# Psychology of Education

**Paper Code:** 1

## Course Overview

This Part II psychology course provides the opportunity to study psychological topics at an advanced level from different perspectives. We are concerned with the contribution of psychological research and theory in areas that are of personal and social importance. The course topics are relevant to anyone who wishes to extend and deepen their understanding of human development and social relationships, including those who intend to go on to work in educational contexts and apply psychological research findings in professional practice. You will be encouraged to gain a critical understanding of cognitive, social, emotional and sociocultural psychology, from the perspectives of human development, social relationships, classroom learning and wider educational systems. We focus on areas that are debated within psychology itself as well as presenting challenges for education and for society at large.

Students are asked and encouraged to engage critically with relevant psychological research studies and to make connections between topics across the whole paper. The sessions include a varied mix of discussion, lecture and other activities designed to promote active participation and learning. Different perspectives, arguments and questioning are welcome and encouraged throughout the course, supported by group activities and reflection on personal experience. There will also be some required reading preparation for certain sessions. Critical reference to relevant psychological literature and research methodology is an essential element of this course, and evaluation of research methodology is encouraged in the taught sessions, essay writing and supervisions.

**Paper Coordinator:**
Rupert Wegerif (rw583@cam.ac.uk)

**Teaching & Supervising Team:**
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# Lecture schedule table:

The paper is divided into four sections that are taught by different members of the Psychology and Education academic group and other colleagues.

**Session take place on Wednesdays 2pm-4pm.**

| Lecture No | Date | Session Topic | Lecturer |
|---|---|---|---|
| **Michaelmas** | | | |
| **Section 1: Cognitive development** | | | |
| 1 | 11 Oct | Typical and atypical development of executive functions | Sara Baker |
| 2 | 18 Oct | Executive functions in theory and practice | Sara Baker |
| 3 | 25 Oct | Play, Discovery and Exploration as Tools for Classroom Learning | Michelle Ellefson |
| 4 | 01 Nov | Learner-based pedagogies | Michelle Ellefson |
| **Section 2: Perspectives on language disorders** | | | |
| 5 | 08 Nov | Aetiology of language impairments | Jenny Gibson |
| 6 | 15 Nov | Descriptive, diagnostic or deterministic? Issues of labelling and long-term outcomes for individuals with language disorders | Jenny Gibson |
| 7 | 22 Nov | Impairments of pragmatics and social communication | Jenny Gibson |
| 8 | 29 Nov | Educational approaches to supporting children who have language disorders | Jenny Gibson |
| **Lent** | | | |
| **Section 3: Motivation & Identity** | | | |
| 9 | 24 Jan | Culture, cognitive development and learning. | Pablo Torres |
| 10 | 31 Jan | Goal orientations and epistemic beliefs for learning, adaptive beliefs for cultural success | Pablo Torres |
| 11 | 07 Feb | Can I do it? Competence beliefs and causal attributions | Junlin Yu |
| 12 | 14 Feb | Can people like me succeed here? Identity and motivation | Junlin Yu |
| **Section 4: Dialogue, Technology and Thinking** | | | |
| 13 | 21 Feb | How children learn to think | Rupert Wegerif |
| 14 | 28 Feb | Group thinking | Rupert Wegerif |
| 15 | 07 Mar | Technology and cognition | Rupert Wegerif |
| 16 | 14 Mar | Teaching thinking | Rupert Wegerif |

## Supervisions and essay questions:

Students are invited to participate in 6 supervisions for the course, normally in small groups. This may follow the pattern of having one supervision in each area plus some additional group supervision and/or revision in other area(s) of your choice. Our previous experience suggests, however, that learning is most effective when students take up the opportunity to have more than one supervision in at least one area. This approach supports your essay writing and learning at this level.

Essay titles and arrangements for supervisions are provided by those teaching each area. A full list of titles is available on the Course Moodle Site. You are encouraged to draw on different topics and perspectives from the course, as appropriate, in responding to supervision questions. Attendance at supervisions is VERY important. We have found in the past that students who failed to attend supervisions were noticeably less prepared for the final exam.

**Section 1 Supervision Questions:**

How does typical executive function development differ from atypical development such as that observed in the autism spectrum?

Discuss the relevance of executive functions to educational theory and practice.

Should playful learning be promoted in nursery and primary schools?

Should educational systems use more learner-based pedagogies?

**Section 2 Supervision Questions:**

The lack of consensus over terminology in the field of developmental language disorders means we should adopt a descriptive, rather than a categorical approach to identifying educational needs in this area. Critically discuss this statement with reference to evidence from research and practice.

Compare and contrast the profiles of language difficulties seen in two developmental disorders of your choice.

Give an overview of the language and communication difficulties observed in children described as having pragmatic language impairments. Critically analyse the evidence that these difficulties should be considered a 'mild form' of Autism.

**Section 3 Supervision Questions:**

How do cultural practices influence students' thinking for learning?

What is the role of the classroom context in students' adoption of goal orientations and epistemic beliefs and the productivity of these beliefs for learning?

Self-efficacy is a better predictor of academic performance than any other motivational beliefs; therefore, educators and researchers would do well to focus on students' competence beliefs. Discuss.

Identity an important educational problem. Discuss motivational and self-identity processes that you think contribute to this problem.

**Section 4 Supervision Questions:**

Why do some psychologists challenge the Theory of Mind concept and are they right to do so?

Discuss the relationship between group thinking and individual thinking.

Discuss the relationship between technology and thinking.

What does it mean to teach thinking?

# Assessment:

The three-hour written examination paper is divided into four sections, one for each section of the course, as above. Each exam section will have two questions (eight questions in total). Students are required to answer two questions, each from a different section. You are strongly encouraged to engage with material from more than one lecture to develop sufficiently comprehensive and critical responses to exam questions. Some lectures in different sections have particularly strong connections, as you will see on the course outline. Links between individual topics are expected when developing your argument in response to each exam question that you choose to answer. You can draw on material from different sections in answering any one question, but you must not use the same material twice.

This year there is one completely new section in this paper: Section 4. There are also some changes to Section 3. A specimen examination paper will be provided for these new sections. Please consult the paper co-ordinator or examiner, if you have any questions about these changes. Contact details will be provided on Moodle.

# Readings

## Section 1:  Cognitive Development

1a. Executive function development
1b. Cognitive Development & Classroom Learning

## Section 1a. Executive function development

These two sessions will examine the literature on executive function development across the lifespan. Executive functions are very similar to meta-cognition and self-regulation, but historically executive functions derive from neuropsychology, biological psychology and experimental psychology (as opposed to educational psychology). We will discuss typical and atypical development of executive functions, factors that affect how children use executive control (such as language) and how these findings can be applied to educational practice.

## Lecture 1: Typical and atypical development of executive functions

**Key reading**

- Gazzaniga, M. S., Ivry ,R. B., & Mangun, G. R. (2008). Cognitive Neuroscience: The Biology of the Mind (3rd Ed.). New York: W. W. Norton & Co. (Chapter on Executive Functions).
  **Chapter available**

**Further readings**

- Blair, C. (2016). Developmental science and executive function. *Current directions in psychological science, 25(1),* 3-7.

