



ST. JEROME'S UNIVERSITY

Educational Psychology: PSYCH 212

St. Jerome's University, Department of Psychology

(This schedule is tentative and subject to minor changes)

Course Instructor: Dr. Laurie A. Manwell

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Term/Year: Winter 2019

Class Time & Room: Mon. 6:30 – 9:20 pm; Room SJ2 1004

Office Hours: Mon. 5:30 – 6:20 pm & 9:30 – 10:00 pm; Room SH2113

Course Description:

A consideration of the main variables affecting learning in the classroom with special focus upon the conditions essential to efficient learning. *(3 h lecture; 0.5 credit)*

Prerequisites: PSYCH 101/101R or 121R

Course Objectives:

We will address these topics using both the Socratic and Scientific methods with the following objectives:

1. To develop a multidisciplinary perspective of educational psychology, the branch of psychology that specializes in understanding theories and methods of teaching, learning, and assessment in educational settings, and aspects of human development related to educational psychology in theory and practice.
2. To develop and apply psychological principles in educational settings, with a specific focus upon the conditions essential to efficient learning, psychological testing, and measuring learning outcomes.
3. To develop and apply the principles of critical thinking to scientific claims, including the ability to question and challenge the scientific method in theory and practice.
4. To develop an appreciation of how the neuroplasticity of the brain integrates the biological, psychological, and social domains of human development relevant to learning, from basic molecular processes within cells to the neural pathways that regulate the body and all social interactions, and the implications for individuals and society, including the application of psychological principles in educational settings.
5. To develop transferable skills essential for academic and workplace success, including critical analysis, knowledge synthesis/application, collaboration, and oral/written communication skills.

Learning Outcomes:

Upon successful completion of the course the learner will be able to:

1. Describe and apply various philosophical, theoretical, and scientific explanations of human development through the school years and their implications for life-long learning.
2. Determine the distinguishing and overlapping characteristics of various theories related to human developmental and learning, including the following areas/theories:
 - i. **Neurobiology:** genetic, epigenetic, evolutionary, neuroplasticity, nativism
 - ii. **Behaviourism:** classical and operant conditioning, social learning
 - iii. **Social Cognitive Theory:** self-regulation, modeling, vicarious learning, self-efficacy, motivation
 - iv. **Cognitive Psychology:** information-processing, individual constructivism
 - v. **Psychodynamic:** personality, identity, ego development, unconscious conflicts
 - vi. **Contextual Theories:** sociocultural, social constructivism, situated learning, distributed cognition
 - vii. **Ecological Systems:** community institutions, laws, and resources
3. Identify and discuss the ways in which neurobiology and the environment interact to influence human development and produce individual differences in cognitive, social, emotional, intellectual, and behavioural functioning in an educational setting.
4. Identify and discuss the ways in which neurons interact to influence biopsychosocial development, from the fundamentals of neurogenesis and synaptogenesis in early brain development to the mechanisms of neuroplasticity that act to control, integrate, and alter physiological processes in the body that are relevant to learning.
5. Describe the ways in which nativists (who claim that abilities are inborn) and empiricists (who claim that abilities are learned) differ in what arguments they offer in support of their theories of perceptual development, language acquisition, intelligence, and reasoning skills.
6. Identify important developmental milestones, attachment patterns, personality traits, and associated behaviours during development and how they affect learning, memory, and performance.
7. Describe factors involved in the development of prosocial versus antisocial traits and behaviours and the roles of moral reasoning and theory of mind development in social interaction in educational settings.
8. Describe key factors involved in designing instructional strategies, specifically how planning, instruction, the classroom environment, classroom assessment practices, and student characteristics and behaviours are all interdependent and mutually influence one another.
9. Identify and apply the key factors on developing appropriate, accurate, and reliable performance assessments for informally and formally assessing students' progress and achievements.
10. Reflect on one's own self-understanding and changes in self-concept and personal-construct in the past, present and future.

Required Resources:

- Ormrod, J.E., & Jones, B. (2018). *Essentials of Educational Psychology: Big Ideas to Guide Effective Teaching, 5th Edition*. New York, NY: Pearson Education Inc.
- Costandi, M. (2016). *Neuroplasticity. MIT Press Essential Knowledge Series*. USA: MIT Press.

Additional readings may be assigned throughout the course. The readings will be posted on Learn. Students may also be required to retrieve information from various websites and the library. There is a course website at <https://learn.uwaterloo.ca> which is password protected and is mandatory for meeting course objectives, including assignments and lecture preparation. Students are expected to familiarize themselves with the website and to contact the instructor, GTA and classmates between classes, especially in preparation for group project presentations.

Formal Assessment:

The purpose of this course is to engage students in an overview of key concepts, empirical approaches and theoretical perspectives in understanding principles of educational psychology and critically examine their significance for individuals and society. Engagement and critical analysis are core components of this course; thus, there will be a significant amount of reading, writing, and discussion required to analyze these ideas. This course requires autonomy, initiative, and innovation, which need to be reflected in the research projects to receive at least a B level grade. To receive an A+, students should demonstrate a strong understanding of the course content as it relates to society, particularly in the team research project. In general, grades advance or drop depending on both content and style; for an A-/A/A+, the project must demonstrate exceptional thoughtfulness, reasoning, and presentation. “A” projects involve difficult and time-consuming work – and a tremendous investment in your education and development! A solid “B” is a mark of achievement which reflects critical reasoning and/or thorough research and solid writing skills. In cases of medical or otherwise compassionate circumstances, students should contact the instructor and/or TA to determine what arrangements can be made to ensure that course requirements are met and students successfully pass the course. **Course requirements are as follows:**

