

**GEORGE MASON UNIVERSITY  
COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT  
ADVANCED STUDIES IN TEACHING AND LEARNING PROGRAM**

**EDUC 613.002  
HOW STUDENTS LEARN  
3 credits, Fall 2014 (F2F)  
81670**

**Meeting Days/Times**  
Aug. 28-Dec. 17, Thursdays 4:30-7:10 pm  
Robinson B 204

**PROFESSOR**

**Virginia Doherty, Ph.D.**

**Office Hours:** By appointment before or after class

**E-mail:** vdoherty@gmu.edu



**COURSE DESCRIPTION**

Advanced course in the study of learning based on research in disciplines. Focuses on increasing students' learning through the study of different learning systems and understanding each learner in the context of the learning process itself.

*Prerequisites:* Admission to Graduate School and ASTL Course EDUC 612

**LEARNER OUTCOMES/OBJECTIVES**

*As a result of EDUC 613, ASTL participants will be able to:*

- A. define learning and learner-centered teaching (ASTL Outcomes 1 & 4) (IB Adv Cert Domains 1.2 & 2.1),
- B. develop the ability to link observational data of learners to individualizing learning in the classroom (ASTL Outcome 3) (IB Adv Cert Domains 2.2, 2.3 & 2.4),
- C. examine a teacher's role as a facilitator and scaffolder of learning (ASTL Outcomes 2 & 4) (IB Adv Cert Domains 1.2 & 2.1),
- D. identify and apply learning theories (ASTL Outcomes 1 & 5) (IB Adv Cert Domains 3.1, 3.2, 3.3 & 3.4),
- E. read, analyze, and reflect on course readings to examine influences on the processes of learning (ASTL Outcomes 2, 4 & 6) (IB Adv Cert Domains 3.2 & 3.3),
- F. develop an in-depth case study of one student (ASTL Outcomes 1, 3, 4 & 7) (IB Adv Cert Domains 4.1, 4.2, 4.3 & 4.4).

**RELATIONSHIP TO PROGRAM GOALS & PROFESSIONAL ORGANIZATION**

EDUC 613 is the second of five courses in the ASTL CORE. It is aligned with the following GSE Priorities: Diversity and Equity, Children, Families, and Communities, and High

Standards and Research-Based Practices. EDUC 613 is also aligned with the National Board for Professional Teaching Standards' (NBPTS) five core propositions, which provide the guiding principles for *what teachers should know and be able to do*.

National Board for Professional Teaching Standards I – Teachers are committed to students and their learning.

National Board for Professional Teaching Standards III – Teachers are responsible for managing and monitoring student learning

National Board for Professional Teaching Standards IV – Teachers think systematically about their practice and learn from experience.

EDUC 613 is aligned with the additional three learning outcomes that guide the ASTL core:

- Teachers account for the needs of culturally, linguistically, and cognitively diverse learners
- Teachers are change agents, teacher leaders, and partners with colleagues

The content of EDUC 613 also aligns with aspects of the International Baccalaureate Certificate in Teaching and Learning Research, with a particular focus on the following Domains of Knowledge, specifically:

- Domains 2.2, 2.3 & 2.4: Research practice – Collection, analysis, interpreting and reporting of evidence, and Evaluation of research activity, and Reflection on and dissemination of findings and implications for practice
- Domains 3.2 & 3.4: Linking theory to practice in an IB context -- Critical reading and reflection and Synthesizing research and experiential evidence
- Domains 4.2, 4.3 and 4.4: Building capacity for practitioner inquiry – Modes of research and methods of data collection, and Research design, and Analysing, interpreting and reporting research findings

### ***REQUIRED TEXT***

Jensen, E. (2005). *Teaching with the brain in mind* (2<sup>nd</sup> ed.). Alexandria, VA: ASCD.

*We will also use a textbook required for EDUC 612:*

Falk, B., & Blumenreich, M. (2005). *The power of questions: A guide to teacher and student research*. Portsmouth, NH: Heinemann.

### **Related resources**

American Psychological Association (2009). *Publication manual of the American Psychological Association 6<sup>th</sup> ed.*. Washington, DC: Author.

## **REFERENCES FOR ASSIGNED ARTICLES & BOOK EXCERPTS**

- Bailey, D. B. Jr., (2002). Are critical periods critical for early childhood education? The role of timing in early childhood pedagogy. *Early Childhood Research Quarterly*, 17, 281-294.
- Brown, P.C., Roediger, H.L., McDaniel, M.A. (2014). *Make it stick: The science of successful learning*. Cambridge, Massachusetts: Belknap Press.
- D'Arcangelo, M. (2000). The scientist in the crib. *Educational Leadership* 58(3), 8-13.
- Diemand-Yauman, C., Oppenheimer, D.M., & Vaughan, E.B. (2011). Fortune favors the bold (and the italicized): Effects of disfluency on educational outcomes. *Cognition*, 118, 111-115.
- Dweck, C.S. (2006). *Mindset: The new psychology of success*. New York: Ballantine Books.
- Hattie, J. & Yates, G. (2014). *Visible learning and the science of how we learn*. New York: Routledge.
- Jensen, E. (2008). A fresh look at brain-based education. *Phi Delta Kappan*, 89, 408-417.
- Joseph, N. (2010). Metacognition needed: Teaching middle and high school students to develop strategic learning skills. *Preventing School Failure*, 54, 99-103.
- Pappano, L. (2013). 'Grit' and the new character education. *Harvard Education Letter*, 29, 1-3.
- Pashler, H., McDaniel, M., Rohrer, D., & Bjork, R. (2009). Learning styles: Concepts and evidence. *Psychological Science in the Public Interest*, 9(3), 105-119.
- Rosiek, J. (2003). Emotional scaffolding: An exploration of the teacher knowledge at the intersection of student emotion and the subject matter. *Journal of Teacher Education*, 54, 399-412.
- Sharan, Y. (2010). Cooperative learning for academic and social gains: Valued pedagogy, problematic practice. *European Journal of Education*, 45, 300-313.
- Sternberg, R. J., Grigorenko, E. L., & Kidd, K. K. (2005). Intelligence, race, and genetics. *American Psychologist*, 60(1), 46-59.

