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RESEARCH ARTICLE OPEN ACCESS

Train-The-Trainer: A Generic Offer-And-Use Model for the Development of Trainers

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ABSTRACT

This article is based on the premise that the international scientific community needs a generic theoretical framework to explain the determinants and mechanisms associated with learning opportunities for trainers in the field of training and development. Therefore, we adapted offer-and-use models for the continuous training of schoolteachers to trainers. We also incorporated the concept of the transfer of training into the model. The transfer of acquired knowledge and skills from the learning context to the work context represents an important criterion for training effectiveness. Since train-the-trainer programmes should also adhere to this criterion, our proposed model incorporates theoretical and empirical findings regarding transfer-enhancing measures drawn from both general training and development and the continuous education of schoolteachers. The theoretical model includes external factors (the train-the-trainer programme); individual factors (the participating trainers); contextual factors (the trainers' workplaces); the perception, interpretation, and use of learning opportunities; and learning processes of the trainers. These factors ultimately affect training outcomes at different levels (reactions, learning, transfer, and results). This model can be used to support long-needed scientific investigations of the determinants underlying train-the-trainer programmes as well as the quality of those qualifications. It also has considerable implications with respect to the conceptualisation and evaluation of such programmes in practice.

1 | Introduction

Training and development activities help individuals prepare for on-the-job challenges across many different occupations, ranging from nurses (Howard and Eddy-Imishue 2020) to teachers (Althausen 2015; Darling-Hammond et al. 2017); they have also been shown to be beneficial with respect to organisational performance (Aguinis and Kraiger 2009; Yoo et al. 2021). The opportunity to engage in training and development is even more important against the backdrop of ongoing transformations such as technological and demographic changes and the resulting shortage of qualified workers (Beer and Mulder 2020; Lischewski et al. 2020).

Hitherto, little attention has been given to the professionals who conceptualise and provide continuous vocational training. These so-called trainers often work for several organisations as freelancers (Wisshak et al. 2020). In many countries, who can work as a trainer is not regulated by law, and little is known regarding the qualifications of trainers and how they acquire competence (Giménez Marín et al. 2011; Hutchins and Burke 2007; Weiß 2011).

This research gap is surprising since the qualifications of schoolteachers and how they acquire competence, as important prerequisites for teaching success, have been studied in depth for some time. Empirical educational research has proposed

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several offer-and-use models that recognise teachers either as influential variables with regard to teaching success (e.g., Helmke 2012; Mischo 2014) or, conversely, as the recipients of teacher training (Lipowsky and Rzejak 2015, 2019). The latter type of offer-and-use models for the training and development of teachers is based on the constructivist premise that participating teachers—like other learners—decide how they interpret learning opportunities and the extent to which they take advantage of such opportunities (Lipowsky and Rzejak 2015).

No such generic theoretical framework has yet been developed to support the theoretical and empirical investigation of the professional development of trainers. Therefore, in this conceptual paper, we try to answer the following research question: How can a generic offer-and-use model for train-the-trainer programmes be conceptualised? We aim to develop a theoretical framework that proposes relevant factors for the effectiveness of train-the-trainer programmes as well as expected relationships between those factors. We intend this framework to support future investigations of the continuous education of trainers and their competence development.

To answer our research question, we first provide an overview of the context of training, and we introduce the heterogeneous group of trainers. We then build on offer-and-use models pertaining to schoolteachers. Those models recognise the recipients of learning opportunities as autonomous subjects who determine whether to engage with such offers and to what extent they use them. In addition to those offer-and-use models, we draw from extensive research on the transfer of training. Transfer means that the knowledge, skills, attitudes and other relevant factors acquired during training are applied on the job (Baldwin and Ford 1988). In the context of train-the-trainer programmes, this means that the trainers not only acquire knowledge but effectively use what they have learned in their daily business and subsequently provide more effective training. Transfer is thus a central criterion for train-the-trainer programmes. We, therefore, incorporate findings regarding (a) transfer in general continuous training and development and (b) transfer in the continuous training of teachers in our proposed model. Finally, we discuss the adaptations that we made compared to previous models as well as the limitations and applicability of the proposed model.

