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Undergraduate Research: A Liberal Arts Education

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BACKGROUND

This specific research project was developed within the Sacred Roots Thriving in Ministry Project to focus on the directed research course for undergraduate students. The goal of this research project is to research the best practices of undergraduate research and then put them into practice in the directed research course. This project also has the goal to publish an article about the benefits and best practices of undergraduate research.

ABSTRACT

There are many institutions that see value in the liberal arts and the way that it teaches its students a variety of skills and information that make them a more holistically educated person, Taylor University is one of those institutions. Taylor University, specifically, provides a liberal arts education to “encourage students to ask hard question, apply themselves to the tasks at hand, and embrace their callings.” (Taylor University, n.d.) Similarly, undergraduate research teaches a person to be successful in “creativity, critical thinking, logic, communication, and problem solving” among other skills (Klos et al, 2011). Undergraduate research teaches students skills that are transferable and applicable in multiple situations that provides them with “valuable employability and progression opportunities” (Butcher & Maunder, 2014) just like a liberal arts education teaches students to be well-rounded in a multitude of skills. Though there are many similarities in the values of liberal arts and undergraduate research, there are many scholars in academia that do not see the importance of fostering meaningful research experiences for undergraduate students. The following research identifies the benefits and downfalls of undergraduate research for students and faculty, how to implement productive practices of undergraduate research, and why undergraduate research is a great vessel to teach a liberal arts education.



(Shanahan, 2016)

RESEARCH

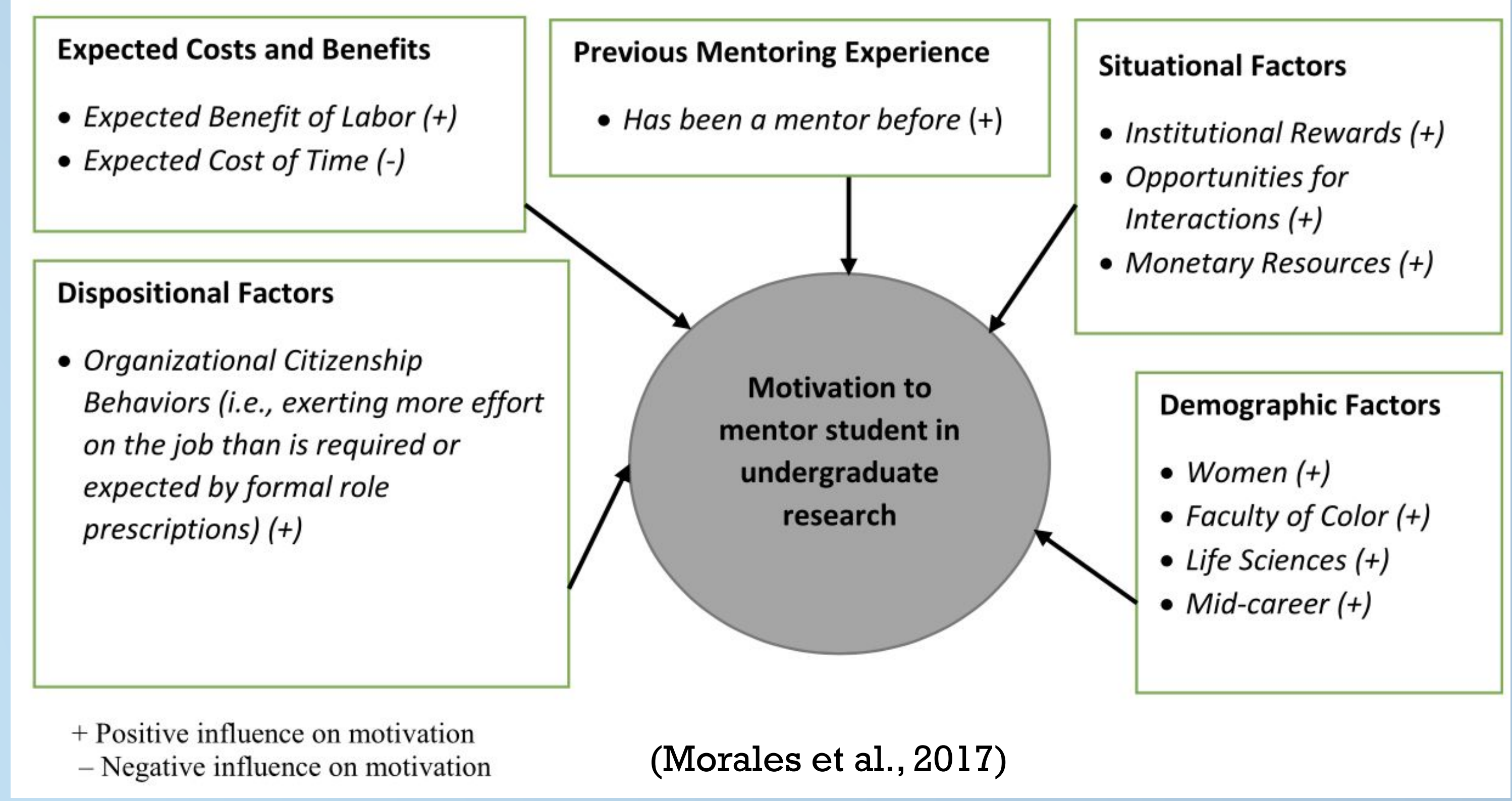
“Teaching and research are ‘MUTUALLY ENRICHING’ by their joint goal of discovering and creating knowledge” (Butcher & Maunder, 2014)