## **COURSE REQUIREMENTS AND ASSIGNMENTS**

### **Course Delivery**

Course delivery will be through mini-lectures, experiential learning activities, cooperative learning groups based on learning theorists, and case study groups linking student learning to national standards and program/student outcomes. Additional learning activities include:

- *Presentations* (i.e., mini-lectures, often assisted by Power Point and other visuals);

- *Discussions* (i.e., active involvement of students in learning by asking questions that provoke critical thinking and verbal interaction);
- *Cooperative learning* (i.e., small group structure emphasizing learning from and with others);
- *Collaborative learning* (i.e., heterogeneous groups in an interdisciplinary context);
- *Student sharing and mini-presentations*;
- *Videos*;
- *Blackboard Learning System* web-based course management and portal system.

To participate fully in this course, students will need the following resources:

- Internet access (Check the list of Blackboard compatible, supported Web browsers at [https://help.blackboard.com/en-us/Learn/9.1\\_SP\\_10\\_and\\_SP\\_11/Student/002\\_Browser\\_Support\\_SP\\_11](https://help.blackboard.com/en-us/Learn/9.1_SP_10_and_SP_11/Student/002_Browser_Support_SP_11)).
  - It is highly recommended that you have access to *high speed Internet* to facilitate the downloading of necessary files and other information for the course.
- GMU email account (to be checked **daily**)
- Word processing software: MS Office 2007 or later, or OpenOffice 2007 or later
- Adobe Flash Player, available for free downloading at <http://get.adobe.com/flashplayer>

To access the course, go to the MyMason portal login page at <https://mymasonportal.gmu.edu>. Your GMU email user name is also your MyMason Portal ID and your GMU email password is also your MyMason Portal password. After logging in, click on the COURSES tab at the top of the page to see your list of courses, then select EDUC 613.

### General Requirements

- A. Class attendance is both important and **required**. If, due to an emergency, you will not be in class, you must contact your instructor prior to class time. Learners with more than two absences may drop a letter grade or lose course credit.
- B. All assignments are due no later than **11:59 PM EDT** of the date indicated in each week's assignments published in the **COURSE SCHEDULE AND TOPICS** section of this Syllabus. Due dates are also posted on our Bb course site.
  - a. **Grades for assignments received after the due date will be reduced by 10%, unless prior approval from instructor has been granted. No late submissions will be accepted after the course end date.**
  - b. Assignments earning less than a passing grade may be rewritten and resubmitted so that the assignment is satisfactorily completed. In fact, because learning is the goal, I may *require* you to redo an assignment that is far below expectations.
- C. Please adhere to the assignment submission instructions listed in this Syllabus. Only assignments submitted as indicated will be graded; incorrect submissions will result in a grade of zero for those assignments.
  - a. All assignments submitted should have the filename format LASTNAME-ASSIGNMENT TITLE. Please do not upload written assignments in PDF format.

Other editable formats are acceptable (i.e., .doc, .docx, .rtf, .ppt, .pptx, .xlsx, .xlxs). Supporting documents for assignments can be in PDF format.

- D. *All written work* should be carefully edited for standard grammar and punctuation, as well as clarity of thought. All submitted work should be prepared through word processing and reflect APA style (6<sup>th</sup> edition), as well as double-spaced, with 1" margins, and 12-point font (Times New Roman, Calibri, or Arial).

## Assignments

	<i>Points</i>
Class Participation & Professionalism	30
Critical Article Review	10
Cooperative Learning Theory Group Project	15
Integrative Case Study of a Learner	40
Portfolio Reflection Point 2	5
<b><i>Total Points</i></b>	<b>100</b>

### 1. **Class Participation and Professionalism (30 points)**

Class participation and professionalism include multiple aspects of engagement in our course content, including: the in-class experiences, article discussions, participation in the cooperative group project, in & out of class work to advance the developing case study, reflective journaling and peer evaluation and support in critical friends groups. In addition to being present in each class, this part of your grade also includes quality participation in class discussions and professionalism in all communication with your professor and your peers.

*Course Outcomes A, C, D, E*

### 2. **Critical Article Review (10%)**

Each student will prepare **one critical article review (CAR)**. Articles are available through the library website & additional guidelines will be provided with the assignment. See the appropriate section of the syllabus for additional instructions and the rubric containing criteria for evaluation.

*Course Outcome E*

### 3. **Cooperative Learning Theory Group Project (15%)**

Each student will be part of a cooperative learning theory group that applies a theoretical perspective to learning and discusses its implications for teaching.

Each discussant should:

- 1) **Describe & evaluate the learning theory:** address the salient principles and assumptions about learning,
- 2) **Connect the theory to relevant, current literature:** reference current articles that address learning from that theoretical perspective, and
- 3) **Connect the theory to practice:** relate that theory to the teacher's role in facilitating learning.

The discussant should provide the other class members a one-page, reflective summary of the salient ideas and make clear where he or she stands on that theory and why. Each group will prepare a digital presentation that highlights the major points and concepts of the theorist. The discussant should consider a variety of ways to share the information and salient points to class members, including technology (e.g., a narrated Prezi, Powerpoint or Google docs slide show (using a Screencast tool), a photo story, an online poster (e.g. using Glogster), Youtube video, podcast, or an interactive website).

*Course Outcomes D & E*

4. **Integrative Case Study of a Learner (40%) (*Performance-Based Assessment*)**  
Each student will identify one learner and follow that learner over a 6-week period. Knowing a learner deeply enables the professional educator to make appropriate instructional decisions. The purpose of this case study is to help you create a full and varied picture of an individual learner. The data you collect, including descriptive narratives, anecdotal records, artifacts, and interview results will comprise the core of your case study essay. You will then make some recommendations for working with your case study student based on insights from your work. Finally you will evaluate what you yourself have learned from following one student over time.  
(*Course outcomes B, C, D, E, F*)

**This performance-based assessment (PBA) MUST be uploaded *and* submitted to Taskstream for evaluation when the assignment is due. ONLY PBAs posted to Taskstream will be graded. This means NO final grades will be posted until all materials are on Taskstream.**

5. **Portfolio Reflection Point 2 (5 points)**  
As a part of the ASTL Core, participants will continue to build their Professional Portfolio and will add Reflection Point #2 (see the box below) at the conclusion of EDUC 613. For additional detailed information about this Reflection Point, as well as the remainder of the Portfolio, please refer to the Portfolio Guidelines posted in the ASTL Core Cohorts 2014-15 Organization site. You will submit Reflection Point 2 to the ASTL Core Cohorts 2014-15 Org site and also upload it to your Professional Portfolio

