

LEARNING AND LEARNERS

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LEARNING GOALS. By the end of the course, you should be able to:

- (1) Understand major concepts, principles and research associated with theories of human cognition, learning, and achievement.
 - (2) Use these understanding to analyze the strengths and weaknesses of alternative teaching models, instructional strategies, and assessment methods.
 - (3) Begin to rely on these understandings in designing, planning, and adapting instruction and assessment.
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FIELDWORK IN EDUCATION 506

As do all courses in the Whittier College teacher education program, EDUC 506 requires a minimum of 10 hours of fieldwork in a K-12 school classroom. Those currently engaged in full time grade K-12 teaching (Teachers of Record) or frequent substituting will meet the fieldwork requirement in their own classrooms. Those who are not yet teaching full time should see the instructor to discuss options for meeting fieldwork requirements.

COURSE READINGS

- ✓ Selected book chapters and articles will be distributed to be read throughout the semester.

ASSESSMENT & GRADING

1. Classroom participation is mandatory. If you are unable to make a class you need to notify me to schedule a make-up assignment related to that session's content. If you do not do this, your grade will be lowered by one half step. Classroom participation will be worth 50 points of your total grade.
2. Seven (7) reflections based on your fieldwork. You will be provided with writing prompts that reflect that week's content.
 - a. Each reflection should be typed, double-spaced, no more than 2 pages.
 - b. Reflections are scored using a 15-point rubric.
 - i. 5 points for answering the question
 - ii. 5 points for grammar
 - iii. 5 points for thoughtful analysis
 - c. Reflections will be handed out at the end of class on Tuesday and should be turned in at the beginning of class the next Tuesday.
3. Choose 4 articles from the weekly reading and provide three short paragraphs for each article (discussion points). Each paragraph should focus on interesting points, questions, or comments you had regarding the article. We will then discuss these in class. Five points will be given for each complete (3 paragraphs) discussion points assignment turned in. This assignment is due at the end of class on the day the articles were assigned.
4. Final Exam. Your final exam will be a paper and presentation to be turned in on the last day of class. The paper should describe how you would use the learning theories presented in class to meet the needs of:
 - i. All learners
 - ii. Your lowest 5-6 students
 - iii. Special education, language learner, or other diverse student population
 - b. This assignment will be due on or before the last day of class.
 - c. The paper and presentation are each worth 50 points.
 - d. This assignment should be at least 10 pages. In the paper you should describe how you would use any or all of the learning theories presented in class to include the three groups of students during a lesson or throughout the day.

| Percentage | Grade |
|------------|-------|
| 95-100 | A |
| 90-94 | A- |
| 85-89 | B |
| 80-84 | B- |
| 75-79 | C |
| 70-74 | C- |

Please keep in mind that students must earn a grade of B- or above in EDUC 506 (and other courses in the teacher preparation program) to remain in good standing in the program.

PERSPECTIVE AND POLICIES

I respect and value people who advocate in their own behalf, who think independently and critically, and who thoughtfully challenge authority. So please, if the class isn't working well for you, communicate that to me immediately! (Don't "suffer in silence.") In class sessions or in private, raise questions and concerns, express disagreement, seek clarification on assignments or about grades. I don't promise that I will agree with your

viewpoint or take actions that you propose. However, I do promise to listen respectfully, to reflect carefully on your perspective and recommendations, and to dialogue honestly with you. I also promise that you will never be “penalized” (e.g., in grading) for speaking up, questioning, or challenging.

With those ideas in mind, here are some policies that I trust I won’t need but that we have to make clear “up front.”

Academic honesty. You are expected to know and conform to the definitions and policies regarding academic honesty printed in the *Whittier College Catalog*. If you have any questions at all in this area, please discuss them with us well before the first scheduled exam.

Policy:

- *If dishonesty is observed or suspected during an exam, a grade of zero points will be assigned for the examination; the Dean of Students will be notified of the infraction; and the student’s status in the teacher education program will be reviewed by the Department of Education and Child Development.*

COURSE SCHEDULE

Session 1

Introductions

Session 2

Behavioral Learning Theories

Readings:

- Giles, J., Ryan, D.A.J., Belliveau, G., De Freitas, E., & Casey, R. (2006). Teaching style and learning in a quantitative classroom. *Active Learning in Higher Education, 7*, 213-225.
 - Meyer, L.A. (1984). Long-term academic effects of the direct instruction project follow through. *The Elementary School Journal, 84*, 380-394.
 - Becker, W.C., & Gersten, R. (1982). A follow-up of follow through: The later effects of the direct instruction model on children in fifth and sixth grades. *American Educational Research Journal, 19*, 75-92.
 - McAllister, L.W., Stachowiak, J.G., Baer, D.M., & Conderman, L. (1969). The application of operant conditioning techniques in a secondary school classroom. *Journal of Applied Behavior Analysis, 2*, 277-285.
 - Harris, V.W., & Sherman, J.A. (1973). Use and analysis of the “good behavior game” to reduce disruptive classroom behavior. *Journal of Applied Behavior Analysis, 6*, 405-417.
 - Kinder, D., & Carnine, D. (1991). Direct instruction: What it is and what it is becoming. *Journal of Behavioral Education, 1*, 192-213.
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Session 3