1) Midterm Tests: 20% each

- Mon. Jan. 28 in class: 6:30 pm – 7:30 pm
- Mon. Feb. 25 in class: 6:30 pm – 7:30 pm
- Mon. Mar. 25 in class: 6:30 pm – 7:40 pm

2) Team Research Project and Presentation: 30%

- Team 25%; Individual 5%
 - o Team Logbook (10%) Weeks 2-8 inclusive (Dropbox & Hard-Copy In-Class)
 - o Presentation (15%) Weeks 9-12 inclusive (Dropbox & In-Class)
 - o Peer Evaluations (5%) Hard-copy only on presentation day

3) Participation Assignment(s): 10%

- Assigned randomly in-class for a total of 10% (not 10 ‘marks’) of the final grade

Class Attendance, Participation and Professionalism:

Each week students are expected to participate fully and in a professional manner; for example, reviewing assigned readings, offering and challenging ideas, asking questions and demonstrating interest and respect towards peers and their ideas. Material covered in this course is conceptually difficult, highly technical, and often quite different from everyday language for talking about the biopsychosocial aspects of development and educational psychology. In addition, a significant portion of your final mark will be based upon collaborative work in and outside of class. Consequently, regular class attendance is expected. Computers and other electronic devices are permitted in class only for course-related work; any other use will be regarded as unprofessional and indicative of non-participation and graded accordingly. Students are to be respectful of and engaged fully in the university learning environment as a place to demonstrate higher order thinking skills involving analysis, evaluation, and synthesis of knowledge. If you miss a class, you are responsible for obtaining missed notes, announcements, or any other information relevant to the course, the assignments, or the exams from a classmate before the next class. It is not an instructor's responsibility to provide information presented in class because a student has missed one or, as is more often the case, several classes.

Participation Assignments: 10%

Students will complete in-class assessments that will be assigned throughout the term and will account for a total of 10% (not 10 'marks') of the final grade. Please note: Travel plans are not a valid reason to miss an assignment and will result in a mark of "zero".

Late Policy and Missed Assignments

The penalty for late assignments handed in on the same day but AFTER the designated time period (i.e. during class) is 2%. After that, a 5% penalty is applied each day (including Saturday and Sunday) up to a maximum of 5 days after which a mark of zero will be applied. A Verification of Illness Form (VIF) is necessary for all academic accommodations. A missed assignment without valid medical documentation will result in a mark of "zero" – without exception. VIFs must be submitted within 24 hours after the assignment. All VIFs are kept in the student's record. The VIF form is on the university website here:

<https://uwaterloo.ca/campus-wellness/health-services/student-medical-clinic>

<https://uwaterloo.ca/campus-wellness/sites/ca.campus-wellness/files/uploads/files/VIF-online.pdf>

Midterm Tests: 20% each

The midterm tests will be in class (**Mon. Jan. 28, Mon. Feb. 25, Mon. Mar. 25**) from **6:30 pm – 7:30 pm**. The content will cover course readings and lecture material. More details will be covered in class. In the event of a missed midterm exam, a mark of zero will be recorded for that exam. In the event that a student produces official documentation of a legitimate medical problem (i.e., doctor's note) occurring on the day of the midterm exam, marks for that exam will be added to the weighting of the subsequent exam (i.e., now worth 40%) or subsequent assignment(s) at the discretion of the instructor. Please refer to the University of Waterloo's Policy on Accommodations for Assignments, Tests, and Final Exams here: <http://ugradcalendar.uwaterloo.ca/page/Acad-Regs-Accommodations>.

Team Research Project Assignment: 30% (25% Team; 5% Individual)

This project is designed to engage students in hands-on-learning proposing, applying, and evaluating a specific hypothesis about educational psychology. In teams of five, students will conduct a project to evaluate a hypothesis about human development and educational psychology present their findings in a class presentation. Each team will research a topic in educational psychology do the following: 1) identify and define a problem of interest, 2) state a research objective/question/hypothesis to be addressed, 3) select

an appropriate and ethical research method, 4) collect and analyze the data, 5) discuss various interpretations of the research project findings, and 6) propose an appropriate public policy recommendation or initiative based on your research. Students will have ample time in class to work with their peers and the instructor and teaching assistants on the project. More details will be provided in class.

Step 1: Students will form teams of 3-5 people, discuss potential research topics, conduct a literature search, and then identify and define a problem of interest in educational psychology research for the project.

Proposal: Teams will submit a 1-2 page project proposal with all student names, IDs, and signatures, in class on Mon. Jan. 21 and will be returned by Mon. Jan. 28 1 in class as *Approved, Conditionally Approved, or Not Approved* by the instructor; the date that the group is assigned to present on will be included. All projects must be approved by the instructor in writing to receive a final grade; failure to submit a proposal on time will result in an immediate deduction of 10% of the final grade.

Step 2: Teams will state a research objective in 50–100 words, state a research question in 10-30 words, and state any appropriate research hypotheses.

Step 3: Teams will select an appropriate and ethical research method based on their literature search, research approach, and ethical guidelines which *must* conform to university policies governing research not requiring Research Ethics Board (REB) approval (see **Appendix X**):

<https://uwaterloo.ca/research/office-research-ethics/research-human-participants/pre-submission-and-training/human-research-guidelines-and-policies-alphabetical-list/does-my-data-collection-activity-require-ethics-review>

Step 4: Teams will collect and analyze the data. More information will be provided in class.

Step 5: Teams will discuss various interpretations of the findings of the research project.

Step 6: Teams will propose an appropriate public policy recommendation or initiative based on their research project.

Logbook (10%): During Weeks 2 to 8, teams will record their progress in an electronic logbook that will be reviewed by their assigned Teaching Assistant at the end of each class. The logbook will be assessed for accurate and updated notes on all team activities, member attendance and contributions, progress in meeting Steps 1 to 6 above, and any questions posed to the Teaching Assistant to be answered before the next class. On Week 8, the Teaching Assistant will evaluate the logbook and assign a team grade. REFER TO APPENDIX A FOR MARKING RUBRIC.