***Prompt for Reflection Point 2: EDUC 613***

**In this section, you will focus on how coursework, related readings, and products in EDUC 613 have led you to think more deeply about the learning process, the factors that influence an individual's learning, and your own students. As you reflect on your own learning and your growth and change at this point in the Core, please address any of the applicable eight program learning outcomes and the ways in which the performance assessments included in this section provide evidence of your knowledge.**

**Suggested course products which may be provided as evidence of knowledge:**

1. Case Study of a Learner (EDUC 613)
2. Learning Theory Group product (EDUC 613)
3. Other, as selected by individual (be specific)

***Guidelines and Suggested Format for each of the Reflection Points***

**Length:** Aim to limit your response to two well written pages

**Focus:** Each Reflection Point should include a short description, but will focus on *interpretation* and *analysis* of learning by synthesizing knowledge attained from that learning component of the Core coursework.

**Format:** Each reflection point *describes, interprets, and examines* why and how the course product(s) provide evidence of the ASTL principles addressed in that learning module. Here you should also discuss the impact of this course/learning module on your teaching practice *and* its impact on P-12 student learning.

**Grading Scale:**

A = 94-100

A- = 90-93

B+ = 85-89

B = 80-84

C = 70-79

F = Did not meet course requirements

***TASKSTREAM REQUIREMENTS***

Every student registered for EDUC 613, How Students Learn, is required to submit the following assessment, the *Integrative Case Study*, to TaskStream. Evaluation of the performance-based assessment by the course instructor will also be completed in TaskStream. Failure to submit the assessment to TaskStream will result in the course instructor reporting the course grade as Incomplete (IN). Unless the IN grade is changed upon completion of the required TaskStream submission, the IN will convert to an F nine weeks into the following semester.

**GMU POLICIES AND RESOURCES FOR STUDENTS**

- a. Students must adhere to the guidelines of the George Mason University Honor Code [See <http://oai.gmu.edu/the-mason-honor-code/>]
- b. Students must follow the university policy for Responsible Use of Computing (See <http://universitypolicy.gmu.edu/policies/responsible-use-of-computing/>).
- c. Students are responsible for the content of university communications sent to their George Mason University email account and are required to activate their account and check it regularly. All communication from the university, college, school, and program will be sent to students solely through their Mason email account.
- d. The George Mason University Counseling and Psychological Services (CAPS) staff consists of professional counseling and clinical psychologists, social workers, and counselors who offer a wide range of services (e.g., individual and group counseling, workshops and outreach programs) to enhance students' personal experience and academic performance (See <http://caps.gmu.edu/>).
- e. Students with disabilities who seek accommodations in a course must be registered with the George Mason University Office of Disability Services (ODS) and inform their instructor, in writing, at the beginning of the semester (See <http://ods.gmu.edu/>).
- f. Students must follow the university policy stating that all sound emitting devices shall be turned off during class unless otherwise authorized by the instructor.
- g. The George Mason University Writing Center staff provides a variety of resources and services (e.g., tutoring, workshops, writing guides, handbooks) intended to



support students as they work to construct and share knowledge through writing (See <http://writingcenter.gmu.edu/>).

## **PROFESSIONAL DISPOSITIONS**

Students are expected to exhibit professional behaviors and dispositions at all times.

## **CORE VALUES COMMITMENT**

The College of Education & Human Development is committed to collaboration, ethical leadership, innovation, research-based practice, and social justice. Students are expected to adhere to these principles: <http://cehd.gmu.edu/values/>.

**For additional information on the College of Education and Human Development, Graduate School of Education, please visit our website <http://gse.gmu.edu/>.**

---

**Projected CLASS SCHEDULE EDUC 613: Fall 2014**

This schedule may be changed at the discretion of the professor or as the needs of the students or the ASTL Program warrant.

<i>Date</i>	<b>Class Topic</b>	<b>Readings and Assignments due for class date</b>
<b>Aug. 28</b> Week 1	Introduction to EDUC 613 <ul style="list-style-type: none"> <li>• What is Learning? Learning, learner-centered experiences, cycle of learning, APA Learning Factors</li> <li>• Discuss D’Arcangelo article</li> <li>• Teacher as researcher</li> <li>• Brainstorm learning theories</li> <li>• Form learning theory groups</li> </ul>	Readings for class on 8/28 <ul style="list-style-type: none"> <li>• The scientist in the crib</li> </ul> <p><b>After-class tasks to be completed by next F2F class period, 9/12:</b></p> <ul style="list-style-type: none"> <li>• <b>Read a Case Study Example (either one)</b></li> </ul>
<b>Sep. 4</b> Week 2	<u><b>No F2F Class</b></u>	<p><b>Task to be completed by next F2F class period, 9/12:</b></p> <ul style="list-style-type: none"> <li>• <b>Implement a multiple intelligences inventory (or observation tool) with your class.</b></li> <li>• <b>Take an MI inventory for yourself</b></li> </ul>
<b>Sep. 11</b> Week 3	<p><u><b>Case Study &amp; Learning Theory Group Work</b></u></p> <ul style="list-style-type: none"> <li>• Review APA Learner Centered Principles</li> <li>• Case Study Overview</li> <li>• APA Learning Factors: connecting to theorists</li> <li>• Review Learning Styles and MI                             <ul style="list-style-type: none"> <li>• Differentiating/Connecting MI &amp; Learning Styles</li> </ul> </li> </ul> Learning theory group work	<p><b>Readings</b></p> <ul style="list-style-type: none"> <li>• Jensen, Ch. 1</li> <li>• Falk &amp; Blumenreich (textbook) Chapter 1,2 and 3</li> <li>• Pashler, McDaniel, Rohrer, &amp; Bjork: Learning Styles: Concepts &amp; Evidence</li> </ul>
<b>Sep. 18</b> Week 4	<p><u><b>Research Planning &amp; Learning Theory Group Work</b></u></p> <ul style="list-style-type: none"> <li>• Example Model of CAR</li> </ul> Discuss Critical Article Review format	<p><b>Readings</b></p> <ul style="list-style-type: none"> <li>• Jensen, Chapter 3</li> <li>• Falk &amp; Blumenreich Chapter 4</li> </ul> <p><b>Due to me by email</b></p> <ul style="list-style-type: none"> <li>• <b>Selection of student for case study by Sunday, 9/21, 11:59pm</b></li> </ul>
	For Case Study Research: <ul style="list-style-type: none"> <li>• Selecting your student</li> </ul>	

