, syntax, and comprehension—from the multiple perspectives of education, neuroscience, linguistics, and psychology.

♥ Cross-listings
This course is an Education course (EDUC 50) that is also cross-listed as Cognitive Science (COGS 33), Linguistics (LING 11.19), and Psychology (52.09) courses. You may enroll in any offering of the course; however, if you wish to count the course toward the Education Minor, it

must be listed as EDUC 50 in your record. You can choose to switch which subject and course number of this cross-listed course appears on your transcript after the add-drop period this term or at any time after taking the course (but before graduation) by sending a request to the Registrar via e-mail (registrar@dartmouth.edu). Note that this course cannot be counted towards the Neuroscience major or minor.

ℬ Goals and Expectations

- **This course is designed to provide you with opportunities to:**
    - appreciate the astonishing complexity of the ability to read words
    - be able to identify and understand multiple skills and systems involved in reading and learning to read at the behavioral and neural levels
    - recognize some of the components that are crucial to learning to read and building a reading brain
    - understand how evidence from behavioral and brain research informs the practice of teaching reading
    - develop both writing skills and skills involved in critically reading and analyzing research articles, and
    - recognize the relevance of the course material to life outside of this class.
- **My expectations for me, as a teacher:**
    - to share knowledge with you in an organized, principled, evidence-based, accessible, and clear way
    - to support you in your learning, helping you to understand new information and make connections between old and new information as you build your knowledge base about reading development and learning to read
    - to encourage you to be an engaged and active learner in all aspects of the course, and
    - to be available to you: I deeply value interactions with students and believe that such interactions are a foundation for learning (both yours and mine).
- **My expectations for you, as a learner:**
    - that you successfully build a useable knowledge base about reading development and learning to read
    - that you speak with me and your classmates in order to support your learning
    - that you ask questions both when you don't understand something and when you are curious to learn more
    - that you conduct your work for this course with integrity, and
    - that you participate fully as an engaged and active learner, contributing to our shared conversations as a community of learners and using the assignments as meaningful learning opportunities.
- **My expectations for us, as a learning community:**
    - that we support each other as we learn together
    - that our interactions are respectful and civil
    - that we will both choose our language carefully and acknowledge when we have made poor choices
    - that we will give and receive feedback that is thoughtful and conducive to learning

o that we will recognize that realizing bias can be difficult but is part of the learning process, and
o that, together, we create a safe, evidence-based learning environment that supports a diversity of thoughts, perspectives, and experiences and honors our intersectional identities.

✍ Required Reading

- All readings will be available through Canvas. However, you may prefer to purchase the two books that we will use for the course (there are some Library access limitations):
    o Moats, L.C. (2020). *Speech to print: language essentials for teachers* (3rd ed.). Paul H. Brookes. [At Amazon. On-line through the Library.]
    o Adams, M.J. (1994). *Beginning to read: thinking and learning about print.* MIT Press. [At Amazon. On-line through the Library.]
- Links to the daily assigned readings (as listed in the syllabus in the *Schedule* and *Reading List by Module/Class*) will be provided within each Canvas Module.
- All readings listed in the syllabus and linked on the Canvas site are required reading for the course unless marked [optional]. Optional readings are worthy of your time if you have time.
- The readings were carefully chosen to help you establish background knowledge and familiarity with key concepts and issues and they provide a basic foundation upon which class will build each day. You should be prepared to both discuss and go beyond the readings in class.

✍ Assignments/Assessments

- **Reflection papers**
    o There are two reflections papers for this course, which act as bookends to your thinking. One is due at the beginning of the term and the other is due at the end of the term.
    o **Initial reflection:** A relatively informal written reflection on what is involved in learning to read, teaching reading, and reading development. This should reflect your current thinking; please submit this before you complete the assigned readings for the day and do not do any extra research for this paper. Same formatting as Research-based Papers but 1- to 2-page length. Due by 8:50 AM on Wednesday, 29 March.
    o **Final reflection:** A formal written reflection on your thoughts about what is involved in learning to read, teaching reading, and reading development—and how your thoughts have changed, having spent the term immersed in this world. Concrete examples should support your points/arguments and class materials should be integrated throughout (to be clear, this means that your final reflection should include citations and references; use research evidence from course materials to both support your claims and bridge research and practice). Same formatting as Research-based Papers, 3- to 4-page length. Due by 6:00 PM Friday, 02 June.
- **Research-based papers**
    o Four short, research-based papers are due throughout the term:
        o Paper 1 is due by 8:50 AM on Monday, 17 April and should reflect material in the *Introduction*, *Pre-Readers*, or *Orthography* classes/modules.
        o Paper 2 is due by 8:50 AM on Wednesday, 03 May and should reflect material in the *Phonology*, *Morphology*, or *Semantics* classes/modules.

- Paper 3 is due by 8:50 AM on Monday, 15 May and should reflect material in the *Syntax, Context, Fluency,* or *Comprehension* classes/modules.
- Paper 4 is due by 8:50 AM on Wednesday, 31 May and should reflect material in the *Teaching* or *Dyslexia and Poor Reading* classes/modules.
- Refer to the Research-based Paper Guidelines document on Canvas for details about writing your research-based papers (select points are listed below).
- Each paper is on a topic of your choice, based on the readings and classes from the preceding weeks. I encourage you to talk with me about your ideas for topic options. What was the most interesting part of the readings or classes? What part did you completely disagree with and why? What part surprised you? What part do you want to know more about? In short, what part really resonated with you and made you think? Your topic idea can come from multiple sources; for example, a footnote in a reading, a word you didn't know before, or an experience you have had. Your topic should be intriguing to you—something that you want to delve further into and find out more about.
- Choose <u>one specific aspect</u> of the materials covered in class or readings to write about. Be careful to choose a specific (not general) topic suited to a 3- to 4-page paper. Please talk with me if you are not sure about the scope of your topic choice. Each paper is a creative opportunity for you to do further research on a specific topic of most interest to you; each is a chance to demonstrate your own learning and understanding and build on class materials.
- Once you have chosen what to write about, find two contemporary, peer-reviewed, primary source research articles (not discussed in class or assigned readings) relevant to your topic, read them carefully and critically, and incorporate information from those articles into your paper.
  - Dartmouth has an impressive Digital Library (http://library.dartmouth.edu) that makes locating articles easier.
  - Through the Library, you can access relevant databases such as [PubMed](), [PsycInfo](), or [ERIC]().
  - By conducting a subject or keyword search within these databases, you can find articles related to your topic of choice.
  - Articles should be contemporary primary source research articles (*not* opinion pieces or commentaries, dissertations, research reviews, or meta-analyses) and should be published in peer-reviewed journals (when searching databases, check the box next to "peer reviewed").
- Papers should be clearly written in the context of this course, connected to reading development and learning to read. Papers should be entirely your own work.
- Each paper should be typed in a conventional 12-point font (like Times New Roman) and double-spaced, with one inch margins on all sides (note that this is not the default for Word). Each paper should be 3 to 4 pages in length.
- In-text citations should be in APA Style and a reference list in APA Style should be included at the end of the text (the reference list is not included in the page limit). For details about APA Style, refer to the APA Style Summary Sheet or directly to *The Publication Manual of the American Psychological Association, 7th Ed.* (2020).

o A copy of the first page, including the abstract, of any referenced article should be submitted with your paper. Please submit the first page of the actual article, not the results of a database search. You do not need to include a copy of the first page of any article or chapter included in the reading list for the course when you reference course materials.

o Refer to the Research-based Paper Guidelines document for further details; it will be helpful to refer to this document, along with the APA Style Summary Sheet, as you work on each paper. A grading rubric reflecting the Guidelines is also available in the Research-based Paper Assignments on Canvas.

o If you are finding the papers difficult or frustrating in some way, please talk with me. It is very likely that we will be able to find strategies that will make the papers a more enjoyable learning experience for you.

