

Rethinking Training Effectiveness: Developing a Sequential Conceptual Framework Linking Training Modalities to Workplace Outcomes

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ABSTRACT

Although training effectiveness has received substantial attention within the workplace training literature, limited research has explained adult learning, training evaluation, social learning, and organisational processes in an integrated way to explain how training interventions influence organisational outcomes.

Therefore, the aim of this paper is to propose the Sequential Training Effectiveness Framework (STEF), a comprehensive training effectiveness framework developed by integrating complementary assumptions and elements of Andragogy, Experiential Learning Theory, Transformative Learning Theory, Social Learning Theory, Kirkpatrick's Four-Level Evaluation Model, and Team Effectiveness Theory.

STEF is an integrated conceptual framework that synthesises existing theories to explain workplace training effectiveness as a step-by-step organisational process linking training modality, learner experiences, knowledge development, collaborative integration, and organisational outcomes. Five STEF research propositions and a future STEF-based empirical research agenda are provided to foster understanding of workplace training across different organisational, industrial, and cultural contexts.

The STEF framework makes four theoretical contributions. It reconceptualises training effectiveness as a sequential organisational process. Secondly, it integrates previously disparate theoretical perspectives. Thirdly, it positions collaborative integration as the organisational mechanism linking individual learning with organisational outcomes.

Finally, it provides a theoretically grounded foundation for future theoretical development and empirical testing, while offering practical implications for human resource development professionals and organisational leaders designing, implementing, and evaluating training interventions that contribute to employee engagement, behavioural compliance, and long-term organisational effectiveness.

Keywords: Training Effectiveness; Training Modalities; Human Resource Development; Organisational Learning; Employee Engagement; Behavioural Compliance; Conceptual Framework; Sequential Training Effectiveness Framework (STEF).

INTRODUCTION

As a result of a fast changing and globalized business environment, organisations are confronted with the accelerated pace of technological change, digital transformation, complex regulatory regimes and evolving workforce capability requirements. As a result of these factors, organisations must invest strategically in workforce training and development. However, workforce training and development should achieve far more than improving employees' technical competence and skills. A good workforce development plan is expected to improve employee engagement, teamwork, workplace behaviours and culture, and therefore improve overall organisational performance.

Given the importance of the provision of employee training and development in the workforce, organisations continue to invest large amounts of money in learning interventions. As such, understanding whether these learning investments translate into meaningful changes in employee behaviour and broader organisational outcomes has been a subject of importance to both practitioners and researchers (e.g., Aguinis & Kraiger, 2009; Salas et al., 2012; Noe et al., 2021).

This need also applies to labour-intensive industries such as apparel manufacturing, where workforce capability has an important role to play in productivity, product quality, compliance and sustainability.

In sum, training and development has been the focus of thousands of academic articles over the decades, from many different theoretical perspectives. Yet the question remains largely unanswered: how do the diverse components of the training process connect to translate into workplace and organisational outcomes? While research has yielded substantial knowledge in areas such as instructional design, adult learning, knowledge/skill acquisition, training evaluation, training transfer, trainee reactions, behaviour change, and organisational performance, much of this has developed as isolated streams of research rather than as part of a complete explanation of how training leads to meaningful organisational outcomes. It is therefore not clear how training employees receive translates into learning, workplace behaviours, practices at the team level, and ultimately into outcomes at the organisational level (Aguinis & Kraiger, 2009; Baldwin & Ford, 1988; Kraiger et al., 1993; Salas et al., 2012; Sitzmann & Weinhardt, 2018).

This somewhat fragmented view of training and its outcomes has grown in importance as the study of workplace learning continues to develop. For many years, workplace training was delivered primarily through lecture-based or instructor-led approaches. It has been widely criticized for the passive nature of learning and its limits on retention and carryover of learning back to the job; nevertheless, it remains one of the most widely used training formats in many organisations (Bligh, 2000). In contrast, many modern organisations have moved towards more participatory and facilitation-based approaches to learning and development.

