

Beyond Cognitive Disruption: Cultivating Reflective Awareness through Contextual Authenticity in Experiential OSH Training

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Abstract

Building upon prior findings that safety learning begins with cognitive disruption and reflective unlearning, this study examines how reflective safety awareness is cultivated among Occupational Safety and Health (OSH) Coordinator training participants through experiential learning processes. Adopting a qualitative interpretative approach, data were generated from 15 participants across multiple industrial sectors using semi-structured interviews and observations and analysed through thematic analysis. The findings reveal three interconnected learning mechanisms that support the development of reflective safety awareness, namely intellectual provocation through facilitated dialogue, vicarious reflection through peer-based risk narratives, and contextual authenticity through experiential learning activities. These mechanisms encourage participants to critically reassess prior assumptions, engage in reflective evaluation, and develop a more context-sensitive understanding of workplace safety. The study concludes that reflective safety awareness is actively constructed through interaction, experience, and contextual engagement rather than passively acquired through information delivery. The findings highlight the importance of experiential learning and contextual authenticity in supporting the transition from disrupted understanding towards sustained reflective safety awareness among experienced practitioners.

Keywords: Reflective Safety Awareness, Experiential Learning, Contextual Authenticity, OSH Coordinator

Introduction

Conventional Occupational Safety and Health (OSH) training has increasingly been criticised for its continued reliance on procedural compliance and knowledge transmission, creating the assumption that safety awareness develops naturally through knowledge acquisition alone (Burke et al., 2011; Salas et al., 2018). However, contemporary workplaces are characterised by complex and dynamic risk environments that require workers to move beyond rule-following towards reflective interpretation and informed judgement (Billett, 2020; Illeris, 2020). This challenge is particularly relevant for Occupational Safety and Health Coordinators

(OSHC), who are often required to manage safety responsibilities while simultaneously fulfilling operational duties within increasingly demanding workplace settings.

Building upon previous findings that safety learning begins with cognitive disruption and reflective unlearning (Latib & Ismail, 2026), an important question remains insufficiently explored: how does disrupted understanding develop into sustained reflective safety awareness? While cognitive disruption may challenge existing assumptions, it does not automatically result in meaningful or lasting changes in awareness and practice. Transformative learning perspectives suggest that disruption must be followed by reflection, engagement, and meaning reconstruction before new understandings can become embedded within professional practice (Mezirow, 2000; Illeris, 2020; Kolb & Kolb, 2021). Nevertheless, the mechanisms that facilitate this transition remain underexplored within the context of OSH training.

This study addresses this gap by examining how reflective safety awareness is cultivated through experiential learning processes within OSH training. Specifically, the study explores the role of intellectual provocation through facilitated dialogue, vicarious reflection through peer-based risk narratives, and contextual authenticity through experiential learning activities. The study argues that reflective safety awareness is not passively acquired through information delivery but actively constructed through interaction, experience, and contextual engagement within the training environment.

Literature Review

Intellectual Provocation and Reflective Dialogue

Contemporary learning theories suggest that meaningful learning occurs when individuals are encouraged to question existing assumptions and critically examine their understanding of workplace realities. Rather than passively receiving information, learners become actively engaged when facilitators challenge taken-for-granted beliefs through questioning, discussion, and reflection (Illeris, 2020; Mezirow, 2000). Within workplace learning environments, facilitated dialogue encourages Occupational Safety and Health (OSH) Coordinators to justify decisions, evaluate alternative perspectives, and reassess previously accepted practices, thereby strengthening reflective thinking and professional judgement (Billett, 2020). Through this process, OSH Coordinators are encouraged to move beyond routine acceptance of workplace procedures towards a deeper examination of the reasoning and assumptions that underpin their actions, particularly when managing complex safety issues in dynamic organisational settings.