Presentation (15%): The maximum time of presentation is 10 minutes – no exceptions – with up to 5 minutes for Q & A with the instructor and class. The presentation must provide a brief summary of the research objective, methodology for data collection and analysis, interpretation, merits, and limitations of the research findings, and its significance to society. Students must upload any presentation aids (e.g., powerpoint, videos, etc...) to Dropbox a minimum of 48 h prior to presentation and in a format that is compatible with Windows 10. Failure to do so will result in a 10% penalty and risk of 0% for the presentation if there are problems during the presentation session. There will be no re-scheduling of presentations for any reason.

REFER TO APPENDIX B FOR MARKING RUBRIC

SCHEDULE OF TOPICS

Lecture	Topic	Readings	Events
WK1: Jan. 7	- Course Introduction / Syllabus Review - Introduction to Educational Psychology: Principles & Theories of Learning and Human Development - A Revolution in Modern Neuroscience	Ormrod: Ch. 1 Costandi: Pre/Ch.1	- Course Overview - Find a team and get to know your team members!
WK2: Jan. 14	- Learning, Cognition, and Memory: Neural Mechanisms of Human Memory Operations, Storage, and Retrieval - Sensory Substitution	Ormrod: Ch. 2 Costandi: Ch. 2	Teams Meet: 7:50-8:20 pm
WK3: Jan. 21	- Complex Cognitive Processes: Promoting Self-Regulation Skills and Metacognitive Development - Developmental & Synaptic Neuroplasticity	Ormrod: Ch. 3 Costandi: Ch. 3-4	Teams Meet: 7:50-8:20 pm - <i>Proposal due end of class</i>
WK4: Jan 28	- Midterm Test 1: 20% (6:30-7:30 pm) - Learning in Context: How Sociocultural and Technological Environments Influence Learning	Ormrod: Ch. 4	Teams Meet: 7:50-8:20 pm - <i>Proposals returned with feedback from instructor</i>
WK5: Feb. 4	- Motivation and Affect: Setting Goals, Achieving Outcomes, and Understanding Success and Failure in Terms of Ability and Effort	Ormrod: Ch. 5	Teams Meet: 7:50-8:20 pm
WK6: Feb. 11	- Cognitive Development: Genetic and Environmental Influences on Language, Intelligence, and Reasoning	Ormrod: Ch. 6	Teams Meet: 7:50-8:20 pm
Feb. 18	Winter Break – No Class		Enjoy Your Break!!! ☺
WK7: Feb. 25	Midterm Test 2: 20% (6:30-7:30 pm) - Personal, Social, and Moral Development	Ormrod: Ch. 7	Teams Meet: 7:50-8:20 pm
WK8: Mar. 4	- Instructional Strategies: Teacher-Directed and Learner-Directed Instruction - Neurogenesis and Brain Training	Ormrod: Ch. 8 Costandi: Ch. 5-6	Teams Meet: 7:50-8:20 pm
WK9: Mar. 11	- Strategies for Creating Effective Classroom and School Environments - Cortical Reorganization After Injury or Damage - Team Project Presentations (8:00-9:20 pm)	Ormrod: Ch. 9 Costandi: Ch. 7	Teams 1-5 Present
WK10: Mar. 18	- Assessment Strategies: Testing and Enhancing Learning - Cortical Reorganization and Motivation - Team Project Presentations (8:00-9:20 pm)	Ormrod: Ch. 10 Costandi: Ch. 8	Teams 6-10 Present
WK11: Mar. 25	- Midterm Test 3: 20% (6:30-7:40 pm) - Team Project Presentations (8:00-9:20 pm)		Teams 11-15 Present
WK12: Apr. 1	- Team Project Presentations (6:30-7:40 pm) - Class Activity (8:00-9:20 pm) - Lifelong Brain Changes and Lifelong Learning - Course Evaluations	Costandi: Ch. 9-10	Teams 16-20 Present Good luck on final exams and have a fantastic winter break!! ☺

Guidelines for Technology use During Class and During Course:

Instructors can regulate the use of technology for social communicative purposes. Students requiring technology as an assistive device for learning are encouraged to register with AccessAbility Services.

PSYCH 212 Policy: The use of audio/or video recording devices during lecture is strictly prohibited. Please turn off all electronic devices at the start of class. Failure to do so can result in being asked to leave the classroom. Students are permitted to use laptops strictly for the purpose of note-taking. Use of laptops for reasons other than note-taking is strictly forbidden. Any behaviour that is disruptive to student learning in the classroom, including off-task use of technology, will not be tolerated and students will be asked to leave. Students who are asked to leave will be responsible for all material covered during their absence.

Use of visual or audio images. Image, video, and audio recording of instructors or in-class activities are strictly prohibited without the prior written consent of the instructor, students, and/or Accessible Learning.

Use of technology during assessments. Students may be permitted to use technological devices during assessments only under the direct and written permission, in advance of the exam or test date, of the course instructor or Accessible Learning.

Obligations of Students. Students are encouraged to make informed decisions regarding technology use during class and assessment. Some devices are distracting during learning and can disrupt the learning of others. Off-task use of technology (e.g., communicating with friends/family; using social networking sites; playing games; accessing the internet on websites not related to the course; reading an electronic book that is not related to the course; playing music or video, etc.) during instruction which are distracting to self or others are prohibited.