- Liberal Arts Education**
- A liberal arts education teaches a large breadth of knowledge from multiple disciplines to create a more holistic academic experience and produce a more well-rounded student.
 - A liberal arts education creates many transferable skills in a student that are “perhaps the greatest practical asses of an education in the liberal arts” (Holmes, 2001).
 - These transferable skills include “the ability to think for oneself, to understand where someone else is coming from, and to uncover assumptions and see where a line of thought leads; to state oneself with clarity, precision, and grace; to sort out complexities in a problem, formulate alternative game plans, and discuss them without either seeming threatening or feeling threatened” (Holmes, 2001).

- Undergraduate Research (UR)**
- The Council for Undergraduate Research defines undergraduate research as: “An inquiry or investigation conducted by an undergraduate student that makes an original intellectual or creative contribution to the discipline” (Salsman et al., 2013).
 - Studies indicate that student outcomes in UR include “improved analytic and critical thinking, increased academic achievement and retention, persistence to degree completion in their chosen field, improved ability to think and work like a scientist, clarification of career plans, and improved preparedness or desire for graduate study” (Morales et al., 2017). *These student outcomes parallel many of the transferable skills identified above.*
 - One study indicates acquisition of these skills is accelerated when teaching and research are combined: ”Teaching and research are ‘mutually enriching’ by their joint goal of discovering and creating knowledge; making sense and debating ideas and asking probing question” (Butcher & Maunder, 2014).
 - *Combining a liberal arts education with UR experiences can multiply the student outcomes, which liberal arts schools, like Taylor University, are all about promoting.*

- Best Practices in Undergraduate Research**
- Faculty Mentors
 - Professors should act as mentors to the students they partner with in UR.
 - Studies suggest that having faculty mentors invested in the student experience shows how effective pedagogic scholarship and cocurricular inquiry is for undergraduates (Butcher & Maunder, 2014).
 - Students who otherwise would struggle to engage with college work and lower GPA students are among those who would benefit most from UR (Klos et al., 2011).
 - Scaffolding Curriculum
 - Scaffolding occurs when research skills are included in the major courses’ curriculums and continually built upon to later be assessed in full by a comprehensive assignment.
 - Building on previous knowledge helps the student learn each step well and encourages them to take on the next task with confidence.
 - The slow introduction of research skills throughout the full education prevents the students from being overwhelmed by a comprehensive assignment and builds their confidence in their abilities.

FACULTY MOTIVATION IN UR



BENEFITS OF UR

Benefits for Students	Benefits for Faculty Members
Gain transferable skills that create valuable employability and progression opportunities	Improves the faculty-student relationship
See more success than students who did not participate in UR	Gain a new perspective of their own research
Succeed in current area of study	Seeing their students succeed and flourish
Experience richer engagement in major field topics	Delegating faculty responsibilities
Gain meaningful experiences	Improves lecturing skills

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