- Carlson, S. (2005). Developmentally sensitive measures of executive function in preschool children. Developmental Neuropsychology, 28, 595-616.
  **Available online**

- Cragg, L., & Nation, K. (2010). Language and the development of cognitive control. Topics in Cognitive Science, 2, 631-642.
  **Available online**

- Friedman, N.P., & Miyake, A. (2004). The Relations among inhibition and interference control functions: A Latent-variable analysis. Journal of Experimental Psychology: General, 133, 101-135.
  **Available online**

- Gargaro, B.A., Rinehart, N.J., Bradshaw, J.L., Tonge, B.J., & Sheppard, D.M. (2011). Autism and ADHD: How far have we come in the comorbidity debate? *Neuroscience and Biobehavioral Reviews*, *35*, 1081-1088.
  **Available online**

- Garon, N., Bryson, S.E., & Smith, I.M. (2008). Executive function in preschoolers: A Review using an integrative framework. *Psychological Bulletin*, *134*, 31-60.
  **Available online**

- Hill, E. (2004). Evaluating the theory of executive dysfunction in autism. Developmental Review, 24, 189-233.
  **Available online**

- Holland, L., & Low, J. (2010). Do children with autism use inner speech and visuospatial resources for the service of executive control? Evidence from suppression in dual tasks. British Journal of Developmental Psychology, 28, 369-391.
  **Available online**

- Hongwanishkul, D., Happaney, K.R., Lee, W.S.C, & Zelazo, P.D. (2005). Assessment of hot and cool executive function in young children: Age-related changes and individual differences. Developmental Neuropsychology, 28, 617-644.
  **Available online**

- Hughes, C., Ensor, R., Wilson, A., & Graham, A. (2010). Tracking executive function across the transition to school: A Latent variable approach. Developmental Neuropsychology, 35, 20-36.
  **Available online**

- Huizinga, M., Dolan, C., & van der Molen, M.W. (2006). Age-related change in executive function: Developmental trends and a latent variable analysis. Neuropsychologia, 44, 2017-2036.
  **Available online**

- Jurado, M.B., & Rosselli, M. (2007). The Elusive nature of executive functions: A Review of our current understanding. *Neuropsychology Review*, *17*, 213-133.
  **Available online**

- Kochanska, G., Murray, K., Jacques, T.Y., Koenig, A., & Vandegeest, K.A. (1996). Inhibitory control in young children and its role in emerging internalization. Child Development, 67, 490-507.
  **Available online**

- Luria, A.R. (1966). Higher cortical functions in man. Oxford: Basic books.
  **Check University Library availability here**

- Miyake, A., Emerson, M.J., Padilla, F. & Ahn, J.-C. (2004). Inner speech as a retrieval aid for task goals: The Effects of cue type and articulatory suppression in the random task cueing paradigm. Acta Psychologica, 115, 123-142.
  **Available online**

- Miyake, A., Friedman, N.P., Emerson, M.J., Witzki, A.H., & Howerter, A. (2000). The Unity and diversity of executive functions and their contributions to complex "frontal lobe" tasks: A Latent variable analysis. Cognitive Psychology, 41, 49-100.
  **Available online**

- Ozonoff, S. (2007). Executive functions in autism. In In J.M. Perez, P.M. Gonzalez, M.L. Comi, & C.Nieto, (Eds.) New Developments in Autism: The Future Is Today. London: Jessica Kingsley.
  **Check Faculty Library availability [here](#)**
  **Check University Library availability [here](#)**

- White, S.J., Burgess, P.W., & Hill, E.L. (2009). Impairments on "open-ended" executive function tests in autism. Autism Research, 2, 138-147.
  **[Available online](#)**

- Williams, D.M., & Jarrold, C. (2010). Brief Report: Predicting inner speech use amongst children with autism spectrum disorder (ASD): The Roles of verbal ability and cognitive profile. Journal of Autism and Developmental Disorders, 40, 907-913.
  **[Available online](#)**

## Lecture 2: Executive Function - From Theory to Practice

**Key reading**

- Diamond, A., & Lee, K. (2011). Interventions shown to aid executive function development in children 4 to 12 years old. Science, 333, 959–964.
  **[Available online](#)**

**Further readings**

- Baker, S.T., Gjersoe, N., Sibielska-Wock, K., Leslie, A.M., & Hood, B. (2011). Inhibitory control interacts with core knowledge in toddlers' search for an occluded object. Developmental Science, 14, 270-279.
  **[Available online](#)**

- Baker, S.T., Friedman, O., & Leslie, A.M. (2010). The Opposites task: Using general rules to test cognitive flexibility in preschoolers. Journal of Cognition and Development, 11, 240-254.
  **[Available online](#)**

- Barker, J. E., & Munakata, Y. (2015). Developing Self-Directed Executive Functioning: Recent Findings and Future Directions. Mind, Brain, and Education, 9(2), 92-99.

- Bernier, A., Carlson, S.M., Whipple, S. (2010). From external regulation to self-regulation: Early parenting precursors of young children's executive functioning. *Child Development*, *81*, 326-339.
  **[Available online](#)**

- Best, J.R., Miller, P.H., & Naglieri, J.A. (2011). Relations between executive function and academic achievement from ages 5 to 17 I a large, representative national sample. Learning and Individual Differences, 21, 327-336.
  **[Available online](#)**

- Blair, C., & Razza, R.P. (2007). Relating effortful control, executive function, and false belief understanding to emerging math and literacy ability in kindergarten. Child Development, 78,

647-663.
**Available online**

- Bull, R., & Scerif, G. (2001). Executive function as a predictor of children's mathematical ability: Inhibition, switching, and working memory. Developmental Neuropsychology, 19, 273-293.
  **Available online**

- Dignath, C. (2008). How can primary school students learn self-regulated learning strategies most effectively?. A Meta-analysis on self-regulation training programmes. Educational Research Review, 3, 101–129.
  **Available online**

- Diamond, A., Barnett, W., S., Thomas, J., & Munro, S. (2007). Preschool program improves cognitive control. Science, 318, 1387-1388.
  **Available online**

- Duckworth, A. L, & Seligman, M.E.P. (2005). Self-discipline outdoes IQ in predicting academic performance of adolescents. Psychological Science, 16, 939–944.
  **Available online**

- Gropen, G., Clark-Chiarelli, N., Hoisington, C., & Ehrlich, S.B. (2011). The Importance of executive function in early science education. Child Development Perspectives, 5, 298-304.
  **Available online**

- Hood, B. (1995). Gravity rules for 2- to 4-year-olds? Cognitive Development, 10, 577-598.
  **Available online**

- Jacob, R., & Parkinson, J. (2015). The Potential for school-based interventions that target executive function to improve academic achievement: A Review. *Review of Educational Research*.
  **Available online**

- Lan, X., Legare, C.H., Ponitz, C.C., Li, S., & Morrison, F.J. (2011). Investigating the links between subcomponents of executive function and academic achievement: A Cross-cultural analysis of Chinese and American pre-schoolers. Journal of Experimental Child Psychology, 108, 677-692.
  **Available online**

- McClelland, M.M., Cameron, C.E., Connor, C.M., Farris, C.L., Jewkes, A.M., & Morrison, F.J. (2007). Links between behavioral regulation and preschoolers' literacy, vocabulary, and math skills. Developmental Psychology, 43, 947-959.
  **Available online**

- Mischell, W., Shoda, Y., & Rodriguez, M.L. (1989). Delay of gratification in children. Science, 244, 933-938.
  **Available online**

- Perry, N.E., Hutchinson, L., & Thauberger, C. (2007). Mentoring student teachers to design and implement literacy tasks that support self-regulated reading and writing. Reading &

Writing Quarterly, 23, 27–50.
**Available online**

- Perry, N.E., & VandeKamp, K.J.O. (2000). Creating classroom contexts that support young children's development of self-regulated learning. International Journal of Educational Research, 33, 821–843.
**Available online**