Information Processing

Readings:

- Byers, W. (2001). Using questions to promote active learning in lectures. *Royal Society of Chemistry.*
- Van Merriënboer, J.J.G., Kester, L., & Paas, F. (2006). Teaching complex rather than simple tasks: Balancing intrinsic and germane load to enhance transfer of learning. *Applied Cognitive Psychology, 20*, 343-352.
- Catrambone, R., & Yuasa, M. (2006). Acquisition of procedures: The effects of example elaborations and active learning exercises. *Learning and Instruction, 16*, 139-153.
- Maroney, S.A. (1997). It's in the bag: A dozen language arts activities to promote active learning. *Intervention in School and Clinic, 33*, 22-25.

Session 4**Metacognition**

Readings:

- Wellman, H.M., & Lagattuta, K.H. (2004). Theory of mind for learning and teaching: The nature and role of explanation. *Cognitive Development, 19*, 479-497.
- Gourgey, A.F. (1998). Metacognition in basic skills instruction. *Kluwer Academic Publishers, 26*, 81-96.
- Block, K.K., & Peskowitz, N.B. (1990). Metacognition in spelling: Using writing and reading to self-check spellings. *The Elementary School Journal, 91*, 151-164.
- Mayer, R.E. (1998). Cognitive, metacognitive, and motivational aspects of problem solving. *Instructional Science, 26*, 49-63.
- Georgiades, P. (2000). Beyond conceptual change learning in science education: Focusing on transfer, durability and metacognition. *Educational Research, 42*, 119-139.

Session 5**Piaget – Cognitive Development**

Readings:

- Hand, B., & Peterson, R. (1995). The development, trial and evaluation of a constructivist teaching and learning approach in a preservice science teacher education program. *Research in Science Education, 25*, 75-88.
- Mayer, R.E. (2004). Should there be a three-strikes rule against pure discovery learning? *American Psychologist, 59*, 14-19.
- Richardson, V. (2003). Constructivist Pedagogy. *Teacher College Record, 105*, 1623-1640.
- Airasian, P.W., & Walsh, M.E. (1997). Constructivist cautions. *Phi Delta Kappan, 78*, 444-446.
- Simon, M.A. (1995). Reconstructing mathematics pedagogy from a constructivist perspective. *Journal for Research in Mathematics Education, 26*, 114-145.

Session 6**Vygotsky – Cognitive Development**

Readings:

- Smagorinsky, P. (1995). The social construction of data: Methodological problems of investigating learning in the zone of proximal development. *Review of Educational Research*, 65, 191-212.
- Anderson, J.R., Reder, L.M., & Simon, H.A. (1996). Situated learning and education. *Educational Researcher*, 25, 5-11.
- Seely Brown, J., Collins, A., & Duguid, P. (1989). Situated cognition and the culture of learning. *Educational Researcher*, 18, 32-42.
- Hirsch, J. (2004). Using mediated teaching and learning to support algebra students with learning disabilities. *Journal of Cognitive Education and Psychology*, 4, 134-143.
- Griffin, M.M. (1995). You can't get there from here: Situated learning, transfer, and map skills. *Contemporary Educational Psychology*, 20, 65-87.
- Van Zee, E.H., Hammer, D., Bell, M. Roy, P., & Peter, J. (2005). Learning and teaching science as inquiry: A case study of elementary school teachers' investigations of light. *Science Teacher Education*, 1008-1042.
- Cobb, P. (1994). Where is the mind? Constructivist and sociocultural perspectives on mathematical development. *Educational Researcher*, 23, 13-20.
- Bearison, D.J., & LeBlanc, G. (2004). Teaching and learning as a bi-directional activity: Investigating dyadic interactions between child teachers and child learners. *Cognitive Development*, 19, 499-515.

Session 7**No class**

Session 8**Situated Learning**

Readings:

- Clancey, W.J. (1995). A tutorial on situated learning. *Proceeding of the International Conference on Computers and Education (Taiwan)* Self, J. (Ed.) Charlottesville, VA
- Askill-Williams, H., & Lawson, M.J. (2005). Students' knowledge about the value of discussions for teaching and learning. *Social Psychology of Education*, 8, 83-115.
- Palincsar, A.S. (1998). Social constructivist perspective on teaching and learning. *Annual Review of Psychology*, 49 345-375.
- Thomas, J.W. (2000). A review of research on project-based learning.
- Barron, B.J.S. et al. (1998). Doing with understanding: Lessons from research on problem-and project-based learning. *The Journal of Learning Sciences*, 7, 271-311.

