Interest Development, Achievement, and Continuing Motivation: The Pivotal Role of Utility Value

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The Problem
Interest and motivation in school decline over time, particularly for students with lower competence beliefs (Jacobs et al., 2002; Lepper et al., 2005).

So What?
Interest is associated with increased attention, depth of processing, persistence, and effort (Hidi, 1990; Schiefele, 1991); enhanced learning and achievement (Schiefele et al., 1992); and future choices, such as course enrollment and academic major (Harackiewicz et al., 2000; Updegraff et al., 1996).

Thus, declining motivation not only means decreased interest and student engagement, but also may mean a decline in achievement over time.

The Solution
Teachers can create classroom environments that facilitate the development of student interest by helping students find value and meaning in their coursework (Brophy, 1999; Eccles et al., 1983).

Intrinsic value: a task is fun; enjoyable to do.
Utility value: a task is useful for accomplishing other tasks (i.e., the application of physics principles in engineering).

Method
Study 1: Participants were 175 undergraduate students enrolled in an Introductory Statistics course. Data were collected in three waves during the 15-week semester: week 2, week 8, and week 14.

Study 2: Participants were 45 undergraduate students enrolled in an Introductory Statistics course. Utility value was manipulated at mid-semester, and the final measure of statistics inclination occurred during week 14.

Study 1
![Intrinsic Value vs. Utility Value](image)

Values are standardized path coefficients from structural equation modeling (LISREL 8.72) and are significant at $p < .05$. Overall model fit statistics: $\chi^2(4) = 1.29, p > .15$, RMSEA < .01.

Study 2
Manipulated Utility Value

Low Ability $+.48$

High Ability $-.20$ (n.s.)

Statistics Inclination

Low Ability = Low Perceived Ability. High = High Perceived Ability. Multiple regression was used to analyze the data. The effects of the manipulation were moderated by students’ perceived ability, $F(44) = -2.17, p = .04, \beta = -.34$. The simple slopes indicated that the effects of the intervention were significant for students with Low Perceived Ability ($\beta = .48, p < .05$), but unrelated for students with High Perceived Ability ($\beta = -.20, p > .25$).

Utility Value Manipulation

All students: Select a topic or concept that was covered in this unit (e.g., hypothesis testing).

Random Assignment

Utility Value
Write an essay (1 - 2 pages maximum, single-spaced) describing the topic and its relevance to your life or the life of others.

Control Group
Write a summary (1 - 2 pages maximum, single-spaced) of the topic which includes a definition and description in your own words.

Conclusions
1. Utility value is correlated with both course interest and grades (Study 1).
2. Manipulated utility value increased continued interest, particularly for students with lower competence beliefs (Study 2).
3. Continued interest in a topic may subsequently promote perceptions of value (Study 1), and potentially create a positive motivational cycle.
4. Teachers can influence student motivation and performance by helping them find value and meaning in the course.
5. Future interventions aimed at increasing student achievement could include components that address motivation and interest, and thereby also influence achievement.
References


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