2 | The Context of Training

As we use them in this article, the terms training and development are aimed at adult learners who have already participated in initial vocational training (either vocational education and training (VET) or higher education). Within the international scientific community, training and development are also known as continuous vocational education and training (CVET; Lischewski et al. 2020) or simply as training, and the investigation of the respective determinants and outcomes is often referred to as *the science of training* (Salas and Cannon-Bowers 2001). The general goals of training include improving individuals' knowledge, skills, attitudes, and other work-relevant characteristics and subsequently ensuring the current and future performance, innovation and competitiveness of individuals, organisations, and society (Aguinis and Kraiger 2009).

Occasions for training can represent a matching problem between the education system and the employment system or new knowledge and skill requirements, for example, due to the emergence of technological innovations in the workplace (Beer and Mulder 2020). Another reason for individuals to participate in training is to obtain specific certificates that can enable them to obtain new career possibilities and higher wages within organisations (so-called advanced training).

Training success has been investigated for many decades. Beginning in the late 1950s and early 1960s, Kirkpatrick suggested four levels of evaluation regarding the outcomes of training (for a more recent version of this research, see Kirkpatrick and Kirkpatrick 2016): participants' reactions (Level 1), their learning progress (Level 2), their behaviour (Level 3) and measurable organisational results, such as higher sales rates (Level 4). Kirkpatrick's model was enhanced by Alliger et al. (1997), who subdivided some of the categories further. The level of reactions was divided into affective and utility reactions, while the level of learning was divided into immediate knowledge, knowledge retention, and immediate behaviour or skill demonstration. Alliger et al. emphasised the fact that Level 3 focuses on the transfer of training, which refers to participants' behaviour at their workplaces.

Since training aims to enable employees to cope with tasks at their workplaces, transfer is especially important; namely, that participants use the knowledge and skills they have acquired through training in their workplace (Baldwin and Ford 1988). Due to its relevance, the transfer of training has received extensive academic attention. The literature review conducted by Baldwin and Ford (1988) has often been viewed as a crucial catalyst for this development, and many related empirical studies have since been published (e.g., de Jong, Jansen in de Wal, Cornelissen, et al. 2023; de Jong, Jansen in de Wal, Cornelissen, van der Lans, et al. 2023; Quesada-Pallarès, González-Ortiz-de-Zárate, et al. 2022; Quesada-Pallarès, Musso, et al. 2022). Based on their review, Baldwin and Ford (1988) identified three domains of transfer predictors: participants' characteristics (ability, personality and motivation), training design (principles of learning, sequencing and training content), and the work environment (support and opportunity to use). Although alternations and elaborations of the model developed by Baldwin and Ford have been proposed (e.g., Blume et al. 2019; Burke and Hutchins 2008), theoretical and empirical research is still broadly based on these categories (e.g., Blume et al. 2010; Wisshak 2022). In 2008, Burke and Hutchins (2008) additionally identified trainer characteristics and the evaluation of transfer as important transfer factors. These authors further emphasised the importance of several stakeholders, such as peers, trainers, participants, supervisors, and the organisation, within the training and transfer process. Recent literature reviews have provided an overview of the state of transfer research (Ford et al. 2018; Hamzah et al. 2024; Wisshak 2022). These reviews, however, have revealed that trainers remain underexplored.

3 | Trainers

Trainers are responsible for planning and conducting training (Giménez Marín et al. 2011; Wisshak and Hochholdingner 2018).

They coordinate the training requirements with the client organizations, prepare the training content, select suitable methods and implement them (Giménez Marín et al. 2011; Röseler et al. 2024). They motivate learners, deal with group dynamics, provide feedback and often support the learning process beyond the training (Giménez Marín et al. 2011). In addition, trainers are often expected to coordinate, market and evaluate training (Giménez Marín et al. 2011; Wisshak and Hochholdingner 2018).