- Rueda, M.R., & Combita, L.M. (2012). Enhanced efficiency of the executive attention network after training in preschool children: Immediate changes and effects after two months. *Developmental Cognitive Neuroscience*, *25*, S192-S204.
**Available online**

- Steele, A., Karmiloff-Smith, A., Cornish, K., & Scerif, G. (2012). The Multiple subfunctions of attention: Differential developmental gateways to literacy and numeracy. Child Development, 83, 2028-2041.
**Available online**

- Van der Sluis, S., de Jong, P.F., & van der Leij, A. (2007). Executive functioning in children, and its relations with reasoning, reading, and arithmetic. intelligence, 35, 427-449.
**Available online**

- Whitebread, D., Bingham, S., Grau, V., Pino-Pasternak, D., & Sangster, C. (2007). Development of metacognition and self-regulated learning in young children: Role of Collaborative and peer-assisted learning. Journal of Cognitive Education and Psychology, 6, 433-455.
**Available online**

## Section 1b. Cognitive Development & Classroom Learning

These two sessions will explore research from the learning sciences about aspects that are important for promoting deep learning in younger and older children.  Recent evidence suggests that deep learning occurs more readily in classroom settings that engage learners in active ways instead of traditional classroom settings. Across both lectures, we'll explore how the science of learning can inform innovative pedagogies that promote deep learning and transfer to non-taught materials as well as increase motivation and interest. In the first of the two sessions, we'll focus specifically on play and discovery/exploratory learning, especially for young children. The second session will extend the theme of exploration and play into late childhood, adolescence and adult education by considering innovative pedagogies that facilitate deep learning and transfer.

## Lecture 3: Play, Discovery and Exploration as Tools for Classroom Learning

**Key readings**

*Core Article:*

- 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*, 1-34.
**Available online**

### *Related Commentaries:*

- Weisberg, D.S., Hirsh-Pasek, K., & Golinkoff, R.M. (2013). Embracing complexity: Rethinking the relation between play and learning: Comment on Lillard et al. (2013). *Psychological Bulletin*, *139*, 35-39.
  **Available online**

  Walker, C.M., & Gopnik., A. (2013). Pretense and possibility--A theoretical proposal about the effects of pretend play on development: Comment on Lillard et al. (2013). *Psychological Bulletin*, *139*, 40-44.
  **Available online**

- Bergen, D. (2013). Does pretend play matter? Searching for evidence: Comment on Lillard et al. (2013). *Psychological Bulletin*, *139*, 45-48.
  **Available online**

- Lillard, A.S., Hopkins, E.J., Dore, R.A., Palmquist, C.M., Lerner, M.D., Smith, E.D. (2013). Concepts and theories, methods and reasons: Why do the children (pretend) play? Reply to Weisberg, Hirsh-Pasek, and Golinkoff (2013); Bergen (2013); and Walker and Gopnik (2013). *Psychological Bulletin*, *139*, 49-52.
  **Available online**

### Further readings

- Bonawitz, E., Shafto, P., Gweon, H., Goodman, N.D., Spelke, E., & Schulz, L. (2011). The double-edged sword of pedagogy: Instruction limits spontaneous exploration and discovery. *Cognition*, *120*, 322-330.
  **Available online**

- Bonawitz E.B., van Schijndel, T.J.P, Friel, D., & Schulz, L. (2012). Children balance theories and evidence in exploration, explanation, and learning. *Cognitive Psychology*, *64*, 215-234.
  **Available online**

- Buchsbaum, D., Bridgers, S., Weisberg, D. S., & Gopnik, A. (2012). The power of possibility: causal learning, counterfactual reasoning and pretend play. *Philosophical Transactions of the Royal Society*, *367*, 2202-2212.
  **Available online**

- Cook, C., Goodman, N.D., & Schulz, L. (2011). Where science starts: Spontaneous experiments in preschoolers' exploratory play. *Cognition*, *120*, 341-349.
  **Available online**

- DeCaro, D.A., DeCaro, M.S., & Rittle-Johnson, B. (2015). Achievement motivation and knowledge development during exploratory learning. *Learning and Individual Differences*, *37*, 13-26.
  **Available online**

- Ferrara, K., Hirsh-Pasek, K., Newcome, N.S., Golinkoff, R.M., Lam, W.S. (2011). Block talk: Spatial language during block play. *Mind, Brain and Education*, *5*, 143-151.
  **Available online**

- Honomichl, R.D., & Chen, Z. (2012). The role of guidance in children's discovery learning. *WIRE's Cognitive Science*, *3*, 615-622.
  **Available online**

- Hopkins, E.J., Dore, R.A., & Lillard, A.S. (2015). Do children learn from pretense? *Journal of Experimental Child Psychology*, *130*, 1-18.
  **Available online**

- Klahr, D., & Nigam, M. (2004). The equivalence of learning paths in early science instruction: Effects of direct instruction and discovery learning. *Psychological Science*, *15*, 661-667.
  **Available online**

- Legare, C.H. (2012). Exploring explanation: Explaining inconsistent evidence informs exploratory, hypothesis-testing behavior in young children. *Child Development*, *83*, 173-185.
  **Available online**

- Legare, C.H., & Lombrozo, T. (2014). Selective effects of explanation on learning during early childhood. *Journal of Experimental Child Psychology*, *126*, 198-212.
  **Read online**

- Savina, E. (2014). Can play promote self-regulation in children? *Early Child Development and Care*, *184*, 1692-1705.
  **Available online**

- Schulz, L., Bonawitz, E.B. (2007). Serious fun: Preschoolers engage in more exploratory play when evidence is confounded. *Developmental Psychology*, *43*, 1045-1050.
  **Available online**

- Singer, D.G, Golinkoff, R.M., & Hirsh-Pasek, K. (Eds.) (2006). *Play=learning: how play motivates and enhances children's cognitive and social-emotional growth*. Oxford: Oxford University Press.
  **Check Faculty Library availability here**
  **Check University Library availability here**

- Weisberg, D.S. (2015). Pretend play. *WIRE's Cognitive Science*, *6*, 249-261.
  **Available online**

- Weisberg., D.S., & Gopnik, A. (2013). Pretense, counterfactuals, and Bayesian causal models: Why what is not real really matters. *Cognitive Science*, *37*, 1368-1381.
  **Available online**

- Weisberg, D.S., Ilgaz, H., Hirsh-Pasek, K., Golinkoff, R., Nicolopoulou, A., & Dickinson, D.K. (2015). Shovels and swords: How realistic and fantastical themes affect children's word learning. *Cognitive Development*, *35*, 1-14.
  **Available online**

- Whitebread, D., (2010). Play, metacognition & self-regulation. In P. Broadhead, J. Howard & E. Wood (Eds.). *Play and learning in the early years* (pp. 161-176). London: Sage.
  **Check Faculty Library availability here**

*In addition - here are a few books that might be useful for giving you some general background information about play.*

- Broadhead, P., Howard, J., & Wood, W. (Eds.). *Play and learning in the early years*. London: Sage.
  **Check Faculty Library availability here**

  Göncü, A. & Gaskins, S. (Eds.). (2006). *Play and development*. Hillsdale, N.J.: Lawrence Erlbaum.
  **Check Faculty Library availability here**

- Pellegrini, A.D. (Ed.) (2011). *Oxford handbook of the development of play*. Oxford: Oxford University Press.
  **Read ebook online**
  **Check Faculty Library availability here**

- Smidt, S. (2011). *Playing to learn: the role of play in the early years*. London: Routledge.
  **Check Faculty Library availability here**

## Lecture 4: Learner-Based Pedagogies

**Key reading**

- Lee, H.S., & Anderson, J.R. (2013). Student learning: What has instruction got to do with it? *Annual Review of Psychology*, *64*, 445-469.
  **Available online**

