

George Mason University
College of Education and Human Development
Educational Psychology

EDEP654.001 – Learning, Motivation, and Self-Regulation
3 Credits, Fall 2017
Wednesdays, 4:30-7:10, Robinson A210 – Fairfax Campus

Faculty

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Prerequisites

EDEP 550, 551

University Catalog Course Description

Focuses on theories and research on self-regulation of academic learning. Presents multidimensional conceptual framework for studying and applying self-regulation in educational contexts.

Course Overview

This course will focus on theories and research regarding the self-regulation of academic, sport, and health related learning. The theories will range across the spectrum from behaviorist to phenomenological with an emphasis on social cognitive theory. A multidimensional conceptual framework will be presented for studying and applying self-regulation in educational contexts. Recent research on self-regulatory processes will be reviewed, analyzed, and discussed.

Course Delivery Method

This course consists of lectures, group discussions, in-class activities, and individual/group assignments.

Learner Outcomes or Objectives

This course is designed to enable students to do the following:

- Develop a broad and in-depth understanding of the fields of learning, motivation, and self-regulation as they are applied to education
- Interpret, organize, and utilize research findings in the area of self-regulation and motivation
- Discuss and evaluate major self-regulation and motivational processes, factors that influence the working of these processes, and the implications of knowledge of these processes for educators
- Discuss and evaluate the impact of instructional and parenting practices on students' self-regulation and motivation
- Discuss the social factors involved in the development of student self-regulation
- Discuss and evaluate theory and research on factors that influence the impact of goals on

- students' self-regulation and self-efficacy
- Develop an understanding of knowledge construction, learning pedagogy, and responsible professional practice in the contexts of education
 - Develop and reinforce their critical thinking, oral, and writing skills

Professional Standards

Not applicable

Required Text

Bembenuddy, H., Cleary, T. J., & Kitsantas, A. (2013). *Applications of self-regulated learning across diverse disciplines: A tribute to Barry Zimmerman*. Charlotte, NC: Information Age Publishing.

***Additional required readings are available on Blackboard** (please see last page of the syllabus for a detailed list)

Suggested Supplementary Texts

Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: W. H. Freeman.

Boekaerts, M., Pintrich, P. R., & Zeidner, M. (2000). *The handbook of self-regulation*. Academic Press.

Ee, J., Chang, A. & Tan, O.S. (2004). *Thinking about Thinking*. Europe (UK). Mc Craw-Hill.

Elliot, A.J., & Dweck, C.S. (2005). *The handbook of competence and motivation*. Guilford Press.

Ford, M.E. (1992). *Motivating humans: Goals, emotions, and personal agency beliefs*. Sage Publications.

Kitsantas, A., & Dabbagh, N. (2010). *Learning to Learn with Integrative Learning Technologies (ILT): A Practical guide for academic success*. Information Age Publishing.

Schunk, D.H., & Zimmerman, B.J. (2008). *Motivation and self-regulated learning: Theory, research, and applications*: Laurence Erlbaum Associates, New York, NY.

Zimmerman, B. J., Bonner, S., & Kovach, R. (1996). *Developing self-regulated learners: Beyond achievement to self-efficacy*. American Psychological Association.

Course Performance Evaluation

Students are expected to submit all assignments on time in the manner outlined by the instructor (e.g., Blackboard or hard copy).

It is expected that each of you will:

1. Read all assigned materials for the course
2. Critique, present/discuss an article in class *
3. Participate in classroom activities that reflect critical reading of materials
4. Write a research proposal and present it in a poster session *
5. Complete a self-change project*
6. Attend each class session

**Late assignments will not be accepted by the instructor unless a serious emergency arises and the instructor is notified promptly. If an emergency occurs please notify the instructor in advance.*

- **Assignments and/or Examinations**

1. Research proposal and presentation (60%): Students will write a research proposal that focuses on the area of self-regulated learning and motivation in a specific content area of interest. The research proposal will be submitted as a final term paper, and it will be presented in a poster session at the end of the semester following APA presentation guidelines. Research papers must adhere to the APA Publication Manual Guidelines.

2. Self-change project (20%): Students must select some aspect of their behavior that they wish to improve, and then design and implement a self-change project. Using a single subject design, students will incorporate an intervention based on a self-regulation theoretical approach to change a particular aspect of their behavior (e.g., academic learning, health, motor learning). Students will present their project orally in class.