Copyright. The educational materials developed for this course, including, but not limited to, lecture notes and slides, handout materials, examinations and assignments, and any materials posted to LEARN, are the intellectual property of the course instructor. These materials have been developed for student use only and they are not intended for wider dissemination and/or communication outside of a given course. Posting or providing unauthorized audio, video, or textual material of lecture content to third-party websites violates an instructor's intellectual property rights, and the Canadian Copyright Act. Recording lectures in any way is prohibited in this course unless specific permission has been granted by the instructor. Failure to follow these instructions may be in contravention of the university's Code of Student Conduct and/or Code of Academic Conduct, and will result in appropriate penalties. **Participation in this course constitutes an agreement by all parties to abide by the relevant University Policies, and to respect the intellectual property of others during and after their association with the St. Jerome's University.**

Learning Contract:

Everyone has the right to learn and the responsibility not to deprive others of this right. Every student is accountable for his or her own actions. Please let the instructor know immediately if you have a problem that is preventing you from performing satisfactorily in this class. Each student and his/her success in this course is very important to me; please help me help you achieve your professional and personal goals for this course. Please consider the following for student success in the course:

- Attend all scheduled classes and arrive on time prepared with lecture notes.
- Please be quiet and respectful if you absolutely must arrive late and/or leave early.
- Laptops and other devices are restricted to class-related activities only.
- Disruptive behaviour is not tolerated and students will be required to leave.

Hints for Success:

1. Read the course syllabus completely and carefully. Refer to it throughout the term.
2. Read the textbook chapters *before* the material is presented in lecture.
3. Attend all lectures; print the lecture slides and make notes during and after lectures.
4. Use the lecture note outlines and any material posted on LEARN made available to you.
5. Use textbook review questions as a diagnostic assessment of how well you know the material.
6. If you are having trouble with the learning checks, the course, or with the material, come and see either your TA or myself immediately – don't wait until it is too late.
7. Refer to marking rubrics when working on assignments; they explain exactly how you will be marked.
8. Join a research project team and begin collaborating early in the term. Keep in constant and consistent communication through LEARN in a highly professional and cooperative manner. If any concerns arise please try to resolve them in an open and supportive manner and please do approach the instructor if you require any assistance in doing so. The purpose of the team project is to practice professional collaboration on a topic that is meaningful, interesting and highly educational. It is also meant to be a challenging and enjoyable experience for all involved! 😊

Important Information for Undergraduate Students

Description of Grades: By now, you are probably familiar with the University's grading scheme:

A+	90-100%	C	63-66
A	85-89	C-	60-62
A-	80-84	D+	57-59
B+	77-79	D	53-56
B	73-76	D-	50-52
B-	70-72	F	0-49

80-100 (A) Excellent An outstanding performance in which the student demonstrates superior grasp of the subject matter and an ability to go beyond the given material in a critical and constructive manner. The student demonstrates a high degree of creativity and/or logical thinking, a superior ability to organize, to analyse and to integrate ideas, and a thorough familiarity with the relevant literature and techniques.

70-79 (B) Good A more than adequate performance in which the student demonstrates a thorough grasp of the subject matter, and an ability to organize and examine the material in a critical and constructive manner. The student demonstrates a good understanding of the relevant issues and a familiarity with the relevant literature and techniques.

60-69 (C) Satisfactory An adequate performance in which the student demonstrates a generally adequate grasp of the subject matter and a moderate ability to examine the material in a critical and constructive manner. The student displays an adequate understanding of the relevant issues, and a general familiarity with the relevant literature and techniques.

50-59 (D) Poor A barely adequate performance in which the student demonstrates a familiarity with the subject matter, but whose attempts to examine the material in a critical and constructive manner are only partially successful. The student displays some understanding of the relevant issues, and some familiarity with the relevant literature and techniques.

0-49 (F) Fail An inadequate performance.

Adding and Dropping

Important Dates for Course Adding/Dropping and Tuition charges for the 2018-2019 Academic Year:

<https://uwaterloo.ca/registrar/important-dates/2018-2019>

Academic integrity, grievance, discipline, appeals and note for students with disabilities:

Academic integrity: In order to maintain a culture of academic integrity, members of the University of Waterloo community are expected to promote honesty, trust, fairness, respect and responsibility. [Check [the Office of Academic Integrity](#) for more information.]

Grievance: A student who believes that a decision affecting some aspect of his/her university life has been unfair or unreasonable may have grounds for initiating a grievance. Read [Policy 70, Student Petitions and Grievances, Section 4](#). When in doubt, please be certain to contact the department's administrative assistant who will provide further assistance.

Discipline: A student is expected to know what constitutes academic integrity to avoid committing an academic offence, and to take responsibility for his/her actions. [Check [the Office of Academic Integrity](#) for more information.] A student who is unsure whether an action constitutes an offence, or who needs help in learning how to avoid offences (e.g., plagiarism, cheating) or about "rules" for group work/collaboration should seek guidance from the course instructor, academic advisor, or the undergraduate associate dean. For information on categories of offences and types of penalties, students should refer to [Policy 71, Student Discipline](#). For typical penalties, check [Guidelines for the Assessment of Penalties](#).

Appeals: A decision made or penalty imposed under [Policy 70, Student Petitions and Grievances](#) (other than a petition) or [Policy 71, Student Discipline](#) may be appealed if there is a ground. A student who believes he/she has a ground for an appeal should refer to [Policy 72, Student Appeals](#).

Note for students with disabilities: [AccessAbility Services](#), located in Needles Hall, Room 1401, collaborates with all academic departments to arrange appropriate accommodations for students with disabilities without compromising the academic integrity of the curriculum. If you require academic accommodations to lessen the impact of your disability, please register with [AccessAbility Services](#) at the beginning of each academic term.