**Further readings**

- Alfieri, L., Nokes-Malach, T.J., & Schunn, C.D. (2013). Learning through case comparisons: A meta-analytic review. *Educational Psychologist*, *48*, 87-113.
  **Available online**

- Akınoğlu, O., & Tandoğan, R.O. (2007).  The effects of problem-based active learning in science education on students' academic achievement, attitude and concept learning. *Eurasia Journal of Mathematics, Science & Technology Education*, *3*, 71-81.
  **Available online**

- Apedoe, X.A., Ellefson, M.R., & Schunn, C.D. (2012). Learning together while designing: Does group size make a difference?  *Journal of Science Education and Technology*, *21*, 83-94.
  **Available online**

- Apedoe, X.A., Reynolds, B., Ellefson, M.R., & Schunn, C.D. (2008). Bringing engineering design into high school science classrooms: The heating/cooling unit. *Journal of Science*

*Education and Technology*, *17*, 454-465.
**Available online**

- Barnett, S.M., & Ceci, S.J. (2002). When and Where Do We Apply What We Learn? A Taxonomy for Far Transfer. *Psychological Bulletin*, *128*, 612-637.
**Available online**

- Bjork, E. L., & Bjork, R. A. (2011). Making things hard on yourself, but in a good way: Creating desirable difficulties to enhance learning. In M. A. Gernsbacher, R. W. Pew, L. M. Hough, & J. R. Pomerantz (Eds.), *Psychology and the real world: Essays illustrating fundamental contributions to society* (pp. 56-64). New York: Worth Publishers.
**Available online**

- Chi, M.T.,H. (2009). Active-constructive-interactive: A conceptual framework for differentiating learning activities. *Topics in Cognitive Science*, *1*, 73-105.
**Available online**

- Eberlein, T., Kampmeier, J., Minderhout, V., Moog, R.S., Platt, T., Varma-Nelson, P., & White, H.B. (2008). Pedagogies of engagement in science: A comparison of PBL, POGIL, and PLTL. *Biochemistry and Molecular Biology Education*, *36*, 262-273.
**Available online**

- Ellefson, M.R., Brinker, R.A., Vernacchio, V.J., & Schunn, C.D. (2008). Design-based learning for biology: Genetic engineering experience improves understanding of gene expression. *Biochemistry and Molecular Biology Education*, *36*, 292-298.
**Available online**

- Fortus, D., Dershimer, R.C., Krajcik, J., Marx, R.W., & Mamlok-Naaman, R. (2004). Design-based science and student learning. *Journal of Research in Science Teaching*, *41*, 1081-110.
**Available online**

- Fyfe, E.R., DeCaro, M.S., & Rittle-Johnson, B. (2014). An alternative time for telling: When conceptual instruction prior to problem solving improves methemetical knowledge. *British Journal of Educational Psychology*, *84*, 502-519.
**Available online**

- Hughes, P.W., & Ellefson, M.R. (2013). Inquiry-based training improves teaching effectiveness of biology teaching assistants. *PlosONE*, 8, e78540.
**Available online**

- Klahr, D., & Chen, Z. (2011). Finding one's place in the transfer space. *Child Development Perspectives*, *5*, 196-204.
**Available online**

- Kirschner P.A., Sweller, J., & Clark, R.E. (2006). Why minimal guidance during instruction does not work: an analysis of the failure of constructivist, discovery, problem-based, experiential, and inquiry-based teaching. *Educational Psychology, 41*, 75-86.
**Available online**

- Kolodner, J.L., Camp, P.J., Crismond, D., Fasse, B., Gray, J., Holbook, J., Puntambekar, S., & Ryan, M. (2003). Problem-based learning meets case-based Reasoning in the middle-school

science classroom: Putting Learning by Design™ into practice. *The Journal of the Learning Sciences*, 12, 495-547.
**Available online**

- Kuhn, D., (2015). Thinking together and alone. *Educational Researcher*, *44*, 46-53.
**Available online**

- Pease, M.A., & Kuhn, D. (2011). Experimental analysis of the effective components of problem-based learning. *Science Education*, *95*, 57-86.
**Available online**

- Pedaste, M., Mäeots, M., Siiman, L.A., de Jong, T., van Riesen, S.A.N., Kamp, E.T., Manoli, C.C., Zacharia, Z.C., & Tsourlidaki, E. (2015). Phases of inquiry-based learning: Definitions and the inquiry cycle. *Educational Research Review*, *14*, 47-61.
**Available online**

- Sawyer, R.K. (Ed.) (2006). *The Cambridge handbook of the learning sciences*. Cambridge, UK: Cambridge University Press. [Note - there are a variety of innovative pedagogies described throughout the book]
**Read ebook online**
**Check Faculty Library availability here**

- Schwartz, D.L., & Bransford, J.D. (1998). A time for telling. *Cognition and Instruction*, *16*, 475-522.
**Available online**

- Schwartz, D.L., Chase, C.C., Oppezzo, M.A., & Chin, D.B. (2011). Practicing versus inventing with contrasting cases: The effects of telling first on learning and transfer. *Journal of Educational Psychology*, *103*, 759-775.
**Available online**

- Wirkala, C., & Kuhn, D. (2011). Problem-based learning in K-12 education: Is it effective and how does it achieve its effects? *American Educational Research Journal*, *48*, 1157-1186.
**Available online**

## Section 2: Perspectives on language disorders

This set of four sessions will explore different perspectives on developmental language disorders.

In Lecture 5, we will briefly recap theories of language development from infancy through to adulthood before going on to consider what happens when language development does not proceed in the typical way. We will critically analyse theories concerning the biological, cognitive and social influences on atypical language development.

In Lecture 6, we will consider issues of terminology and labelling, and how these have influenced practice in research and educational contexts. We will investigate the perspectives of affected individuals and their families. Students will be introduced to theories about the links between language development and socio-emotional development, and look at the research evidence regarding long term educational, employment and health outcomes for children with a diagnosis of language impairment.

In Lecture 7, we will look in more depth at social communication difficulties and pragmatic language impairments. We will discuss pragmatic difficulties typically found in individuals with autism, ADHD and specific language impairments.

In Lecture 8, we will discuss challenges in the provision of appropriate adjustments to facilitate access to education and learning opportunities for those affected by language disorders. Students will gain skills in critical appraisal of intervention evidence and debate the relative merits of universal versus targeted and specialist educational provision.

Each week, one paper on the reading list is starred "**" . Please read this paper in advance of the class as it will form the basis of group discussion

## Lecture 5: Aetiology of language impairments

In Lecture 5, we will briefly recap theories of language development from infancy through to adulthood before going on to consider what happens when language development does not proceed in the typical way. We will critically analyse theories concerning the biological, cognitive and social influences on atypical language development. The lecture will build on the earlier course content which students may have covered in Part I of the Education/PBS triposes, e.g. Language Acquisition, Introduction to Language Disorders.

**Key readings**

- **Tomasello, M. (2000). First steps toward a usage-based theory of language acquisition. *Cognitive Linguistics*, 11(1-2), 61-82
  **Available online**

- **Bishop, D. (2006). What Causes Specific Language Impairment in Children? *Current Directions in Psychological Science* October, vol. 15 no. 5 217-221
  **Available online**

**Further Readings**

- Bishop, D. V. M., Holt, G., Line, E., McDonald, D., McDonald, S., & Watt, H. (2012). Parental phonological memory contributes to prediction of outcome of late talkers from 20months to 4 years: a longitudinal study of precursors of specific language impairment. *Journal of Neurodevelopmental Disorders*, 4(3).
  **Available online**

- D. Hwa-Froelich (2012) Childhood maltreatment and communication development. SIG 16 Perspectives on School-Based Issues, 13(2):43_53.