Accordingly, trainers are expected to play an important role in transfer success (Burke and Hutchins 2008; Donovan and Darcy 2011). However, this occupational group remains under-researched and very heterogeneous (Gauld and Miller 2004; Hutchins and Burke 2007; Wisshak et al. 2020). According to a study that investigated 896 trainers from German-speaking countries, 81% of the trainers were exclusively self-employed (Wisshak et al. 2020). Only 11% were employed by a company, and 6% stated that they fell into both categories. Germany, like many other countries, does not stipulate a specific degree to become a trainer, which is why trainers' educational backgrounds are very diverse. While most trainers had an academic background (71%) according to Wisshak et al. (2020), only a few of them possessed educational/pedagogical degrees (17%). Although Germany has a uniform and obligatory certificate for the persons in charge of apprenticeship training in companies (Deissinger 2015), there is no equivalent for continuous training. Accordingly, many trainers participate in so-called train-the-trainer programmes to acquire the pedagogical and instructional skills that they need (Wisshak et al. 2020).

Internationally, there are standards for the training of trainers in some (e.g., the ASEAN countries; Deutsche Gesellschaft für Internationale Zusammenarbeit GIZ GmbH 2019), but not all countries. In an Australian study of 303 trainers, 24% of the respondents possessed a university teaching qualification, e.g., Bachelor of Education. In the study conducted by Gauld and Miller (2004), 28% of the trainers held the accredited "Certificate IV in Assessment and Workplace Training", an Australian vocational-level qualification (p. 15). In the United States, Hutchins and Burke (2007) surveyed 139 members of a regional chapter of the Association for Talent Development (ATD). The majority (90%) of the respondents had a college degree, and 55% of that group had completed a degree in training or workplace learning. Only a few respondents held a professional certification from the Society of Human Resource Management (9%) or the ATD (17%). In the German study conducted by Wisshak et al. (2020), 58% of the trainers reported possessing a train-the-trainer certificate.

In Germany, such programmes are not regulated by the state, and they are quite diverse in terms of their format and content (Wisshak & Hochholdingner 2015). Moreover, no generic conceptual framework has yet been developed that could be used to investigate such train-the-trainer programmes on a scholarly level, for example, by hypothesising relationships among relevant determinants or predicting their outcomes. Although there are some publications regarding train-the-trainer programmes from different countries, they refer to specific context-dependent programmes. In the medical context, for example, local medical faculty, such as nurses and physicians, receive training that

enables them to train colleagues in a specific content area (Feltes et al. 2019). A recent literature review shows that such programmes are mostly evaluated on the learning but not the transfer level (Poitras et al. 2021). In 2011, Giménez Marín et al. (2011) described a more elaborate train-the-trainer programme that was developed for the Spanish construction industry. The programme is designed to prepare trainers for classroom-based teaching as well as training management and evaluation, and it focuses on developing pedagogical/psychological competence. The programme leads to a postgraduate degree after 1 year and a Master's degree after 2 years. According to Giménez Marín et al. (2011), the evaluation of the programme showed that the transfer of the acquired knowledge and skills was limited. Therefore, future approaches need to focus on fostering transfer in such programmes.

In sum, prior studies often feature context-specific approaches and focus less on developing a generic offer-and-use model that can be used to investigate general transfer-enhancing factors of train-the-trainer programmes. Since there are already offer-and-use models pertaining to the continuous education of schoolteachers, which partially consider the transfer of training, we propose to adopt those frameworks to suit the context of trainers.

4 | Offer-And-Use Models for the Continuous Training of Schoolteachers

In the context of teacher training, various models have been developed to describe the factors influencing training success. Offer-and-use models are grounded in a constructivist understanding, which postulates that learners are active (co-) constructors of their own learning progress; hence, the effectiveness of this process depends on the interpretation and individual use of learning opportunities. The offer-and-use models regarding teacher training include a combination of the influences of the facilitators, the design of the training programmes, the participants' preconditions, and the participants' working environment. For these different areas, the offer-and-use models describe specific influencing factors.

This article draws on the offer-and-use model for face-to-face and digital continuous training for teachers developed by Schäfer and van Waveren (2025), which is based on the offer-and-use model for continuous teacher training proposed by Lipowsky and Rzejak (2019). In accordance with the transfer model for continuous teacher training proposed by Vigerske (2017), the complex relationships of the offer-and-use model are summed up in three categories: external (training-related), individual (teacher-related) and internal (school-related) factors (Figure 1).

External factors include the characteristics and competencies of teacher trainers as well as the training design. Individual factors cover the characteristics of the participating teachers. Internal factors include the conditions at the schools. In addition to these influencing factors, the model includes the perception, interpretation, and use of learning opportunities as well as the transfer process. Another aspect of the model is its focus on the four levels of training success, namely reactions, learning, behaviour, and results, regarding the participating teachers, the facilitators and the teaching/learning material.