3. Article critique on self-regulated learning and motivation (10%): Students will be asked to identify and write a critique of one empirical research article. The critique should include the following parts: purpose, methods (if applicable), results (if applicable) and critical comments as well as your reflections about the article. Informally, students will discuss their article in class.

- **Class participation and attendance (10%):** Because of the importance of lecture and discussion to your total learning experience, you are encouraged to attend and participate in class regularly. A portion of this includes bringing and submitting 3-4 discussion questions for each class. Attendance, punctuality, preparation, and active contribution to small and large group efforts are essential. These elements of your behavior will reflect the professional attitude of the course and will account for 10% of your course grade. With reference to the grading scale described later in this syllabus, you will note that this percentage is equivalent to a full letter grade. Students who must miss a class must notify the instructor (preferably in advance) and are responsible for completing all assignments and readings for the next class.

Rubric for Participation and Attendance:

Distinguished 9-10 points	The student attends all classes, is on time, is prepared, and follows outlined procedures in case of absence. The student actively participates and supports the members of the learning group and the members of the class, and submits 3-4 well thought out discussion questions related to the readings for the session.
Proficient 8 points	The student attends all classes, is on time, is prepared, and follows outlined procedures in case of absence. The student makes active contributions to the learning group and class, and submits 3-4 discussion questions
Basic 7 points	The student is on time, prepared for class, and participates in group and class discussions. The student attends all classes and if an absence occurs, the procedure outlined in this section of the syllabus is followed. Less than 3 discussion questions are submitted.
Unsatisfactory 6 points or less	The student is late for class. Absences are not documented by following the procedures outlined in this section of the syllabus. The student is not prepared for class and does not actively participate in discussions. Discussion questions are not submitted.

- **Grading**

Assignment	Percentage
Evaluation of research article	10%
Self-change project	20%
Research proposal	50%
Presentation of research proposal (poster session)	10%
Class participation and attendance	10%

GRADING SCALE

Your final grade for this class will be based on the following:

A+ = 98 - 100%	A = 93 - 97.99%	A- = 90 - 92.99%
B+ = 88 - 89.99%	B = 83 - 87.99%	B- = 80 - 82.99%
C = 70 - 79.99%		

Professional Dispositions

See <https://cehd.gmu.edu/students/polices-procedures/>

Class Schedule

Week	Date	Topic	Readings	Assignments Due
1	Aug. 30	Course introduction		
2	Sep. 6	Introduction to self-regulation Research methods overview	<ul style="list-style-type: none"> • Schunk & Usher (2013)*Ch1 • Zimmerman (1989) • Ford (1992, ch. 6) 	
3	Sep. 13	Motivational theories and self-regulation	<ul style="list-style-type: none"> • Zimmerman & Schunk (2008) • Wolters (2011) • Lee, Lee, & Bong (2014) Suggested reading: <ul style="list-style-type: none"> • Bandura (1997) 	Topic of interest summary statement Five empirical studies (APA style)
4	Sep. 20	Methods and measures for studying self-regulation	<ul style="list-style-type: none"> • Zimmerman (2008) • Cleary et al. (2012) • Meyer & Turner (2002) OR Patrick & Middleton (2002) 	Begin data collection for self-change project Article critique (TBD)
5	Sep. 27	Self-regulatory processes and dimensions	<ul style="list-style-type: none"> • Bembentuty (2013)*Ch6 • Hadwin & Oshige (2011) • Hofmann, Schmeichel, & Baddeley (2012) 	Article critique (TBD)
6	Oct. 4	Development of self-regulation	<ul style="list-style-type: none"> • Wigfield, Klauda, & Cambria (2011) • Posner, Rothbart, & Tang (2013) 	Draft of introduction (with research questions/hypotheses) section of proposal Article critique (TBD)
7	Oct. 11	Promoting and supporting self-regulation and motivation	<ul style="list-style-type: none"> • Karabenick & Berger (2013)*Ch8 • Plant et al. (2005) • Kitsantas et al. (2013)*Ch11 	Article critique (TBD)