- Dale, P. and Price, T., Bishop, D. and Plomin, R. (2003). Outcomes of early language delay: I. Predicting persistent and transient language difficulties at 3 and 4 years. Journal of Speech, Language and Hearing Research, 46(3), 544-60
  **Available online**

- Ellis, E. and Thal, D. (2008). Early Language Delay and risk for language impairment. *Perspectives on Language Learning and Education, 15*(3), 93-100
  **Available online**

- Fenson L, Dale PS, Reznick JS, Bates E, Thal DJ, Pethick SJ. (1994). Variability in early communicative development. Monographs of the Society for Research in Child Development, 1-173 – see ch. 5 for data
  **Available online**

- Hoff-Ginsberg, E., (1991) *Mother-child conversation in different social classes and communicative settings.* Child Development, **62**(4): p. 782-96.
  **Available online**

- Karmiloff-Smith, A. (1998). Development itself is the key to understanding developmental disorders. *Trends in Cognitive Science, 2 (10),* 389–398
  **Available online**

- Law, J., Boyle, J., Harris, F., Harkness, A. & Nye, C. (2000). Prevalence and natural history of primary speech and language delay: findings from a systematic review of the literature. *International Journal of Language and Communication Disorders* 35, (2), 165-89
  **Available in print in the Education Library**

- Melhuish, E., Phan, M., Sylva, K., Sammons, P., Siraj-Blatchford and Taggart, B. (2008) Effects of the home learning environment and preschool center experience upon literacy and numeracy development in early primary school. *Journal of Social Issues, 64(1),* 95—114
  **Available online**

- Neligan, G. A., & Prudham, D. (1969). Norms for four standard developmental milestones by sex, social class and place in family. *Developmental Medicine and Child Neurology*, 11, 413-422. 2
  **Available online**

- Nelson, H.D., et al., *Screening for speech and language delay in preschool children: systematic evidence review for the US Preventive Services Task Force.* Pediatrics, 2006. **117**(2): p. e298-319.
  **Available online**

- Pennington, R. (2006). From single to multiple deficit models of developmental disorders. *Cognition, 101(2)*, 385–413

**Available online**

- Peterson, R.L., et al., *Neuropsychology and genetics of speech, language, and literacy disorders.* Pediatr Clin North Am, 2007. **54**(3): p. 543-61, vii.
  **Available online**

- Rutter, M., Bishop, D., Pine, D., Scott, S., Stevenson, J., Taylor, E., & Thapar, A. (eds). (2008). *Rutter's Child and Adolescent Psychiatry, Fifth Edition*. London: Blackwell Publishing
  **Read ebook online**

- Stromswold, K., *Genetics of spoken language disorders.* Hum Biol, 1998. **70**(2): p. 297-324.
  **Available online**

- Zubrick, S. R., Taylor, C., Rice, M, and Slegers, D. (2007). Late language emergence at 24 months: An epidemiological study of prevalence, predictors, and covariates. *Journal of Speech, Language and Hearing Researc*h, 50(6), 1562-1592.
  **Available online**

- Bishop (2012) When should we be concerned about late-talking toddlers? Available from: http://www.slideshare.net/RALLICampaign/late-talker-ppt-13133072 Accessed 12/02/2014

## Lecture 6: Descriptive, diagnostic or deterministic? Issues of labelling and long-term outcomes for individuals with language disorders

In Lecture 6, we will consider issues of terminology and labelling, and how these have influenced practice in research and educational contexts. We will investigate the perspectives of affected individuals and their families. Students will be introduced to theories about the links between language development and socio-emotional development, and look at the research evidence regarding long term educational, employment and health outcomes for children with a diagnosis of language impairment.

**Key readings** - *please read at least the starred papers before the lecture*

- ** Reilly, S., D.V. Bishop, and B. Tomblin, *Terminological debate over language impairment in children: forward movement and sticking points.* Int J Lang Commun Disord, 2014. 49(4): p. 452-62.
  **Available online**

- M. Rutter. Diagnostic concepts and risk processes. In C. F. Norbury, J. B. Tomblin, and D. V. M. Bishop., editors, Understanding developmental language disorders: From theory to practice. , pages 205_215. Hove: Psychology Press, 2008.
  **Chapter available here**

- Redmond, S. M. & Rice, M. L. (1998). The socioemotional behaviors of children with SLI: Social adaptation or social deviance? *Journal of Speech, Language, and Hearing Research*,

41(3), 688-700
**Available online**

- McArthur, G.M., et al., On the "specifics" of specific reading disability and specific language impairment. J Child Psychol Psychiatry, 2000. 41(7): p. 869-74.
**Available online**


**Further Reading**

- I. Rapin. Practitioner review: Developmental language disorders: A clinical update. Journal of Child Psychology and Psychiatry, 37:643_655, 2006.
**Available online**

- I. Rapin and D. A. Allen. Developmental dysphasia and autism in preschool children: Characteristics and subtypes. In Proceedings of first international symposium on specific speech and language disorders in children, pages 20_35. Association for all speech impaired children: Brentford, UK, 1987.
**Check University Library availability here**

- I. Rapin and D. A. Allen. The semantic-pragmatic deficit disorder: Classification issues. International Journal of Language & Communication Disorders, 33(1):82_87, 1998.
**Available in print in the Education Library**

- Berney, T. (2007). 'Mental health needs of children and adolescents with autism spectrum disorders' in *Advances in Mental Health and Learning Disabilities, Vol. 1(4),* pp10-14
**Available online**

- Brinton, B., Fujiki, M., & McKee, L. (1998). Negotiation skills of children with specific language impairment. Journal of Speech, Language and Hearing Research, 41, 927-940.
**Available online**

- Brownlie, E. B., Beitchman, J. H., Escobar, M., Young, A., Atkinson, L., Johnson, C., Wilson, B., & Douglas, L. (2004). Early language impairment and young adult delinquent and aggressive behavior. Journal of Child Psychology and Psychiatry and Allied Disciplines, 32, 453-467.
**Available online**

- Cohen, N. J., Barwick, M. A., Horodezky, N. B., Vallance, D. D., & Im, N. (1998). Language, achievement, and cognitive processing in psychiatrically disturbed children with previously identified and unsuspected language impairments. *Journal of Child Psychological Psychiatry*, 89, 865-877
**Available online**

- Conti-Ramsden, G., Durkin, K., Simkin, Z., & Knox, E. (2009). Specific language impairment and school outcomes. I: Identifying and explaining variability at the end of compulsory education. International Journal of Language & Communication Disorders, 44(1), 15-35.
**Available online**

- Dyrborg, J. & Goldschmidt, V. (1996). Language disorder in a child psychiatric center, demographic characteristics and comorbidity. *Nordic Journal of Psychiatry*, 50, 317-324
  **Available online**

- Fujiki, M., Brinton, B., Hart, C. H., & Fitzgerald, A. H. (1999). Peer acceptance and friendship in children with specific language impairment. *Topics in Language Disorders*, 19, 34-38

- Ginsborg, J. (2006). The effects of socio-economic status on children's language acquisition and use. In J. Ginsborg and J. Clegg (Eds.) *Language and Social Disadvantage: Theory into Practice*. Chichester: John Wiley and Sons.
  **Check University Library Availability here**

- Hart, K. I., Fujiki, M., Brinton, B., & Hart, C. H. (2004). The relationship between social behavior and severity of language impairment. *Journal of Speech Language and Hearing Research*, 47(3), 647-62
  **Available online**