<p><b>Sep. 25</b> Week 5</p>	<p><b><u>Motivational &amp; Affective Learning Factors &amp; Learning Theory Group Work</u></b> <i>Motivational &amp; Affective Factors:</i></p> <ul style="list-style-type: none"> <li>• Emotions &amp; Learning</li> <li>• Getting the brain's attention</li> <li>• Threats, stress, and learning</li> <li>• Motivation &amp; Rewards</li> <li>• Learning climate</li> </ul> <p>For Case Study Research</p> <ul style="list-style-type: none"> <li>• Planning your research</li> </ul>	<p><b>Readings</b></p> <ul style="list-style-type: none"> <li>• Jensen, Chapter 4</li> <li>• Rosiek: Emotional scaffolding</li> </ul>
<p><b>Oct. 2</b> Week 6</p>	<p><b><u>Motivational &amp; Affective Learning Factors (cont'd)</u></b> <b>Socio-emotional learning theories group presentation</b></p> <p><i>Motivational &amp; Affective Learning Factors</i></p> <ul style="list-style-type: none"> <li>• Motivation &amp; Emotion</li> <li>• Intrinsic Motivation</li> <li>• Motivation &amp; Effort</li> <li>• What types of data illuminate this factor?</li> </ul>	<p><b>Due: <i>Socio-Emotional Learning Theories Group presentation</i></b></p> <p><b>Readings</b></p> <ul style="list-style-type: none"> <li>• Jensen, Chs 5 &amp; 8</li> <li>• Pappano: “Grit” and the new character education</li> <li>• Dweck: excerpt from <i>Mindset</i></li> </ul> <p><b>Critical Article Review (CAR)</b> (send to me by email (vdoherty@gmu.edu))</p>
<p><b>Oct. 9</b> Week 7</p>	<p><b><u>Developmental &amp; Social Learning Factors</u></b> <b>Social Learning Theories Group Presentation</b></p> <p><i>Developmental &amp; Social Learning Factors</i></p> <ul style="list-style-type: none"> <li>• Social Influences on Learning <ul style="list-style-type: none"> <li>○ Cooperative/Collaborative Learning</li> </ul> </li> <li>• Developmental Influences on Learning <ul style="list-style-type: none"> <li>○ Critical Periods of Development</li> <li>○ Movement &amp; Learning</li> </ul> </li> </ul> <p><i>For Case Study Research:</i></p> <ul style="list-style-type: none"> <li>• Planning your research</li> <li>• Review expectations for Section 1 of Case Study</li> </ul> <p>In-class work on learning theorist project</p>	<p><b>Due in class on 10/9:</b> <b><u>Social Learning Theories Group Presentation</u></b></p> <p><b>Readings</b></p> <ul style="list-style-type: none"> <li>• Jensen, Chs. 4 &amp; 7</li> <li>• Falk &amp; Blumenreich, Ch. 5</li> <li>• Sharan: Cooperative learning for academic and social gains</li> <li>• Bailey: Are critical periods critical for early childhood?</li> </ul>

<p><b>Oct. 16</b> Week 8</p>	<p><b><u>Developmental &amp; Social Learning Factors, cont'd</u></b> Constructivists Learning Theories Group Presentation</p> <p><i>Developmental &amp; Social Learning Factors, cont.</i></p> <p><i>For Case Study Research</i></p> <ul style="list-style-type: none"> <li>○ Data collection methods</li> </ul>	<p>Due in class on 10/16 <b><u>Constructivist Learning Theories Group Presentation</u></b></p> <p><b>Readings</b></p> <ul style="list-style-type: none"> <li>○ Jensen (textbook): ch. 6</li> <li>○ Falk &amp; Blumenreich (textbook) ch.6</li> </ul>
<p><b>Oct. 23</b> Week 9</p>	<p><b><u>Cognitive &amp; Metacognitive Learning Factors</u></b> Cognitive Learning Theories Group Presentation</p> <p><i>Cognitive &amp; Metacognitive Learning Factors</i></p> <ul style="list-style-type: none"> <li>● Memory &amp; Recall</li> <li>● Thinking about Thinking</li> <li>● Context &amp; Learning</li> </ul> <p><i>For Case Study Research:</i></p> <ul style="list-style-type: none"> <li>● Data Collection Methods</li> </ul>	<p><b>Due</b></p> <ul style="list-style-type: none"> <li>● <b>Cognitive Learning Theories Group Presentation</b></li> </ul> <p><b>Readings</b></p> <ul style="list-style-type: none"> <li>● Jensen, Chs. 9, 10</li> <li>● Joseph article: Metacognition needed</li> </ul>
<p><b>Oct. 30</b> Week 10</p>	<p><b><u>Cognitive &amp; Metacognitive Learning Factors cont'd</u></b> Behaviorist Learning Theories Group Presentation</p> <p><i>Cognitive &amp; Metacognitive Learning Factors continued</i></p> <p><i>For Case Study Research:</i></p> <ul style="list-style-type: none"> <li>● Data Analysis</li> </ul>	<p><b>Due in class on 10/30</b></p> <ul style="list-style-type: none"> <li>● <b>Behaviorist Learning Theories Group presentation</b></li> </ul> <p><b>Readings</b></p> <ul style="list-style-type: none"> <li>● Hattie &amp; Yates, <i>Visible learning and the science of how we learn</i>, ch. 16</li> <li>● Brown, Roediger &amp; McDaniel: excerpt from <i>Make it stick: The science of successful learning</i></li> <li>● Diemand-Yauman, Oppenheimer &amp; Vaughan: Effects of disfluency on educational outcomes</li> </ul>
<p><b>Nov. 6</b> Week 11</p>	<p><b><u>Individual Differences Learning Factors</u></b></p> <p><i>Individual Learning Factors</i></p> <ul style="list-style-type: none"> <li>● Diversity-culture, language</li> <li>● Differences in learning</li> </ul> <p>Sternberg discussion</p> <p>Types of Data for individual learning factors</p>	<p><b>Due</b></p> <ul style="list-style-type: none"> <li>● <b>Draft of Descriptive Discussion; Learning Factors and Data Sources Due for Peer Review</b> (upload to BB, CS part 1)</li> <li>● <b>Feedback to your CFG on their draft</b></li> </ul> <p><b>Readings</b></p> <ul style="list-style-type: none"> <li>● Falk &amp; Blumenreich, chapter 7</li> <li>● Sternberg, Grigorenko &amp; Kidd: Intelligence, race and genetics</li> </ul>

