

Social-Psychological Interventions in Education

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Abstract

One of the primary objectives of educators at all levels is to facilitate the personal and academic development of learners in a successful manner. Helping students achieve positive experiences and outcomes as a result of their own effort and decision making can lead to the development of independent, knowledgeable, and skilled members of society. Educators possess a powerful platform in which they are able to communicate influential ideas and messages to their students, some of which could be lifelong-lasting and determine the trajectory of where one is headed towards in life. Therefore, the direct and indirect messages conveyed by educators to their students can significantly impact their students' futures, regardless of whether one is fully cognizant of the message at the time of delivery. A good teacher wants their students to achieve the greatest heights possible, within their own self-determination, and this paper describes how the use of social-psychological interventions in education can aid in raising student development and achievement in educational settings.

Social-Psychological Interventions

In the educational context, a social-psychological intervention is a psychological manipulation designed by researchers and educators. It is presented to learners in classroom settings to alter and define learner outcomes. In other words, social-psychological interventions are designed to change students' thoughts and feelings about themselves and their conceptions of what it means to be a student, to be in school, and to complete academic tasks. It is necessary to distinguish the difference between social-psychological interventions and cognitive-psychological interventions, in which the latter investigates how human cognition and learning can inform effective design of curricula and pedagogy (Yeager & Walton, 2011). For classification purposes, social-psychological interventions will refer to the terms *psychological interventions* or *interventions* in this paper.

The development of new interventions (based on the research findings of psychological interventions over the past 30 years) are simple, brief, and more

precision-like, having been created for the purpose of implementation in modern day classrooms (Walton, 2014). Rather than overtly presenting or explicitly stating that an intervention is to be conducted, modern interventions are embedded into coursework and everyday classroom experiences. Traditional interventions were teacher-centered and featured direct persuasion. For instance, a teacher might simply tell, encourage, or scold his or her students to “work harder” in their studies, in hopes of sending a direct message to manipulate how the students think, feel, or act. However, despite the good intentions of the teacher, directly presenting students with the message of “work harder” is a concept that the overwhelming majority of learners already know and consequently, the teacher’s words fall on deaf ears. Traditional interventions emphasized the teacher’s position and what he or she wanted the students to do (i.e., work hard in school), without consideration or empathy for the positions of the learners, who passively received the message.

The conceptualization of “wise” interventions, coined by Walton (2014) precisely targets a student’s psychological reality - what it is to be like them and how they construe themselves in the social world. In creating a wise intervention, researchers identify an aspect of people’s psychology that reduces the chances of achieving an intended outcome and aim to change this through the delivery of a psychological intervention process (Walton, 2014). These interventions draw on a long history of research, are psychologically precise, and aim to alter and improve self-reinforcing processes that repeat over time; thus, instigating continual development in individual outcomes in diverse circumstances into the future. “These interventions do not teach students academic content but instead target students’ psychology, such as their beliefs that they have the potential to improve their intelligence or that they belong and are valued in school” (Yeager & Walton, 2011, p.267). They simply allow students to take better advantage of learning opportunities that are present in schools and engage in existing recursive processes to generate long-lasting effects. By changing the self over an extended period of time, a succession of effective interventions can significantly influence individuals. On a larger scale, effective interventions in education at an early age (prior to university graduation) could drastically alter how people learn, interact with others, work, and resolve issues in society.

Social-psychological interventions have three key components:

1. designed and presented as psychologically precise
2. target recursive processes to create change and effect outcomes
3. contextually dependent and adaptive

The three components combine to attempt to promote self-development and raise learner achievement by changing students' subjective experiences in school; what school feels like from the student's perspective and how they construe themselves on the basis of their knowledge, abilities, future intentions, relationships with others, and as a member of the school community.

Psychologically Precise Interventions

A psychologically precise intervention is based on a substantiated psychological theory. Researchers create a precise intervention in the form of a brief task and attempt to change a specific psychological process in real-world settings. Such research studies are carefully designed with keen insight into basic psychological processes and the methodological precision to isolate these processes (Walton, 2014). Interventions export this precision and methodology in real-world settings and allow researchers to test their theories and record their results for the purpose of creating positive change.

A vital component of precise interventions is to understand and empathize with a student's subjective experience in school, disregarding what school means to administrators, researchers, or teachers. Such interventions directly address the students experience in school and thus, their school-related behavior. Additionally, precise interventions are stealthy and do not explicitly communicate the intervention message because they do not feel as controlling or stigmatizing students as individuals in need of help, factors which could do more harm than good (Walton, Yeager, & Cohen, 2013).

An example of a psychologically precise intervention is a growth mindset of intelligence intervention. This intervention conveys that intelligence is not a fixed attribute and that it can expand and be developed with effort, the application of effective learning strategies, and support from others. In a study conducted by Blackwell, Trzesniewski, & Dweck (2007), a psychological intervention concerning the growth mindset of intelligence involved a group of eighth-grade students and their mathematical achievements. In the intervention condition group, the eighth-grade students learned in eight classroom workshops that intelligence is malleable and can grow like a muscle with hard work and help from others. In the control condition group, students learned about the relationship between the brain regions and their associated functions. The students in the intervention group underwent

the psychological intervention that people can interpret academic challenges as opportunities to learn, not as evidence of fixed inability, and respond by trying harder and not giving up (Blackwell, Trzesniewski, & Dweck, 2007). The result of the study revealed that those in the control group continued to show a decline in mathematical grades whereas those in the intervention group showed an increase or rebound in math grades.

