

REPORT

The negative impact of goal-oriented instructions

Itamar Shatz* 

Department of Linguistics, Tel-Aviv University, Tel-Aviv, Israel

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The phrasing of task instructions can facilitate or hinder the learning process. In this study, three groups of participants ($N = 526$) performed a foreign vocabulary memorization task, with modified instructions for each group. The instructions were either learning oriented, encouraging participants to improve their abilities; outcome oriented, prompting participants to achieve a positive evaluation of their performance; or neutral, with no goal orientation, for the control group. Participants' performance in the task was measured along with several factors pertinent to the learning process. Results showed that learning-oriented instructions led to lower performance levels, while outcome-oriented instructions reduced participants' language risk-taking, both of which negatively impact learning. The control group had the best overall results, indicating that it is better to refrain from using goal-oriented instructions in learning tasks.

Keywords: goal orientation; learning orientation; outcome orientation; performance orientation; task instructions; situational manipulability

Introduction

The phrasing of task instructions can facilitate or hinder the learning process. The current study explores this phenomenon by measuring the effects of learning- and outcome-oriented instructions on several aspects of the language learning process. The results can influence the design of learning tasks, allowing us to replace instructions which negatively impact learning with more effectively phrased instructions.

Presently, psychologists identify two primary goals that people pursue in achievement situations: a learning goal, which encourages people to improve their ability to perform the task at hand, and an outcome goal, which prompts people to achieve a positive evaluation of their performance (VandeWalle, Cron, and Slocum 2001). Learning orientation is associated with an *adaptive response pattern*, which is characterised by the pursuit of challenging material and persistence in the face of failure (Bell and Kozlowski 2002; Steele-Johnson et al. 2000), so learning-oriented individuals perceive challenges as an opportunity to build competence. Outcome orientation on the other hand, is associated with a *maladaptive response pattern*, characterised by less interest in challenging tasks, as well as a tendency to withdraw from tasks where performance is rated as low. Therefore, outcome-oriented individuals often view their capacities as fixed, with mistakes being construed as failures (Bell and Kozlowski 2002).

*Email: itamarshatz@mail.tau.ac.il

Notably, the current literature is inconclusive regarding some aspects of goal orientation. For example, different studies show that outcome orientation has negative, non-significant and positive relationships with task performance (VandeWalle, Cron, and Slocum 2001). In addition, while current research focuses on the inherent tendencies of people towards learning or outcome-oriented behaviour, goal orientation is also situationally manipulable (Steele-Johnson et al. 2000). This potential manipulability has practical applications; by understanding the interaction between task instructions and learners, it is possible to positively affect individuals' performance and involvement in learning tasks.

Methods

Participants

There were 526 participants recruited online from "Reddit", a popular social news website. The stopping rule for the experiment was to finish data collection once there were no new responses to the survey for 24 consecutive hours. There were 360 male participants, accounting for 68.4% of the sample, and 166 females, accounting for 31.6% of the sample. The mean age of the participants was 22.75 (SD = 6.34). The majority of the participants ($N = 354$, 67.3%) spoke English as their native language. The posting clearly stated that people with any level of proficiency in Finnish should not participate in the study, a requirement reiterated in the first qualifying question of the survey; those who claimed to have any level of proficiency were automatically removed from the survey and prevented from retaking it by the survey's software (Qualtrics). No compensation or incentive was offered to the participants.

Task design

Participants had a set amount of time (1 min) to memorise the definitions of 12 Finnish vocabulary words, randomly distributed in a list. Once the time limit passed, participants were automatically forwarded to the test section of the task. In the test section, each Finnish word appeared without its English definition. Participants then filled the definitions which they remembered for the words. Each correct definition awarded the participant one point, so that 12 was the maximum possible score. The words appeared in a different random order in the testing section than they did in the memorisation section.

Before undertaking the memorisation task, participants were randomly distributed into three groups:

- One group received learning-oriented instructions, which encouraged participants to improve their abilities. An example of these instructions, given after the memorisation section but before the testing portion is: "Remember: the goal is for you to feel that you learned something new".
- Another group received outcome-oriented instructions, which prompted participants to achieve a positive evaluation of their performance. An example of these instructions is: "Remember: the goal is for you to get as good score as possible".

- Finally, the control group received neutral instructions, which contained no specific goal orientation. An example of these instructions is: “Remember: the goal is for you to remember the words that you saw”.

Aside from the phrasing of the instructions, there was no further difference between the groups. Because the distribution process was random, there was no significant difference in the gender, age or native language of participants across the three instructions groups, which was confirmed using analysis of variance (ANOVA).