However, the effectiveness of reflective dialogue remains contested, particularly within high-risk industrial environments characterised by strong organisational hierarchies and compliance-oriented cultures. OSH Coordinators may hesitate to question established practices or challenge supervisory decisions due to concerns about authority, blame, organisational politics, or potential negative repercussions. Edmondson (2018) argues that meaningful dialogue is unlikely to occur unless individuals perceive sufficient psychological safety to express uncertainty, admit mistakes, and explore alternative viewpoints. Similarly, Dekker (2019) suggests that learning-oriented safety cultures encourage open discussion and reflection, whereas blame-oriented environments often reinforce passive compliance and discourage critical engagement.

These contrasting perspectives indicate that reflective dialogue is not solely dependent on instructional design but is also shaped by broader organisational and cultural conditions. Within the context of OSH training, such challenges highlight the importance of creating learning environments that support questioning, dialogue, and reflective participation as foundations for developing reflective safety awareness among OSH Coordinators.

Vicarious Reflection through Peer-Based Risk Narratives

Reflection is not always derived from direct experience but may also emerge through exposure to the experiences of others. Peer-based narratives provide opportunities for OSH Coordinators to learn from real incidents, enabling them to evaluate workplace risks without personally experiencing adverse events. Through the sharing of accident cases, near misses, and workplace challenges, participants are encouraged to compare their own practices with those described by their peers, thereby supporting deeper reflection and awareness (Illeris, 2020; Billett, 2020). Such socially mediated learning experiences enable OSH Coordinators to recognise the potential consequences of unsafe practices while broadening their understanding of workplace risks across different organisational contexts. This form of learning is particularly valuable in safety-critical industries where direct exposure to hazardous events may be impractical, unethical, or potentially harmful.

Despite their educational value, peer-based narratives are not without limitations. Individuals may interpret stories selectively or attribute incidents to bad luck, individual negligence, or unique circumstances rather than recognising broader organisational and behavioural factors. This phenomenon, often referred to as defensive attribution, may reduce the effectiveness of narrative-based learning by distancing learners from the relevance of the experience. Furthermore, stories shared within training settings may be influenced by personal bias, incomplete recollections of events, or retrospective rationalisations that oversimplify complex workplace realities. Consequently, the effectiveness of peer narratives depends not only on storytelling itself but also on structured reflection and facilitated discussion that encourage participants to critically evaluate the causes, consequences, and lessons associated with workplace incidents. Within OSH training, such reflective engagement is essential for transforming narratives into meaningful safety learning experiences that can influence future decision-making and professional practice among OSH Coordinators.

Contextual Authenticity in Experiential Learning

Experiential learning theory emphasises that meaningful learning is strengthened when individuals actively engage with situations that closely resemble real workplace conditions (Kolb & Kolb, 2021). Contextually authentic learning activities provide opportunities for OSH Coordinators to apply knowledge, evaluate decisions, and reflect upon actions within realistic scenarios. Unlike conventional instructional approaches that focus primarily on information delivery, authentic learning experiences encourage participants to connect theory with practice and develop context-sensitive judgement (Salas et al., 2020; Kolb & Kolb, 2021). Within occupational safety training, activities such as simulations, case analyses, workplace scenarios, and practical exercises provide opportunities for participants to experience the complexity of safety decision-making in environments that mirror actual workplace conditions. Such experiences are particularly important because safety-related decisions

often involve uncertainty, competing priorities, and rapidly changing operational demands that cannot be fully understood through theoretical instruction alone.

Nevertheless, implementing authentic learning experiences within high-risk industries presents several challenges. Realistic simulations often require substantial organisational resources, specialised equipment, and significant time commitments, making them difficult to implement consistently across training programmes. In some situations, reproducing workplace hazards for learning purposes may introduce additional safety concerns and operational risks. As a result, contemporary safety training increasingly incorporates simulation-based learning and virtual learning technologies to enhance contextual authenticity while minimising physical risk and operational disruption.