<p><b>Nov. 13</b> Week 12</p>	<p><b><u>Individual Differences Learning Factors, cont'd</u></b></p> <p><i>Review of all Learning Factors and APA Learner Centered Principles</i></p> <p>Jensen Video In-class work time</p>	<p><b>Due to CFG this week:</b></p> <ul style="list-style-type: none"> <li><b>Draft of Analytical Discussion for Peer Review (CS, Part II)</b></li> <li><b>Feedback to your CFG on their draft</b></li> </ul> <p><b>Readings</b></p> <ul style="list-style-type: none"> <li>Jensen, Chs. 11 &amp; 12</li> <li>Jensen, A Fresh Look at Brain-Based Education (PDK article)</li> </ul>
<p><b>Nov. 20</b> Week 13</p>	<p><b><u>No F2F Class</u></b>- Individual conferences with instructor via Skype or Blackboard's Collaborate</p>	<p><b>Due to instructor via email by Thursday, 11/20</b></p> <ul style="list-style-type: none"> <li><b>Draft of Case Study Part I &amp; 2 (Learning Factors &amp; Data Sources and Analytical Discussion) for instructor review.</b></li> </ul>
<p><b>Nov. 27</b> Week 14</p>	<p style="text-align: center;"><b>Thanksgiving Break- <u>No Class</u></b></p>	
<p><b>Dec. 4</b> Week 15</p>	<p><b>Last Class: Bringing it all together</b></p> <p>Debrief Case Study Process Synthesizing Class Autobiographical Discussion: How does this new information about learning apply to me in my professional role? Where do I go from here?</p>	<p><b>Due</b></p> <ul style="list-style-type: none"> <li><b>Case Study presentations</b></li> <li><b>Draft of Reflective Discussion for Peer Review (CS, Part III)</b></li> <li><b>Feedback to your CFG on their draft</b></li> </ul>
<p><b>Dec. 11</b> Week 16</p>	<p style="text-align: center;"><b>Case Study (FINAL) due to TaskStream by Dec. 11, 11:59pm</b></p>	
<p><b>Dec. 12</b> Week 16</p>	<p style="text-align: center;"><b>Portfolio Reflection Point 2</b> upload to Blackboard Organization site (ASTL Core Cohorts 2013-2014 Org)</p>	

## EDUC 613

### ***CRITICAL ARTICLE REVIEW (CAR)***

**Objective:** To engage learners thoughtfully and meaningfully with current learning research and theory, and to apply their emergent analyses and reflections to classroom practices and application. The purpose of the critical article review assignment is to engage students in a thoughtful process that will help them become critical consumers of the research literature on how students learn, and will bring current course readings and additional research in the field together with classroom practice. The critical article review will require that you formulate thoughts on paper and connect those thoughts to current research.

Each student needs to write a two to three page Critical Article Review (CAR) (from the list of articles that correspond to the different learning factors). The CAR should include the following parts: description; analysis, application and interpretation; and reflection on the content and its meaning to you in your current/future professional role. Your article summary needs to include the article reference in APA style (at the beginning of the CAR). Each CAR needs to include a clear description or summary of the article content, what the reading *means to you* as an educator, *how you relate to the ideas of the author*, and how and why you *can or cannot apply* these ideas into your current or future practice.

#### ***Details to guide you in your analysis:***

**Article Reference:** Provide an APA style reference for the article at the beginning of your CAR. You should *also* include the article in the reference page.

**Description:** **Describes** and summarizes the main points of the article. This tells briefly **what** the article is about. One to two paragraphs in length only.

**Analysis, Application, and Interpretation:** This section is where you, the critic/analyzer, apply your knowledge to comment on the theory(ies), core ideas, or research described and discussed in the article. This section focuses on your interpretation of the material based on related course readings. This section tells **how or why**. In this section, you need to compare and contrast the author's (or authors') points to other readings by using **at least three supporting sources from related readings**. Cite references within the text and include a references page at the end of your journal critique (*using correct APA style*). These citations may be taken from your text, other supporting articles read for class, or articles you may have read on your own.

**Reflection:** In this section you need to connect the article you are analyzing/critiquing to yourself and your own classroom practice. You need to address the question: What does this article mean to you? Your reflection on the reading should include a synthesis of the material personally and an evaluation of your description and analysis (which includes what this means to you as an educator). Think about what you would/might do **similarly** or **differently**, and **why**, to help students learn. Or, you may want to talk about what you learned through the article that will help you in the future in your particular teaching context. This section should personalize the description, analysis, and interpretation to your individual situation.