Questionnaire design

Before starting the memorisation task, participants gave some basic background information: gender, age and native language. After completing the testing portion, participants answered several questions regarding their experience. The questions were based on a five-point Likert response scale, where one is “Strongly Disagree” and five is “Strongly Agree”. The questions measured participants’ anxiety, self-confidence and task motivation, all of which are factors which significantly affect the learning process (Liu and Jackson 2008; Shatz 2014). In addition, participants replied to a series of questions used to measure language risk-taking (LRT), based on the Language Class Risk-Taking scale which commonly appears as a tool in studies seeking to measure LRT in participants (e.g. Liu and Jackson 2008). After finishing the questionnaire, participants received their performance score, and rated their task motivation again, in order to determine whether receiving feedback influenced how much they enjoyed performing the task.

Results

Multiple analysis of variance (MANOVA) found an overall statistically significant difference between the three groups across the factors ($F(12, 1036) = 2.004$, $p = .021$, $\eta_p^2 = .023$). ANOVA indicated that the difference was significant for two of the factors: performance score ($F(2, 523) = 4.490$, $p = .012$, $\eta_p^2 = .017$) and LRT ($F(2, 523) = 3.326$, $p = .037$, $\eta_p^2 = .013$). There was no statistically significant difference between the groups in anxiety, confidence or task motivation (both before and after receiving feedback). Post hoc analysis showed that the mean performance score for the learning-oriented group was 8.57% lower than for the control group ($p = .013$, 95% CI [1.81%, 15.34%]), and that the mean LRT was 6.66% lower for the outcome-oriented group than for the control group ($p = .011$, 95% CI [1.51%, 11.81%]). These differences are illustrated in Figure 1.

Discussion

While a short-term memorisation task was used to gauge performance in the current study, the results are also indicative of long-term performance, as shown by previous literature which establishes a strong connection between the two (e.g. Gathercole and Baddeley 1990).

Learning-oriented instructions led to worse performance in participants than the neutral instructions of the control group in the memorisation task, possibly because of the emphasis on improving their abilities rather than achieving a high score.

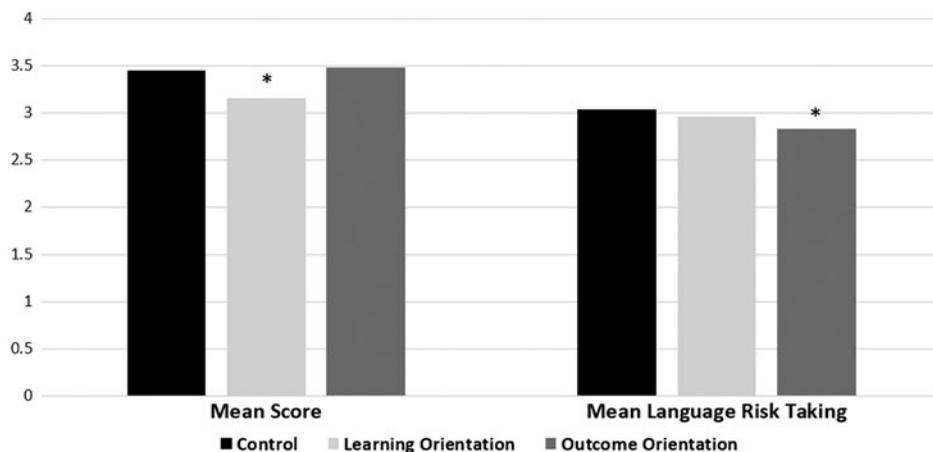


Figure 1. A comparison of the mean performance scores and mean language risk taking of the three groups. An asterisk indicates that the mean is significantly different from that of the control group ($p < .05$). Mean score was normalised to fit a 0–5 scale.

The outcome-oriented instructions, which emphasised the importance of getting a high score and not making any mistakes, caused participants to have a lower willingness to take risks, which is detrimental to the learning process (Liu and Jackson 2008). Neither the learning nor the outcome-oriented groups outperformed the control group on any of the measured parameters, indicating that placing an emphasis on goal orientation in instructions produced no beneficial effects. The control group had the best overall performance because it did not suffer from the negative effects of the goal-oriented instructions.

The recommendation to phrase instructions in a neutral manner, without a focus on a particular goal orientation, dovetails with the increasing prevalence of autonomous learning, which helps people become familiar with and better understand their own strengths, weaknesses and general preferences when it comes to learning (Shatz 2014). This is because the improved understanding of an individual's own abilities facilitates the learning process, especially when unimpeded by the external influence of goal-oriented instructions, as the findings of the current study show that this type of instructions have a negative impact on the learning process and its outcomes.

Disclosure statement

No potential conflict of interest was reported by the author.

Notes on contributor

Itamar Shatz is a researcher at Tel Aviv University. His research interests include second language acquisition and teaching, as well as the optimisation of learning strategies and teaching techniques.

ORCID

Itamar Shatz  <http://orcid.org/0000-0001-8916-9010>

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