Turnitin.com: Text matching software (Turnitin®) may be used to screen assignments in this course. Turnitin® is used to verify that all materials and sources in assignments are documented. Students' submissions are stored on a U.S. server, therefore students must be given an alternative (e.g., scaffolded assignment or annotated bibliography), if they are concerned about their privacy and/or security. Students will be given due notice, in the first week of the term and/or at the time assignment details are provided, about arrangements and alternatives for the use of Turnitin in this course.

It is the responsibility of the student to notify the instructor if they, in the first week of term or at the time assignment details are provided, wish to submit the alternate assignment.

APPENDIX A

TEAM LOGBOOK: 10%

Overall Progress in Achieving Steps 1 to 6: /10

- 0-2: Does not meet the minimum criteria for acceptable work. Logbook is unacceptable. Weekly assignments are missing and/or incomplete and/or disorganized and/or incoherent. Did not incorporate any feedback from TA or Instructor as recommended.
- 3-4: Minimally acceptable. Demonstrates limited progress in meeting assignment objectives. Weekly assignments are all present but some are incomplete and/or require more details and organization. Did not incorporate feedback from TA or Instructor as recommended in a consistent manner.
- 5-6: Acceptable. Demonstrates adequate progress in meeting assignment objectives. Weekly assignments are all present, fairly well organized, and complete with minimum required information. Incorporated some feedback from TA or Instructor as recommended and in a consistent manner.
- 7-8: Well done. More than adequate progress in meeting assignment objectives. Weekly assignments are all present, complete, and have significant detail in documenting required information. Team demonstrates effective organization and consistently incorporates feedback from TA and Instructor.
- 9-10: Outstanding performance. Team demonstrates superior progress in meeting assignment objectives. Weekly assignments are all present and complete with substantial detail in documenting required information. Team demonstrates an excellent degree of organization and consistently and diligently incorporates feedback from TA and Instructor.

Content and Comprehension: /10

- 0-2: Does not meet the minimum criteria for acceptable work. Does not demonstrate critical thinking skills, organization, interpretation of primary and/or secondary sources, and/or logical flow of ideas; no understanding of principles of educational psychology and human development; choice of topic and arguments are too simplistic or obvious; no evidence-based arguments presented.
- 3-4: Minimally acceptable. Demonstrates limited critical thinking skills, organization, interpretation of primary and/or secondary sources, and logical flow of ideas; limited understanding of principles of educational psychology and human development; choice of topic and arguments are too simplistic or obvious; unclear or incomplete evidence-based arguments presented.
- 5-6: Acceptable. Adequate critical thinking skills, organization, interpretation of primary and/or secondary sources, and logical flow of ideas; demonstrates some understanding of principles of educational psychology and human development; choice of topic and arguments are somewhat cursory but provides some opportunity for discussion and debate; some basic evidence-based arguments presented.
- 7-8: Well done. More than adequate critical thinking skills, organization, interpretation of primary and/or secondary sources, and logical flow of ideas; strong understanding of principles of educational psychology and human development; choice of topic and arguments are meaningful and relevant; demonstrates application of content and critical thinking principles to research project; correct description of experimental findings and their significance; uses evidence to support ideas as taught during lectures according to Ormrod & Jones (2018), Costandi (2016), and APA (2013); reason for topic choice is clear and relevant; advanced evidence-based arguments presented.

9-10: Outstanding performance. Team demonstrates superior critical thinking skills, organization, interpretation of primary and/or secondary sources, and logical flow of ideas; excellent understanding of the principles of educational psychology and human development; choice of topic and arguments are very significant and compel the audience to re-evaluate their prior knowledge of the topic; group takes a risk focusing on controversial and/or less well known information/positions; team is highly constructive and very professional; accurate and thorough description of the experimental findings and their significance; uses evidence to support arguments as taught during lectures and according to Ormrod & Jones (2018), Costandi (2016), and APA (2013); engages the audience with insight, critical arguments, and novel and/or unique perspective; the importance and relevance of the topic are clear and compelling; topic is meaningful and challenging; exceptional evidence-based arguments presented.

Comments:

TEAM RESEARCH PRESENTATION: 15%

Content and Comprehension: /10

- 0-2: Does not meet the minimum criteria for acceptable work. Does not demonstrate critical thinking skills, organization, interpretation of primary and/or secondary sources, and/or logical flow of ideas; no evidence-based arguments presented.
- 3-4: Minimally acceptable. Demonstrates limited critical thinking skills, organization, interpretation of primary and/or secondary sources, and logical flow of ideas; unclear or incomplete evidence-based arguments presented.
- 5-6: Acceptable. Adequate critical thinking skills, organization, interpretation of primary and/or secondary sources, and logical flow of ideas; demonstrates some basic principles learned throughout the course; some basic evidence-based arguments presented.
- 7-8: Well done. More than adequate critical thinking skills, organization, interpretation of primary and/or secondary sources, and logical flow of ideas; demonstrates application of content and critical thinking principles to research project; correct description of experimental findings and their significance; uses evidence to support ideas as taught during lectures according to Ormrod & Jones (2018), Costandi (2016), and APA (2013); reason for topic choice is clear and relevant; advanced evidence-based arguments presented.
- 9-10: Outstanding performance. Team demonstrates superior critical thinking skills, organization, interpretation of primary and/or secondary sources, and logical flow of ideas; accurate and thorough description of the experimental findings and their significance; uses evidence to support arguments as taught during lectures and according to Ormrod & Jones (2018), Costandi (2016), and APA (2013); engages the audience with insight, critical arguments, and novel and/or unique perspective; the importance and relevance of the topic are clear and compelling; topic is meaningful and challenging; exceptional evidence-based arguments presented.