- **Foundations of Reading Test (FoRT)**

    You will be asked to take a Foundations of Reading Test (FoRT) practice test. You will have access to the practice test and an answer sheet in Canvas Assignments starting after class on 19 May and you must submit your completed practice test by the beginning of class on 26 May. This multiple choice and short answer test is required for elementary teacher certification in New Hampshire (and other states). Please treat this like a closed-book exam; it will provide both a good review and a chance to apply your knowledge in new ways. Your timely submission of your honestly and independently completed FoRT answer sheet is graded.

- **Groupwork**

    o I will assign students to groups after the first week of classes. You will remain in the same group throughout the term.

    o For groupwork, the quality of both the discussion and the written responses is important; engagement with key ideas, use of course vocabulary, meaningful contributions from all members, and support of learning should be evident in both. Responding to the specific questions on the groupwork sheets simply provides a framework and structure for informed, critical discussions.

    o One goal of the groupwork is to have meaningful real-time discussions and engage with the materials as a collaborative group. For everyone to be able to have a shared foundation in terms of background knowledge from the course, all group members should plan to have completed all previous work up to each groupwork session.

    o Each member of a group will receive the same grade for a given groupwork activity unless, in my judgment, a member did not contribute meaningfully. In general, by choosing not to participate, you affect your own learning; but for groupwork, you also compromise others' learning because your groupmates are robbed of the opportunity to benefit from your insight and perspective in the same way that you have from theirs.

    o Groupwork activities will be posted to the Assignments section on Canvas.

- **Quizzes**

    There will be 11 unannounced quizzes throughout the term, with short questions based on the assigned readings for that day. These will take about five minutes of class time. It may be helpful to read the research articles with the following questions in mind: What was the authors' question and why was it important? What did the authors do to answer their

question? What did the authors find and why was it important? For class purposes, read the assigned materials for the main ideas (for your research-based papers, you will need to read at a different level of detail). There are no "make up" opportunities for missed quizzes, but your lowest quiz score will be dropped such that only 10 quizzes will count towards your grade.

১ Late Policy
- If you anticipate not being able to meet a submission deadline for a research-based paper or reflection paper, please contact me at least 24 hours in advance; no late assignments will be accepted unless we have spoken and come to an agreement in advance. Note that you may start your written assignments at any time and that waiting until the last minute is neither a good writing nor a good learning strategy.
- There are no late submissions for groupwork. If you must miss a class and cannot participate with your group remotely, there is a one-time option to complete a replacement assignment (this cannot be used for "extra credit" or to "make up" other missed points). Please contact me as soon as you know that you will not be able to participate in a groupwork session.

১ Canvas
- Class resources can be found on the Canvas site for the course, including a copy of the syllabus (in the Please Start Here Module) and course reading links in the topic Modules.
- The APA Style Summary Sheet and Research-based Paper Guidelines are also available on Canvas, in the Research-based Paper Assignments.
- You will find your groupwork materials in the Assignments section and will submit your written work through Assignments.
- Lecture outlines will be posted in each topic Module prior to the beginning of each topic unit; the outlines may be helpful for organizing your notes.
- You will find a Feedback Discussion in the Feedback across the Term Module just after the Please Start Here Module. Please talk with me directly or use this Discussion to provide me with feedback about how the course is working for you throughout the term. Real-time feedback will allow me to address your concerns and make modifications to best support our learning environment.

১ Attendance
In-person class attendance is expected; however, I understand that there may be times when you need to miss class due to illness, family emergencies, or other circumstances. *Please do not attend class if you are ill or are supposed to be in isolation.* Please let me know as early as possible that you will not be able to attend class so that we can try to make arrangements. If it is a groupwork day, please be in touch with both me and your group members and try to participate with your group remotely. As usual, you will have access to lecture outlines on Canvas. Further, I encourage you to reach out to classmates for copies of their notes for the class that you missed. We can also discuss other adjustments as appropriate to your specific circumstances.

ೞ Course Grade

- Course grades are based on your work outside of class (63%) and your work in class (37%).
  - o Out-of-class work:
    - o Initial reflection paper (2%)
    - o Final reflection paper (10%)
    - o 4 research-based papers at 12% each (48%)
    - o On-time completion of the FoRT (3%)
  - o In-class work:
    - o Groupwork: 7 sessions at 3% each (21%)
    - o 11 quizzes at 1% each, lowest dropped (10%)
    - o Attendance and participation, which can take many forms (6%)
- Grading is consistent with the ORC description of scholarship ratings (see http://www.dartmouth.edu/~reg/transcript/grade_descriptions.html).

ೞ Responsibilities

- **Academic Honor Principle: working with integrity**
  - o All students are expected to uphold all aspects of the Academic Honor Principle (refer to https://students.dartmouth.edu/community-standards/policy/academic-honor-principle).
  - o Please make sure that you are familiar with the Honor Principle, including that all work should be your own (or that of your group) and properly cited in APA Style, and make sure to ask questions if you are uncertain about how the Principle applies in this course. Your work being your own means that you should not use AI to create or develop your assignments.
  - o Any violation of the Academic Honor Principle regarding your work in this course will result in a zero on the assignment and I am obligated to refer the matter to the Office of Community Standards & Accountability.
- **Community Standards of Conduct: responsibility and respect**
  All students are expected to accept individual responsibility for their actions and to respect the rights of others, and to uphold all aspects of our community standards of conduct (refer to https://students.dartmouth.edu/community-standards/).
- **Rules for recording**
  - o Consent to recording of course meetings that are open to multiple students. By enrolling in this course, I affirm the following:
    - o I affirm my understanding that the instructor may record meetings of this course and any associated meetings open to multiple students and the instructor, including but not limited to scheduled and ad hoc office hours and other consultations, within any digital platform, including those used to offer remote instruction for this course;
    - o I further affirm that the instructor owns the copyright to their instructional materials, of which these recordings constitute a part, and my distribution of any of these recordings in whole or in part (or any other instructional materials for this course) to any person or entity other than other members of the class without

prior written consent of the instructor may be subject to discipline by Dartmouth up to and including separation from Dartmouth.

o Requirement of consent to one-on-one recording

     o By enrolling in this course, I hereby affirm that I will not make a recording in any medium of any one-on-one meeting with the instructor or another member of the class or group of members of the class without obtaining the prior written consent of all those participating, and I understand that if I violate this prohibition, I will be subject to discipline by Dartmouth up to and including separation from Dartmouth, as well as any other civil or criminal penalties under applicable law. I understand that an exception to this consent applies to accommodations approved by SAS for a student's disability, and that one or more students in a class may record class lectures, discussions, lab sessions, and review sessions and take pictures of essential information, and/or be provided class notes for personal study use only.

