Transformative Learning for Safe Driving: Strengthening Safety Culture in a Transportation Company in West Java

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Abstract

Safe driving practices are essential for creating a safer and healthier work environment and for supporting the implementation of Occupational Health and Safety (OHS) programs. This study aims to analyze employees' safe driving behavior, the application of transformative learning tools, and their relationship to the company's overall safety culture. A quantitative research method was used, with data collected through surveys with a close-ended questionnaire distributed to truck drivers at PT Wildan Lestari Mandiri, a transportation company in West Java. Descriptive analysis was applied to identify the relationship between employee's safe driving behavior, transformative learning, and safety culture within the company. The study also explores the use of safety inductions and safety posters as transformative learning media to help employees reflect on and improve their driving behavior. The study focuses on truck drivers as the main participants. The findings are expected to show how safe driving practices supported by transformative learning tools can enhance the company's overall OHS performance within the organization.

Keywords: Best Practices, Occupational Health and Safety (OHS), Quantitative Research, Safety Driving, Transformative Learning

Introduction

Transportation safety remains a critical concern in Indonesia, particularly within the logistics and passenger transport sectors that experience high rates of traffic incidents each year. According to data from the Indonesian National Police, human factors such as lack of awareness, poor decision-making, and noncompliance with safety standards are among the dominant causes of road accidents. This condition highlights the urgent need for not only technical training but also a transformative approach to learning that shapes drivers' attitudes, values, and behaviors toward safety. Embedding reflective learning into safety training helps integrate OHS principles into workers' daily decision-making and enhances engagement [1].

Transformative learning emphasizes critical reflection and experiential learning that leads to a change in one's worldview and habitual ways of thinking [2]. Within the context of transportation companies, this approach has the potential to go beyond routine compliance training by fostering internalized safety values among drivers. It shifts learning from a merely procedural activity to a meaningful process of self-awareness and behavioral transformation, aligning individual motivations with organizational safety goals.

In a transportation company in West Java, building a strong safety culture faces challenges such as drivers' diverse educational backgrounds, heavy workloads, and limited reflective learning. Integrating transformative learning into safety training can improve both driving competence and collective safety responsibility. Transformative learning encourages deep reflection that leads to lasting behavioral change [3].

This study examines how transformative learning influences the safety culture within PT Wildan Lestari Mandiri, focusing on its processes, experiences, and outcomes. The research aims to identify how such learning fosters behavioral change, risk awareness, and sustainable safety practices, offering insights for developing more reflective, human-centered training programs. Research Question: How are employee's awareness and behavior toward safe driving practices as a result of the company's safety education and training programs?. How effective are posters and safety induction programs in promoting transformative learning that leads to improved safety awareness and behavioral change within the organization?. How are truck drivers perceive safety culture within the working environment of PT. Wildan Lestari Mandiri?

Material and Methods

This study used a quantitative research design utilizing questionnaire surveys to examine the implementation of safety measures among professional drivers in a logistics company based in West Java. Independent variables are manipulated by the researcher, while dependent variables reflect the effects of those manipulations [4]. Therefore, this method is considered appropriate to illustrate the dynamics of safety measurements in driving as implemented in Occupational Health and Safety (OHS) in the workplace.

Material

The participants of this research consist of 23 employees employed as drivers and driver assistants at PT. Wildan Lestari Mandiri. Sampling was determined by occupational relevance, representing individuals from diverse educational and social backgrounds in suburban districts of the capital region. Informed consent was obtained from respondents, and anonymity was ensured to encourage truthful participation.

This research instrument was a closed-ended questionnaire based on a five-point Likert scale, designed to measure the extent of agreement or disagreement with each statement. The questionnaire was structured into three main dimensions: (1) Awareness and Safe Driving Behavior, (2) Transformative Learning, and (3) Safety Culture. Its

design and implementation were conducted under the supervision and approval of both institutional and corporate representatives.

Methods

Data collection was conducted through both online and paper-based formats, including Google Forms and WhatsApp distribution, to accommodate the participants' high mobility and varying educational backgrounds. The questionnaire distributed was accompanied by a brief explanation of the study's purpose, data confidentiality, and a statement of informed consent from participants indicating their voluntary participation.

Data analysis was conducted using a descriptive statistical approach, categorizing responses according to agreement levels. This analytical method was deemed suitable given the limited sample size, providing an overview of the prevailing safety behavior and culture within the transportation company.