The swift pace of technological development has also led to learning opportunities through digital learning platforms, artificial intelligence, immersive technologies and blended or hybrid learning. This means that the question is not whether organisations need to provide training, but how to provide training that optimally supports employee learning and their transfer of this learning to workplace and organisational outcomes. Nevertheless, even though workplace learning keeps developing, the question of how various training approaches ease learning still lacks a conclusive answer.

Although existing literature has examined many individual aspects of the training process, there are various studies regarding the trainee's responses, learning, satisfaction with training, employee engagement, behavioural change and organisational performance. Previous research on the antecedents and outcomes of training has focused on different phases of the training process independently. Consequently, although one training method may lead to an unfolding sequence of learner-related, knowledge-related, collaborative integration, organisational and ultimate outcomes, our understanding of the dynamics relating these levels of change is still limited. Therefore, an integrated model of the interplay among closely interrelated learning processes in producing sustainable training effectiveness is warranted.

This conceptual paper seeks to answer this question through the proposed Sequential Training Effectiveness Framework (STEF).

Based on our discussion above, we argue that the main challenge in training effectiveness research today is not the lack of empirical evidence, but the lack of integration of what we already know, with theory and research having explained important components of the training process, albeit in a fragmented manner, over time.

These perspectives have rarely been integrated within a conceptual framework which explains the relationship between training and meaningful organisational outcomes. This paper addresses this gap by integrating these theoretical perspectives into a conceptual framework which provides a better understanding of how training works and a firmer basis for further research and practice.

The contribution of this paper is the Sequential Training Effectiveness Framework (STEF), an integrated conceptual framework. STEF is based on six integrated and complementary perspectives: Andragogy (Knowles, 1984), Experiential Learning Theory (Kolb, 1984), Transformative Learning Theory (Mezirow, 1991), Social Learning Theory (Bandura, 1977), Kirkpatrick's Four-Level Training Evaluation Model (Kirkpatrick & Kirkpatrick, 2006) along with Lencioni's Team Effectiveness Model (Lencioni, 2002). Rather than proposing a new theory, STEF explains how these six theories work together as a sequence of reaction, learning, cognitive, social, and team processes leading to organisational outcomes. Using this integrative approach, the framework provides a better understanding of workplace training effectiveness and a basis for future empirical work across different organisations.

The rest of the paper is organized as follows. In the following section, we discuss the theoretical background and literature that support the proposed framework. The paper then develops and describes the Sequential Training Effectiveness Framework (STEF) and concludes with presenting the theoretical contributions, discussion of the practical implications for organisations, limitations of the framework and directions for future empirical research.

Theoretical Foundations of the Sequential Training Effectiveness Framework (STEF)

As mentioned in the introduction, training effectiveness has received considerable attention over the past decades. Nevertheless, much of the research on training effectiveness has been developed from different theoretical perspectives. Each of these models considers a different set of variables during the training process. In order to develop a thorough understanding of how training affects organisational performance, the theoretical foundations and the contribution each makes to understanding training effectiveness must first be addressed. Thus, this section reviews the key learning, behavioural, evaluation, and organisational theories that inform the development of the proposed Sequential Training Effectiveness Framework (STEF), and outlines the rationale for their incorporation.

Learning Foundations of Training Effectiveness

Understanding training effectiveness begins with understanding how adults learn. Learning theories have explained how individuals acquire knowledge, develop skills, and apply learning in workplace settings for several decades. Andragogy, Experiential Learning Theory, and Transformative Learning Theory are complementary theoretical frameworks that deal with different aspects of adult learning. They form the foundation of individual learning in the Sequential Training Effectiveness Framework (STEF). Together, these theories provide the basis for understanding how training influences subsequent workplace outcomes.

Andragogy

One of the most influential and foundational theories of adult learning is Andragogy, developed by Knowles (1984). Andragogy is an important theoretical framework of learning for adults, applied to workplace training.