8	Oct. 18	Self-regulation and academic development	<ul style="list-style-type: none"> • Montroy, Bowles, Skibbe, & Foster (2014) • Herndon & Bembenutty (2017) • Harris, Graham, & Santangelo (2013)*Ch3 	Draft of methods section of proposal Article critique (TBD)
9	Oct. 25	Self-regulation and academic development	<ul style="list-style-type: none"> • Cleary & Kitsantas • Pajares & Miller (1994) • Boekaerts & Minnaert (1999) 	Article critique (TBD)
10	Nov. 1	Self-regulation and expert and athletic performance	<ul style="list-style-type: none"> • Cleary & Zimmerman (2001) • McPherson, Nielsen, & Renwick (2013)*Ch12 Suggested reading: <ul style="list-style-type: none"> • Ericsson & Charness (1994) 	Article critique (TBD)
11	Nov. 8	Self-regulation and health behavior	<ul style="list-style-type: none"> • Bandura (2005) • Clark & Zimmerman (1990) • Kitsantas (2000) 	Self-change project due Self-change project presentations
12	Nov. 15	Self-regulation and exceptional students	<ul style="list-style-type: none"> • Wery & Nietfeld (2010) • Montague (2008) • Gottfried & Gottfried (2004) OR McCoach & Siegle (2003) 	Draft of research proposal due Article critique (TBD)
13	Nov. 22	No Class— Thanksgiving Break		
14	Nov. 29	Doing self-regulation research	<ul style="list-style-type: none"> • Kitsantas & Miller (2015) (focus on methods sections) • Boekaerts, Maes, & Karoly (2005) 	Article critique (TBD)
15	Dec. 6	Conclusions and proposal poster presentations		Poster Session
	Dec. 11			Research Proposal Due

*Note: Readings designated with * are from the required course text. All other readings can be found on Blackboard. See below for detailed list of Blackboard readings.*

Note: Faculty reserves the right to alter the schedule as necessary, with notification to students.

Reading List

Week 2

Ford, M. E. (1992) *Motivating humans: Goals, emotions, and personal agency beliefs*. Newbury Park, CA: Sage Publications. Chapter 6

Shunk, D. H., & Usher, E. L. (2013). Barry J. Zimmerman's theory of self-regulated learning. In H. Bembenutty, T. J. Cleary, & A. Kitsantas (Eds.), *Applications of self-regulated learning across diverse disciplines* (pp. 1-28). Charlotte, NC: Information Age Publishing.

Zimmerman, B. J. (1989). A social cognitive view of self-regulated academic learning. *Journal of Educational Psychology*, 81, 329-339.

Week 3

- Bandura, A. (1997). Sources of self-efficacy. In A. Bandura (Ed.), *Self-efficacy: The exercise of control*. New York: W.H. Freeman. **(Suggested)**
- Lee, W., Lee, M.-J., & Bong, M. (2014). Testing interest and self-efficacy as predictors of academic self-regulation and achievement. *Contemporary Educational Psychology*, 39, 86-99.
- Wolters, C. A. (2011). Regulation of motivation: Contextual and social aspects. *Teachers College Record*, 113, 265-283.
- Zimmerman, B. J., & Schunk, D. H. (2008). Motivation: An essential dimension of self-regulated learning. In D. H. Schunk & B. J. Zimmerman (Eds.), *Motivation and self-regulated learning: Theory, research, and applications* (pp. 1-30). New York: Taylor & Francis.

Week 4

- Cleary, T. J., Callan, G. L., & Zimmerman, B. J. (2012). Assessing self-regulation as a cyclical, context-specific phenomenon: Overview and analysis of SRL microanalytic protocols. *Education Research International*, 2012, 1-19.
- Meyer, D. K., & Turner, J. C. (2002). Using instructional discourse analysis to study the scaffolding of student self-regulation. *Educational Psychologist*, 37, 17-25. **(read this or Patrick & Middleton)**
- Patrick, H., & Middleton, M. J. (2002). Turning the kaleidoscope: What we see when self-regulated learning is viewed with a qualitative lens. **(read this or Meyer & Turner)**
- Zimmerman, B. J. (2008). Investigating self-regulation and motivation: Historical background, methodological developments, and future prospects. *American Educational Research Journal*, 45, 166-183.

Week 5

- Bembenutty, H. (2013). The triumph of homework completion through a learning academy of self regulation. In H. Bembenutty, T. J. Cleary, & A. Kitsantas (Eds.), *Applications of self-regulated learning across diverse disciplines* (pp. 153-196). Charlotte, NC: Information Age Publishing.
- Hadwin, A., & Oshige, M. (2011). Self-regulation, coregulation, and socially shared regulation: Exploring perspectives of social in self-regulated learning theory. *Teachers College Record*, 113, 240-264.
- Hofmann, W., Schmeichel, B. J., Baddeley, A. D. (2012). Executive functions and self-regulation. *Trends in Cognitive Science*, 16, 174-180.