Results and Discussion

This section presents the data obtained from the field survey conducted at PT. Wildan Lestari Mandiri, a transportation company located in West Java. The data were collected from a total of 23 respondents who were selected as the study sample, consisting mainly of company truck drivers. The purpose of the data collection was to analyze the relationship between safe driving behavior, transformative learning practices (through safety posters and safety inductions), and safety culture within the organization.

Respondents Characteristics

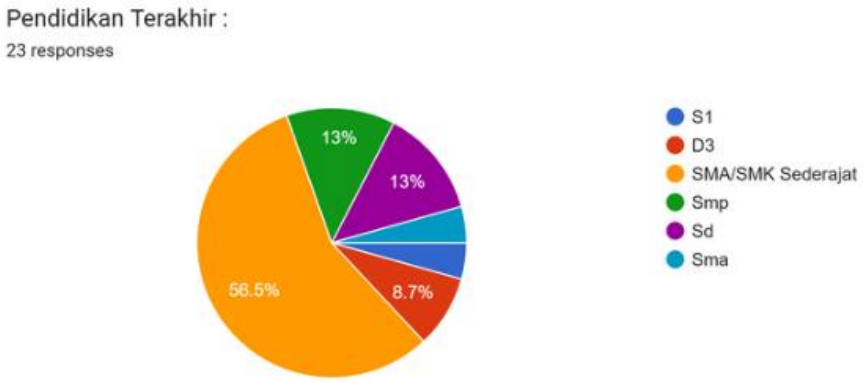

Figure 1. Educational Background of Respondents

The data presented in Figure 1.1 show that majority of respondents at PT. Wildan Lestari Mandiri have completed senior high school or vocational education (SMA/SMK), accounting for 56.5% of the total 23 respondents. This indicates that most employees, particularly drivers and assistant drivers, possess a practical and technical educational background relevant to their operational roles.

Meanwhile, 13% of respondents completed junior high school (SMP), and another 13% completed elementary school (SD). Respondents with a Diploma (D3) level of education represent 8.7%, while a smaller proportion of S1 (bachelor's degree) graduates make up the remaining percentage.

This distribution suggests that the workforce is primarily composed of individuals with moderate formal education levels, which may influence how training materials and safety communications, such as posters and inductions, are designed. Adapting learning materials to the educational background of workers enhances comprehension and engagement, especially in promoting safety awareness and behavioral change [5, 6].

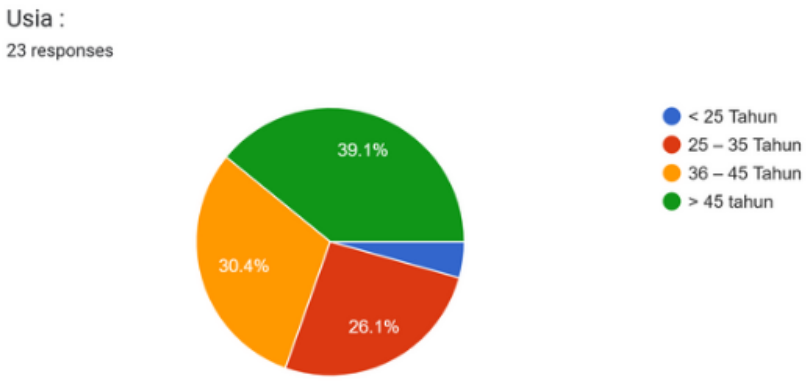

Figure 2. Age Distribution of Respondents

Figure 2 illustrates the age distribution of respondents. The largest age group is over 45 years old, comprising 39.1% of the total respondents. This indicates that a significant portion of the workforce is experienced and mature, which can positively influence adherence to safety procedures and responsible driving behavior. The next largest group, aged 36–45 years, represents 30.4%, followed by the 25–35 years group at 26.1%, and the youngest group, under 25 years, making up only 4.4% of respondents.

This age composition shows that most employees are within the productive and experienced age range, aligning with the operational requirements of a transportation company. Experienced workers tend to exhibit higher safety awareness due to longer exposure to safety training and work practices [7, 8]. However, the smaller percentage of younger employees may also indicate the need for continuous learning programs to ensure knowledge transfer and sustainable safety culture development across generations.

To answer a descriptive research question, the first step is to determine the ideal or criterion score [9]. Thus, the ideal score for the safety awareness and safe driving variable is calculated as $5 \times 5 \times 23 = 575$, where 5 represents the highest possible score, 5 represents the total number of items in the safety awareness and safe driving behavior instrument, and 23 represents the total number of respondents. The ideal score for transformative learning through posters and safety inductions is also $5 \times 5 \times 23 = 575$. Similarly, the ideal score for the safety culture variable is $5 \times 5 \times 23 = 575$.