- **Religious observances**

    I recognize that some students may wish to take part in religious observances that occur during this academic term. If you have a religious observance that conflicts with your participation in this course, it is your responsibility to please meet with me before the end of the first week of the term so that we can discuss appropriate accommodations.

℘ Resources

- **Office hours**

    Office hours are on your schedule, not mine. Rather than holding set office hours, which will invariably conflict with your schedules, please talk with me and/or e-mail me (donna.coch@dartmouth.edu) to find a time that works for us to meet. Please feel free to schedule to meet with me whether you have specific questions or not.

- **Disability-related accommodations and services**

    If you are requesting disability-related accommodations and services for this course, please first register with Student Accessibility Services (SAS; Apply for Services webpage; student.accessibility.services@dartmouth.edu; 1.603.646.9900). Once registered with SAS, please request that an accommodation e-mail be sent to me through A11y (in advance of the need for an accommodation) and schedule a meeting with me so that we can discuss what supports to build into our course; for example, we can determine relevant details such as what role SAS or its Testing Center may play in accommodation implementation. This process works best for everyone when completed as early in the term as possible. If you have questions about whether you are eligible for accommodations or have concerns about the implementation of accommodations, please contact the SAS office. All inquiries and discussions will remain confidential.

- **Efficient/effective learning**

    If you feel that your learning is not as efficient or effective as you would like it to be, please talk with me about approaches to this course and consider using the resources available through the Academic Skills Center (https://students.dartmouth.edu/academic-skills/about/about-asc/services), including tutoring and learning skills trainings.

- **Research and writing skills**

    If you would like to further develop your research and writing skills as you work on your papers, consider taking advantage of the services offered through the Writing Center (https://writing.dartmouth.edu). The Center is a free service dedicated to helping members of the Dartmouth community develop more effective strategies for generating and organizing ideas, finding and evaluating research sources, and presenting and revising compositions in a variety of media.

- **Wellness**

    I recognize that the academic environment at Dartmouth is challenging, that our terms are intensive, and that classes are not the only demanding part of your life. There are a number of resources available to you to support your wellness, including:

    - your undergraduate dean (https://students.dartmouth.edu/undergraduate-deans/),
    - the Counseling Center (https://students.dartmouth.edu/health-service/counseling/about),
    - the Uwill teletherapy service (https://students.dartmouth.edu/health-service/counseling/appointments-services/uwill-teletherapy-services-students),
    - pastoral support, counseling, and spiritual care (https://students.dartmouth.edu/tucker/about/pastoral-counseling), and
    - the Student Wellness Center (https://students.dartmouth.edu/wellness-center/).

    I encourage you to use these resources to take care of yourself throughout the term and to feel free to speak with me if you are experiencing difficulties. I have participated in the Campus Connect training. Please do take advantage of these resources and reach out to speak with me or someone else if you are struggling; you are not alone.

- **Sexual safety**

    If you do not feel sexually safe, the Title IX Office at Dartmouth (https://sexual-respect.dartmouth.edu) provides information about your rights with regard to sexual safety and resources that are available to you. Some of those resources are summarized here. Please note that, as a faculty member, I am obligated to share disclosures regarding conduct under Title IX with Dartmouth's Title IX Coordinator. Confidential resources are also available, including licensed medical or counseling professionals, staff members of organizations recognized as rape crisis centers under state law (e.g., WISE), or ordained clergy. Please do reach out to speak with someone if you do not feel safe; you deserve to be safe.

Schedule[§]

Date	Module/Topic	What to Read[†]	What's Due
Week One			
27 March	1: Introduction to the Course	Syllabus, Bean, Duke, Schwartz	
29 March	2: Introduction: Reading and Language	Moats (1)	Init Refl
31 March	3.1: Introduction: Brain & Methodology	Byrnes	
Week Two			
03 April	3.2: Introduction: Brain & Methodology	Gazzaniga	
05 April	4.1: Pre-readers	Adams (4, 13), Treiman	
07 April	4.2: Pre-readers	Strickland, Vallotton, Hindman, O'Neil	
Week Three			
10 April	5: Pre-readers Groupwork	Reading Rockets (5), Balanced Literacy Diet	
12 April	6.1: Orthography	Adams (6), Grainger, Bosse	
14 April	6.2: Orthography	Blythe, McCandliss	
Week Four			
17 April	7.1: Phonology	Moats (2), Anthony, Stainthorp, Curzan	RPaper 1
19 April	7.2: Phonology	Adams (8, *12*), Castro-Caldas, Frith	
21 April	8: Ortho/Phono Groupwork	Reading Rockets (4), Rohde	
Week Five			
24 April	9: Morphology	Moats (5), Bryant, Rastle, Claravall	
26 April	10.1: Semantics	Hart, Adams (7), Moats (7), Templeton	
28 April	10.2: Semantics	Cunningham, Taylor, Kutas	
Week Six			
01 May	11: Morph/Semantics Groupwork	Reading Rockets (3)	
03 May	12: Syntax	Moats (6), Phillips, Friederici, Fang, Frantz	RPaper 2
05 May	13: Context	Spear-Swerling, Nation, Wigfield, Nieuwland	
Week Seven			
08 May	14: Fluency	Kuhn, Rasinski (2)	
10 May	15: Comprehension	Duke, Hulme, Rapp, Connor, Maguire	
12 May	16: Comprehension Groupwork	Reading Rockets (3)	
Week Eight			
15 May	17: Teaching Reading: Theories	Adams (2, 15), ILA, Goodman, Hernández, Pondiscio	RPaper 3
17 May	18: Teaching Reading: Groupwork	BBC, Moats (8), Moats; Hanford, Drake, Connor, Ehri, Stahl, NIFL, Willingham	
19 May	19.1: Dyslexia & Poor Reading	Ferrer, Wolter, Hanford, Peterson, Melby-Lervåg	
Week Nine			
22 May	19.2: Dyslexia & Poor Reading	Vellutino, D'Mello, Wallace, Editorial	
24 May	19.3: Dyslexia & Poor Reading	Sherman, Eden, Heim, Olulade	
26 May	20: FoRT & Spelling Groupwork	FoRT, Treiman, ILA	FoRT
Week Ten			
29 May	*No class: Memorial Day*		
31 May	21: All Together: Plasticity Groupwork	*Secret Life of the Brain*, Verhoeven, Hurford	RPaper 4
Final Exams			
02-05 June	Due by Friday, 02 June at 6:00 PM		Final Refl

[§]*note that the Schedule is subject to change*   [†]*see detailed list below*

Links to the assigned readings are posted in each Module on Canvas. Clicking on the doi or url provided should directly link to each reading (as close to the pdf file as possible). The readings were carefully chosen to help you establish background knowledge and familiarity with key concepts and issues, a basic foundation upon which class will build each day. You should be prepared to both discuss and go beyond the readings in class. You may need to copy-and-paste some links into your browser. If clicking on a link returns a page of nonsense in your browser window, highlight (double-click on) the address in your browser and press return. If a link should fail, use Google or search the Library to locate the reading.