Knowles (1984) argued that adults learn best when they have some control of the process, apply their prior experience, understand the importance of the subject matter, and can apply it to their work (Knowles et al., 2015). These principles have shaped learner-centered workplace learning by emphasizing participation, practical application, and meaningful learning experiences rather than knowledge acquisition (Kraiger & Ford, 2021). Andragogy also describes conditions that will lead to positive learner engagement during the start of training in the Sequential Training Effectiveness Framework (STEF) of workplace learning. Despite this, it does not fully capture the role of experience or consider social and organisational learning, suggesting that other theories and models may be needed alongside it.

Experiential Learning Theory

Experiential Learning Theory (ELT), developed by Kolb (1984) is a model of how knowledge is created through the transformation of experience, and represents learning as a cycle consisting of concrete experience, reflective observation, abstract conceptualisation, and active experimentation. The cycle enables the learner to continually

process their experiences and act on what they are learning (Kolb, 1984; Kolb, 2015; Kolb & Kolb, 2012). Within workplace training, ELT underpins experiential approaches such as simulations, coaching, role plays, and problem-based learning. Via the Sequential Training Effectiveness Framework (STEF), ELT explains how meaningful experience leads to the acquisition of learning and skills, strengthening perceived learning during training. However, it lacks an adequate explanation of how learning affects employees' underlying beliefs or how learning is sustained through broader organisational and social influences, requiring Transformative Learning Theory.

Transformative Learning Theory

Transformative Learning Theory was proposed by Mezirow (1991) and stresses learning as the transformation of frames of reference, not the acquisition of information. Learning occurs when individuals assess and revise their frames of reference through critical reflection and rational discourse, and construct new meaning perspectives (Mezirow, 1991, 2000; Taylor, 2008). In the workplace, transformative learning is particularly relevant when the aim is to change employee attitudes, values, and behaviour rather than to improve technical or professional skills. Within the Sequential Training Effectiveness Framework (STEF), Transformative Learning Theory explains how knowledge internalization from training leads to long-lasting employee work engagement and behavioural compliance.

Transformative Learning Theory explains individual level cognitive and behaviour changes but does not explain how social interaction and collaboration reinforce learning in a social context, highlighting the need for theories that explain social learning and collective workplace behaviour.

Synthesis of individual learning theories

Together, Andragogy, Experiential Learning Theory and Transformative Learning Theory form a coherent framework to understand how adults learn in the workplace. Andragogy explains the conditions required for workplace learning, Experiential Learning Theory explains how experience and reflection add to knowledge, and Transformative Learning Theory explains how knowledge is internalized which leads to permanent change in attitude. In other words, these theories establish the individual learning foundation of STEF, as they capture how employees learn during training and how they translate learning into behavioural change.

However, these theories are generally applied on an individual basis and they cannot account for how employees share, reinforce, and sustain learning through interactions with colleagues and the wider organisational environment. A wider perspective will, for example, require theories for social learning, training evaluation, and team processes.

Towards an Integrated Framework of Training Effectiveness

Fragmentation of Existing Literature

Though a substantial body of literature has examined workplace training, the major theoretical perspectives concerned with workplace training effectiveness have mostly addressed workplace training as a separate phenomenon, or in isolation of each other.

Individual learning theories concern themselves with how individuals acquire, process and internalize information. Organisational and evaluative perspectives have considered how learning is reinforced, transferred and evaluated in the workplace.

As a result, much of the literature has focused on different dimensions of training effectiveness in isolation, such as learner reactions, knowledge acquisition, learning transfer, and behavioural outcomes, without considering how these various stages are related to one another as part of a continuing organisational system (Baldwin & Ford, 1988; Kraiger et al., 1993; Aguinis & Kraiger, 2009; Salas et al., 2012). This fragmentation has theoretical and practical consequences. At a theoretical level, the separation is problematic because it fails to allow for integrative models of how workplace training relates to organisational outcomes. Practically, it is difficult for

organisations to identify where training interventions have worked and where they have not because of the tendency for the separate phases of the learning process to be treated as more independent blocks than interdependent components of an organisational system.