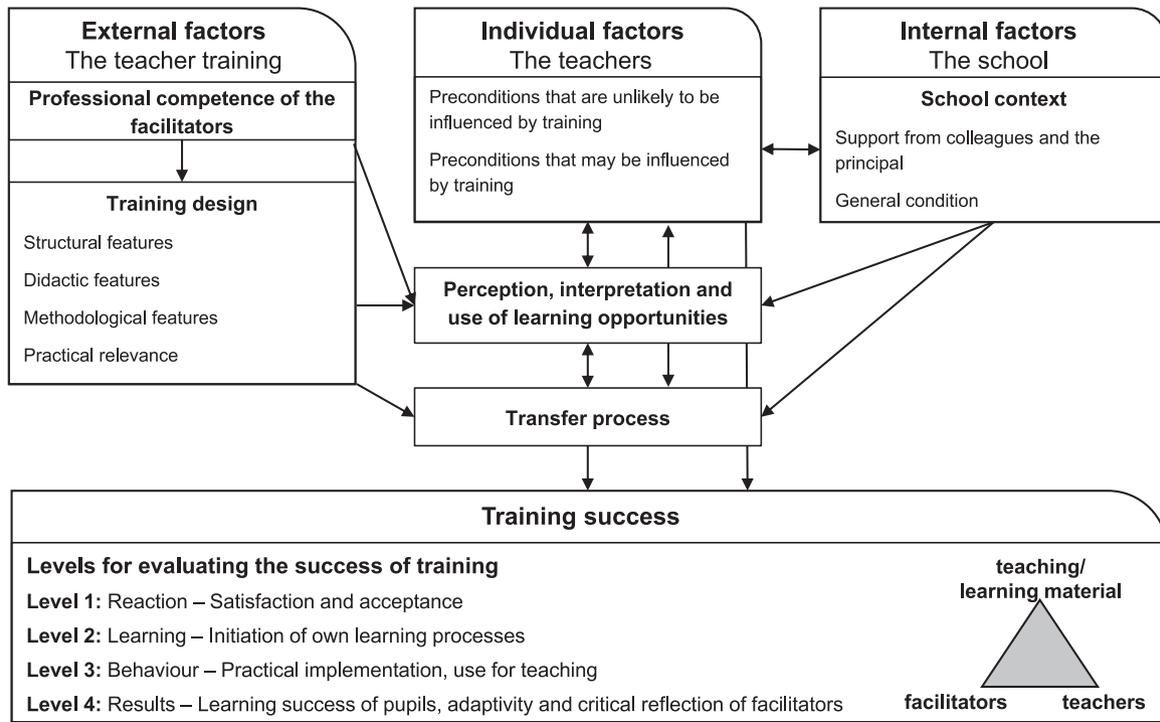


FIGURE 1 | Offer-and-use model for face-to-face and digital teacher training (Schäfer and van Waveren 2025).