Interventions can also be precisely designed to allow students to actively generate the intervention by themselves. Through active creation and communication, a “saying-is-believing” effect shows that generating and advocating a persuasive message to a receptive audience is a powerful means of persuasion (Aronson, 1999). A study focusing on expectancy value (behavior as a function of the expectancies one has and the value of the goal toward which one is working for) conducted by Hulleman and Harackiewicz (2009), targeted ninth-grade students’ expectancy values in a science class. In the intervention group, the ninth-grade students wrote brief essays every three to four weeks that described the relevance of their science coursework to their lives. In the control group, students summarized the weekly science topic. The psychological intervention was to make the subject of science personally relevant by increasing the students’ engagement of the material, particularly with students who expected to perform poorly and otherwise may not have had a reason to work hard (Hulleman and Harackiewicz, 2009). The result was that the intervention raised science grades in the intervention group, especially among the students who expected to perform poorly, while those in the control group were found with no significant increases in grades.

Psychological Interventions Target Recursive Processes to Create Change

A key to understanding psychological interventions is to understand how they interact with recursive processes in schools. Recursive processes include in-class activities and tasks, interactions and the development of relationships between students and teachers, everyday mental constructions of self, and the process and acquisition of knowledge and skills. Over a period of time, how students engage in recursive processes significantly impacts their confidence, ability to learn, and capacity to attain desirable outcomes. The goal is to affect self-reinforcing recursive processes that psychological interventions can cause, creating lasting improvements in motivation and achievement even when the original treatment message has

faded (Yeager & Walton, 2011). If students are able to form better relationships at school, these become sources of support and learning that encourage feelings of belongingness and academic success. Attitudes and value affirmations are also part of recursive processes in which every day, individuals are challenged with what matters and what has meaning to them. When students achieve success beyond what they thought was possible, their beliefs about their own agency improve, leading them to become more invested in school, further improving their belief in their potential growth and improving performance” (Walton, Yeager, & Cohen, 2013, p.64).

A study based on delivering an intervention through recursive processes was conducted by Miyake et.al (2010). The study included men and women in a first-year university physics class and affirmed the importance of how self-values can shield people from the effects of general stereotypes. In many university-level scientific disciplines, females were outperformed by their male counterparts on test scores, thus possibly jeopardizing their success in science-orientated courses and careers (Miyake et.al, 2010). Moreover, a prevailing stereotype that men are better than women at math and science may put more pressure on women, especially for those who believe this stereotype to be valid or can be applied to themselves (Miyake et.al, 2010). The intervention called, values affirmation, attempted to reduce the gender achievement gap in the university physics class. In the intervention group students wrote about personal values that were important to them as an in-class exercise at the beginning of every class for 15-20 minutes. In the control group, students wrote about values that were not important to them, but might matter to someone else. At the end of the 15-week class, the value-affirmation intervention eliminated a substantial gender gap in final grades, particularly for those women who previously endorsed the stereotype that men do better than women in physics (Miyake et.al, 2010). The intervention involved in the study did not focus on any academic content, but rather, how the students viewed themselves and identified what values were important to them through a recursive process, leading to a big difference in their results. Interventions containing exercises in which recipients describe themselves in a specific way or use their own experience to advocate for the idea conveyed in the intervention to others is a powerful and persuasive technique. It encourages recipients to proactively author the intervention message, viewing their experience through the lens of the intervention without feelings of being controlled or stigmatized if they were simply told the intervention message directly (Walton, 2014).

Psychological Interventions are Contextually Dependent

Psychological interventions are delivered to target specific psychological processes and recursive dynamics, but they will not always produce the same outcomes for different groups of learners. It is essential to consider the context in which interventions are designed and delivered. An intervention must first target an imperative issue at hand. For example, if an intervention designed to help first-year university students transition into living on their own is delivered to a group of students of which a vast majority still live with their families, this will not work or result in affecting change. To be maximally effective in different contexts, interventions need to be adapted to fit the local educational setting, demographic, and adhere to cultural norms. A psychological intervention designed for ethnic minority university students in America (i.e., worries about belonging in social groups are attributed to transition difficulties of college rather than to students' racial identity) would not be applicable for university students in Japan (due to a very high percentage of racial homogeneity in Japan's population demographics).

Effective interventions are dependent on the expertise of researchers and educators who design such interventions depending on the capacities and recursive processes present in local contexts. Authentic collaborations between such parties can result in effective and scalable interventions at local levels. However, they are not quick fixes or standardized frameworks that automatically yield positive changes in learner outcomes. Whether interventions are contextually scaled up or down, they have the potential to contribute to the solution of pervasive problems learners encounter and struggle with in education.

Conclusion

Psychological interventions provide researchers and educators with valuable opportunities to test and see how specific psychological processes can be manipulated to deal with learner and classroom-related concerns. By examining how a change in psychology unfolds over time in interaction with the context, addressing these issues will help create robust social-psychological theories and possible solutions to these obstacles faced by learners.

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