Hence, this theoretical fragmentation limits understanding of how different learning mechanisms collectively influence employee engagement and behavioural compliance, highlighting the need for a conceptual framework explaining workplace training effectiveness as a sequential organisational process.

Rationale for Theoretical Integration

The effectiveness of workplace training cannot be fully understood from any single perspective. The learning, organisational, and evaluation perspectives on the training process discussed in this paper are not contradictory, they are simply distinct, somewhat complementary perspectives on the same process. Individual-level learning theories help to predict how employees approach, experience, and internalize learning, and organisational perspectives help to describe how learning is then transferred, retained, and embedded in organisational behaviours. Evaluation perspectives help explain how training outcomes are evaluated across different levels of organisational impact. (Aguinis & Kraiger, 2009; Salas, Tannenbaum, Kraiger, & Smith-Jentsch, 2012; Noe, Tews, & Marand, 2014) .

Integrating these perspectives provides a more holistic understanding of the workplace learning/training process by recognizing that sustainable organisational outcomes emerge through interconnected learning, behavioural, and organisational processes rather than isolated training events. This provides the theoretical foundation for the proposed Sequential Training Effectiveness Framework. Based on the theoretical perspectives outlined above, the proposed Sequential Training Effectiveness Framework (STEF) provides an integrated account of how training modalities influence workplace outcomes via a sequence of learner experiences, knowledge development, and collaborative integration.

A proposed conceptualization of the STEF is depicted in Figure 1 and theoretical perspectives for each construct are shown in Table 1. Together, they illustrate how established learning, evaluation, and organisational theories are integrated into a unified sequential explanation of workplace training effectiveness.

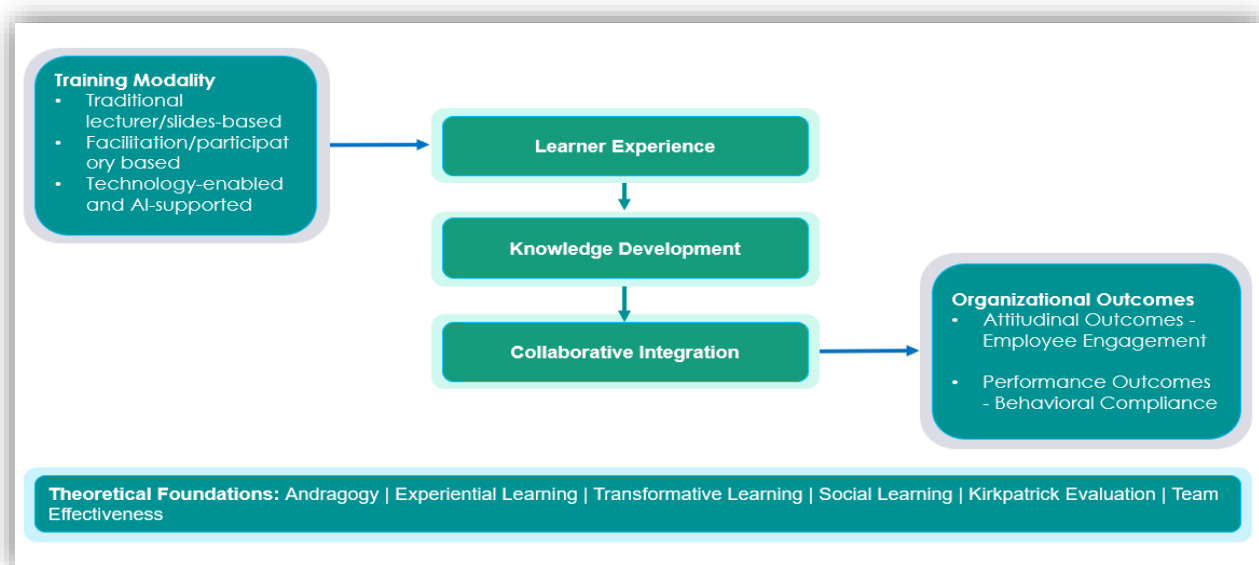


Figure 1. Proposed Sequential Training Effectiveness Framework (STEF)

Source: Developed by the authors.