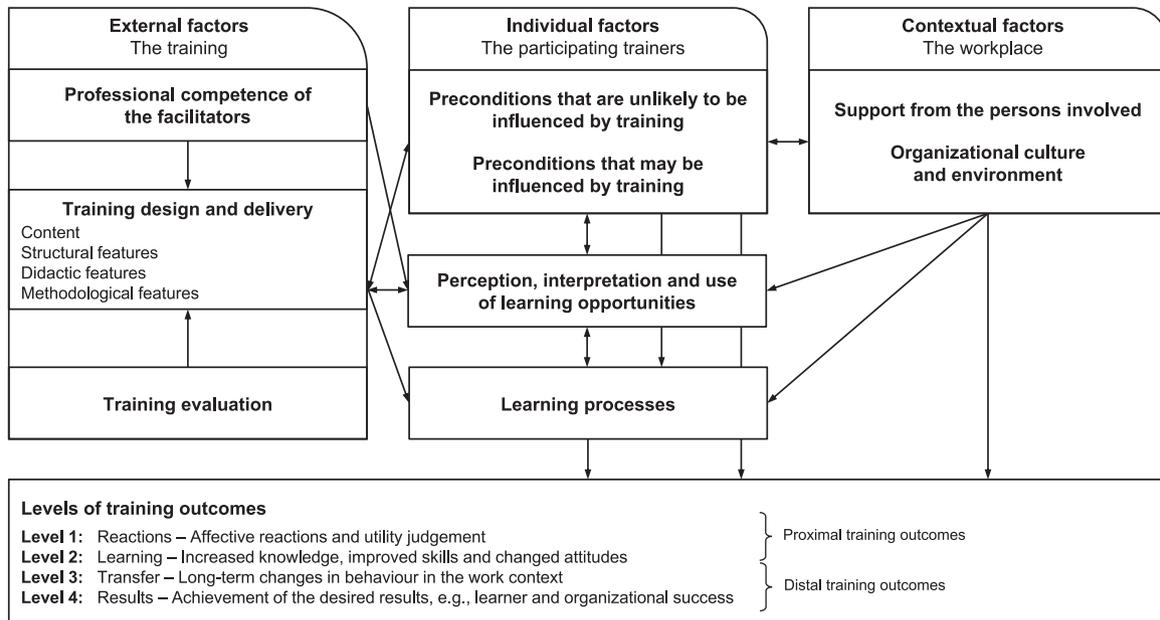


FIGURE 2 | Generic offer-and-use model for train-the-trainer programmes.

5 | The Offer-And-Use Model for Trainers

In this section, we present our adapted model for the training and development of trainers (Figure 2). The model, based on the work of Baldwin and Ford (1988), Burke and Hutchins (2008), Lipowsky and Rzejak (2015), Schäfer and van Waveren (2025), and Vigerske (2017), includes the following domains: external factors (the training), individual factors (of the participating trainers), and contextual factors (trainers' workplaces). Since the professional environment of trainers is quite heterogeneous and very different from the working environment of schoolteachers,

we chose the term contextual factors for the third domain (instead of internal factors, as suggested by Schäfer and van Waveren and Vigerske in their models). Each of these domains comprises groups of influencing factors that we identified based on the literature as relevant with regard to the transfer-enhancing training of trainers. These domains are further connected to the perception, interpretation, and use of learning opportunities by the participating trainers as well as their learning processes. Finally, we postulate that the four levels of training outcomes, which are based on the work of Kirkpatrick and Kirkpatrick (2016) and Alliger et al. (1997), pertain to

trainers as well. We now elaborate on the different domains included in the model in further detail.

5.1 | External Factors: The Training

We suggest that the external factors include three groups of influencing factors, namely, the facilitator's professional competence, the design and delivery of training, and the training evaluation.

5.1.1 | Professional Competence of the Facilitators

In the context of our proposed offer-and-use model for trainers, we refer to the person who conceptualises and conducts this kind of programme as a *facilitator* (Lipowsky and Rzejak 2015). We thereby emphasise the fact that trainers are the recipients of training within our model. To avoid confusion, we, therefore, differentiate between the *participating trainers* and the *facilitators*. Nevertheless, we have to rely on the state of research with regard to trainers in this section because research with regard to persons who provide train-the-trainer programmes is even more scarce.

The competence of facilitators has rarely been investigated. Several survey studies have suggested that facilitators are relevant to the success of transfer (Burke and Hutchins 2008; Donovan and Darcy 2011), and some have investigated relevant facilitator characteristics (e.g., Gauld and Miller 2004; Ghosh et al. 2012). Building on this research, Wisshak and Hochholdingner (2018) provided an overview of knowledge and skills that are relevant for successful facilitators. In their study, these authors asked 200 facilitators, 253 participants, and 93 human resource development practitioners to assess the relevance of 41 knowledge and skill facets drawn from the literature. According to this study, facilitators particularly require content knowledge. They also need pedagogical and psychological knowledge and skills, for example, regarding the management of groups, the methodological implementation of training, and general instructional principles. Facilitators also require content-specific instructional skills (e.g., content-specific training methods).

