



Report Summary

Evaluating Instructional Behaviors for Improved Training Outcomes



Sponsored by:
Special Operations Forces Language Office,
USSOCOM

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PURPOSE: ALPS Solutions engaged in a series of studies to understand why instructors were having such a large impact on student outcomes in the Special Operations Forces (SOF) community. If training is supposed to be a standardized experience, then the instructor to which a student is assigned should not cause a variable experience for students across classes. The goal of this research was to identify and reduce variability to create a more standardized and positive experience.

RESULTS: Using a reliable and valid measure of instructor behavior, we demonstrated that instructor behaviors do impact Defense Language Proficiency Test (DLPT) scores and Oral Proficiency Interview (OPI) ratings. Providing instructors with feedback as early as 25% of the way through the course led to improved ratings throughout the course.

APPLICATION: The current research led initially to the development of a Learning effectiveness System (LES) and subsequently to the development of ALPS Ibex™, which have been used throughout USSOCOM to provide feedback to instructors and program administrators focused on improving the training experience and, ultimately, student outcomes.

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¹Originally prepared by ALPS Solutions, which was acquired by ALPS Insights.

Introduction

In 2007, ALPS Solutions conducted a series of analyses on training evaluation data that were being collected at the United States John F. Kennedy Special Warfare Center and School (USAJFKSWCS) to determine training effectiveness (Ellington & Surface, 2007). Findings from the analysis showed that a significant amount of variance in post-training language proficiency outcomes was related to the instructor [i.e., 31% variance in Defense Language Proficiency Test (DLPT) listening and 42% variance in DLPT reading]. The fact that instructors appeared to have so much influence on student outcomes led to a series of research studies and interventions designed to improve instructional behaviors and, ultimately, student outcomes. In this summary, we review this research and discuss how the initial problem uncovered by our research led to a successful intervention for students and instructors.

Study 1: Development of an Instructor Behavioral Evaluation for Foreign Language Instructors

Our research indicated that the instructor had an impact on student outcomes, but we were unable to specifically identify what instructor characteristics or behaviors were impacting outcomes. Our early research (Ellington & Surface, 2007) suggested that the percentage of time instructors spoke in English in the classroom negatively impacted post-training proficiency, but we had limited information about other instructor behaviors that might make a difference. In order to identify the instructor behaviors that were related to optimal student learning outcomes in the military foreign language training context, we conducted a thorough review of the training, education, business, psychology, and linguistic literature. This information was used to create a list of the 12 most important instructor behaviors.

This list of behaviors led to the development of 19 survey items designed to assess the quality of foreign language instructors and to focus on behaviors that students could observe and accurately rate. Survey items were constructed and reviewed by subject matter experts to ensure they fit within the broader conceptual domain of instructor effectiveness and within the military foreign language training context.



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Internal structure and reliability of the proposed scale items were examined using respondent data collected during initial acquisition training (IAT) language courses. This data-driven approach provided evidence that responses to the proposed items relate to one another in a manner that is consistent with the research underlying their development. Lastly, criterion-related validity evidence was collected by examining the predictive relationships between the proposed items and important training outcomes (e.g., proficiency ratings, confidence and intention to perform trained tasks).

Summary of Findings

- Three interpretable and highly related factors emerged, forming a 3-factor instructor evaluation measure: Ability to Engage and Encourage Students, Classroom Management, and Responsiveness and Adaptability.
- The measure was reliable (e.g. internal consistency estimates above .90).
- All facets of the instructor evaluation measure predicted post-training DLPT listening and reading proficiency ratings. All facets of the instructor evaluation measure were also related to other post-training affective outcomes (e.g., language task self-efficacy, motivation to transfer skills to the job).

Implications

This initial research led to the development of a measure of instructor behavior that we could administer to students that would help identify behavioral red flags early in the course. In Study 2, we explore the impact of instructor behaviors measured during the course on class proficiency outcomes to determine if there is value in measuring these behaviors throughout the course.

Study 2: Formative Student Evaluations of the Instructor and Student and Class Proficiency Outcomes

Once we developed a reliable and valid measure of instructor behavior, we began to administer the instructor items at multiple time points during the training course. The goal of formative evaluation is to provide feedback that can be used during training.

DLPT Analyses: This study examined whether instructor evaluations completed by students throughout IAT had an effect on class success at meeting mandated listening and reading proficiency standards on the DLPT at the end of training.

This study included two samples. Sample 1 consisted of 25 classes with 199 students and Sample 2 consisted of 21 classes with 183 students. In this study, all students completed a DLPT at the end of IAT and completed 5 instructor evaluations (3-factor model) over the duration of the course. The classes were categorized as low or high performing based on pass rates for meeting DLPT standards.

Summary of DLPT Findings

- Instructors of higher performing classes (i.e., classes with high DLPT pass rates) received higher satisfaction ratings from students than instructors of lower performing classes (i.e., classes with low DLPT pass rates).
- Instructors of higher performing classes received more positive overall evaluations from students than instructors of lower performing classes. Differences between group ratings were apparent as early as the 25% course completion mark.
- Item-level results suggested instructors of higher performing classes engaged in effective instructional behaviors (e.g., were responsive to questions, explained concepts clearly and coherently) more consistently than instructors of lower performing classes.
- Student comments suggested that instructors of lower performing classes exhibited poor classroom management, limited English skills, and did not provide sufficient performance feedback to students.