*Week One*_____

Monday, 27 March – Module 1: Introduction to the Course
An overview of the course content, structure, and requirements.

- Syllabus
- Bean, J.C. (2011). *Engaging ideas: the professor's guide to integrating writing, critical thinking, and active learning in the classroom.* Jossey-Bass. Excerpt from Chapter 9: Helping students read difficult texts (pp. 161-166).
- Duke, N.K., & Martin, N.M. (2011). 10 things every literacy educator should know about research. *The Reading Teacher, 65*(1), 9-22. https://doi.org/10.1598/RT.65.1.2
- Schwartz, S. (2022, July 20). States are pushing changes to reading instruction. But old practices prove hard to shake. *Education Week.* https://www.edweek.org/teaching-learning/states-are-pushing-changes-to-reading-instruction-but-old-practices-prove-hard-to-shake/2022/07

Wednesday, 29 March – Module 2: Introduction: Reading and Language
INITIAL REFLECTION DUE TODAY
Please submit your Initial Reflection *before* reading the chapter assigned for today.
There is a direct and critical connection between language and reading. This chapter outlines why it is necessary to study language in order to understand reading, one of the themes of the course.

- Moats, L.C. (2020). *Speech to print: language essentials for teachers* (3rd ed.). Paul H. Brookes. Chapter 1: Why study language? (pp. 1-22 book, 22-46 on-line).

Friday, 31 March – Module 3, class 1: Introduction: The Brain and Methodology
In order to talk about what happens in the brain when children and adults are reading, we need to become familiar with some brain basics. This chapter serves as an introduction to basic neuroanatomy, brain function, and methods for studying the brain and includes arguments for and against the relevance of brain research to education.

- Byrnes, J.P. (2001). *Minds, brains, and learning: understanding the psychological and educational relevance of neuroscientific research.* Guilford Press. Chapter 1: Introduction (pp. 1-23).

Monday, 03 April – Module 3, class 2: Introduction: The Brain and Methodology
Continued introduction to basic neuroanatomy, brain function, and methods for studying the brain.
NB: This chapter is quite dense; skim pages 70-92 for the main ideas using Byrnes as background and plan to use it as a resource and reference throughout the course (i.e., you do not need to memorize the contents of this chapter—just be familiar with what it offers so you can refer back to it in the future).

- Gazzaniga, M.S., Ivry, R.B., & Mangun, G.R. (2002). *Cognitive neuroscience: the biology of the mind* (2nd ed.). W.W. Norton. Chapter 3: Gross and functional anatomy of cognition (pp. 62-95; focus on pages 70-92).

Wednesday, 05 April – Module 4, class 1: Pre-readers
Knowledge about speech and print in pre-readers serves as a foundation for the later development of reading skills in many ways. These readings provide an overview of some of the important language and reading experiences that some children have before they even begin school.

- Adams, M.J. (1994). *Beginning to read: thinking and learning about print*. MIT Press. Chapters 4: Research on prereaders (pp. 55-91) and 13: Learning about print: the first steps (pp. 333-374).
- Treiman, R. (2000). The foundations of literacy. *Current Directions in Psychological Science, 9*(3), 89-92. https://doi.org/10.1111/1467-8721.00067

Friday, 07 April – Module 4, class 2: Pre-readers
Continued discussion of important pre-reading skills and experiences.

- Strickland, D.S., & Riley-Ayers, S. (2006, April). *Early literacy: policy and practice in the preschool years*. NIEER Policy Brief, Issue 10. http://nieer.org/wp-content/uploads/2016/08/10.pdf
- Vallotton, C.D., Gardner-Neblett, N., Kim, L., Harewood, T., & Duke, N.K. (2023). Ready for read-alouds: 10 practices for book-sharing with infants and toddlers. *The Reading Teacher, 76*(4), 459-469. https://doi.org/10.1002/trtr.2176
- Hindman, A.H., Wasik, B.A., & Snell, E.K. (2016). Closing the 30 million word gap: next steps in designing research to inform practice. *Child Development Perspectives, 10*(2), 134-139. https://doi.org/10.1111/cdep.12177
- O'Neil, J. (2006, October 4). Early repairs in foundation for reading. *The New York Times*, B7. https://www.nytimes.com/2006/10/04/nyregion/04READING.html

Monday, 10 April – Module 5: Pre-readers Groupwork
A closer look at pre-reader skills inside and outside the classroom.

- Reading Rockets. (2008, May 19). *Becoming aware of print* [Video]. YouTube. https://www.youtube.com/watch?list=PLLxDwKxHx1yJTsTEnSok3vev8O3HjofhS&v=2Yti78OGxg0&feature=emb_logo (4:10)
- The Balanced Literacy Diet (2011, November 27). *Counting words: developing concepts of print* [Video]. YouTube. https://www.youtube.com/watch?v=6SJPNrqyzp0&feature=emb_logo (1:49)

- Reading Rockets (2014, April 16). *Tuning in to speech sounds* [Video]. YouTube. https://www.youtube.com/watch?list=PLLxDwKxHx1yLqjuaMwOn-nV1n4up1VbLG&v=WvM5bqUsbu8&feature=emb_logo (2:40)
- Reading Rockets. (2014, April 15). *Fun with phonemes* [Video]. YouTube. https://www.youtube.com/watch?list=PLLxDwKxHx1yKsSp83ZnNUABPjv0S3X-q2&v=QsWRWqzD8-w&feature=emb_logo (1:39)
- Reading Rockets. (2014, March 12). *Bringing up baby* [Video]. YouTube. https://www.youtube.com/watch?v=hj_qOqOuZd8&list=PLLxDwKxHx1yKyU6VaQ97xEHelaOXB4qEW&t=9s (5:46)
- Reading Rockets. (2014, March 12). *Pre-reader assessment* [Video]. YouTube. https://www.youtube.com/watch?list=PLLxDwKxHx1yJTsTEnSok3vev8O3HjofhS&v=-DeJFqj22WQ&feature=emb_logo (3:44)

Wednesday, 12 April – Module 6, class 1: Orthography

Orthography involves the visual look and spelling of a word—from single letters to patterns of letters to the whole word. As would be expected, the visual system is heavily involved in the typical reading process. Readings for today review how orthographic processing plays a role in reading and how orthographic rules influence knowledge about how to spell words, even in young spellers and readers.