Week 6

- Posner, M. J., Rothbart, M. K., & Tang, Y. (2013). Developing self regulation in early childhood. *Trends in Neuroscience and Education*, 2, 107-110.
- Wigfield, A., Klauda, S. L., & Cambria, J. (2011). Influences on the development of academic self-regulatory processes. In B. J. Zimmerman & D. J. Schunk (Eds.), *Handbook of self-regulation of learning and performance* (pp. 33-48). New York, NY: Taylor and Francis.

Week 7

- Karabenick, S. A., & Berger, J.-L. (2013). Help seeking as a self-regulated learning strategy. In H. Bembenutty, T. J. Cleary, & A. Kitsantas (Eds.), *Applications of self-regulated learning across diverse disciplines* (pp. 237-262). Charlotte, NC: Information Age Publishing.
- Kitsantas, A., Dabbaugh, N., Huie, F. C., & Dass, S. (2013). Learning technologies and self-regulated learning. In H. Bembenutty, T. J. Cleary, & A. Kitsantas (Eds.), *Applications of self-regulated learning across diverse disciplines* (pp. 325-354). Charlotte, NC: Information

Age Publishing.

Plant, E. A., Ericsson, K.A., Hill, L., & Asberg, K. (2005). Why study time does not predict grade point average across college students: Implications of deliberate practice for academic performance. *Contemporary Educational Psychology, 30*, 96-116.

Week 8

Harris, K. R., Graham, S., & Santangelo, T. (2013). Self-regulated strategies development in writing: Development, implementation, and scaling up. In H. Bembenuy, T. J. Cleary, & A. Kitsantas (Eds.), *Applications of self-regulated learning across diverse disciplines* (pp. 59-78). Charlotte, NC: Information Age Publishing.

Montroy, J. J., Bowles, R. P., Skibbe, L. E., & Foster, T. D. (2014). Social skills and problem behaviors as mediators of the relationship between behavioral self-regulation and academic achievement. *Early Child Research Quarterly, 29*, 298-309.

Herndon, J. S., & Bembenuy, H. (2017). Self-regulation of learning and performance among students enrolled in a disciplinary alternative school. *Personality and Individual Differences, 104*, 266-271.

Week 9

Boekaerts, M., & Minnaert, A. (1999). Self-regulation with respect to informal learning. *International Journal of Educational Research, 31*, 533-544.

Cleary, T. J., & Kitsantas, A. (2017). Motivation and self-regulated learning influences on middle-school mathematics achievement. *School Psychology Review, 46*, 88-107.

Pajares, F., & Miller, M. D. (1994). Role of self-efficacy and self-concept beliefs in mathematical problem solving: A path analysis. *Journal of Educational Psychology, 86*, 193-203.

Week 10

Cleary, T. J., & Zimmerman, B. J. (2001). Self-regulation differences during athletic practice by experts, non-experts, and novices. *Journal of Applied Sport Psychology, 13*, 185-206.

Ericsson, K. A., & Charness, N. (1994). Expert performance: Its structure and acquisition. *American Psychologist, 49*, 725-247. **(Suggested)**

McPherson, Nielsen, & Renwick (2013). Self-regulation interventions and development of music expertise. In H. Bembenuy, T. J. Cleary, & A. Kitsantas (Eds.), *Applications of self-regulated learning across diverse disciplines* (pp. 355). Charlotte, NC: Information Age Publishing.

Week 11

Bandura, A. (2005). The primacy of self-regulation in health promotion. *Applied Psychology: An International Review, 54*, 245-254.

Clark, N. M., & Zimmerman, B. J. (1990). A social cognitive view of self-regulated learning about health. *Health Education Research, 5*, 371-379.

Kitsantas, A. (2000). The role of self-regulation strategies and self-efficacy perceptions in successful weight loss maintenance. *Psychology & Health: An International Journal, 15*, 811-820.

Week 12

Gottfried, A. E., & Gottfried, A. W. (2004). Toward the development of a conceptualization of gifted motivation. *Gifted Child Quarterly, 48*, 121-132. **(read this or McCoach & Siegle)**

McCoach, D. B., & Siegle, D. (2003). Factors that differentiate underachieving gifted students from high-achieving gifted students. *Gifted Child Quarterly, 47*, 144-154. **(read this or Gottfried & Gottfried)**

- Montague, M. (2008). Self-regulation strategies to improve mathematical problem solving for students with learning disabilities. *Learning Disability Quarterly*, 31, 37-44.
- Wery, J. J., Nietfeld, J. L., (2010). Supporting self-regulated with exceptional children. *Teaching Exceptional Children*, 42, 70-78.