Table 1. Theoretical Foundations of the Sequential Training Effectiveness Framework (STEF)

STEF Component	Primary Theory(ies)	Supporting	Conceptual Contribution to STEF
Training Modality	Andragogy (Knowles, 1984); Experiential Learning Theory (Kolb, 1984)		Different instructional approaches influence how adults engage with workplace learning by recognising differences in learner characteristics, experience, and instructional design.
Learner Experience	Kirkpatrick Level 1 – Reaction (Kirkpatrick & Kirkpatrick, 2016); Andragogy (Knowles, 1984)		Positive learner experience represents employees' immediate perceptions of training quality, relevance, motivation, and engagement, creating the foundation for subsequent learning.
Knowledge Development	Experiential Learning Theory (Kolb, 1984); Transformative Learning Theory (Mezirow, 1997)		Learning occurs through experience, reflection, and perspective transformation, enabling employees to acquire and internalise new knowledge and skills.
Collaborative Integration	Social Learning Theory (Bandura, 1977, 1986); Team Effectiveness (Lencioni, 2002)		Individual learning becomes embedded within teams through observation, knowledge sharing, collaboration, trust, and collective learning processes.
Organisational Outcomes (Employee Engagement and Behavioural Compliance)	Kirkpatrick Levels 3 and 4 (Kirkpatrick & Kirkpatrick, 2016); Social Learning Theory (Bandura, 1986)		Effective learning transfer and collaborative integration contribute to sustained behavioural change, stronger employee engagement, improved behavioural compliance, and broader organisational effectiveness.
Overall Sequential Process	Integration of all six theoretical perspectives		STEF proposes that workplace training effectiveness is not achieved through isolated learning events but through a sequential process in which training modalities influence learner experience, knowledge development, collaborative integration, and ultimately organisational outcomes.

Sequential Components of the Proposed Conceptual Framework

The proposed conceptual framework conceptualizes workplace training effectiveness as a sequential organisational process which has five interconnected stages, namely, **Training Modality**, **Learner Experience**, **Knowledge Development**, **Collaborative Integration**, and **Organisational Outcomes**. These stages explain how training interventions progressively influence workplace outcomes through a series of sequential relationships, where each stage provides the necessary conditions for the next, creating a cumulative process through which effective training contributes to employee engagement and behavioural compliance. The next sections discuss the theoretical foundations supporting each stage and the conceptual role each stage plays.

Training Modality

The first dimension of the conceptual framework is Training Modality. Training modality is defined as the instructional approach used to design and deliver workplace learning. The conceptual framework draws on the principles of adult learning theory by recognizing that the choice of training modality has an impact on the learning environment in a workplace (for instance, learner engagement and readiness to learn) (Knowles et al., 2015). As the first stage of the framework, training modality provides the conditions for a meaningful learning experience to take place and serves as the basis for the following learner experience.

Learner Experience

Learner Experience describes employees' immediate responses during the intervention, including relevance, engagement, confidence, and the general feeling of the learning process.

As with Kirkpatrick and Kirkpatrick's (2016) level 1 evaluation of participants' reactions, positive learner experiences are associated with increased motivation and participation. According to adult learning theory, the perception that training experiences are related to the learners' jobs and responsibilities increases their interest and participation in the learning process and fosters a deeper understanding of the learning concepts and the acquisition of knowledge (Knowles et al., 2015). Consequently, learner experience provides the foundation for effective knowledge development.

Knowledge Development

Knowledge Development refers to how learners construct, interpret and integrate new knowledge, skills and competencies.

Experiential learning theory and transformative learning theory propose ways to explain how learners engage with the process of critical reflection, application, and transformation of knowledge rather than just the acquisition of information (Kolb, 1984; Mezirow, 1997). Within the proposed framework, knowledge development transforms positive learning experiences into individual capability, enabling employees to apply new knowledge within their workplace and participate in collective learning.