Furthermore, knowledge of facilitators regarding the current state of training research may enhance their understanding of transfer processes (Hutchins and Burke 2007; Lipowsky and Rzejak 2019). Some findings concerning teacher training have even suggested that training focusing on teacher knowledge (content knowledge or pedagogical content knowledge) has stronger impacts on student learning than training focusing on teacher behaviour (Darling-Hammond et al. 2017; Kennedy 1998). Wisshak et al. (2025) conceptualised the construct of trainers' transfer knowledge, which includes evidence-based knowledge concerning the determinants and promotion of transfer. This kind of knowledge is important for facilitators of train-the-trainer programmes as well.

In addition to investigating facilitators' knowledge and skills, scholars have begun to investigate beliefs like their sense of responsibility for the promotion of transfer as another aspect of their professional competence (Burke and Saks 2009; Wisshak and Barth 2022).

We expect the subdomain of the professional competence of the facilitator to affect (a) the design and delivery of training; and (b) the perception, interpretation, and use of learning opportunities.

5.1.2 | Training Design and Delivery

The second group of influencing factors concerns the design and delivery of training and includes four factors: the content of the train-the-trainer programme and its structural, didactic, and methodological features.

The *content* depends on whether a train-the-trainer programme is generic or whether it aims at a specific training area, such as sales, leadership or medical training. Based on the broader categorisation of hard- and soft-skills training, research has suggested that soft-skills trainers might need different competencies than hard-skills trainers; for example, soft-skills trainers might need more and/or different transfer-promoting strategies (Hamzah et al. 2024; Wisshak and Hochholdingner 2020). In any case, train-the-trainer programmes should prepare trainers for the aforementioned core tasks of trainers, such as developing, planning, conducting and evaluating training and ensuring transfer (e.g., Giménez Marín et al. 2011; Wisshak and Hochholdingner 2018). An important difference between trainers and teachers is that teachers teach a fixed curriculum, while trainers are more strongly expected to adapt training content to organisational and individual needs. Therefore, train-the-trainer programmes could also consider covering the challenge of researching and processing high-quality training content. As our model is generic and because it exceeds the scope of this paper, we do not go into further detail on different training contents.

In terms of *structural features*, previous studies have made recommendations regarding the mode of training delivery. A meta-analysis conducted by Lacerenza et al. (2017) suggested that for leadership training, training delivered by a facilitator is more effective than self-administered training. Since train-the-trainer programmes also represent soft-skills training that prepares trainers to engage in interactions with groups and communication processes, we argue that such programmes should be held—at least in part—in a face-to-face setting. Regardless of the mode of delivery of teacher training, clarity and structure have been identified as important determinants for its success (Fütterer et al. 2024). Another structural feature is the temporal delivery of training units. According to the meta-analyses of Donovan and Radosovich (1999) and Lacerenza et al. (2017), the inclusion of time intervals between practice (spaced practice) is preferable to continuous practice (massed practice). Meta-analyses have revealed similar effects for teachers (Yoon et al. 2007; Darling-Hammond et al. 2017; Kennedy 1998). Some scholars have recommended that additional learning opportunities should be provided after the main training, which are known as follow-ups (Grossman and Salas 2011). In terms of the duration of teacher training, two meta-analyses concluded that the content and form of learning are more important than its duration (Kennedy 1998; Timperley et al. 2007). According to Lipowsky and Rzejak (2015), the relationship between training duration and success is presumably not linear and depends on other factors.

With regard to *didactic features*, training should first be relevant to the participants (Fütterer et al. 2024). With respect to teacher training, Lipowsky and Rzejak (2015) reported that “the personal needs, interests, experiences, and goals of the participants should be taken into consideration” (p. 30). According to the meta-analysis conducted by Taylor et al. (2005), transfer is more likely when practice involves participant-generated scenarios, and Garet et al. (2001) and Penuel et al. (2007) were able to provide evidence concerning the influence of coherence, a form of practical relevance, on teachers’ instruction. Furthermore, findings from three meta-analyses regarding teachers have highlighted the importance of the content focus of training (Darling-Hammond et al. 2017; Kennedy 1998; Timperley et al. 2007). According to Timperley et al. (2007), the content focus of training is more relevant than are the training methods. Another didactic feature that was examined in meta-analyses by Arthur et al. (1998) and Driskell et al. (1992) is the concept of overlearning. Accordingly, transfer is more likely if one does not stop practising the training content after one has acquired the new skills, instead continuing to practice beyond that point. A further didactic feature suggested by several meta-analyses indicates that feedback is an essential measure to foster transfer (Lacerenza et al. 2017; Taylor et al. 2005). The provision of continued support by facilitators after training represents another transfer-enhancing didactic feature (Vigerske 2017). Encouragement in the form of technical support and the provision of equipment is significantly correlated with changes in teaching practice (Penuel et al. 2007).