Although such approaches appear promising, further research remains necessary to understand how authentic learning experiences contribute to the long-term development and sustainability of reflective safety awareness among Occupational Safety and Health Coordinators. Existing studies have largely focused on training effectiveness, knowledge acquisition, or behavioural outcomes, while comparatively limited attention has been given to the mechanisms through which authentic learning experiences foster reflective safety practices among OSH professionals. Consequently, this study aims to address this empirical gap by investigating the specific mechanisms through which contextually authentic OSH training influences the reflective practices of Occupational Safety and Health Coordinators within high-risk sectors.

Methodology

This study examines the experiential learning mechanisms that contribute to the development of reflective safety awareness among Occupational Safety and Health (OSH) Coordinator training participants. The study forms part of a broader research project on transformative learning in OSH Coordinator training and focuses specifically on how participants develop, deepen, and strengthen reflective safety awareness through engagement in experiential learning activities throughout the training process.

A qualitative interpretative approach was adopted to gain an in-depth understanding of participants' learning experiences and reflective processes. Qualitative inquiry is particularly suitable for exploring how individuals construct meaning from their experiences and interpret learning within specific social and organisational contexts (Creswell & Poth, 2018; Merriam & Tisdell, 2016). The study was situated within the Malaysian OSH Coordinator training context, which provides the practical and competency setting for developing safety awareness among workplace safety personnel. The study involved 15 Occupational Safety and Health Coordinators from various industrial sectors who had completed the OSH Coordinator training programme. Participants were selected using purposive sampling to ensure that they possessed relevant training experiences and could provide rich descriptions of their reflective learning journeys (Palinkas et al., 2015).

Data were generated through semi-structured interviews and non-participant observations conducted during training activities. The interviews focused on participants' experiences of dialogue, peer interaction, and engagement in authentic learning activities, while observations provided additional contextual insights into participant interactions and learning

behaviours throughout the training process. All interviews were transcribed verbatim and analysed using thematic analysis following the procedures outlined by Braun and Clarke (2021). The analysis involved repeated familiarisation with the data, coding, theme development, theme refinement, and interpretation of findings.

The analysis specifically focused on identifying experiential learning mechanisms that facilitated reflective awareness during training. Three interconnected themes emerged from the data, namely intellectual provocation through facilitated dialogue, vicarious reflection through peer-based risk narratives, and contextual authenticity through experiential learning activities. These themes form the basis of the findings presented in this article.

Findings

Intellectual Provocation through Facilitated Dialogue

Participants consistently described how questioning, discussion, and facilitator feedback encouraged them to critically examine previously accepted assumptions regarding workplace safety. Rather than merely receiving information, participants reported being challenged to reflect upon workplace decisions, responsibilities, and risk management practices.

Participant R1 stated:

“When the trainer discussed legal liability and duty of care, I was genuinely taken aback. It was only then that I realised that if an accident occurred and we failed to control the risks properly, we ourselves could be held accountable.”

Participant R5 stated:

“I realised that I was not as knowledgeable as I thought. I had simply been fortunate that nothing serious had happened before. That experience made me reflect on the way I had been working all these years.”

Participant R13 stated:

“I began to realise how stress, fatigue, and work pressure could cause a person to overlook important safety risks.”

Synthesis of Findings

The findings suggest that intellectual provocation emerged when participants were encouraged to question long-held assumptions and critically reflect upon workplace realities. Facilitated dialogue enabled participants to move beyond routine compliance and develop a deeper understanding of their responsibilities towards workplace safety. Through reflective questioning and discussion, participants became more aware of hidden risks, personal accountability, and the influence of human factors on safety-related decision-making.

Vicarious Reflection through Peer-Based Risk Narratives

Participants reported that learning from the experiences of others encouraged them to reflect upon workplace risks and reconsider their own practices. Accident cases, near misses, and shared workplace experiences enabled participants to appreciate the potential consequences of unsafe behaviour without directly experiencing such incidents themselves.