Safety Awareness and Safe Driving Behavior

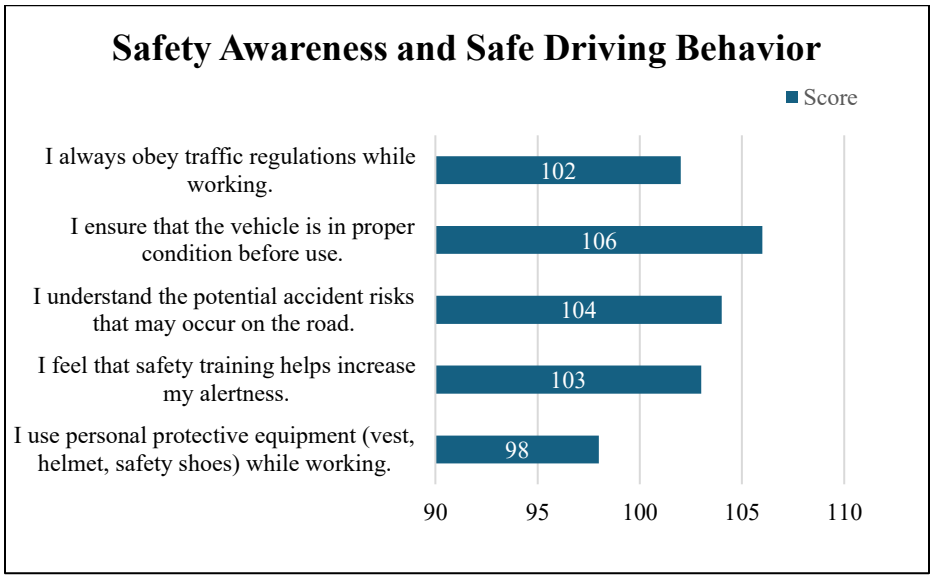

Figure 3. Driver's Safety Awareness and Safe Driving Behavior Scores

As shown in Figure 3, the highest score of 106 was obtained for the statement "I ensure that the vehicle is in proper condition before use." This indicates that the majority of respondents consistently perform pre-operational vehicle checks before driving, reflecting a strong awareness of preventive safety practices. This behavior demonstrates a proactive attitude toward risk prevention, which is essential in reducing potential mechanical failures and traffic incidents. Such preventive actions represent a key component of safety management behavior and are strongly associated with improved overall safety performance [10].

While most employees recognize the importance of pre-operational vehicle checks, not all consistently apply it when it comes to using protective equipment. The result score of 98 suggests that the use of personal protective equipment (PPE) is sometimes overlooked, possibly due to discomfort, routine familiarity, or a perception that PPE is unnecessary for short-distance tasks. Such inconsistencies often occur when workers underestimate everyday risks or become overly accustomed to routine tasks [8].

Overall, the total score obtained for the safety awareness and safe driving behavior variable is 513. Therefore, the score achieved by drivers and assistant drivers for safety awareness and safe driving behavior is calculated as 513 ÷ 575 = 0.89, or 89% of the expected value. This indicates that the level of safety awareness and safe driving behavior among drivers at PT. Wildan Lestari Mandiri has reached 89% of the expected standard, where the ideal result is 100%.