Session 9**Social Cognition and Motivation**

Readings:

- Symonds, P.M., & Chase, D.H. (1992). Practice vs. motivation. *Journal of Educational Psychology*, 84, 282-289.
- Eccles, J.S., & Wigfield, A. (2002). Motivational beliefs, values, and goals. *Annual Review of Psychology*, 53, 109-132.
- Anderman, E.M., & Maehr, M.L. (1994). Motivation and schooling in the middle grades. *Review of Educational Research*, 64, 287-309.
- Bonk, C.J., & Cunningham, D.J. Searching for learner-centered, constructivist, and sociocultural components of collaborative educational learning tools.
- Ames, C. (1992). Classrooms: Goals, structures, and student motivation. *Journal of Educational Psychology*, 84, 261-271.

Session 10**Content-Area Learning**

Readings:

- Deshler, D.D. et al. (2001). Ensuring content-area learning by secondary students with learning disabilities. *Learning Disabilities Research and Practice, 16*, 96-108.
- Lawrence-Brown, D. (2004). Differentiated instruction: Inclusive strategies for standards-based learning that benefit the whole class. *American Secondary Education, 32*, 34-62.
- Duke, N.K. (2000). 3.6 minutes per day: The scarcity of informational texts in first grade. *Reading Research Quarterly, 35*, 202-224.
- Gill, M.G., Ashton, P.T., & Algina, J. (2004). Changing preservice teachers' epistemological beliefs about teaching and learning in mathematics: An intervention study. *Contemporary Educational Psychology, 29*, 164-185.

Session 11**Differentiated Instruction**

Readings:

- Sternberg, R.J., & Zhang, L. Styles of thinking as a basis of differentiated instruction. *Theory Into Practice, 44*, 245-253.
- Kapusnick, R.A., & Hauslein, C.M. (2001). The 'silver cup' of differentiated instruction. *Kappa Delta Pi Record, 37*, 156-159.
- McTighe, J., & Brown, J.L. Differentiated instruction and educational standards. *Theory Into Practice, 44*, 234-244.
- Arter, J.A., & Jenkins, J.R. (1979). Differential diagnosis. Prescriptive teaching: A critical appraisal. *Review of Educational Research, 49*, 517-555.

Session 12**Assessment**

Readings:

- Boston, C. (2002). The concept of formative assessment. *Practical Assessment, Research and Evaluation.*
- Bell, B., & Cowie, B. (2001). The characteristics of formative assessment in science education.
- Struyven, K., Dochy, F., Janssens, S., & Gielen, S. (2006). On the dynamics of students' approaches to learning: The effects of the teaching/learning environment. *Learning and Instruction, 16*, 279-294.
- Lockledge, A. (1997). Portfolio assessment in middle-school and high-school social studies classrooms. *The Social Studies, 88*, 65-69.
- Black, P., & William, D. (1998). Inside the black box: Raising standards through classroom assessment. *Phi Delta Kappan, 80*, 139-147.
- Hanson, M.F., & Gilkerson, D. (1999). Portfolio assessment: More than ABCs and 123s. *Early Childhood Education Journal, 27*, 81-86.
- Miller, M.D., & Leg, S.M. (1993). Alternative assessment in a high-stakes environment. *Educational Measurement: Issues and Practice, 9-15*.

Session 13**Assessment and Instruction**

Readings:

- VanDerHeyden, A.M., & Burns, M.K. (2005). Using curriculum-based assessment and curriculum-based measurement to guide elementary mathematics instruction: Effects on individual and group accountability scores. *Assessment for Effective Intervention*, 3, 15-29.
- VanDerHeyden, A.M. (2005). Intervention-driven assessment practices in early childhood/early intervention: Measuring what is possible rather than what is present. *Journal of Early Intervention*, 28, 28-33.
- Paulsen, K.J. (1997). Curriculum-based measurement: Translating research in school-based practice. *Intervention in School and Clinic*, 32, 162-167.
- Shapiro, E.S., & Ager, C. (1992). Assessment of special education students in regular education programs: Linking assessment to instruction. *The Elementary School Journal*, 92, 283-296.
- Hindson, B., Byrne, B., Fielding-Barnsley, R., Newman, C. Hine, D.W., & Shankweiler, D. (2005). Assessment and early instruction of preschool children at risk for reading disability. *Journal of Educational Psychology*, 97, 687-704.

Session 14**Final Presentations**