- Adams, M.J. (1994). *Beginning to read: thinking and learning about print*. MIT Press. Chapter 6: Analyzing the reading process: orthographic processing (pp. 107-135).
- Grainger, J., & Whitney, C. (2004). Does the huamn mnid raed wrods as a wlohe? *Trends in Cognitive Sciences, 8*(2), 58-59. https://doi.org/10.1016/j.tics.2003.11.006
- Bosse, M.-L. (2015). Learning to read and spell: how children acquire word orthographic knowledge. *Child Development Perspectives, 9*(4), 222-226. https://doi.org/10.1111/cdep.12133

Friday, 14 April – Module 6, class 2: Orthography

Continued discussion of how regions and systems in the brain that are involved in visual processing are also involved in the process of reading. *NB:* Remember to read for the main ideas.

- Blythe, H.I. (2014). Developmental changes in eye movements and visual information encoding associated with learning to read. *Current Directions in Psychological Science, 23*(3), 201-207. https://doi.org/10.1177/0963721414530145
- McCandliss, B.D., Cohen, L., & Dehaene, S. (2003). The visual word form area: expertise for reading in the fusiform gyrus. *Trends in Cognitive Sciences, 7*(7), 293-299. https://doi.org/10.1016/S1364-6613(03)00134-7
- Dehaene, S., Pegado, F., Braga, L.W., Ventura, P., Filho, G.N., Jobert, A. … Cohen, L. (2010). How learning to read changes the cortical networks for vision and language. *Science, 330*(6009), 1359-1364. https://doi.org/10.1126/science.1194140 [optional]

Week Four_____

Monday, 17 April – Module 7, class 1: Phonology
PAPER 1 DUE TODAY

The auditory system is also involved in reading. Put another way, the sounds of language are inextricably related to reading. Moats reviews how phonemes are classified and categorized, Anthony and Francis review the crucial concept of phonological awareness from a developmental perspective, and Stainthorp

and Curzan address phonology in adults. *NB:* You do not need to memorize the phonetic alphabet for purposes of this course.

- Moats, L.C. (2020). *Speech to print: language essentials for teachers* (3rd ed.). Paul H. Brookes. Chapter 2: Phonetics: the sounds of speech (pp. 25-51 book, 47-73 on-line).
- Anthony, J.L., & Francis, D.J. (2005). Development of phonological awareness. *Current Directions in Psychological Science, 14*(5), 255-259. https://doi.org/10.1111/j.0963-7214.2005.00376.x
- Stainthorp, R. (2003, March). Use it or lose it. *Literacy Today, 34,* 16-17. http://search.ebscohost.com.dartmouth.idm.oclc.org/login.aspx?direct=true&AuthType=ip,url,uid&db=a9h&AN=12329889&site=ehost-live&scope=site
- Curzan, A. (2014, September 26). Pausing over pronunciation. *The Chronicle of Higher Education.* http://chronicle.com/blogs/linguafranca/2014/09/26/pausing-over-pronunciation/

Wednesday, 19 April – Module 7, class 2: Phonology
Continued discussion of the role of phonology in reading, with a closer look at phonological processing in the brain.

- Adams, M.J. (1994). *Beginning to read: thinking and learning about print*. MIT Press. Chapters 8: Adding the phonological processor: how the whole system works together (pp. 157-191) and 12: Phonological prerequisites: becoming aware of spoken words, syllables, and phonemes (pp. 293-308 only).
- Castro-Caldas, A., Petersson, K.M., Reis, A., Stone-Elander, S., & Ingvar, M. (1998). The illiterate brain: Learning to read and write during childhood influences the functional organization of the adult brain. *Brain, 121*(6), 1053-1063. https://doi.org/10.1093/brain/121.6.1053
- Frith, U. (1998). Literally changing the brain. *Brain, 121*(6), 1011-1012. https://doi.org/10.1093/brain/121.6.1011

Friday, 21 April – Module 8: Orthography/Phonology Groupwork
A closer look at connecting orthography (graphemes) and phonology (phonemes) in the classroom.

- Reading Rockets. (2014, April 3). *Spelling patterns* [Video]. YouTube. https://www.youtube.com/watch?list=PLLxDwKxHx1yJROcQQ_zAG56m0R-vsax2Y&v=yzEkNbpeKB0&feature=emb_logo (3:42)
- Reading Rockets. (2014, April 3). *Invented spelling* [Video]. YouTube. https://www.youtube.com/watch?list=PLLxDwKxHx1yJROcQQ_zAG56m0R-vsax2Y&v=CDlrJqX5_q4&feature=emb_logo (3:59)
- Reading Rockets. (2014, April 3). *Letters & sounds* [Video]. YouTube. https://www.youtube.com/watch?list=PLLxDwKxHx1yKsSp83ZnNUABPjv0S3X-q2&v=K4CjJvU9mYA&feature=emb_logo (4:38)
- Reading Rockets (2011, May 31). *The alphabetic principle* [Video]. YouTube. https://www.youtube.com/watch?list=PLLxDwKxHx1yJkYIQG0dPrPdIpzj5uE2pu&v=rRk__~hEOU&feature=emb_logo (3:02)
- Rohde, L.E., Paciga, K.A., & Cassano, C.M. (2021, March/April). Beyond what's essential, effective, and efficient: ensuring phonological awareness instruction and assessment are equitable. *Literacy Today, 38*(5), 36-37.

https://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=149063612&site=ehost-live&scope=site&authtype=ip,shib&custid=dartcol

*Week Five*_____

Monday, 24 April – Module 9: Morphology
A review of evidence on the role of morphological knowledge in reading and learning to read. How are little meaningful bits of language—morphemes like *-ed* or *-ing* or *pre-* –important to reading? Is there evidence for a neural morphological system?

- Moats, L.C. (2020). *Speech to print: language essentials for teachers* (3rd ed.). Paul H. Brookes. Chapter 5: Morphology for reading, spelling, and vocabulary (pp. 133-177 book, 160-210 on-line).
- Bryant, P., Nunes, T., & Snaith, R. (2000). Children learn an untaught rule of spelling. *Nature, 403,* 157-158. https://doi.org/10.1038/35003114
- Rastle, K. (2019). The place of morphology in learning to read in English. *Cortex, 116,* 45-54. https://doi.org/10.1016/j.cortex.2018.02.008
- Claravall, E.B. (2016). Integrating morphological knowledge in literacy instruction. *Teaching Exceptional Children, 48*(4), 195-203. https://doi.org/10.1177/0040059915623526
- Pinker, S., & Ullman, M.T. (2002). The past and future of past tense. *Trends in Cognitive Sciences, 6*(11), 456-463. https://doi.org/10.1016/S1364-6613(02)01990-3 [this article is an optional reading on a classic debate]

Wednesday, 26 April – Module 10, class 1: Semantics
Reading is not only a process of decoding—the crux of single-word reading is making meaning of the marks on the page. What do we know about how word meanings are organized and used in reading and how best to teach and learn new words? *NB:* This is quite a bit of reading, but all of it is accessible; remember to read primarily for the main ideas. Also, in the Adams chapter, focus on the parts about meaning.