Participant R3 stated:

“When the trainer showed a real workplace accident video, I was shocked because the incident was very similar to situations that I had personally witnessed at my own workplace.”

Participant R7 stated:

“When the trainer discussed near-miss incidents and presented real accident cases, I immediately recalled many situations at work that I had previously taken lightly.”

Participant R15 stated:

“When the trainer explained workers’ rights to speak up and report hazards, I felt that I gained a new sense of confidence.”

Synthesis of Findings

The findings indicate that peer-based risk narratives facilitated vicarious reflection by allowing participants to learn from the experiences of others. Exposure to real accident stories and workplace incidents encouraged participants to reassess workplace risks, recognise the potential consequences of unsafe practices, and reflect upon their own behaviour. These narratives appeared to create an emotional connection that strengthened participants’ awareness of safety responsibilities and workplace hazards.

Contextual Authenticity through Experiential Learning Activities

Participants highlighted the importance of practical learning activities that reflected real workplace situations. Authentic examples, workplace scenarios, and risk assessment exercises enabled participants to connect theoretical concepts with actual workplace conditions and decision-making processes.

Participant R4 stated:

“When the trainer asked us to conduct a risk assessment based on workplace photographs, I realised that many small issues that we usually ignore could actually become the cause of major accidents.”

Participant R9 stated:

“When the trainer discussed risk assessment and hazard identification, I started to think about many situations at my workplace that I had previously overlooked.”

Participant R11 stated:

“I realised that if even one person works carelessly or ignores safety procedures, everyone in the workplace can be affected.”

Synthesis of Findings

The findings indicate that contextual authenticity enhanced reflective safety awareness by engaging participants with realistic workplace situations. Practical activities and authentic scenarios helped participants evaluate hazards more critically and connect theoretical knowledge with workplace practice, strengthening informed safety decision-making.

Discussion

The findings suggest that reflective safety awareness develops through experiential learning rather than through the simple acquisition of safety knowledge. Participants moved beyond procedural compliance when they engaged in guided reflection, peer-based risk narratives, and realistic learning activities that encouraged them to question assumptions and reconsider workplace practices. This finding supports transformative learning theory, which emphasises reflection as a process of critically re-evaluating existing perspectives and constructing new understandings based on experience (Mezirow, 2000; Taylor & Cranton, 2023). It also aligns with experiential learning theory, which views learning as a continuous process of experience, reflection, conceptualisation, and application (Kolb & Kolb, 2021; Kolb, 2015). The findings further support the argument that workplace learning becomes meaningful when individuals actively engage with authentic situations and challenge existing assumptions rather than simply receiving information (Billett, 2020; Jarvis, 2006). Consequently, reflective safety awareness appears to represent a transformation in understanding rather than a mere increase in procedural knowledge.

The study also highlights the important role of emotional engagement and social interaction in shaping reflective safety awareness. Participants frequently described emotional reactions such as concern, shock, vulnerability, and heightened personal responsibility following exposure to accident narratives and workplace experiences. These findings are consistent with Illeris (2020), who argues that meaningful learning involves the integration of cognitive, emotional, and social dimensions. Similarly, Dirkx (2006) emphasises that emotions are not peripheral to learning but often serve as powerful triggers for reflection and personal transformation. Through peer discussions and shared experiences, participants were able to compare perspectives, challenge assumptions, and construct new meanings regarding workplace safety. This finding supports previous workplace learning research which suggests that learning is socially situated and strengthened through interaction, participation, and collaborative meaning-making (Billett, 2020; Eraut, 2004; Fuller & Unwin, 2004). The findings therefore indicate that reflective safety awareness is not solely an individual cognitive process but also a socially mediated learning experience.