**Critical Article Review Rubric--EDUC 613**

	<b>No Evidence</b>	<b><i>Beginning</i></b> (Limited evidence)	<b><i>Developing</i></b> (Clear evidence)	<b><i>Accomplished</i></b> (Clear, convincing and substantial evidence)
<b>Description</b>	Description is unclear with no inclusion of key points (0 points)	Reference for article may be missing from beginning of article. Describes the article briefly (0.5 points)	Reference for article is provided at beginning of article. Describes the article accurately with little synthesis (1 point)	Reference for article provided in APA style at beginning of article. Describes and synthesizes the key points accurately and concisely (2 points)
<b>Analysis, Application and Interpretation</b>	Section does not address strengths and weaknesses of article; does not include supporting sources (0 points)	Section includes interpretation by addressing only strengths of the article, does not compare and contrast points from articles to related readings; includes one supporting sources from related readings (1 point)	Section includes interpretation by addressing strengths and weaknesses of the article, compares and contrasts points from articles to related readings; includes two supporting sources from related readings (2 points)	Includes analysis, application, an interpretation by addressing strengths and weaknesses of the article, tells why points are strengths or weaknesses; compares and contrasts points from articles to related readings; includes three or more supporting sources from related readings (3 points)
<b>Reflection</b>	Describes general thoughts about article (0 points)	Includes only a short reflective statement or does not make personal connections to the article (1 points)	Includes reflective statement with connections to classroom practice; needs to delve more deeply into the application to the classroom or personal connections to the article (2 points)	Includes a strong reflective statement that connects journal article to classroom practice and clear statement of personal connections to the article (3 points)
<b>APA References &amp; Clarity of Writing (Mechanics)</b>	Contains many grammatical errors or error patterns. No evidence of APA style references. (0 points)	Lacks in grammatical or stylistic form OR contains many errors or error patterns. References lack some compliance with correct APA 6 <sup>th</sup> style (0.5 points)	Grammatically and stylistically well written, but contains some errors or error patterns. References are in APA style but contain some minor errors. (1 point)	Grammatically and stylistically well written with few errors or error patterns. Reference list & in-text citations are in APA style (6 <sup>th</sup> edition). (2 points)

**PARTICIPATION RUBRIC EDUC 613**

<i>30 points total</i>	<b>Unsatisfactory</b>	<b>Basic</b>	<b>Proficient</b>	<b>Distinguished</b>
<b>Participation and Professionalism</b>	The student is chronically late for class; absences are not documented by following the procedures outlined in the syllabus; The student is often unprepared for class; Student does not actively participate in discussions; The student's communications with professor and peers is usually unprofessional	The student may be late or miss class more than once; follows outlined procedures in case of absence; Student may be unprepared for class more than once; Student participates at least peripherally in group and class discussions; The student is somewhat engaged in all classes and sometimes or rarely pushes their own and their peers' thinking; Student may occasionally demonstrate unprofessionalism in communications with professor and peers	The student is engaged in all classes; is on time; is prepared; follows outlined procedures in case of absence; the student makes active contributions to the learning group and class; The student may usually, but not always, critically consider content and/or pose questions; demonstrates professionalism in all communications with professor and peers	The student is engaged in all classes- is on time to every class; is prepared for every class; follows outlined procedures in case of absence; The student actively participates in small and/or whole group class meetings by meaningfully contributing to each class session; Student critically considers class content and poses questions to push their own thinking and that of their peers; demonstrates professionalism in all communications with professor and peers
	<i>&lt; 20 pts.</i>	<i>20 pts.</i>	<i>25 pts.</i>	<i>30 pts.</i>

**ASTL Portfolio Reflection Point 2 Rubric**

<b>ASTL Portfolio Reflection Point 2</b>	May not completely or thoroughly respond to the prompt; May not have been completed on time or at all; may not have been submitted to Core Organization site on Blackboard  <i>0 pts.</i>		Completely and thoroughly responds to the reflection prompt; Completed on time; submitted to Core Organization site on Blackboard  <i>5 pts.</i>
--	---	--	--



**George Mason University**  
**EDUC 613: How Students Learn**  
**COOPERATIVE LEARNING THEORY GROUPS:**  
**Peer evaluation rubric**

\*\*\*All group members should complete & submit this rubric for each other group member.  
The course instructor will use the rubric on the following page.

<b>Name of Student Completing Rubric:</b>					
<b>Name of Group Member Being Evaluated:</b>					
	<b>No Evidence</b> 0	<b>Beginning</b> (Limited evidence) 1	<b>Proficient</b> (Clear evidence) 2	<b>Exceptional</b> (Clear, convincing, substantial evidence) 3	<b>SCORE</b>
<b>Research &amp; Information Gathering</b>	Does not collect any useful information	Collects very little useful information	Collects some information related to topic	Collects a great deal of useful information	
<b>Attendance &amp; Punctuality</b>	Does not attend meetings or have work ready as promised	Sometimes attends meetings and has work ready as promised	Usually attends meetings and has work ready when promised	Always attends meetings and has work ready as promised	
<b>Sharing Tasks &amp; Preparing the Project Handout</b>	Relies on others to do the work; does not help prepare the handout	Rarely does his/her share; makes some contributions to prepare the handout	Makes many useful contributions in the creation of the handout	Always does his/her share; plays an integral role in the creation of the handout	
<b>Communicating</b>	Dominates OR does not participate in the conversation & decision making	Often dominates discussion and decision making OR makes few contributions	Makes some useful contributions based on group conversations	Listens carefully, makes useful comments, facilitates decision making	
<b>Cooperation</b>	Consistently hard to get along with	Sometimes makes getting along difficult	Is a good team player; follows others' leads	Helps the team work together for success	
<b>Total (out of 15)</b>					

Comments:

Adapted from Freeman & Brown's Collaboration Rubric

**Cooperative learning theory groups:  
Assessment of group project content**

\*\*\*To be completed by the course instructor

GROUP MEMBERS:								
	No Evidence 0	Beginning 1	Developing 2	Proficient 3	Skilled 4	Exceptional 5	SCORE	
<b>Describe &amp; evaluate the learning theory</b>	Provides <i>no</i> information about the learning theory	Presents <i>very limited</i> information about the learning theory	Presents <i>limited</i> information about the learning theory	Presents & organizes an <i>adequate</i> amount of information about the learning theory, but presentation of the information may be scattered.	<i>Adequately</i> presents & organizes <i>a great deal of</i> information about the learning theory's salient principles and assumptions	<i>Clearly, concisely and thoroughly</i> presents & organizes <i>a great deal of</i> information about the learning theory's salient principles and assumptions		
<b>Connect the learning theory to literature</b>	Provides <i>no</i> references to connect theory to current literature	Provides only <i>1</i> reference to current, relevant literature and <i>does not adequately connect</i> the theory & literature	Provides 2 references to current, relevant literature but <i>does not connect</i> theory & literature OR Provides only <i>1</i> reference and <i>clearly connects</i> the theory & the literature	Provides 2 references to current, relevant literature AND <i>adequately</i> connects the learning theory to the literature	Provides <i>at least 3</i> references to current relevant literature AND <i>adequately</i> connects the learning theory to the literature	Provides <i>at least 3</i> references to current, relevant literature AND <i>thoroughly, clearly and convincingly</i> connects the learning theory to the literature		
<b>Connect the learning theory to practice</b>	Neither the presentation nor the handout explain how the learning theory connects to teacher's role in facilitating learning.	Both the presentation AND the handout provide <i>very limited</i> explanation of the connection between the learning theory & teacher's role in facilitating learning.	Both the presentation AND the handout provide <i>limited</i> explanation of the connection between the learning theory & teacher's role in facilitating learning	Both the presentation AND the handout <i>adequately</i> explain how the learning theory explains/ describes the teacher's role in facilitating learning.	Either the presentation OR the handout <i>thoroughly, clearly and convincingly</i> explain how the learning theory explains/ describes the teacher's role in facilitating learning.	Both the presentation AND the handout <i>thoroughly, clearly and convincingly</i> explain how the learning theory explains/describes the teacher's role in facilitating learning.		
<b>Total of Above: Project Content Rubric (out of 15)</b>								
<b>Peer evaluation rubric mean total (out of 15)</b>								
<b>TOTAL SCORE (out of 30)</b>								