- Hart, B., & Risley, T.R. (2003, Spring). The early catastrophe: the 30 million word gap by age 3. *American Educator, 27*(1), 4-9. https://www.aft.org/sites/default/files/media/2014/TheEarlyCatastrophe.pdf
- Adams, M.J. (1994). *Beginning to read: thinking and learning about print*. MIT Press. Chapter 7: Analyzing the reading process: use and uses of meaning (pp. 137-156).
- Moats, L.C. (2020). *Speech to print: language essentials for teachers* (3rd ed.). Paul H. Brookes. Chapter 7: Semantics: word and sentence meaning (pp. 215-235 book, 250-272 on-line—up to the section on sentential semantics).
- Templeton, S., Bear, D.R., Invernizzi, M., Johnston, F., Flanigan, K., Townsend, D.R. … Hayes, L. (2015). *Vocabulary their way: word study with middle and secondary students* (2nd ed.). Pearson. Chapter 1: What every teacher needs to know about words and about teaching them (pp. 1-15).

Friday, 28 April – Module 10, class 2: Semantics
Continued discussion of vocabulary knowledge, word meanings, and semantic systems in the brain.

- Cunningham, A.E., & Stanovich, K.E. (1998, Spring/Summer). What reading does for the mind. *American Educator, 22*(1&2), 1-8. http://www.aft.org/sites/default/files/cunningham.pdf

- Taylor, J.S.H., Duff, F.J., Woollams, A.M., Monaghan, P., & Ricketts, J. (2015). How word meaning influences word reading. *Current Directions in Psychological Science, 24*(4), 322-328. https://doi.org/10.1177/0963721415574980
- Kutas, M., & Hillyard, S.A. (1980). Reading senseless sentences: brain potentials reflect semantic incongruity. *Science, 207*(4427), 203-205. https://doi.org/10.1126/science.7350657
- Seidenberg, M.S. (2005). Connectionist models of word reading. *Current Directions in Psychological Science, 14*(5), 238-242. https://doi.org/10.1111/j.0963-7214.2005.00372.x [optional reading—for those of you who would like a computational model or framework to fit the pieces together]
- Mitchell, T.M., Shinkareva, S.V., Carlson, A., Chang, K.-M., Malave, V.L., Mason, R.A., & Just, M.A. (2008). Predicting human brain activity associated with the meanings of nouns. *Science, 320*(5880), 1191-1195. https://doi.org/10.1126/science.1152876 [optional reading—also computational]

*Week Six*_____

Monday, 01 May – Module 11: Morphology/Semantics Groupwork
A closer look at direct vocabulary instruction in the classroom.

- Reading Rockets. (2011, July 1). *Classroom strategy: list-group-label* [Video]. YouTube. https://www.youtube.com/watch?list=PLLxDwKxHx1yJUpXMVaifE1Ord_4J4ai0k&v=K731qicwYcY&feature=emb_logo (8:00)
- Reading Rockets. (2011, July 1). *Semantic gradients* [Video]. YouTube. https://www.youtube.com/watch?list=PLLxDwKxHx1yJUpXMVaifE1Ord_4J4ai0k&v=zTaYuYw8GNc&feature=emb_logo (7:08)
- Reading Rockets. (2011, July 1). *Using concept sort in the classroom* [Video]. YouTube. https://www.youtube.com/watch?list=PLLxDwKxHx1yJUpXMVaifE1Ord_4J4ai0k&v=d_R5wfmWIlQ&feature=emb_logo (6:03)

Wednesday, 03 May – Module 12: Syntax
PAPER 2 DUE TODAY
Words are organized into phrases, sentences, paragraphs, and texts. We will discuss syntactic processing in terms of the rules governing how words can be combined; the increasing syntactic complexity of speech and text with development; and how, when, and where syntactic information might be processed in the brain.

- Moats, L.C. (2020). *Speech to print: language essentials for teachers* (3rd ed.). Paul H. Brookes. Chapter 6: Syntax: how sentences work (pp. 179-213 book, 211-249 on-line).
- Phillips, B.M., & Willis, K.B. (2022, October/November/December). Focus on syntax: supporting young children's development of language and comprehension. *Literacy Today, 40*(2), 56-58. https://search-ebscohost-com.dartmouth.idm.oclc.org/login.aspx?direct=true&db=a9h&AN=159473194&site=ehost-live&scope=site&authtype=ip,shib&custid=dartcol
- Friederici, A.D. (2002). Towards a neural basis of auditory sentence processing. *Trends in Cognitive Sciences, 6*(2), 78-84. https://doi.org/10.1016/S1364-6613(00)01839-8
- Fang, Z. (2008). Going beyond the fab five: helping students cope with the unique linguistic challenges of expository reading in intermediate grades. *Journal of Adolescent & Adult Literacy, 51*(6), 476-487. https://doi.org/10.1598/JAAL.51.6.4

- Frantz, R.S., Starr, L.E., & Bailey, A.L. (2015). Syntactic complexity as an aspect of text complexity. *Educational Researcher, 44*(7), 387-393. https://doi.org/10.3102/0013189X15603980

Friday, 05 May – Module 13: Context
Readers rarely read single, isolated words; instead, words typically appear on a page with other print and images. Further, readers bring their previous reading experiences and motivations to reading. We will discuss the role of context in reading and how contextual influences might change over developmental time. *NB: The Nieuwland and Van Berkum article is dense but fun—read for the main idea.*

- Spear-Swerling, L. (2006). *The use of context cues in reading.* Reading Rockets. http://www.readingrockets.org/article/use-context-cues-reading
- Nation, K. (2017). Nurturing a lexical legacy: reading experience is critical for the development of word reading skill. *npj Science of Learning, 2*(1), 1-4. https://doi.org/10.1038/s41539-017-0004-7
- Wigfield, A., Gladstone, J.R., Turci, L. (2016). Beyond cognition: reading motivation and reading comprehension. *Child Development Perspectives, 10*(3), 190-195. https://doi.org/10.1111/cdep.12184
- Nieuwland, M.S., & Van Berkum, J.J.A. (2006). When peanuts fall in love: N400 evidence for the power of discourse. *Journal of Cognitive Neuroscience, 18*(7), 1098-1111. https://doi.org/10.1162/jocn.2006.18.7.1098

*Week Seven*_____

Monday, 08 May – Module 14: Fluency
The concept of fluency in reading encompasses the notion of fast, automatic, effortless processing of words and texts. Fluency is crucial to becoming a skilled reader, yet there is little research on exactly what fluency is and how best to develop it.