Another significant contribution of this study relates to the role of contextual authenticity in facilitating reflective learning. Participants consistently reported that practical activities, workplace scenarios, case studies, and risk assessment exercises were more impactful than information delivery alone. Authentic learning experiences enabled participants to connect theoretical concepts with workplace realities, thereby supporting more informed and context-sensitive safety decision-making. This finding is consistent with experiential learning literature, which emphasises the importance of authentic engagement and reflective observation in promoting meaningful learning (Kolb & Kolb, 2021; Beard & Wilson, 2022). Safety training research similarly shows that active and engaging training methods, supported by well-designed opportunities for practice and feedback, can strengthen learning and its transfer to workplace performance (Burke et al., 2011; Salas et al., 2018). The findings therefore suggest that reflective awareness is strengthened when learning activities closely resemble the complexity and uncertainty of actual workplace conditions.

The findings also raise important questions regarding the continued reliance on compliance-based approaches within occupational safety training. Although compliance-oriented training

remains necessary for ensuring regulatory adherence and procedural consistency, it may be insufficient for developing the reflective capabilities required in dynamic and unpredictable work environments. Previous studies have argued that an excessive focus on compliance can encourage rule-following behaviour without necessarily developing deeper risk awareness or adaptive safety thinking (Reason, 2016; Dekker, 2019; Hollnagel, 2018). Participants in this study appeared to benefit most from learning activities that encouraged questioning, discussion, reflection, and critical engagement with workplace realities. This supports arguments that safety learning should move beyond procedural instruction and incorporate opportunities for reflective dialogue, experiential engagement, and collaborative learning (Edmondson, 2018; Kines et al., 2010). Such approaches may contribute to the development of more reflective and adaptive safety practitioners who are capable of recognising, interpreting, and responding effectively to emerging workplace risks.

Despite these contributions, the study is limited to participants who attended a specific OSH Coordinator training programme and therefore reflects experiences within a particular learning context. The transferability of the findings to other occupational settings should therefore be interpreted with caution. Furthermore, while reflective safety awareness appeared to develop during training, its long-term sustainability and influence on workplace behaviour remain uncertain. Future research should examine how reflective awareness evolves over time and explore the organisational conditions that facilitate or constrain its application in practice. Such investigations may contribute to a deeper understanding of how reflective safety awareness can be embedded as an enduring professional competency within occupational safety and health practice (Illeris, 2020; Billett, 2020; Taylor & Cranton, 2023).

Conclusion

This study shows that reflective safety awareness is developed through three connected learning mechanisms. Intellectual provocation encourages participants to question familiar assumptions through facilitated dialogue. Vicarious reflection allows them to examine risk through the experiences and incident narratives of others, while contextual authenticity helps them connect safety concepts with the uncertainty and practical demands of real workplace situations. Together, these mechanisms explain how participants move beyond receiving safety information towards interpreting risk, reviewing earlier practices, and forming more context-sensitive safety judgements.

Theoretically, the findings extend experiential and transformative learning perspectives by showing how dialogue, social experience, and authentic activity work together during OSH training to cultivate reflective awareness after initial cognitive disruption. Practically, the findings suggest that OSH programmes should combine guided questioning, peer-based risk narratives, and realistic problem-solving activities rather than rely mainly on procedural instruction. This approach can help OSH Coordinators develop the reflective capacity required to recognise emerging risks and make informed safety decisions. Further longitudinal research is needed to determine whether this awareness is sustained and translated into workplace behaviour over time.