Comments:

## ***GUIDELINES FOR INTEGRATIVE CASE STUDY***

The goal of this case study is to create a rich, meaningful picture of *one learner* by synthesizing all of the information you have collected on that learner. By describing one student as fully and in as balanced a way as possible, you begin to gain access to that student's modes of thinking and learning. You can see the world from the student's point of view; what catches his or her attention; what arouses curiosity; and what sustains interest. The case study will include a descriptive and analytic discussion of the learner, and a reflective evaluation of you as a learner.

**Part One: Descriptive Discussion:** (6/40 points): Here you will include the following:

- *Introduction:* Overview of case study
- *Physical description of the student:* Age, race, exceptionality, languages, general appearance. Why did you select this particular student?
- *Background:* Relevant facts about parents, siblings, extended family, and what they say about the student (if available). Describe socioeconomic, ethnic/linguistic background, including home language. Note preferences and interests.
- *Setting:* A brief description of the classroom and school philosophy, curricular emphasis, and attendance. Discuss relevant characteristics of the instructional context in which learning is occurring.
- *Other significant information reported without interpretation:* May include divorce, death, illness, substance abuse, geographic upheaval, the student's previous school experience (if available)
- *Learning Factors:* Describe the major aspects of at least three learning factors (cognitive/metacognitive, motivational/affective, developmental/social, and individual differences) that characterize your learner.
- *Data Collection Chart:* Create a summary table of the data source (e.g. student, parent, student records, teacher), information sought (e.g. interview, observation, test scores) and how the data helped you address the learning factors that characterize the learner.

<i>Data Source</i>	<i>Information Sought</i>	<i>Learning factors addressed</i>

- *Summary paragraph*

**Part Two: Analytic Discussion** (12/40 points): Here you will analyze your descriptive data in a thoughtful discussion of the following:

- Introductory paragraph
- *Student Learning*: Discuss and analyze the student's ways of learning, learning strengths and additional learning needs. Explicitly and clearly reference your data (appendices) and use your data to support your statements about the student. What are areas for potential growth for this student and why?
- *Theoretical Perspectives*: Develop potential explanations for why this child learns in this way, based on the data you have collected and educational theories. Here you will rely on theoretical perspectives to support your assertions about learning (e.g., Learning Theory Projects)
- *Learning Factors*: Examine how the different learning factors that you identified in Part One (at least 3) influence your student's learning. Consider how the different learning factors affect one another. Use your data to describe and analyze the student's learning in reference to each of the learning factors.
- *Research-based recommendations*: Given your understanding of this learner, write about the specific ways in which you, the teacher, could best support this student's strengths and provide help for areas of difficulty. You should reference your data as well as current, relevant literature as you address the following:
  - Specific areas of need
  - Possible strategies you could implement and why
  - Challenges to implementing these strategies
  - Supporting literature (use APA-style in-text citations)
- Summary paragraph

**Part Three. Reflective Self-Evaluation**. (10/40 points): Here you will rethink your understanding of how students learn.

- Introductory paragraph
- *The learner and learning*: In your reflection, discuss how you now understand the learner better. What particular lessons did this student teach you about you about human beings, about learning, or anything else? Have your ideas and feelings about this student and your relationship with him or her changed during this study? Your comments following your observations will be helpful to you here.
- *The teacher researcher*: What do you now understand about yourself as a teacher better? What personal biases or beliefs did you uncover throughout the case study research? How did these biases impact you throughout the study? What did you do to

reduce the impact of your personal biases and beliefs on your research, especially within your interpretation of data? Did this study change your thinking or reinforce any beliefs you had at the beginning?

- *The classroom and teaching:* What did you learn about other students in the class or about the group as a whole as a result of your study? How has this process changed the way you teach, think about, or relate to students as learners? Did you find anything about the *hidden curricular* aspect of the classroom (i.e., unplanned influences from the physical environment, scheduling, interaction patterns) as a result of your study?
- *Reflecting forward:* What changes could you make in the classroom as a result of what you learned from the case study? How will these changes impact student learning? Consider a specific lesson, unit, activity or assessment that you could add or change as a result of what you have learned about this individual student. Describe what you would do differently (than now) and how it would impact student learning. This would be an excellent opportunity to cite research to support your ideas.
- Summary Paragraph

**Part Four. References.** (2/40 points): Use APA (6<sup>th</sup> edition) guidelines for the reference list and in-text citations

**Part Five. Appendices.** (2/40 points): All of your observational data and evidence that you collect should be included as appendices. Each appendix will reference one piece of data (e.g. one interview, observation or survey response). Appendices should be ordered alphabetically (e.g. Appendix A, Appendix B...), and cited throughout the Case Study using APA (6<sup>th</sup> edition) guidelines for organizing and citing your appendixes.

### **General Recommendations:**

- Use headings within each section to organize your writing.
- When citing literature, aim to discuss *ideas* with citation of sources rather than discussion of sources:
  - *Less of:* “Jensen (2005) discusses ways to improve learning in the classroom,”
  - *More of:* “One way to improve learning in the classroom is to involve the student in setting their own goals (Pappano, 2013).
- Submit your complete drafts to your Critical Friend Group (CFG) and to your instructor *on time*. There are 6/40 points allotted for timely submission of your complete drafts.