OPI Analyses: This study examined whether instructor evaluations completed by students throughout IAT were predictive of student's foreign language speaking and participatory listening proficiency, as assessed by the Oral Proficiency Interview (OPI), at the end of training. The data included in this study were obtained from a sample of 553 students from 4 cohorts of IAT classes.



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Summary of OPI Findings

- Instructor evaluations were predictive of students exceeding the 1/1 OPI standard.
- Higher instructor evaluations were associated with higher rates of students exceeding the 1/1 OPI standard.
- Instructor evaluations were predictive of OPI outcomes as early as the 25% course completion mark.

Implications

This study showed that ratings of instructor behavior were associated with class outcomes and that this effect could be seen as early as 25% of the way through the course. This finding suggested that providing feedback to instructors early in the course regarding their effective and ineffective behaviors as rated by students, could be a valuable intervention.

Study 3: Examining the Impact of Feedback on Instructor Effectiveness

In order to determine whether instructor evaluation can be used as an intervention to improve student and class outcomes, we investigated the extent to which feedback impacts subsequent instructor behaviors. The study examined the effect of student-provided evaluations of foreign language instructors on subsequent evaluations of instructors by the same students later in training.

The sample was comprised of students (N=708) who provided feedback regarding their instructors (N = 88) in 4 cohorts. The current sample included student evaluations of instructors across 4 cohorts of classes collected across 4 assessment points (i.e., 25%, 50%, 75% course completion and post-training). Two cohorts of instructors received feedback and the other two did not.

Summary of Findings

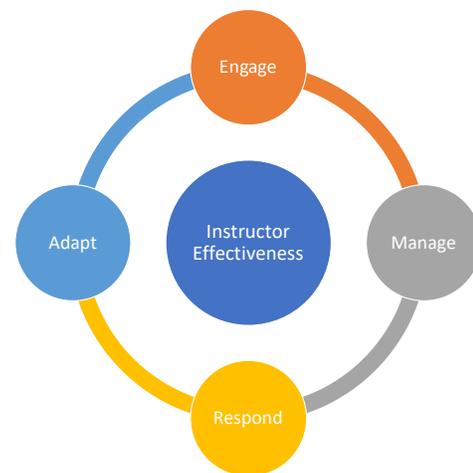
- Feedback during training had a positive impact on instructor evaluations. Instructor evaluations improved when feedback was provided.
- The impact was more positive for instructors with low initial (25% course completion) evaluations. This means, even instructors who have initially low ratings improve with feedback.

Implications

Measuring instructor behaviors and providing that feedback to instructors during training positively impacts student and class outcomes. Providing feedback as early as possible is key (e.g., 25% course completion). Future research should explore ways to continue to enhance the effectiveness of this type of intervention.

Conclusion

ALPS Solutions has continued to research and further refine measures of instructor behavior and ways that this feedback is delivered to instructors. For example, we recently reviewed the 3-factor model and investigated the use of a 4-factor model with new item groupings to account for conceptually distinct Responsiveness and Adaptability facets of instructor behavior. Now, we use a 4-factor model: Engage, Manage, Adapt, and Respond to deliver feedback to instructors (see Figure).



Further, we have made other logistical changes to the feedback process. Our original paper-based data collection and reporting protocols have been transferred to a web-based environment. This allows for more efficient data collection, processing, and delivery of results to managers and instructors. In addition, we have added many tools and features focused on instructor development, such as personal reflection questions and automatic report release, which ensures instructors receive feedback in a timely manner. Future development tools for instructors include goal-setting and action-planning logs.



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Full Citations

ALPS Solutions (2009, March). *Instructor best practices and new instructor metrics* (Technical Report #2009010602). Raleigh, NC: ALPS Solutions.

Ellington, J. K., & Surface, E. A. (2007). *Foreign language instructor effectiveness at USAJFKSWCS: A preliminary investigation of the impact of instructor characteristics on student language proficiency*. Invited presentation to the Special Operations Forces Language Office, Ft. Bragg, NC.

Study 1

ALPS Solutions (2009, March). *Instructor best practices and new instructor metrics* (Technical Report #2009010602). Raleigh, NC: ALPS Solutions.

ALPS Solutions (2009, August). *Instructor evaluations as a predictor of OPI-rated foreign language proficiency outcomes* (Technical Report #2009010619). Raleigh, NC: ALPS Solutions.

Study 2

ALPS Solutions (2009, August). *Instructor evaluations as a predictor of OPI-rated foreign language proficiency outcomes* (Technical Report #2009010619). Raleigh, NC: ALPS Solutions.

ALPS Solutions (2009, March). *Special Operations Forces Language Training Analysis Support Project: March brief*. Invited presentation to ARSOF Language Office, Fort Bragg, NC.

ALPS Solutions (2009, June). *Special Operations Forces Language Training Analysis Support Project: June brief*. Invited presentation to ARSOF Language Office, Fort Bragg, NC.

Study 3

ALPS Solutions (2009, August). *Instructor evaluations as a predictor of OPI-rated foreign language proficiency outcomes* (Technical Report #2009010619). Raleigh, NC: ALPS Solutions.

ALPS Solutions (2009, June). *Examining the impact of feedback on instructor effectiveness as reflected by instructor evaluations*. (Technical Report #2009010613). Raleigh, NC: ALPS Solutions.

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