Transformative Learning Media

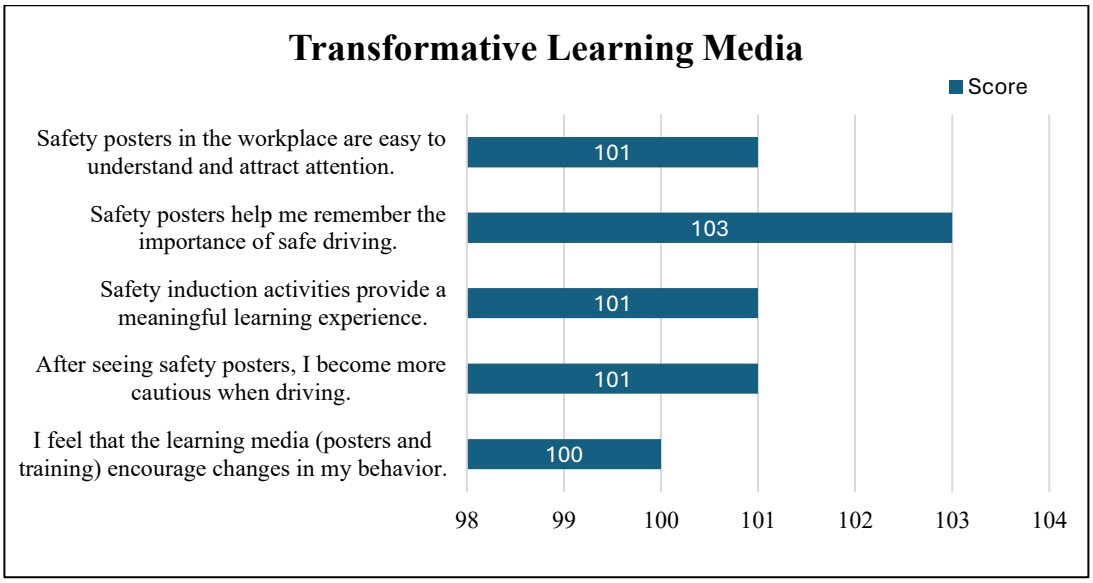

Figure 4. Safety Posters and Safety Inductions Effectiveness

As illustrated in Figure 4, the highest score of 103 was recorded for the statement "Safety posters help me remember the importance of safe driving." This finding suggests that visual learning tools, particularly safety posters, play a strong role in reinforcing key safety messages and maintaining employees' awareness of safe driving practices. Posters serve as constant reminders that help internalize organizational safety values, then reflection and reinforcement are essential for behavioral change [2]. Risk perception and safety compliance are influenced not only by training but also by workers' reflective engagement with safety messages [11].

On the contrary, the lowest score of 100 was obtained for the statement "I feel that the learning media (posters and training) encourage changes in my behavior." This indicates that while safety media are effective for awareness and memory retention, their influence on long-term behavioral transformation is less direct. Transformative learning requires deeper engagement such as emotional involvement, reflection, and active participation to translate awareness into consistent behavioral change [12].

The ideal score for the transformative learning variable using posters and safety inductions is calculated as $5 \times 5 \times 23 = 575$. The total score obtained from the collected data is 506. Therefore, the effectiveness value of transformative learning through posters and safety inductions is $506 \div 575 = 0.88$, or 88% of the expected result.

The findings of this study show that transformative learning plays a crucial role in strengthening the company's safety culture by enabling employees, particularly drivers, to reflect on and internalize safety values rather than simply complying with regulations. Learning becomes transformative when it reshapes both cognition and identity [12]. Consequently, safety has evolved from a set of imposed procedures into a shared organizational value, forming the foundation of a proactive safety culture [13].

Safety Culture at Work

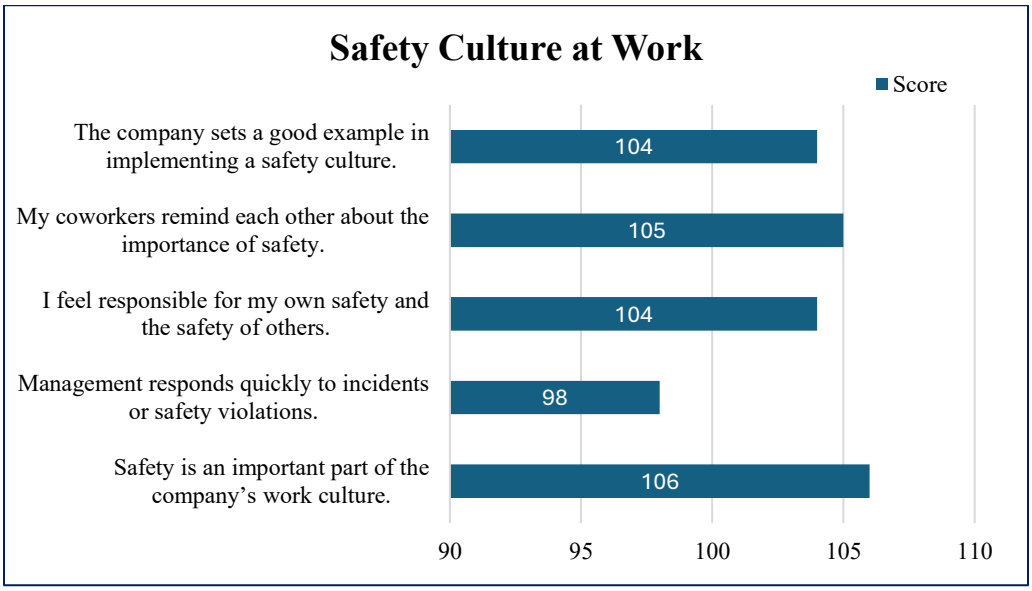

Figure 5. Safety Culture Scores Within PT. Wildan Lestari Mandiri

Based on Figure 5, the highest score of 106 was recorded for the statement "Safety is an important part of the company's work culture." This result reflects a strong collective understanding among employees that safety is embedded in the organization's values and daily operations. A high score in this aspect signifies that safety is not only formally promoted but also informally practiced and valued by workers especially drivers. Leadership communication and reinforcement are critical in shaping consistent safety practices and translating policy into employee behavior [14].