- Kuhn, M.R., Schwanenflugel, P.J., & Meisinger, E.B. (2010). Aligning theory and assessment of reading fluency: automaticity, prosody, and definitions of fluency. *Reading Research Quarterly, 45*(2), 230-251. https://doi.org/10.1598/RRQ.45.2.4
- Rasinski, T. (2004). Creating fluent readers. *Educational Leadership, 61*(6), 46-51. http://search.ebscohost.com.dartmouth.idm.oclc.org/login.aspx?direct=true&AuthType=ip,url,uid&db=a9h&AN=12472243&site=ehost-live&scope=site
- Rasinski, T. (2014, April/May). Delivering supportive fluency instruction - especially for students who struggle. *Reading Today, 31*(5), 26-28. http://search.ebscohost.com.dartmouth.idm.oclc.org/login.aspx?direct=true&AuthType=ip,url,uid&db=a9h&AN=95547474&site=ehost-live&scope=site

Wednesday, 10 May – Module 15: Comprehension
Finally (!) we arrive at the true goal of reading: comprehension. Comprehension involves connecting what you are reading to what you already know and increasing your knowledge at the same time. How does comprehension interact with all the other reading components that we have learned about?

- Duke, N.K., Ward, A.E., Pearson, P.D. (2021). The science of reading comprehension instruction. *The Reading Teacher, 74*(6), 663-672. https://doi.org/10.1002/trtr.1993

- Hulme, C., & Snowling, M.J. (2011). Children's reading comprehension difficulties: nature, causes, and treatments. *Current Directions in Psychological Science, 20*(3), 139-142. https://doi.org/10.1177/0963721411408673
- Rapp, D.N., & van den Broek, P. (2005). Dynamic text comprehension: an integrative view of reading. *Current Directions in Psychological Science, 14*(5), 276-279. https://doi.org/10.1111/j.0963-7214.2005.00380.x
- Connor, C.M. (2016). A lattice model of the development of reading comprehension. *Child Development Perspectives, 10*(4), 269-274. https://srcd.onlinelibrary.wiley.com/doi/10.1111/cdep.12200
- Maguire, E.A., Frith, C.D., & Morris, R.G.M. (1999). The functional neuroanatomy of comprehension and memory: the importance of prior knowledge. *Brain, 122*(10), 1839-1850. https://doi.org/10.1093/brain/122.10.1839

Friday, 12 May – Module 16: Comprehension Groupwork
A closer look at comprehension in the classroom.

- Reading Rockets. (2012, February 16). *Cooperative learning: the jigsaw method* [Video]. YouTube. https://www.youtube.com/watch?list=PLLxDwKxHx1yLuGsYgW_v43wF3qVGj5LMx&v=mtm5_w6JthA&feature=emb_logo (9:19)
- Reading Rockets. (2014, April 15). *Students take charge: reciprocal teaching* [Video]. YouTube. https://www.youtube.com/watch?list=PLLxDwKxHx1yLuGsYgW_v43wF3qVGj5LMx&v=My68SDGeTHI&feature=emb_logo (2:16)
- Reading Rockets. (2013, January 29). *Using think-pair-share in the classroom* [Video]. YouTube. https://www.youtube.com/watch?list=PLLxDwKxHx1yLuGsYgW_v43wF3qVGj5LMx&v=-9AWNl-A-34&feature=emb_logo (5:42)

*Week Eight*_____

Monday, 15 May – Module 17: Teaching Reading: Theories
PAPER 3 DUE TODAY
In general, there are two overarching approaches to teaching reading: phonics and whole language. What do these two approaches entail? How are they related to what we have learned in this course so far? Are the two approaches so different that some integration cannot be accomplished? What would the advantages and disadvantages of such an integrated approach be?

- Adams, M.J. (1994). *Beginning to read: thinking and learning about print*. MIT Press. Chapters 2: Reading words and meaning: from an age-old problem to a contemporary crisis (pp. 13-28) and 15: The proper place of phonics (pp. 409-424).
- International Literacy Association. (2018). *Explaining phonics instruction: an educator's guide* [Literacy Leadership Brief]. Author. https://literacyworldwide.org/docs/default-source/where-we-stand/ila-explaining-phonics-instruction-an-educators-guide.pdf
- Goodman, K.S., & Goodman, Y.M. (1979). Learning to read is natural. In L.B. Resnick & P.A. Weaver (Eds.), *Theory and practice of early reading* (Vol. 1, pp. 137-154). Erlbaum.
- Hernández, J.C. (2014, June 26). New York schools chief advocates more "balanced literacy". *The New York Times*. http://nyti.ms/TARA2O
- Pondiscio, R. (2014, July 3). Why Johnny won't learn to read: balanced literacy is baaaack. *New York Daily News*. https://www.nydailynews.com/opinion/johnny-won-learn-read-article-1.1852715

Wednesday, 17 May – Module 18: Teaching Reading Groupwork

Group discussion about the development of reading skills, the design of reading programs, and the education of teachers who teach reading (that is, all teachers). What do teachers need to know about reading? Why? What are the elements of a good reading program and how would you design the ideal reading program? Why?

- BBC News. (2017, October 31). *The Americans who can't read – BBC News* [Video]. YouTube. https://www.youtube.com/watch?v=9UdvAg9SA14 (3:48)
- Moats, L.C. (2020). *Speech to print: language essentials for teachers* (3rd ed.). Paul H. Brookes. Chapter 8: Structured language and literacy instruction (pp. 253-275 book, 292-317 on-line).
- Moats, L.C. (2020). *Teaching reading is rocket science, 2020: What expert teachers of reading should know and be able to do.* American Federation of Teachers. http://www.aft.org/sites/default/files/moats.pdf

Divide the other readings/listenings for today among group members so that everyone is bringing something to the discussion:

- Hanford, E., & Peak, C. (Hosts). (2022). *Sold a story: how teaching kids to read went so wrong* [Audio podcast]. APM Reports. https://features.apmreports.org/sold-a-story/ – choose any episode to listen to
- Drake, G., & Walsh, K. (2020). *2020 Teacher prep review: Program performance in early reading instruction.* National Council on Teacher Quality. https://www.nctq.org/dmsView/NCTQ_2020_Teacher_Prep_Review_Program_Performance_in_Early_Reading_Instruction
- Stahl, K.A.D. (2011). Applying new visions of reading development in today's classrooms. *The Reading Teacher, 65*(1), 52-56. https://doi.org/10.1598/RT.65.1.7
- Connor, C.M., Morrison, F.J., Fishman, B.J., Schatschneider, C., & Underwood, P. (2007). Algorithm-guided individualized reading instruction. *Science, 315*(5811), 464-465. https://doi.org/10.1126/science.1134513
- Ehri, L.C. (2022). What teachers need to know and do to teach letter-sounds, phonemic awareness, word reading, and phonics. *The Reading Teacher, 76*(1), 53-61. https://doi.org/10.1002/trtr.2095
- Willingham, D.T. (2015, Spring). For the love of reading: engaging students in a lifelong pursuit. *American Educator, 39*(1), 4-13, 42. https://files.eric.ed.gov/fulltext/EJ1063918.pdf
- National Institute for Literacy (2007). *What content-area teachers should know about adolescent literacy* (Contract No. ED-04-CO-0094). Author. http://lincs.ed.gov/publications/pdf/adolescent_literacy07.pdf

Friday, 19 May – Module 19, class 1: Dyslexia and Poor Reading

Readings for today serve as an introduction to the definition and behavioral characteristics of dyslexia, address how the label is used (or not) in schools, and consider other possibilities for poor reading. In class, we will begin our discussion about multiple ways of being a poor reader.