Approach to Project Topic: /10

- 0-2: Does not meet the minimum criteria for acceptable work. Presentation is unacceptable.
- 3-4: Minimally acceptable. Demonstrates limited understanding of principles of educational psychology and human development; choice of topic and arguments are too simplistic or obvious; unprepared to present; unable to answer questions.
- 5-6: Acceptable. Demonstrates adequate understanding of principles of educational psychology and human development; topic and presentation format are complimentary; choice of topic and arguments are somewhat cursory but provides some opportunity for discussion and debate; prepared to present; minimal answers to questions.
- 7-8: Well done. More than adequate understanding of principles of educational psychology and human development; topic and presentation format complement each other; choice of topic and argument are meaningful and relevant; well prepared to present; well informed answers to questions.
- 9-10: Outstanding performance. Team demonstrates superior understanding of the principles of educational psychology and human development; topic and presentation format enhance each other; choice of topic and arguments are very significant and compel the audience to re-evaluate their prior knowledge of the topic; more than well prepared to present; well informed and insightful answers to questions; thoroughly engages audience in topic and various perspectives; group takes a risk focusing on controversial and/or less well known information/positions; team is highly constructive and very professional.

Comments:

TEAM RESEARCH PROJECT – INDIVIDUAL COMPONENT: 5%

***Peer Evaluation: /5**

- 0 - 1: Does not meet the minimum criteria for acceptable work; failed to contribute to project.
- 1.5-2: Minimally acceptable. Demonstrates limited preparation for group work on project; lack of cooperation and collaboration with group members; missed some group meetings and did not make-up missed work.
- 2.5-3: Acceptable. Demonstrates some preparation for group work; interacts with group members in a cooperative, supportive, and collaborative manner; listens and responds to ideas and offers own ideas; made up any missed work.
- 3.5-4: More than adequate preparation and participation in group activities for project; demonstrates consistent and positive interactions with group members that draw out peer strengths and support peer areas of learning; openly shares insights and encourages others to reciprocate; equitable contributions to group work.
- 4.5-5 Outstanding performance in which the student demonstrates superior preparation and participation; demonstrates consistent and positive interactions with group members that both supports and challenges peers to work outside of their own zone of comfort in ways that lead to success (e.g., practicing public speaking with a shyer peer; sharing technical skills in multimedia with peers rather than just working alone; demonstrating trust and respect in ways that encourages peers to share radically different ideas without fear of ridicule; sharing drama experience for a re-enactment, role play or interactive demonstration with the audience; etc...); consistently engages with others by respectfully offering and critiquing ideas; equitable contributions to group work.

***On the day of your group’s presentation, each group member is to provide a peer evaluation mark (out of 5) for each member, including yourself, on this sheet. All of the marks assigned to each individual – including your self-evaluation mark - will be averaged for a final mark (out of 5).**

Your name: _____; Your mark: /5

Peer 1 name: _____; Peer 1 mark: /5

Peer 2 name: _____; Peer 2 mark: /5

Peer 3 name: _____; Peer 3 mark: /5

Peer 4 name: _____; Peer 4 mark: /5

Comments:

APPENDIX X

<https://uwaterloo.ca/research/office-research-ethics/research-human-participants/pre-submission-and-training/human-research-guidelines-and-policies-alphabetical-list/does-my-data-collection-activity-require-ethics-review>

Does my data collection activity require ethics review?

The Office of Research Ethics receives inquiries on a regular basis from faculty, staff, and students asking if the survey or project they are planning requires ethics review.

We recognize it can be difficult to know if the activity you are planning falls within the scope of the [Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans](#) (TCPS, 2nd edition).

This guideline attempts to provide additional information that will help in this determination. It is important to remember that not all data collection is research, not all research involves humans, and not all research involving humans requires ethics review.

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Definition of "research" and "participant"

According to the TCPS2 the scope of REB review is limited to those activities defined in the TCPS2 as “research” and involving “human participants”.

Research is defined as:

an undertaking intended to extend knowledge through a disciplined inquiry or systematic investigation” and “a determination that research is the intended purpose of the undertaking is key for differentiating activities that require ethics review by an REB and those that do not ([Article 2.1](#), p. 15).

Human participants are:

those individuals whose data, or responses to interventions, stimuli or questions by the researcher, are relevant to answering the research question” ([Article 2.1](#), p. 16).

Research ethics review and clearance is required for "[research](#)" which involves "[human participants](#)".

When is an individual a participant (or not) in research?

As outlined in the TCPS2, [Chapter 2](#), Article and application 2.1:

In some cases, research may involve interaction with individuals who are not themselves the focus of the research in order to obtain information. For example, one may collect information from authorized personnel to release information or data in the ordinary course of their employment about organizations, policies, procedures, professional practices or statistical reports. Such individuals are not considered participants for the purposes of this Policy. This is distinct from situations where individuals are considered participants because they are themselves the focus of the research. For example, individuals who are asked for their personal opinions about organizations, or who are observed in their work setting for the purposes of research, are considered participants.

A recent interpretation received in July 2012 from the Secretariat for Panel on Research Ethics states that:

Research ethics boards (REBs) have access to the detailed study and should examine the proposed interview questions in the study to have a sense of whether employees of an organization are asked (i) about their opinion whether professional or personal (and are therefore considered research participants), or (ii) to provide information in their professional role (and therefore would not be considered research participants). We recognize that it may be difficult to distinguish between a professional opinion and information provided by employees in their professional capacity given that in some cases a professional duty may include providing opinions. In their assessment, REBs should consider the purpose of the interview questions, and in what capacity the researcher is seeking a response from the employees being interviewed.

Another distinguishing factor is the obligation of an employee to provide a response/opinion. Under the above-mentioned scenario (i) employees may, but are not obliged to, provide their opinion (voluntary consent). Under scenario (ii) employees are required to provide this information within their professional responsibility to respond to such requests.

