



Short Line Safety Institute: Positive Perceptions of the Hazardous Materials Training Program

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Summary

The Short Line Safety Institute (SLSI) offers a Hazardous Materials Training Program to interested railroads. An assessment of the current program allows SLSI to learn from its past participants and to continually make improvements in order to best serve short line and regional railroads across the United States. SLSI conducted an analysis of feedback surveys that were provided to participants in its Hazardous Materials Training Program. Participants provided mostly positive feedback about the program, and also provided SLSI with suggestions for improving the program.

Background

The Short Line Safety Institute (SLSI) is dedicated to the continuous improvement of safety and safety culture across all short line and regional railroads in the United States. In addition to providing Safety Culture Assessments and Leadership Development Training, SLSI offers a Hazardous Materials Training Program free of charge to interested railroads. This program combines instructor-led lectures, hands-on training, and interactive experience-based discussions in order to create an engaging and comprehensive learning experience for participants.

SLSI's experienced instructors have over 600 years of combined experience in hazardous materials transportation safety and tailor the class to meet the needs of each railroad. Topics covered in the sessions include Department of Transportation regulations for the rail industry, job function-specific regulations, Homeland Security regulations, and Occupational Safety and Health Administration, Environmental Protection Agency, and other regulatory reporting requirements.

Objectives

This paper presents summary information collected in feedback questionnaires from participants in SLSI's Hazardous Materials Training Program. Participants' responses suggest which aspects of the program are helpful and effective, and which may have opportunities for improvement.

Methods

SLSI instructors distributed a feedback survey to participants at the conclusion of each Hazardous Materials Training Program. This survey allowed participants to anonymously answer specific questions about their experience in the program, as well as provide any comments or

feedback about the program in open-ended responses. Survey responses were collected by the instructors and participants were thanked for their voluntary participation.

SLSI then analyzed data from the feedback surveys. Mean scores from the multiple choice questions were calculated, and open-ended responses were transcribed and “bottom up” line-by-line content coded. This free form of coding allows codes to be generated from the data itself, providing insight into the topic that may not have been otherwise detected. General overall themes were then extracted from the content codes and summarized.

Results

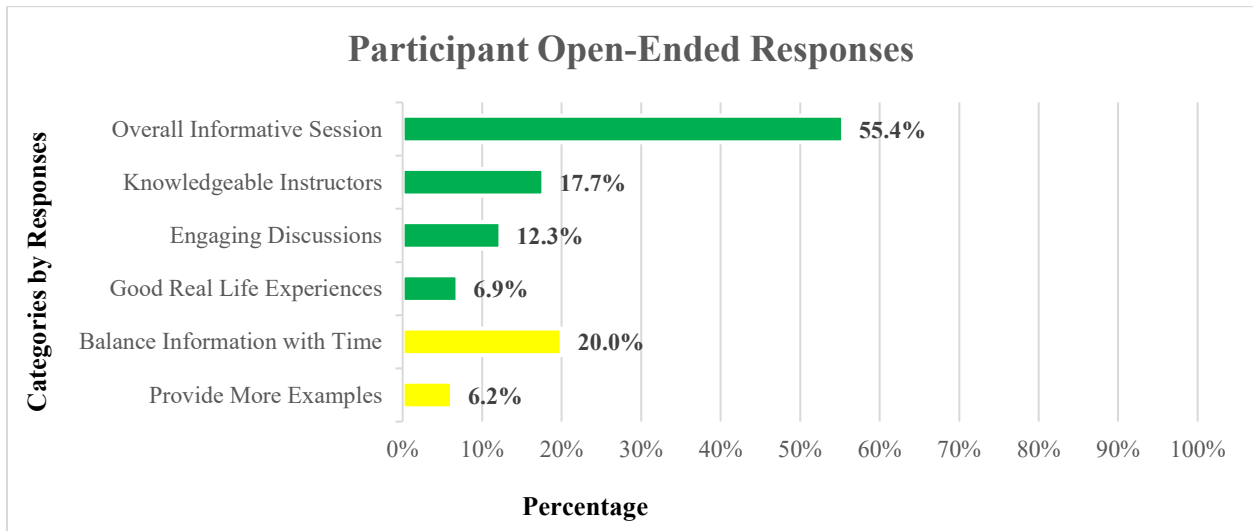
SLSI analyzed 266 surveys completed between July, 2018 and November, 2020. SLSI created composite variables to obtain overall ratings of the program, because the format and types of questions in the feedback survey varied over time. Survey questions covered a wide range of topics such as usefulness of the materials provided, effectiveness of instructors, and clarity of the presentations. Across all 266 feedback surveys, 97.4% of participants rated the program positively, as defined by responses such as “*agree*,” “*strongly agree*,” “*very well*,” and “*excellent*” (i.e., exceeding “*neutral*” and “*average*”) to various questions. These positive responses from participants suggests that the training program is indeed a valuable resource to short line and regional railroads.

Of the 266 participants that completed the feedback surveys, 48.9% (N = 130) of the participants responded to the open-ended question asking them to provide additional feedback and comments on the program. General themes extracted from open-ended responses are displayed in Figure 1. Please note that percentages exceed 100% as some participants provided responses that included multiple themes. Positive feedback on the program included an overall informative session (55.4%), knowledgeable instructors (17.7%), and engaging discussions (12.3%). Opportunities for improvement include balancing the amount of information within the time allotted (20.0%) and adding more examples into the material (6.2%).

Conclusions

SLSI’s Hazardous Materials Training Program is perceived by past participants as an informative and useful resource. The instructors are perceived as knowledgeable, engaging, and provide interesting “real life” examples to the class. Overall, participants consistently rated the program positively throughout the past two years. Opportunities to improve the program include providing more examples in the presentation and balancing the amount of information presented with the allotted teaching time. Adjustments based on these considerations will help improve the overall quality of the program and support SLSI’s goal of continuous improvement of safety and safety culture across all short line and regional railroads in the United States.

Figure 1.



Note. N = 130. Percentages exceed 100% as some participants provided responses that included multiple themes. Green bars indicate “Findings” and yellow bars indicate “Opportunities for Improvement.”