Collaborative Integration

Collaborative Integration reflects how learning is reinforced, shared and embedded in teams and their practice. According to Social Learning Theory, learning is reinforced through modeling, social interaction, feedback, and reinforcement. Team effectiveness research has found that communication, coordination, mutual support, and cohesive collaboration support the translation of individual learning into team performance (Bandura, 1977; Salas et al., 2005).

Consequently, collaborative integration is the process through which learning is integrated into organisational practice and leads to sustainable behavioural change.

Organisational Outcomes

The final outcome, referred to as Organisational Outcomes in Figure 1, should be the aim of workplace training. In accordance with the conceptual framework, training is thought to improve employee engagement and behavioural compliance by increasing commitment, motivation, and adherence to organisational norms.

This is consistent with the higher levels in Kirkpatrick's training evaluation model, namely, behavioural change and results (Kirkpatrick & Kirkpatrick, 2006), and with the employee engagement literature, which suggests that providing employees with meaningful learning opportunities is associated with positive employee attitudes and sustained organisational effectiveness (Saks, 2006; Bakker & Albrecht, 2018).

Summary

The present conceptual framework seeks to integrate the learning, organisational, and evaluation perspectives into a coherent explanation of workplace training effectiveness. It integrates the streams of theory and research on modality, experience, knowledge, collaboration, and organisational outcomes into a unified explanation of workplace training effectiveness. This integrative model addresses the theoretical fragmentation of prior studies and provides insights into employee engagement and behavioural compliance. By conceptualizing training as a series of interconnected sequential stages with cumulative relationships between each stage, it lays the groundwork for future empirical studies to better inform the literature and empirical models focusing on this topic.

Research Propositions and Future Research Agenda

The proposed conceptual framework offers a theoretically based explanation of workplace training effectiveness and an agenda for empirical testing of its propositions.

The framework integrates learning, organisational, and evaluation perspectives into a coherent conceptual explanation of workplace training effectiveness. The research propositions are logically derived from the relationships proposed within the framework rather than providing direct empirical verification.

In accordance with the conceptual theory-building process (Jaakkola, 2020; MacInnis, 2011), these propositions can act as a basis for future empirical research to examine, validate and refine the proposed relationships in organisational, industrial and cultural contexts.

Research Propositions

Based on the proposed conceptual framework, five research propositions are developed to guide future empirical research.

- **Proposition 1 (P1).** Training modality is positively associated with learner experience.
- **Proposition 2 (P2).** Positive learner experience **positively influences** knowledge development.
- **Proposition 3 (P3).** **Knowledge development** positively influences collaborative integration.
- **Proposition 4 (P4).** Collaborative integration **positively influences organisational outcomes**.
- **Proposition 5 (P5).** There is a sequential mediating relationship between training modality and organisational outcomes via learner experience, knowledge development, and collaborative integration.

Future Research Agenda

Collectively, these propositions establish a research agenda to empirically test the proposed conceptual framework in future studies across industries, firm sizes, occupations and cultures to assess the robustness and generalisability of the proposed sequential relationships.

Further investigation of whether the proposed sequential relations in the Sequential Training Effectiveness Framework (STEF) generalize across different organisational contexts, or whether alternative paths emerge in different contexts can help refine the boundary conditions, improve the explanatory power and enhance the practical applicability of the framework.

It may be helpful to examine the relative effectiveness of traditional, facilitation-based, technology-enabled, artificial intelligence-assisted, and hybrid training modalities with respect to the specific links proposed and whether one training modality would be more effective than other options for addressing the various links of the proposed model.

Another avenue for future research lies in considering contextual factors such as organisational culture, leadership, psychological safety and digital maturity as well as national culture in order to explore in more detail the organisational conditions under which the proposed sequential process is enabled or impeded.

Longitudinal research designs could help in improving our understanding of how learning evolves over time and whether the proposed sequential relationships continue to influence organisational outcomes beyond immediate post-training evaluation. Future quantitative and qualitative work can extend the unifying framework to other workplace learning processes and types of organisations contributing to the evolving theory of workplace training effectiveness.