There is also the possibility that employees under the above scenario (ii) provide information that is then used to inform the research –but this does not in itself suggest that those employees are the focus of the research.

As a result, it is important to determine the objective of the research, the focus of the inquiry, the degree to which the people involved may feel obligated to provide this information as a result of their job responsibilities, and the specific nature of the questions which the people will be asked in order to determine if they are research participants (or not).

Decision tree for determining if research ethics review is required

A [decision tree](#), [PDF version](#) and [accessible version](#), has been created to help faculty, staff, and students determine whether their project should be reviewed through a University of Waterloo [Research Ethics Committee](#) (REC) or through another mechanism such as the Survey Advisory Board with the office of [Institutional Analysis and Planning](#). Begin by working through the questions in the decision yourself or your team/group. If after working through the decision tree you have questions or require further clarification [contact the ORE](#).

The office of [Institutional Analysis and Planning](#) has established a Survey Advisory Board to review campus-wide activities that may be conducted with faculty, staff, students, alumni, and other stakeholders for quality assurance/improvement purposes. If you are conducting a survey or project for a quality assurance purpose you are encouraged to [contact the IAP office](#) to discuss your survey or project. The staff in IAP can provide advice on other quality assurance projects that have already been conducted and/or point you to other existing data sets that could aid you in the work you are doing.

Ethical considerations when data collection planning activities such as surveys or other projects

Although some surveys and projects carried out by members of the uWaterloo community may not be considered to be research nor require ethics review as defined by the TCPS2 since they do not involve “human participants”, these activities should still be conducted professionally and ethically following the [core principles](#) of the TCPS2. Quality assurance surveys can still contain ethical issues and dilemmas.

Similar to what is expected in research, surveys and projects that seek human involvement need to be conducted in a way which protects the interests of individuals or groups taking part in the activity from any risks such as bodily or psychological harm and be culturally appropriate. Moreover, the activity needs to ensure there is free and informed consent, that involvement is voluntary, and use no exercise of power of authority or undue influence (e.g., participation is a requirement to pass the course). Furthermore, the activity needs to respect an individual’s privacy and confidentiality (e.g., a person’s decision to participate along with their identity is not shared without their consent).

Activities NOT requiring ethics review

There are several categories of activities that do not require ethics review even though some of the activities may use methods and techniques similar to those used in research.

Making initial contact with individuals or communities to establish partnerships

Ethics review is not required for the “*initial exploratory phase* of the research where this phase involves “contact with individuals or communities intended to establish research partnerships or the design of a research proposal” (TCPS2, [Article 6.11](#), p. 76).

As outlined in the TCPS2, “some types of research using quantitative, qualitative research, or a combination of these methods, as well as collaborative or community-based research may require prior contact and dialogue with individuals or communities as a normal and integral component to establish research collaborations or partnerships prior to the actual design of the research” (p. 77). Furthermore, “other research may, at their initial stages, not involve humans, but require engaging the research team, setting up equipment and other preparatory stages” (TCPS2, p. 77). All of these activities do NOT require ethics review.

Creative practice

Ethics review is not required for creative practice activities involving the “process which an artist makes or interprets a work or works of art”. This “may also include a study of the processes of how a work of art is generated” (TCPS2, [Article 2.6](#), p. 20).

However, “research that employs creative practice to obtain responses from participants that will be analyzed to answer a research questions is subject to REB review” (p. 20). For example, when the individuals become the focus of the research such as asking observers or art exhibit patrons to provide comments on a work of art and/or provide their personal opinion or analysis of the work this is considered research.

Research that relies exclusively on publicly available information

Information that is legally accessible to the public and appropriately protected by law does not require ethics review. “Publicly available information is any existing stored documentary material, records or publications, which may or may not include identifiable information” according to the TCPS2 (p. 17).

However, “some types of information are legally accessible to the public in a certain form and for a certain purpose, as specified by law or regulations” such as registries of deaths, court judgments, or public archives and publicly available statistics including Statistics Canada public use files (p. 17). Publicly available archives in Canada or other countries at either the national, provincial, or municipal level may have policies that outline certain restrictions or access rights.

Information that is publicly accessible where there is no reasonable expectation of privacy does not require ethics review. “Research that uses exclusively publicly available information and may contain identifiable information, and for which there is no reasonable expectation of privacy”, does NOT require ethics review. Examples include: identifiable information that may be disseminated publicly through print or electronic publications, film or digital recordings, exhibitions or events open for attendance by the public, etc.

Ethics review is also not required for “research that is non-intrusive, and does not involve direct interaction between the researcher and individuals through the Internet” and “for which there is no expectation of privacy” (p. 18). Examples include uncontrolled public access via the Internet to cyber-material such as documents, records, performances, online archival materials or published third-party interviews. Uncontrolled access means there is no login or password required to access the information, video, etc.

Observation of people in public places

Ethics review is not required for the observation of people in public places where:

- it does not involve any interventions staged by the researcher, or direct interaction with the individuals or groups,
- individuals or groups targeted for observation have no reasonable expectation of privacy, and
- any dissemination of research results does not allow identification of specific individuals.

The TCPS2 defines observational research as the “study of acts or behaviour in a natural environment” however, this definition excludes “observational methods used in epidemiological studies” ([Article 2.3](#), p. 18 and 19).

Care must be taken when conducting observational activities and researchers need to pay close attention to the location and environment in which the observation is to take place to determine if it might qualify as a public place and, even if it is a public place, if people might have an expectation of privacy. In certain locations people can have an expectation of privacy (e.g., sacred ceremonies, religious services, clubs, classrooms, chat rooms) In addition, [permission from a gatekeeper](#) may need to be sought in order to conduct the research.