In contrast, the lowest score of 98 was found for the statement "Management responds quickly to incidents or safety violations." This indicates that while employees acknowledge the importance of safety, there may be gaps in managerial responsiveness or communication following incidents. Managerial responsiveness directly influences employees' perception of organizational justice and accountability, reinforcing the notion that leadership engagement is central to sustaining proactive safety behavior [15].

The ideal score for the safety culture variable within the work environment is also $5 \times 5 \times 23 = 575$. The total score obtained from the research data is 517. Thus, the safety culture score within PT. Wildan Lestari Mandiri's working environment is $517 \div 575 = 0.89$, or 89% of the expected value. The 89% achievement also aligns with the argument that employee perceptions of safety climate, reflected through management behavior, communication, and peer support, directly influence safety performance [7].

However, despite this positive outcome, the remaining 11% gap indicates areas that still require attention. Safety systems are inherently vulnerable to complacency if continuous improvement is not prioritized [8]. This means that while a strong safety culture has been built, maintaining and advancing it demands ongoing monitoring, periodic training, and feedback mechanisms that encourage employees to report hazards and share safety-related experiences. Effective safety management depends not only on training content but also on how learning is reinforced through communication and leadership support [5].

Conclusion

The findings of this study demonstrate that the level of safety awareness and safe driving behavior among drivers and assistant drivers at PT. Wildan Lestari Mandiri has reached 89% of the expected standard. This indicates that employees generally possess a strong understanding of safe driving principles and consistently apply them in their daily operations, though continuous improvement is still needed to achieve the ideal standard of 100%. Meanwhile, not all drivers consistently apply it when it comes to using protective equipment.

The results indicate that the effectiveness level of transformative learning through posters and safety induction programs has reached 88% of the expected standard. This suggests that the use of visual learning media and induction sessions has been successful in promoting awareness and behavioral reflection among employees. However, the remaining 12% gap indicates that there is still room for improvement, particularly in increasing engagement during safety inductions and ensuring that all employees consistently internalize the messages displayed in safety posters.

Meanwhile, the safety culture score of 89% demonstrates that a strong safety-oriented environment has been established within PT. Wildan Lestari Mandiri. Employees show high awareness and responsibility for maintaining safe practices, both individually and collectively. Nevertheless, sustaining and further improving this safety culture requires continuous reinforcement through periodic evaluations, refresher training, and leadership involvement to ensure that safety values remain deeply embedded in daily work behavior.

Limitations

Although this study provides meaningful insights into the role of transformative learning in strengthening safety culture, several limitations should be acknowledged.

First, the research was conducted within a single transportation company (PT. Wildan Lestari Mandiri), which limits the generalizability of the findings to other organizations or industrial sectors. The specific characteristics of the company, such as its size, management style, and operational procedures, may have influenced the results.

Second, the sample size was limited to 23 respondents, primarily consisting of drivers and assistant drivers. A larger and more diverse sample that includes administrative staff and management personnel could provide a more comprehensive understanding of the organization's safety culture.

Third, the study relied on self-reported data collected through questionnaires, which may be subject to social desirability bias, as respondents might overstate their compliance or awareness levels. Additionally, the quantitative design did not capture deeper qualitative insights, such as personal reflections or emotional responses to transformative learning experiences.

Recommendations for Future Research

Future studies are encouraged to expand on these findings by including multiple companies or sectors, allowing for comparative analysis of how transformative learning functions across different organizational contexts. Researchers

could also adopt a mixed-methods approach, combining quantitative surveys with qualitative interviews or focus groups, to gain a more nuanced understanding of how employees experience and interpret safety-related learning.

It is also recommended that future research examine the long-term impact of transformative learning on behavioral consistency and accident reduction. Furthermore, the use of digital learning tools, such as interactive e-learning modules or mobile-based safety reminders, could be explored as a complement to traditional posters and induction programs. Investigating the role of leadership involvement and peer influence in supporting transformative learning processes could also provide valuable insights for enhancing safety culture in similar industrial settings

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