***Case Study Timeline***  
(August 28 – December 11)

<u>Weeks</u>	<u>Tasks to be Accomplished</u>
1-5	Choose your case study student. Get to know him/her and begin collecting relevant data.
6-11	Write a (draft) of Part One (your setting and your student). Get critical friend (CF) feedback on Part One. Integrate CF feedback. During this time you should also be collecting data (evidence) related to learning factors for Part Two.
12-14	Collect data (evidence) of learning factors and begin Part Two (analysis of learning factors). Get critical friend (CF) feedback on Part Two. Integrate CF feedback. Submit a draft of Parts One and Two to BB <b>November 20</b> for instructor feedback.
14-16	Continue analysis and data collection; Revise Parts One and Two.
14-15	Write Part Three (reflective discussion); Get CF feedback during week of <b>December 4</b> . Present case study findings on <b>December 4</b> . Complete final version of case study to submit.
16	<b>Submit FINAL version of case study to TaskStream on December 11<sup>th</sup> .</b>

***Integrative Case Study Rubric-- EDUC 613***

	<b><i>Points</i></b>	<b><i>No Evidence</i></b>	<b><i>Beginning</i></b> (Limited evidence)	<b><i>Developing</i></b> (Clear evidence)	<b><i>Accomplished</i></b> (Clear, convincing, & substantial evidence)
<b>Descriptive Discussion</b>  <i>ASTL – Learning Outcome 1</i>  <i>IB Adv Cert Domain 1.1, 2.1, 4.1, 4.2, &amp; 4.3</i>	6	Case study includes a thorough and meaningful description of 3 or fewer of the components listed at right.	Case study includes a thorough and meaningful description of only 4 of the 5 following components: <ul style="list-style-type: none"> <li>• Physical description</li> <li>• Background, including SES, ethnic, linguistic background</li> <li>• Setting</li> <li>• Other significant information</li> <li>• At least three learning factors that characterize your learner</li> <li>• Data collection chart</li> </ul>	Case study includes a thorough and meaningful description of only 5 of the 5 following components: <ul style="list-style-type: none"> <li>• Physical description</li> <li>• Background, including SES, ethnic, linguistic background</li> <li>• Setting</li> <li>• Other significant information</li> <li>• At least three learning factors that characterize your learner</li> <li>• Data collection chart</li> </ul>	Case study includes a thorough and meaningful description of all of the following 6 components: <ul style="list-style-type: none"> <li>• Physical description</li> <li>• Background, including SES, ethnic, linguistic background</li> <li>• Setting</li> <li>• Other significant information</li> <li>• At least three learning factors that characterize your learner</li> <li>• Data collection chart</li> </ul>
<b>Analytic Discussion</b>  <i>ASTL – Learning Outcome 3</i>  <i>IB Adv Cert Domain 2.2, 2.3, 3.3, 3.4, &amp; 4.4</i>	12	No analysis included	Case study includes limited discussion of student learning, theoretical perspectives, learning factors, and recommendations  <b><i>OR</i></b>  Case includes thoughtful, thorough, and meaningful discussion of only 2 of the 4 elements  <b><i>OR</i></b>  Discussion includes only one learning factor	Case study includes cursory discussion of student learning, theoretical perspectives, learning factors, and recommendations  <b><i>OR</i></b>  Case includes thoughtful, thorough, and meaningful discussion of only 3 of the 4 elements  <b><i>OR</i></b>  Discussion includes only two learning factors	Case study includes thoughtful, thorough, and meaningful discussion of: <ul style="list-style-type: none"> <li>• Student learning</li> <li>• Theoretical perspectives</li> <li>• Learning factors</li> <li>• Research-based recommendations</li> </ul>
<b>Reflective Self-Evaluation</b>  <i>ASTL – Learning Outcome 4</i>  <i>IB Adv Cert Domain 2.4, 3.4, &amp; 4.4</i>	10	No reflection included	Very limited discussion of: <ul style="list-style-type: none"> <li>• The learner and learning</li> <li>• The researcher</li> <li>• The classroom and teaching</li> <li>• Reflecting forward</li> </ul> One or more of the four elements may be missing	cursory discussion of: <ul style="list-style-type: none"> <li>• The learner and learning</li> <li>• The researcher</li> <li>• The classroom and teaching</li> <li>• Reflecting forward</li> </ul>	Rich, thorough, meaningful discussion of the following: <ul style="list-style-type: none"> <li>• The learner and learning</li> <li>• The researcher</li> <li>• The classroom and teaching</li> <li>• Reflecting forward</li> </ul>

<b>Appendices</b> <i>ASTL – Learning Outcome 3</i> <i>IB Adv Cert Domain 2.2, 4.2, &amp; 4.4</i>	2	No appendixes included	Appendixes: <ul style="list-style-type: none"> <li>are included, but do not relate to the descriptive, analytic, and reflective discussion</li> <li>do not include observational data and/or evidence that support your inferences and recommendations</li> </ul>	Appendixes: <ul style="list-style-type: none"> <li>are missing observational data or evidence that supports your inferences and recommendations</li> <li>show a weak relation to the descriptive, analytic, and reflective discussion</li> </ul>	Appendixes: <ul style="list-style-type: none"> <li>include observational data and evidence that support your inferences and recommendations</li> <li>relate strongly to the descriptive, analytic, and reflective discussions</li> </ul>
<b>Draft Submitted by Due Date</b>	6	No drafts submitted.	One or two drafts submitted to CFG and instructor by due date.	Three of the four drafts submitted to CFG and instructor by due dates.	All drafts submitted to CFG and to instructor by due dates.
<b>APA Style</b> <i>ASTL – Learning Outcome 4</i>	2	No evidence of APA style references or in-text citations.	Limited use of in-text citations. References contain errors.	Relevant course readings and other current readings are cited & appropriately referenced; References contain minor errors.	The paper integrates course readings and other current, authoritative relevant readings that are properly cited and referenced; References are in APA style.
<b>Overall Style</b> <i>ASTL – Learning Outcome 4</i>	2	Contains many grammatical errors or error patterns.	Case study is disorganized, lacks in grammatical or stylistic form. May contain multiple errors or error patterns	Grammatically and stylistically well written, but contains some errors or error patterns.	Case study is well organized, grammatically and stylistically well written with few errors or error patterns.