The fourth factor of the design and delivery of training focuses on *methodological features*. Several meta-analyses have suggested that training methods should be chosen depending on the training content and transfer goals (Wisshak 2022). For instance, Arthur et al. (2003) stressed that lectures can effectively enhance transfer when cognitive skills are to be learned and applied. Another transfer-enhancing training method, behaviour modelling training (BMT), is based on Bandura’s (1977) theory of social learning. According to this approach, participants are first prepared by learning points and examples. Then, they practice the training content and ultimately receive feedback. According to a meta-analysis conducted by Taylor et al. (2005), BMT can enhance transfer, particularly if participants are instructed to set their own goals and if they learn from both positive and negative models. BMT is often used in the contexts of communication and team training and could also be useful for train-the-trainer programmes. A meta-analysis conducted by Keith and Frese (2008) further suggested that error management training (EMT) is conducive to adaptive transfer in situations in which the skills to be acquired must be transferred to situations that differ strongly from the learning context. EMT involves active exploration of the training content as well as explicit encouragement for participants to make mistakes during training. This method could be used to practise unexpected situations during training. Another transfer-enhancing method that fits the train-the-trainer context is simulations. The participating trainers can simulate training and thereby experience both the role of the trainer and the role of the learner. “To engage in the same learning activities, they are designing for their students”, can represent a critical learning opportunity for teachers (Darling-Hammond et al. 2017, 8). Moreover, Gegenfurtner and Vauras (2012) suggested that training programmes should offer the possibility of social

interaction with peers because such measures can make learning emotionally meaningful and motivating (Vauras et al. 2008). Similarly, when teacher training provides the opportunity to collaborate, for example, through participation in a professional learning community, it has a positive impact on teaching (Ingvarson et al. 2005) and student learning (Darling-Hammond et al. 2017; Fütterer et al. 2024; Timperley et al. 2007).

We expect the design and delivery of training to affect (a) certain individual factors (e.g., motivation) and vice versa; (b) the perception, interpretation, and use of learning opportunities and vice versa; and (c) learning processes.

5.1.3 | Training Evaluation

The *improvement hypothesis* suggests that organizations that evaluate their training programmes have information that enables them to improve such programmes, thus, making their training more effective (Saks and Burke 2012). Moreover, the findings reported by Saks and Burke (2012) suggested that the frequency of training evaluation is positively related to transfer if the evaluation assesses behavioural changes or organisational results.

Accordingly, we expect the subdimension of training evaluation to affect the design and delivery of training.

5.2 | Individual Factors: The Participating Trainers

Regarding the preconditions of participating trainers, we distinguish between those that are unlikely to be influenced and those that may be influenced by training. We suggest that both types of preconditions on the part of participating trainers are relevant with respect to the effectiveness of train-the-trainer programmes.

5.2.1 | Preconditions That Are Unlikely to be Influenced by Training

A meta-analysis by Blume et al. (2010) suggests that participants’ general cognitive ability represents a predictor of transfer. However, this relationship exists only when closed skills (as opposed to open skills) are trained. Closed skills require participants to respond in one particular way in accordance with a set of rules (e.g., in the maintenance of machinery; Yelon and Ford 1999). Since trainers predominantly need open skills, trainers’ cognitive ability might not be as important with regard to transfer as it is in other work contexts.

Another barely changeable precondition is the personality trait of conscientiousness, which has been reported to exhibit moderate correlations with transfer success in several meta-analyses (Blume et al. 2010; Colquitt et al. 2000).

A significant amount of research has investigated the preconditions of participation in continuous training. The private

situation of teachers and other participants appears to be relevant in this context; for example, care work can hinder attendance (Beck et al. 1995; Lischewski et al. 2020).