- Noterdaeme, M. & Amorosa, H. (1999). Evaluation of emotional and behavioral problems in language impaired children. *European Child and Adolescent Psychiatry*, 8, 71-77.
  **Available online**

- Snowling, M. J., Bishop, D. V. M., Stothard, S. E., Chipchase, B., & Kaplan, C. (2006). Psychosocial outcomes at 15 years of children with a preschool history of speech-language impairment. Journal of Child Psychology and Psychiatry, 47, 759-765.
  **Available online**

- Schafer, I. (2011). Childhood trauma and psychosis - what is the evidence? *Dialogues in Clinical Neuroscience, 13* (3), 360-365
  **Available online**

- Tomblin, B. and Mueller, K. (2013) How Can Comorbidity With Attention-Deficit/Hyperactivity Disorder Aid Understanding of Language and Speech Disorders? *Topics in Language Disorders, 32,* 198-206
  **Available online**

- Wadman, R., Durkin, K., & Conti-Ramsden, G. (2008). Self-esteem, shyness, and sociability in adolescents with specific language impairment (SLI). *Journal of Speech Language and Hearing Research*, 51(4), 938-952
  **Available online**

- Bryan K, Freer J and Furlong C. (2007) Language and communication difficulties in juvenile offenders. International Journal of Language and Communication Disorders, 42, 505-520.
  **Available online**

- Bryan, K. (2004) Prevalence of speech and language difficulties in young offenders. International Journal of Language and Communication Disorders, 39, 391- 400.
  **Available online**

- Bryan, K and Mackenzie, J (2008) Meeting the speech, language and communication needs of vulnerable young people: Model of service delivery for those at risk of offending and re-

offending. London: RCSLT.

- Cohen N. J., M. Davine, et al. (1993). Unsuspected language impairment in psychiatrically disturbed children: Prevalence and language and behavioral characteristics. Journal of the American Academy of Adolescent Psychiatry 32: 595-603.
  **Check University Library availability [here](#)**

- Lindsay, Dockrell & Strand. (2007) Longitudinal patterns of behaviour problems in children with specific speech and language difficulties: Child and contextual factors British Journal of Educational Psychology, 77, 811-828.
  **[Available online](#)**

- Sanger D, Moore-Brown B, et al. (2001). Prevalence of language problems among adolescent delinquents. Communication Disorders Quarterly 23(1): 17-26.
  **[Available online](#)**

- Snow P C, and Powell M B. (2004). Developmental language disorders and adolescent risk: A public health advocacy role for speech pathologists? Advances in Speech – Language Pathology 6(4): 221-229.
  **Check University Library availability [here](#)**

- Snow PC and Powell MB (2008) Oral language competence, social skills, and high risk boys: What juvenile offenders are trying to tell us? Children and Society 22, 16-28
  **[Available online](#)**

## Lecture 7: Impairments of pragmatics and social communication

In Lecture 7, we will look in more depth at social communication difficulties and pragmatic language impairments. We will discuss pragmatic difficulties typically found in individuals with autism, ADHD and specific language impairments.

**Key readings**

- **\*\*** J. Gibson, C. Adams, E. Lockton, and J. Green. Social communication disorder outside autism? A diagnostic classification approach to delineating pragmatic language impairment, high functioning autism and specific language impairment. Journal of Child Psychology and Psychiatry, 54(11):1186-1197, 2013.
  **[Available online](#)**

- \*\*C. F. Norbury. Practitioner review: Social (pragmatic) communication disorder conceptualization, evidence and clinical implications. *Journal of Child Psychology and Psychiatry*, 55(3):204_216, 2014.
  **[Available online](#)**

- D. V. M. Bishop. Pragmatic language impairment: A correlate of sli, a distinct subgroup, or part of the autistic continuum? In Dorothy V. M Bishop and Laurence B. Leonard, editors, Speech and language impairments in children: Causes, characteristics, intervention and outcome, pages 99_113. Hove: Psychology Press, 2000
  **Check Faculty Library availability [here](#)**
  **Check University Library availability [here](#)**

**Further readings**

- L. Mackie and J. Law. Pragmatic language and the child with emotional/behavioural difficulties (ebd): a pilot study exploring the interaction between behaviour and communication disability. Int J Lang Commun Disord, 45(4):397_410, Jul 2010.
  **Available online**

- D. A. Hwa-Froelich. Social Communication Development and Disorders. Routledge
  **Read ebook online**

- Farmer, M. (2000). Language and social cognition in children with specific language impairment. *Journal of Child Psychology and Psychiatry*, *41*, 627–636.
  **Available online**

- M. Perkins. Pragmatic impairment. New York: Cambridge University Press, 2007
  **Read ebook online**
  **Check University Library availability here**

- Svetaz, M. V, Ireland, M., & Blum, R. (2000). Adolescents with learning disabilities: risk and protective factors associated with emotional well-being: findings from the National Longitudinal Study of Adolescent Health. *The Journal of Adolescent Health : Official Publication of the Society for Adolescent Medicine*, *27*, 340–348.
  **Available online**

- L. Surian, S. Baron-Cohen, and H. Van der Lely. Are children with autism deaf to Gricean maxims? Cognitive Neuropsychiatry, 1(1):55_72, Feb 1996
  **Available online**

- Norbury, C. (2005a). Barking up the wrong tree? Lexical ambiguity resolution in children with language impairments and autistic spectrum disorders. *Journal of Experimental Child Psychology*, *90*(2), 142–171.
  **Available online**

- Norbury, C. (2005b). The relationship between theory of mind and metaphor: Evidence from children with language impairment and autistic spectrum disorder. *British Journal of Developmental Psychology*, *23*, 383–399.
  **Available online**

- Whitehouse, A. J. O., Barry, J. G., & Bishop, D. V. M. (2008). Further defining the language impairment of autism: Is there a specific language impairment subtype? *Journal of Communication Disorders*, *41*(4), 319–336.
  **Available online**

- Ziatas, K., Durkin, K., & Pratt, C. (1998). Belief Term Development in Children with Autism, Asperger Syndrome, Specific Language Impairment, and Normal Development: Links to Theory of Mind Development. *Journal of Child Psychology and Psychiatry*, *5*, 755–763.
  **Available online**

## Lecture 8: Educational approaches to supporting children who have language disorders

In the final session we will discuss challenges in the provision of appropriate adjustments to facilitate access to education and learning opportunities for those affected by language disorders. Students will gain skills in critical appraisal of intervention evidence and debate the relative merits of universal versus targeted and specialist educational provision

**Key readings**

- * * S. Gerber, A. Brice, N. Capone, M. Fujiki, and G. Timler. Language use in social interactions of school-age children with language impairments: An evidence-based systematic review of treatment. Language, Speech, and Hearing Services in Schools, 43(2):235-249, 2012
  **Available online**

- C. Adams, E. Lockton, J. Freed, J. Gaile, G. Earl, K. McBean, M. Nash, J. Green, A. Vail, and J. Law. The social communication intervention project: A randomized controlled trial of the effectiveness of speech and language therapy for school-age children who have pragmatic and social communication problems with or without autism spectrum disorder. International Journal of Language & Communication Disorders, 47(3):233_244, 2012.
  **Available online**

**Further readings**

- C. Adams. Clinical diagnostic and intervention studies of children with semantic-pragmatic language disorder. International Journal of Language & Communication Disorders, 36(3):289_305, 2001.
  **Available online**

- C. Adams. Social Communication Development and Disorders, chapter 6 Assessment and intervention for children with pragmatic language impairment, pages 141_170. Psychology Press, 2015.
  **Read ebook online**

- S. Roulstone, Y.Wren, I. Bakopoulou, S. Goodlad, and G. Lindsay. Exploring interventions for children and young people with speech, language and communication needs: A study of practice. London: DFE, 2010.