Furthermore, researchers need to take care in how they disseminate their study results as some methods, such as photographs, video- and audio-recordings, will identify individuals. In some cases, ethics review may be required because of the lack of privacy and possible identification of individuals. Researchers should [contact the ORE](#) to discuss their proposed observation activity to determine if the activity requires ethics review or not.

Quality assurance/improvement activities for administrative or operational purposes

[Quality assurance/improvement activities](#) tend to be surveys conducted by University administration, faculty, staff, or student groups who are looking to assess how the University, faculty, department, program, or group is doing on a particular issue or activity, or are undertaken for administrative or operational reasons.

At the University of Waterloo, these surveys and performance reviews or testing within normal educational requirements when used exclusively for assessment, management, or improvement purposes, do not constitute research, and do not fall within the scope of REB review. This position is consistent with the TCPS2 ([Article 2.5](#), p. 20). However, projects that combine research with quality assurance/improvement activities may require ethics review. View the [decision tree](#) to determine if your activity is research or quality assurance.

For a quality assurance/improvement activity to not require ethics review, ALL of the following must apply. The activity must:

- be within the mandate of the University of Waterloo or according to the terms and conditions of employment or training,
- be a systematic review of practice(s) and procedure(s) designed to identify possible improvements to an existing policy, program or process,
- only involve participation of University of Waterloo employees, students and/or alumni and relate only to the specific site or area such as the department, program, school, faculty, employee group, or key informants such as co-op employers, and

- report results locally such that dissemination and publication of results or findings are not generally available for public release outside the University of Waterloo however in some instances dissemination or publication may mean the results are shared at a conference or other public means or with a governmental Ministry/department or accrediting body.

If the activity is quality assurance/improvement you need to ensure that when reporting the results, such as in a poster or publication, you do so within the context of your quality assurance/improvement activity and not refer to the activity or project as research.

[Fraser Health](#) outlines the differences and several of the key characteristics of research in comparison to quality assurance/improvement activities.

Research that relies exclusively on secondary use of anonymous information or anonymous human biological materials

Anonymous information is data or materials that never had identifiers associated with them. Identifiers are information that could potentially identify an individual; alone or in combination with other information that was collected.

For information to be anonymous no [direct or indirect identifiers](#) were ever collected therefore the “risk of identification of individuals is low or very low” (TCPS2, [Chapter 5](#), p. 57). This is different than anonymized data in which the information or materials have been “irrevocably stripped of direct or indirect identifiers, a code is not kept to allow future re-linkage, and risk of re-identification of individuals from remaining identifiers is low or very low” (TCPS2, [Chapter 5](#), p. 57). More information can be found in [Security of Research Participants Data](#).

Research that relies exclusively on secondary use of anonymous information, or anonymous human biological materials, may not require ethics review so long as there is no process of data linkage and the recording or dissemination of results does not generate identifiable information.

It is important to note that given current technology and advancements most information associated with human biological materials such as genetic material is anonymized (not anonymous) meaning ethics review is required. However, making this determination can be challenging due to many factors. More information on human biological material can be found in [Collection of Human Biological Material](#).

Researchers are strongly encouraged to [contact the staff in the ORE](#) to discuss their proposed project and analysis. Together, the ORE staff and the researcher will make a determination if the proposed research and secondary analysis will require ethics review.

Skill development

Undergraduate and graduate courses may include class projects and activities designed to develop research skills. These projects may be carried out by individual students, small groups or as a single class project.

Skill development would involve individuals (such as other students/classmates) pretending to be study participants; but, are not actual research participants.

These skill development activities may include the following and do not require ethics review:

- learning to develop and conduct interviews,
- learning to develop and distribute surveys of questionnaires,
- learning to administer standard instruments or equipment, or
- learning to analyze data and write a section for a pretend presentation or paper.

All [graduate and undergraduate thesis projects involving human participants are considered research](#) and do require ethics review.

Other factors that may influence if ethics review is required (or not)

- **Disseminating or publishing findings**

Where findings may be disseminated or published does not determine whether something is research or requires ethics review. If you wish to publish the findings from your project be sure to contact the intended journal or publication to determine whether they require ethics review as one of the conditions of publication. If there is any doubt as to whether your activity or project requires review, it is recommended that you consult with the [staff in the ORE](#).

- **Generalizability of findings**

How generalizable your findings may be is also not a determining factor whether something is research or requires ethics review. Some types of activities that would be viewed as quality assurance/improvement can be broadly generalizable whereas some types of research are not generalizable because of the specific or small study sample or population. Researchers are encouraged to consult with the [staff in the ORE](#) to determine if the activity or project they are planning fits the definition of research according to the TCPS2 and whether that activity requires ethics review.

- **Action or Applied Research Activities**

Action research, sometimes referred to as applied research, is commonly conducted in the fields of education, organizational and community development, and various forms of work-life research. Action research describes a kind of research that often combines social science approaches with the delivery of programs to address or solve a current or ongoing social issue or practical problem, usually in an organization or community. The focus is not necessarily to produce theoretical knowledge or scientific findings, although that may be an unintended outcome, but rather to improve practices or processes.

Action research tends to involve a team of individuals, including employees and clients of the program, who treat each other as colleagues. Other labels for action research include: action inquiry, action science, cooperative inquiry, and participatory action research. Various methods for collecting data can include observation, interviews, surveys/questionnaires, interviews, and focus groups.

Social science researchers, such as those in psychology, may conduct applied research to study various human factors. Others in the field of industrial/organizational psychology, business, and engineering may use applied research to try and solve practical work problems. At times, quality assurance/improvement activities can be associated with or seen as a form of action or applied research. Individuals who plan a quality assurance/improvement project that includes action or applied research are encouraged to consult with the [staff in the ORE](#) to determine if the activity or project they are planning requires ethics review.

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