References

- Beard, C., & Wilson, J. P. (2022). *Experiential learning: A handbook for education, training and coaching* (4th ed.). Kogan Page.
- Billett, S. (2020). *Learning through work: Workplace affordances and individual engagement*. Springer.
- Braun, V., & Clarke, V. (2021). *Thematic analysis: A practical guide*. Sage.
- Burke, M. J., Salvador, R. O., Smith-Crowe, K., Chan-Serafin, S., Smith, A., & Sonesh, S. (2011). The dread factor: How hazards and safety training influence learning and performance. *Journal of Applied Psychology*, 96(1), 46–70.
- Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). Sage.
- Dekker, S. (2019). *Foundations of safety science: A century of understanding accidents and disasters*. CRC Press.
- Dirkx, J. M. (2006). Engaging emotions in adult learning: A Jungian perspective on emotion and transformative learning. *New Directions for Adult and Continuing Education*, 109, 15–26.
- Edmondson, A. C. (2018). *The fearless organization: Creating psychological safety in the workplace for learning, innovation, and growth*. Wiley.
- Eraut, M. (2004). Informal learning in the workplace. *Studies in Continuing Education*, 26(2), 247–273.
- Finlay, L. (2008). *Reflecting on reflective practice*. PBPL Paper 52, The Open University.
- Fuller, A., & Unwin, L. (2004). Expansive learning environments: Integrating organizational and personal development. In H. Rainbird, A. Fuller, & A. Munro (Eds.), *Workplace learning in context* (pp. 126–144). Routledge.
- Griffin, M. A., & Neal, A. (2000). Perceptions of safety at work: A framework for linking safety climate to safety performance, knowledge, and motivation. *Journal of Occupational Health Psychology*, 5(3), 347–358.
- Hollnagel, E. (2018). *Safety-I and Safety-II: The past and future of safety management*. CRC Press.
- Illeris, K. (2020). *Contemporary theories of learning: Learning theorists in their own words* (2nd ed.). Routledge.
- Jarvis, P. (2006). *Towards a comprehensive theory of human learning*. Routledge.
- Johns, C. (2017). *Becoming a reflective practitioner* (5th ed.). Wiley-Blackwell.
- Kitchenham, A. (2008). The evolution of John Mezirow's transformative learning theory. *Journal of Transformative Education*, 6(2), 104–123.
- Kolb, A. Y., & Kolb, D. A. (2021). Experiential learning theory: A holistic approach to learning, development, and adaptation. In D. A. Kolb, A. Y. Kolb, J. Passarelli, & Y. Sharma (Eds.), *The experiential educator: Principles and practices of experiential learning* (pp. 3–34). EBLS Press.
- Kolb, D. A. (2015). *Experiential learning: Experience as the source of learning and development* (2nd ed.). Pearson Education.
- Latib, M. F. A., & Ismail, H. (2026). The genesis of safety awareness: Cognitive disruption, unlearning and reflective transition in OSH training readiness. *International Journal of Academic Research in Business and Social Sciences*, 16(8).
- Merriam, S. B., & Bierema, L. L. (2014). *Adult learning: Linking theory and practice*. Jossey-Bass.

- Merriam, S. B., & Tisdell, E. J. (2016). *Qualitative research: A guide to design and implementation* (4th ed.). Jossey-Bass.
- Mezirow, J. (2000). *Learning as transformation: Critical perspectives on a theory in progress*. Jossey-Bass.
- Moon, J. A. (2004). *A handbook of reflective and experiential learning: Theory and practice*. RoutledgeFalmer.
- Palinkas, L. A., Horwitz, S. M., Green, C. A., Wisdom, J. P., Duan, N., & Hoagwood, K. (2015). Purposeful sampling for qualitative data collection and analysis in mixed method implementation research. *Administration and Policy in Mental Health and Mental Health Services Research*, 42(5), 533-544. <https://doi.org/10.1007/s10488-013-0528-y>
- Reason, J. (2016). *Managing the risks of organizational accidents*. Routledge.
- Salas, E., Reyes, D. L., & McDaniel, S. H. (2018). The science of training and development in organizations: What matters in practice. *Psychological Science in the Public Interest*, 19(2), 49–74. <https://doi.org/10.1177/1529100618789379>
- Schön, D. A. (1983). *The reflective practitioner: How professionals think in action*. Basic Books.
- Taylor, E. W., & Cranton, P. (2023). *The handbook of transformative learning: Theory, research, and practice* (2nd ed.). Jossey-Bass.