Key Theoretical Contributions of the Proposed Conceptual Framework (STEF)

The Sequential Training Effectiveness Framework integrates six complementary theoretical perspectives, namely, Andragogy, Experiential Learning, Transformative Learning, Social Learning Theory, Kirkpatrick's Evaluation Model and Team Effectiveness Theory into a unified sequential explanation of workplace training effectiveness. By relating individual learning processes to collaborative mechanisms and organisational outcomes, the STEF extends existing theoretical perspectives and provides a theoretically grounded foundation for future research and workplace practice.

The framework presented in this study makes a contribution to the workplace training literature by providing a coherent theoretical explanation of the ways in which workplace training interventions affect organisational outcomes. While theories of adult learning, experiential learning, transformative learning, learning evaluation, social learning and team effectiveness have been developed, they have largely developed as independent streams of research, and do not provide a coherent explanation for training effectiveness. Thus, while the individual workplace learning mechanisms have been quite well understood in previous studies, comparatively limited understanding exists regarding how these complementary mechanisms jointly contribute to sustained organisational outcomes. The framework proposed in this study integrates different theoretical perspectives into a conceptual framework of workplace training effectiveness.

It achieves this by advancing the workplace training literature through four interrelated theoretical contributions that provide a conceptual understanding of workplace training effectiveness and how it can be translated into organisational outcomes from training interventions. These contributions are discussed next.

Reconceptualising Training Effectiveness as a Sequential Organisational Process

Our first theoretical contribution is our reconceptualisation of workplace training effectiveness as a sequential organisational process rather than just a range of learning activities or outcomes. Previous training literature has focused on instructional processes, learner reactions, knowledge acquisition, behavioural change and organisational impact in isolation from one another.

Although these studies have yielded valuable insights they only partly capture the way training creates lasting value for the organisation. The proposed conceptual framework suggests that training effectiveness is developed through a path of sequentially linked stages and the effectiveness of the previous stage influences the successful progression of the subsequent stage.

This sequential conceptualisation provides more detailed explanations of workplace learning than approaches that examine individual relationships in isolation.

Integrating Complementary Learning and Organisational Theories

The second theoretical contribution is the attempt to bring together complementary learning, organisational, and evaluation theories in an explanatory model of the organisational learning process.

This research highlighted the theoretical fragmentation of the literature, and the explanatory power of the theories in this area is more complete if the theories are not focused on individually but rather as a set. It presents a more thorough explanation of the factors of workplace training effectiveness than any one theory can provide.

Positioning Collaborative Integration as the Organisational Bridge

The third contribution is the specification of Collaborative Integration as the organisational level mechanism through which individual learning becomes embedded in the organisation, by taking the concept of Collaborative Integration beyond collaboration, knowledge sharing, communication and teamwork which have been recognized as important in individual, team and organisational learning, but largely as contextual influences or organisational constructs. The framework thus offers, in contrast, an account of collaborative integration as a distinct stage of that process, embedding individual learning into practice, and thus a more theoretical explanation of how training affects employee engagement and behavioural compliance. In doing so, it also explains how collaborative integration acts as a bridge between individual capability and organisational outcomes, building on existing understandings of how learning becomes embedded in practice.

Establishing a Platform for Future Theory Development

The fourth contribution establishes a theoretically grounded framework that will provide a platform upon which future research and theory development can build. The framework should facilitate empirical research, and can be elaborated as a flexible conceptual framework to apply across organisational, industrial and cultural contexts. It can also be used to describe new developments and extensions to workplace learning, such as artificial intelligence supported training, adaptive learning, immersive technologies or hybrid learning environments. Hence the framework is both a synthesis of existing concepts, but also an important aspect of the continued development of workplace training effectiveness theory.