Week 13

- Boekaerts, M., & Maes, S. (2005). Self-regulation across domains of applied psychology: Is there an emerging consensus? *Applied Psychology: An International Review*, 54, 149-154.
- Kitsantas, A., & Miller, A. D. (2015). *Characteristics and context of Primary Years Program (PYP) students' self-efficacy and self-regulatory development*. International Baccalaureate. Retrieved online at www.ibo.org

Core Values Commitment

The College of Education and 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/>.

GMU Policies and Resources for Students

Policies

- Students must adhere to the guidelines of the Mason Honor Code (see <http://oai.gmu.edu/the-mason-honor-code/>).
- Students must follow the university policy for Responsible Use of Computing (see <http://universitypolicy.gmu.edu/policies/responsible-use-of-computing/>).
- Students are responsible for the content of university communications sent to their Mason 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.
- Students with disabilities who seek accommodations in a course must be registered with George Mason University Disability Services. Approved accommodations will begin at the time the written letter from Disability Services is received by the instructor (see <http://ods.gmu.edu/>).
- Students must follow the university policy stating that all sound emitting devices shall be silenced during class unless otherwise authorized by the instructor.

Campus Resources

- Support for submission of assignments to Tk20 should be directed to tk20help@gmu.edu or <https://cehd.gmu.edu/aero/tk20>. Questions or concerns regarding use of Blackboard should be directed to <http://coursessupport.gmu.edu/>.
- For information on student support resources on campus, see <https://ctfe.gmu.edu/teaching/student-support-resources-on-campus>

For additional information on the College of Education and Human Development, please visit our website <https://cehd.gmu.edu/students/> .

Article Critique Rubric

Criteria	Outstanding (4)	Competent (3)	Minimal (2)	Unsatisfactory (1/0)
Purpose (about ½ page)	Clearly explains article purpose and relates it to literature or policy issues.	Explains article purpose clearly but does not relate it to anything.	Unclear explanation of article purpose and does not relate it to anything.	There is minimal or no purpose section.
Methods (about 1 page)	Clearly explains (or points out absence of) basic elements: variables/constructs, measures, participants, procedures, and analytic techniques.	Clearly explains (or points out absence of) at least two basic elements: variables/constructs, measures, participants, procedures, and analytic techniques.	Only explains (or points out absence of) one basic element: variables/constructs, measures, participants, procedure, and analytic techniques; or explanation is unclear	There is minimal or no methods section.
Results (about ½ page)	Outlines major results, including evidence (statistics for quantitative article, quotes or other support for qualitative article).	Partial outline of results, including evidence (statistics for quantitative article, quotes or other support for qualitative article).	Outlines major results, but does not discuss evidence.	There is minimal or no results section.
Reflections (about ½ page)	Reflections are thoughtfully and fully developed with clear and meaningful connections to analysis.	Reflections are developed and have clear connections to analysis.	Reflective component is present but is under-developed or lacks connections to analysis.	There is minimal or no reflection section.
Critique	Thoughtful and insightful critique of at least two aspects of the article.	Thoughtful and insightful critique of at least one aspect of the article.	Critique of article is simplistic or does not show thoughtful engagement.	There is no critique of any aspect of the article.
Writing and Mechanics	Excellent writing APA style has very minor or no errors	Writing is clear and APA style has minor or no errors.	Writing has stylistic, grammatical, or organizational issues OR there are significant errors in APA usage.	Writing has significant stylistic, grammatical or organizational issues AND there are significant errors in APA usage.
Promptness	Critique and class discussion are ready on day they are due.	XXX	XXX	Critique and class discussion are not ready on day they are due.

Self-Change Project Rubric

Criteria	Outstanding (3)	Competent (2)	Unsatisfactory (1/0)
Description of behavior	Clearly describes behavior, its history, attempts to change it, and controlling factors.	Describes only two of the four: behavior, history, attempts to change, controlling factors; or is unclear.	Describes less than two of the four: behavior, history, attempts to change, controlling factors.
Examples of similar studies	Briefly (2-4 sentences each) discusses at least two studies and explains how they are related.	Briefly discusses at least one study and how it is related.	Does not discuss any related studies.
Methods of measuring behavior	Clearly describes at least one specific the behavior change was measured over time.	Describes at least one specific way the behavior change was measured, but unclearly.	Does not describe at least one specific way the behavior change was measured.
Methods of intervention	Clearly describes the original plan for changing the behavior and relates that plan to class constructs.	Describes the original plan for changing the behavior but does not relate it to class constructs; or the description is unclear.	Does not describe the original plan for changing the behavior.
Description of findings	Describes what happened, using the methods of measurement and referring to the original intervention plan.	Describes what happened, but does not use the methods of measurement or refer to the original intervention plan.	Does not describe what happened.
Recommendations	Offers at least 1 specific recommendation for others attempting this same behavior change.	Offers only vague advice rather than specific recommendations.	Does not offer recommendations for others.