- **Available online**

# Section 3: Social context, motivation, and learning

## Lecture 9: Culture, cognitive development and learning.

This lecture presents theory and evidence about the role that culture may have for the development of thinking. First the role of general cultural artefacts, and social ways of organization shaping people's everyday practices are presented as promoters of cognitive development. Following that,

"schooling", understood as an educational culture subtype with its own motivational values is examined and analysed in relation to its relevance for cognitive development. The importance of classroom culture and its' variations given by different teaching practices is also presented. Throughout the lesson we explore the thesis of how different cultures and cultural practices may promote specific ways of communicating for the development of higher order functions, such as metacognition, and the relevance these functions have been found to have for learning.

**Key Readings**

- Rogoff, B. (2003). The cultural nature of human development (Chapter 7: Thinking with the tools and institutions of culture). Oxford, UK: Oxford University Press. Chapter 7 available [here](here)

- Cole. M. (1996). Cultural Psychology: A once and future discipline (Chapter 5: Putting culture in the middle). Cambridge, MA. Belknap Press of Harvard University Press.

**Further Readings**

- Vygotsky, L. S. (1978). Mind in society. The development of higher psychological processes. (Chapter 4: Internalization of higher psychological functions, pp.52-57). Cambridge, MA: Harvard University Press.
  **Check Faculty Library availability [here](here)**
  **Check University Library availability [here](here)**

- Tomasello, M. (1999). The cultural origins of human cognition. Cambridge, Mass. : Harvard University Press.
  **Check University Library availability [here](here)**

- Cole, M. (1990). Cognitive development and formal schooling: The evidence from cross-cultural research. In L. Moll (Ed.), Vygotsky and Education (pp.89-110). Cambridge: Cambridge University Press.
  **Check Faculty Library availability [here](here)**
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- Bruner, J. (1996). The culture of education. (Chapter 1: Culture, mind and education - parts I and II; pp. 1-13). Cambridge, MA. Harvard University Press.
  **Check Faculty Library availability [here](here)**
  **Check University Library availability [here](here)**

- Mercer, N. (2013). The Social brain, language, and goal-directed collective thinking: a social conception of cognition and its implications for understanding how we think, teach, and learn. Educational Psychologist, 48(3), 148-168.
  **[Available online](here)**

- Mercer, N (1992). Culture, context and the construction of knowledge in the classroom. In P. Light, & G. Butterworth (Eds.), Context and cognition, ways of learning and knowing (pp.28-46). Hemel Hampsted: Harvester Wheatsheaf.
  **Check Faculty Library availability [here](here)**
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- Stigler, J. & Perry, M. (1990). Mathematics learning in Japanse, Chinese, and American classrooms. In J. Stigler, R. Shweder, & G. Herdt (Eds.) Cultural Psychology. essays on comparative human development (pp.328-353). Cambridge, UK: Cambridge University Press.
  **Check Faculty Library availability [here](here)**
  **Check University Library availability [here](here)**

- Luria, A. R. (1979). The making of mind. A personal account of Soviet Psychology. Chapter 4: Cultural differences in thinking (pp. 58-80). Cambridge, MA: Harvard University Press.
  **Check Faculty Library availability [here](here)**
  **Check University Library availability [here](here)**

- Lee, C. (2003). Cultural Modeling. CHAT as a lens for understanding instructional discourse based on African American English discourse patterns. In A. Kozulin, B. Gindis, V. Ageyev, & S. Miller (Eds.), Vygotsky's educational theory in cultural context (pp.393-410). Cambridge, UK: Cambridge University Press.
  **Check Faculty Library availability [here](here)**
  **Check University Library availability [here](here)**

- Alexander, R. (2001). Culture & Pedagogy. (Chapter 17: Culture and Pedagogy). London: Blackwell.
  **Check Faculty Library availability [here](here)**
  **Check University Library availability [here](here)**

- Gutierrez, K., & Rogoff, B. (2009). Cultural ways of learning. In H. Daniels, H. Lauder and J. Porter (Eds.), *Knowledge, Values and Educational Policy: A Critical Perspective* (p. 114-125). Abingdon, UK: Routledge
  **Check Faculty Library availability [here](here)**
  **Check University Library availability [here](here)**

- Wertsch., J. (1979). From Social Interaction to Higher Psychological Processes: A Clarification and Application of Vygotsky's Theory. Human Development, 22(1), 1–22

## Lecture 10: Goal orientations and epistemic beliefs for learning, adaptive beliefs for cultural success

Some people have been found to learn motivated by the achievement of individual mastery while others by being able to show good/higher performance to others (i.e. goal orientations). Also, as learners people develop theories about what they think is knowledge and how we can access it (i.e. epistemic beliefs). These two different types of beliefs have been found to be related to learning; some times enhancing it and some other times lowering it. Throughout the lecture we will discuss if these beliefs could be seen as permanent individual characteristics, aspects that change through experience, or even positions that depend on situations. We will also talk about how these beliefs are influenced by the way they are promoted and afforded in the classroom and discuss if there is any particular orientation or epistemic belief that promotes learning more than others or whether this relationship may be dependable on subject and the culture of the classroom.

**Key Readings**

- Jarvela, S. & Niemivirta, M. (2001). Motivation in context: Challenges and possibilities in studying the role of motivation in new pedagogical cultures. In S. Volet & S. Jarvela (Eds.) Motivation in Learning Contexts. London: Pergamon

- Hofer, B. & Pintrich, P. (1997). The development of epistemological theories: beliefs about knowing and knowledge and their relation to learning. *Review of Educational Research, 67*, 88-140.

**Further Readings**

**On epistemologies**

- Kuhn, D., & Weinstock, M. (2002). What is epistemological thinking and why does it matter? In B. K. Hofer & P. R. Pintrich (Eds.), Personal epistemology: The psychology of beliefs about knowledge and knowing. (pp. 121–144) Mahwah, NJ: Lawrence Erlbaum.

- Muis. K. (2007). The Role of Epistemic Beliefs in Self-Regulated Learning. Educational Psychologist, 42(3).

- Nussbaum E.M., Sinatra G.M., & Poliquin, A. (2008). Role of Epistemic Beliefs and Scientific Argumentation in Science Learning, International *Journal of Science Education, 30*(15), pp. 1977-1999.

- Qian, G. & Pan, J. (2002). A comparison of epistemological beliefs and learning from science text between American and Chinese high school students. In B. K. Hofer & P. R. Pintrich (Eds.), Personal epistemology: The psychology of beliefs about knowledge and knowing. (pp. 365–386) Mahwah, NJ: Lawrence Erlbaum.

- Lin T, Deng, F. Chai, C.S & Tsai C. (2013). High school students' scientific epistemological beliefs, motivation in learning science, and their relationships: A comparative study within the Chinese culture. *International Journal of Educational Development, 33*(1), pp. 37-47.

- Ho, H.J. & Liang, J. (2015) The Relationship Among Scientific Epistemic Beliefs, Conceptions of Learning Science, and Motivation of Learning Science: A Study of Taiwan high school students. *International Journal of Science Education, 37*(16), pp. 2688-2707.

- Bråten, I., Gil, L., Strømsø, H. I., & Vidal-abarca, E. (2009). Personal epistemology across cultures: exploring Norwegian and Spanish university students' epistemic beliefs about climate change. Social Psychology of Education: An International Journal, 12(4), 529–560.