Each of these contributions advances the workplace training effectiveness theory by: reconceptualizing workplace training as a sequential organisational process, integrating multiple perspectives into a single framework, identifying collaborative integration as the mechanism linking individual learning with organisational outcomes, and providing a theoretically driven basis for further empirical investigation. This framework is not a replacement for existing theories but rather an illustration of the potential for more integrative viewpoints about how workplace training effectiveness occurs.

Practical Implications

The model presented in this paper provides organisations with an alternative way of understanding training effectiveness. It is rooted in a broader perspective of learning and development. Rather than seeing training effectiveness as something that happens at a moment in time, when content is delivered and learning is achieved, the model sees it as a continuing organisational process.

As a sequential organisational process, it has implications for how organisations view workplace learning, because it encourages them to view learning as being about not only selecting the right training methods, but also creating a positive learner experience, developing meaningful knowledge, collaborating in the workplace, and translating learning into sustainable organisational outcomes.

It is also a resource that can be used by human resource development professionals, learning and development specialists and leaders of organisations who are responsible for designing, delivering and evaluating training in the workplace. Because it is sequential in nature, the framework provides a way to think about potential strengths and weaknesses across the entire learning pathway instead of focusing only on training delivery and post-training evaluation.

The model recognizes that poor organisational outcomes do not necessarily result from ineffective training design, but may instead arise from lack of learner engagement, lack of opportunities to apply learning, or lack of teamwork. The model therefore encourages organisations to adopt a holistic view of these interconnected stages.

The model serves a second purpose, by supporting strategic workforce development. With the increasing interest in blended learning, digital learning platforms, artificial intelligence-supported training, and other technology-enabled forms of learning, there is a growing need for conceptual frameworks that explain how these learning

processes contribute to organisational outcomes. The framework is designed for use with different organisational contexts and applications for workplace learning, and for adapting to new workplace learning technologies and practices. Its elements also enable organisations to use the framework to design systems and practices for workplace learning that simultaneously build individual capability and contribute to long-term organisational performance and sustainability.

By reconceptualising training effectiveness as an interlinked organisational process, rather than as the sum of a series of isolated learning events, the proposed framework is intended to act as a guide for developing, implementing and evaluating training interventions which generate sustainable employee and organisational outcomes.

CONCLUSION

This paper has addressed a critical gap in the workplace training effectiveness literature; the continued fragmentation of learning, behavioural, organisational and evaluation theories.

There has been wide-ranging research identifying individual components of workplace learning, yet comparably little understanding of how these complementary perspectives can be integrated to explain workplace training effectiveness and organisational outcomes. The conceptual framework described above addresses this limitation by integrating established theoretical approaches to provide a sequential explanation of training effectiveness in the workplace, thereby contributing to employee engagement and behavioural compliance.

The proposed framework advances the literature in several meaningful ways, including through a reconceptualisation of workplace training effectiveness as an organisational process rather than as a series of learning events and outcomes. Second, the integration of complementary learning theories within a unified conceptual framework illuminates the relationships between adult learning, experiential learning, transformative learning, social learning, team effectiveness and training evaluation as stages of workplace learning. Third, the framework identifies collaborative integration as the mechanism by which individual learning is embedded and sustained as workplace practice and contributes to long-term organisational outcomes. Finally, its theoretically grounded set of research propositions provides a foundation for future empirical research and further development of the underlying theoretical framework.

While the framework makes an important theoretical contribution, it is also of practical value to human resource development professionals, learning and development specialists, and organisational leaders responsible for the design, development and evaluation of workplace training as an integrated organisational process during a time of increasing technological innovation, digital learning environments and evolving workforce development challenges.

Future empirical research should test the proposed framework across different industries, organisational settings, occupations and cultures in order to evaluate the generalisability of the proposed relationships. Since workplace learning is continuously evolving, integrated conceptual frameworks such as the one proposed in the paper can also strengthen training effectiveness research by advancing both theory and organisational practice. Therefore, the proposed Sequential Training Effectiveness Framework (STEF) not only synthesizes existing knowledge but also provides a theoretically grounded framework for future research, theory development and evidence-based practice within the field of workplace training and human resource development.

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