- Ferrer, E., Shaywitz, B.A., Holahan, J.M., Marchione, K.E., Michaels, R., & Shaywitz, S.E. (2015). Achievement gap in reading is present as early as first grade and persists through adolescence. *The Journal of Pediatrics, 167*(5), 1121-1125.e2. https://doi.org/10.1016/j.jpeds.2015.07.045

- Wolter, D.L. (2016, November/December). Skirting questions: how good literacy specialists use professional judgement to avoid unnecessarily labeling students. *Literacy Today, 34*(3), 10-11. http://search.ebscohost.com.dartmouth.idm.oclc.org/login.aspx?direct=true&AuthType=ip,url,uid&db=a9h&AN=119313590&site=ehost-live&scope=site
- Hanford, E. (2017, November). *Why getting help for kids with dyslexia is difficult.* KQED. https://www.kqed.org/mindshift/49548/why-getting-help-for-kids-with-dyslexia-is-difficult?
- Peterson, R.L., Pennington, B.F., Olson, R.K., & Wadsworth, S.J. (2014). Longitudinal stability of phonological and surface subtypes of developmental dyslexia. *Scientific Studies of Reading, 18*(5), 347-362. https://doi.org/10.1080/10888438.2014.904870
- Melby-Lervåg, M., & Lervåg, A. (2014). Effects of educational interventions targeting reading comprehension and underlying components. *Child Development Perspectives, 8*(2), 96-100. https://doi.org/10.1111/cdep.12068
- Spear-Swerling, L., & Sternberg, R.J. (1996). *Off-track: when poor readers become "learning disabled."* Westview Press. Chapter 7: Educational practices for children with reading disability (pp. 185-228). [optional reading that provides connections]

*Week Nine*_____

Monday, 22 May – Module 19, class 2: Dyslexia and Poor Reading

There are multiple theories about the underlying nature and cause(s) of dyslexia; some of the leading contenders are discussed in the readings for today. The first three readings provide summary overviews whereas the last two focus on specific aspects. Our focus in class will be on the neuroscience of dyslexia. *NB*: There is some overlap across these readings; spend less time on the familiar.

- Vellutino, F.R., & Fletcher, J.M. (2005). Developmental dyslexia. In M. J. Snowling, & C. Hulme (Eds.), *The science of reading: a handbook* (pp. 362-378). Blackwell Publishing.
- D'Mello, A.M., & Gabrieli, J.D.E. (2018). Cognitive neuroscience of dyslexia. *Language, Speech, and Hearing Services in Schools, 49,* 798-809. https://doi.org/10.1044/2018_LSHSS-DYSLC-18-0020
- Wallace, M.T. (2009). Dyslexia: bridging the gap between hearing and reading. *Current Biology, 19*(6), R260-R262. https://doi.org/10.1016/j.cub.2009.01.025
- Editorial. (2007). A cure for dyslexia? *Nature Neuroscience, 10*(2), 135. https://doi.org/10.1038/nn0207-135

Wednesday, 24 May – Module 19, class 3: Dyslexia and Poor Reading

Continuing our focus on the neuroscience of dyslexia, readings for today address what neuroscience can contribute to our understanding of dyslexia and to intervention and remediation approaches.

- Sherman, C. (2011, March 25). *Visualizing how we read.* Cerebrum. http://www.dana.org/news/features/detail.aspx?id=31068
- Eden, G.F., & Moats, L. (2002). The role of neuroscience in the remediation of students with dyslexia. *Nature Neuroscience, 5*(11), 1080-1084. https://doi.org/10.1038/nn946
- Heim, S., & Grande, M. (2012). Fingerprints of developmental dyslexia. *Trends in Neuroscience and Education, 1,* 10-14. https://doi.org/10.1016/j.tine.2012.09.001
- Olulade, O.A., Napoliello, E.M., & Eden, G.F. (2013). Abnormal visual motion processing is not a cause of dyslexia. *Neuron, 79*(1), 180-190. https://doi.org/10.1016/j.neuron.2013.05.002

Friday, 26 May – Module 19: FoRT and Spelling Groupwork

Complete the FoRT practice test and submit your Excel answer sheet before the beginning of class. In class, you will discuss the FoRT as an assessment and any specific questions that were interesting as well as the readings for today.

- Pearson Education. (2021). *Foundations of Reading practice test*. Author. (practice test and answer sheet available on Canvas)
- Treiman, R. (2017). Learning to spell words: findings, theories, and issues. *Scientific Studies of Reading, 21*(4), 265-276. https://doi.org/10.1080/10888438.2017.1296449
- International Literacy Association. (2019). *Teaching and assessing spelling* [Literacy Leadership Brief]. Author. https://www.literacyworldwide.org/docs/default-source/where-we-stand/ila-teaching-and-assessing-spelling.pdf

Week Ten_____

Monday, 29 May – No class: Memorial Day (first day of reading period)

Wednesday, 31 May – Module 21: Putting it all Together: Plasticity and Development Groupwork
PAPER 4 DUE TODAY

Today we will be returning to the beginning, revisiting pre-reader skills and working our way back up through beginning reading skills, then on to dyslexia. The theme is the incredible plasticity that allows us to develop—as readers and as teachers—brains that can read.

- Thirteen/WNET New York (Producer). (2001). *The secret life of the brain* [Motion picture]. PBS Home Video. Episode 2: *The child's brain: from syllable to sound* (52 min.).
- Verhoeven, L., & Perfetti, C. (2022). Universals in learning to read across languages and writing systems. *Scientific Studies of Reading, 26*(2), 150-164. https://doi.org/10.1080/10888438.2021.1938575
- Hurford, D.P., Hurford, J.D., Head, K.L., Keiper, M.M., Nitcher, S.P., & Renner, L.P. (2016). The dyslexia dilemma: a history of ignorance, complacency and resistance in colleges of education. *Journal of Childhood & Developmental Disorders, 2*(3), 1-6. https://doi.org/10.4172/2472-1786.100034

Final Exams (02-05 June)_____

Friday, 02 June
Your **FINAL REFLECTION** is due by 6:00 PM on Friday, 02 June.