**On goal orientations and related topics**

- Perry, N., Turner, J. & Meyer, D. (2012). Classrooms as context for motivating learning. In D. Berliner, R. Calfee, P. Alexander, & P. Winne (Eds). Handbook of Educational Psychology (2nd Ed). Chapter 15 (pp.327-348). New York: Routledge.
  **Read ebook online**
  **Check Faculty Library availability here**

- Elliot, A.J., Dweck, C.S. (2005) Handbook of Competence and Motivation. The Guilford Press. Chapter  26: Cultural competence: Dynamic processes (pp 489-505).
  **Read ebook online**
  **Check Faculty Library availability here**

- Elliot, A.J., Dweck, C.S. (2005) Handbook of Competence and Motivation. The Guilford Press. Chapter 15: The role of parents on how children approach achievement (pp.259-279).
  **Read ebook online**
  **Check Faculty Library availability here**

- Pintrich, P. (2003). A Motivational Science Perspective on the Role of Student Motivation in Learning and Teaching Contexts. *Journal of Educational Psychology, 95*(4), 667-686.
  **Available online**

- Turner & Patrick, H. (2008) How Does Motivation Develop and Why Does It Change? Reframing Motivation Research, *Educational Psychologist, 43*(3), 119-131.
  **Available online**

- Patrick H, Anderman, L., Ryan, A., Edelin, K., & Midgley, C. (2001). Teachers' Communication of Goal Orientations in Four Fifth-Grade Classrooms. *The Elementary School Journal, 102*(1), 35-58.
  **Available online**

- Anderman, L. & Anderman E. (2009). Oriented towards Mastery: Promoting positive motivational goals for students. In M. Furlong, R. Gilman, & E. Huebner (Eds.), *Handbook of positive psychology in schools*. London: Routledge.
  **Read ebook online**

- Mueller, C. & Dweck C. (1998). Praise for Intelligence Can Undermine Children's Motivation and Performance. J*ournal of Personality and Social Psychology, 75*(1), pp.33-52.
  **Available online**

- Tempelaar, D. Rienties, B., Giesbers, B., Gijselaers, W. (2015). The Pivotal Role of Effort Beliefs in Mediating Implicit Theories of Intelligence and Achievement Goals. *Social Psychology of Education, 18*(1), pp.101-120.
  **Available online**

- Schunk, D.H., Pintrich, P.R., Meece, J.L. (2008) Motivation in Education: Theory, Research and Applications (3rd Ed.). Pearson Education, Inc., Chapter 8.
  **Check Faculty Library availability here**

## Lecture 11: Can I do it? Competence beliefs and causal attributions

An important motivation-related question children can ask themselves is "Can I do this task?" Studies show that people's competence beliefs are strong predictors of their subsequent performance, their choice of activities to pursue, their levels of engagement, and their persistence. This lecture introduces competence-related beliefs that are prominent in theory and research on achievement motivation, including self-efficacy, attributions for success and failure, and mindsets about intelligence. In addition, we will look at family and school influences on the development of competence beliefs, as well as cultural and group differences in these self-beliefs.

**Key Readings**

- Schunk, D. H., & Pajares, F. (2009). Self-efficacy theory. In K. R. Wentzel & A. Wigfield (Eds.), Handbook of motivation at school (pp. 35–54). New York, NY: Routledge.

**Read ebook online**
**Check Faculty Library availability [here](here)**

- Weiner, B. (2010). The development of an attribution-based theory of motivation: A history of ideas. Educational Psychologist, 45, 28–36.A
**Available online**

**Further Readings**

- Barger, M. M., & Linnenbrink-Garcia, L. (2017). Developmental systems of students' personal theories about education. Educational Psychologist, 52, 63–83.
**Available online**

- Bong, M., & Skaalvik, E. M. (2003). Academic self-concept and self-efficacy: How different are they really? Educational Psychology Review, 15, 1–40.
**Available online**

- Usher, E. L., & Pajares, F. (2008). Sources of self-efficacy in school: Critical review of the literature and future directions. Review of Educational Research, 78, 751–796.
**Available online**

- Wilson, T. D., Damiani, M., & Shelton, N. (2002). Improving the academic performance of college students with brief attributional interventions. In J. Aronson (Ed.), Improving academic achievement: Impact of psychological factors on education (pp. 89–108). San Diego, CA: Academic Press.
**Check Faculty Library availability [here](here)**
**Check University Library availability [here](here)**

- Yeager, D. S., & Dweck, C. S. (2012). Mindsets that promote resilience: When students believe that personal characteristics can be developed. Educational Psychologist, 47, 302–314.
**Available online**

## Lecture 12: Can people like me succeed here? Identity and motivation

Identity is a central concept in psychology as well as the related disciplines of sociology, anthropology and philosophy. This lecture covers the most influential approaches to the study of self and identity in social psychology including personal and social identities, as well as independent and interdependent self-construals. The identity-based motivation theory is introduced to illustrate the mechanisms through which identity influences the way that people make meaning and take action. We will discuss the role of self and identity processes in contributing to unequal outcomes in education, and how interventions can be developed to unlock human potential and growth.

**Key Readings**

Oyserman, D., & Destin, M. (2010). Identity-based motivation: Implications for intervention. *The Counseling Psychologist*, 38, 1001–1043.
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# Section 4: Dialogue, Technology and Thinking

In this section we will explore some of the implications of the dialogic approach within psychology. The first lecture will look at the idea of dialogic and outline a dialogic understanding of thinking and how children learn to think. In the next session we will focus on group thinking discussing how this works and the relationship it has to individual thinking. In the third lecture we will expand on the idea of collective thinking with the addition of the medicating role of technology looking at how language, literacy and new communications technology informs thinking from the inside. Finally in the fourth lecture we will bring all these strands together in developing an understanding of what it might mean to teach thinking. Whereas traditional approaches to teaching thinking within educational psychology have tended to focus on individual thinking the implications of a dialogic approach lead to an expanded understanding that includes the need for educating cultures and designing technological supports.

## Lecture 13: How children learn to think

Classic cognitive psychology tends to explore thinking as if it was an objective process on the model of computer algorithms. In this lecture we will look at some challenges to this model and explore a dialogic alternative. What is at stake will be exemplified through recent debates about theory of mind.

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## Lecture 14: Group thinking

How come some groups seem smarter than others? What processes support group thinking? How do these relate to individual thinking?

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- Stahl, G. (2005). Group cognition in computer-assisted collaborative learning. *Journal of Computer Assisted Learning*, *21*(2), 79-90.
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- Rojas-Drummond, S. M., Albarrán, C. D., & Littleton, K. S. (2008). Collaboration, creativity and the co-construction of oral and written texts. *Thinking skills and creativity*, *3*(3), 177-191.
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## Lecture 15: Technology and cognition

Is technology a kind of addition that supports our thinking or is it, rather, something that informs out thinking on the inside? If so in what ways does technology shape thinking?

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## Lecture 16: Teaching thinking

A dialogic approach to understanding thinking and the development of thinking gives an important role to culture and to technology. In this session we will explore the implications of this approach for the idea of teaching thinking. If thinking is mediated by cultural tools and technologies that shape it from the inside then teaching thinking might need to include culture design and educational technology design. This final lecture will explore the idea that educational psychology could be a design-based science dedicated to creating the future and, more specifically, to building a collective or planetary intelligence combining humans and machines.

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- Barab, S. (2014). Design-based research: A methodological toolkit for engineering change. In *The Cambridge Handbook of the Learning Sciences, Second Edition*. Cambridge University Press.
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