Research Proposal Rubric

Criteria	Outstanding (4)	Competent (3)	Minimal (2)	Unsatisfactory (1)
<i>Content</i>				
Introduction <ul style="list-style-type: none"> • Describe the purpose, theoretical basis, and significance of the study • Review relevant studies • Identify gaps in the literature • Establish how the proposed study addresses gaps 	Excellent introduction that addressed all 4 criteria. The theoretical basis and significance of the study has been established and grounded in previous research.	Adequate introduction that addressed all 4 criteria with some weaknesses. The theoretical basis and significance of the study has been established and grounded in previous research.	Significant weaknesses in all criteria or 1 or 2 criteria were not addressed.	3 to 4 criteria were not addressed. The introduction is unacceptable.
Research Questions and/or Hypotheses <ul style="list-style-type: none"> • State clearly • Establish significance • Be able to test/research • Ground in existing theory and research 	Excellent research question(s)/hypothesis(es) that were clearly stated, significant, testable/researchable, and grounded in existing theory and research.	Adequate research question(s)/hypothesis(es) that were clearly stated, significant, testable/researchable, and grounded in existing theory and research with some weaknesses.	Significant weaknesses in research question(s)/hypothesis(es) (i.e., they were not clearly stated, significant, testable/researchable, and/or grounded in existing theory and research).	The research question(s)/hypothesis(es) were not provided.
Methods <ul style="list-style-type: none"> • Describe <ul style="list-style-type: none"> • Participants • Measures & operational definitions of variables • Procedures • Components appropriate for selected methodological approach (quantitative / 	Excellent description of the methodology including participants, measures/operational definitions of variables, and procedures. Additional components relevant to selected methodological approach (quantitative/qualitative) were fully	Adequate description of the methodology including participants, measures/operational definitions of variables, procedures, and additional components relevant to selected methodological approach (quantitative/qualitative) but with some	Significant weaknesses in description of the methodology including participants, measures/operational definitions of variables, procedures, and additional	A coherent and appropriate method section was not provided.

qualitative)	addressed. These components may include design, intervention, reliability and validity of data collection methods.	weaknesses.	components relevant to selected methodological approach (quantitative/ qualitative).	
Data Analysis and Expected Results <ul style="list-style-type: none"> • Describe data analysis plan • Discuss potential results 	Excellent description of appropriate statistical techniques (descriptive, inferential statistics for quantitative research) and/or coding procedures (qualitative research) and potential results.	Adequate description of appropriate statistical techniques (descriptive, inferential statistics for quantitative research) and/or coding procedures (qualitative research) and potential results.	Significant weaknesses in the description of statistical techniques (descriptive, inferential statistics for quantitative research) and/or coding procedures (qualitative research) and potential results.	Appropriate data analysis techniques and or description of potential results were not provided.
Limitations and Educational Implications <ul style="list-style-type: none"> • Identify limitations • Discuss implications of proposed work 	Excellent discussion of appropriate limitations and educational implications of proposed research.	Adequate discussion of appropriate limitations and educational implications. Some critical limitations or implications were not addressed.	Significant weaknesses in the discussion of limitations and educational implications. Few were identified and/or were inappropriate.	Discussion of limitations and educational implications was not provided.
<i>Additional Elements</i>				
Use of Peer-Reviewed Research	Contains references to 10 or more relevant empirical studies	Contains references to at least 10, the majority of which are relevant	Contains references to 10 studies but most are irrelevant	Does not include at least 10 peer reviewed studies.
Discussion of the Literature (in	Clearly spoken, topic-specific jargon are defined,	Most topic-specific jargon are defined OR inclusion	Overuse of jargon AND quotes that are	Fragments and unclear discussion;

Introduction)	does not rely on quotes from papers; includes quotes strategically where appropriate	of some lengthy or inappropriate quotes	lengthy or inappropriate	over-reliance on quotes interrupts the flow of the content and leaves little room for student's synthesis
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