5.2.2 | Preconditions That May Be Influenced by Training

The prior knowledge and skills of participants were included as preconditions in the model developed by Baldwin and Ford (1988). Lipowsky and Rzejak (2015, 2019) reported inconsistent findings regarding whether prior knowledge is conducive to transfer. On the one hand, more knowledge could provide fertile soil for new training content, but on the other hand, a ceiling effect could prevent further learning. In general, the consideration of prior knowledge supports the relevance of the tailoring of the train-the-trainer programme to the participating trainers' needs. If the trainers' prior knowledge is very heterogeneous, the train-the-trainer course could be preceded by optional self-study material.

Another essential prerequisite for transfer is motivation. Both motivation to learn and motivation to transfer have been reported to exhibit substantial correlations with transfer according to meta-analyses (Gegenfurtner 2011; Reinhold et al. 2018) and recent original studies (de Jong, Jansen in de Wal, Cornelissen, et al. 2023; de Jong, Jansen in de Wal, Cornelissen, van der Lans, et al. 2023). Similarly, Park et al. (2018) reported a moderate correlation between participants' perceptions of the need for development and their job performance. Fütterer et al. (2024) demonstrated that a low level of initial participant motivation can be addressed by various external factors, such as collaboration, practical relevance, cognitive activation, and the clarity and structure of training.

Researchers have also shown that self-efficacy is significantly related to transfer (Gegenfurtner et al. 2013). Therefore, we argue that transfer-related self-efficacy should be promoted during training.

Colquitt et al. (2000) found further evidence indicating that participants who have clear, specific plans for achieving career goals are more likely to accomplish transfer. A notion that is connected to Lischewski et al.'s (2020) understanding of participants' motives for attending training is the prospect of advancing one's career (Coldwell 2017).

Overall, we expect these individual factors to affect (a) the design and delivery of training and vice versa; (b) contextual factors and vice versa; (c) the perception, interpretation, and use of learning opportunities and vice versa; and (d) learning processes.

5.3 | Contextual Factors: The Workplace

Although we know very little about the professional situations of trainers, previous research has suggested that, at least in Germany, trainers are self-employed more often than they are employed by a corporate firm or training provider (Wisshak

et al. 2020). Furthermore, trainers' work contexts differ strongly from the school context. Therefore, most of the adaptations from the previous models that we made pertained to this domain of the model.

5.3.1 | Support From Persons Involved

A survey study conducted by Salamon et al. (2023) suggested that participants' motivation to transfer increases as more coworkers participate in the training. In this way, participants can start supporting each other during training, for example, by offering each other feedback, and they can continue to do so during their transfer attempts once they return to the workplace. Similarly, in the meta-analysis conducted by Taylor et al. (2005), transfer was shown to be more likely when participants' supervisors were also trained. Several meta-analyses have emphasised the fact that workplace support from supervisors and colleagues is positively correlated with transfer (Blume et al. 2010; Colquitt et al. 2000; Reinhold et al. 2018). A study conducted by Hughes et al. (2020) further indicated that support from organizations, e.g., upper management, is also related to transfer. In addition, feedback and coaching in the workplace appear to be positively related to transfer (Reinhold et al. 2018). For teachers, collaboration enables changes in schools beyond the level of individual classes (Darling-Hammond et al. 2017; Desimone and Garet 2015; Vigerske 2017).

With respect to general training research as well as research on teacher training, it is clear that the support provided by colleagues, supervisors, and entire organizations is crucial with regard to the promotion of transfer. However, in many cases, these findings cannot be transferred to train-the-trainer programmes without adjustments. If trainers are self-employed, they often do not have any immediate colleagues or a supervisor who could support their transfer attempts. Such self-employed trainers, however, might benefit from other forms of social learning and support. Van den Bossche and Segers (2013), in their review of studies that have employed social network analysis, emphasised the fact that networks that extend beyond organizations can also be helpful. Therefore, trainers might benefit from trainer networks that enable them to share their transfer experiences during and after training. Peer dyads or networks could be established in the context of train-the-trainer programmes and should be perpetuated thereafter. Since research has also suggested that feedback in the workplace is important, trainers could ask their participants for feedback concerning their transfer attempts. Formal training evaluations could provide additional feedback. Train-the-trainer programmes might also consider providing additional coaching to participating trainers.

If trainers are employees in a training company or a corporate firm, transfer-promoting measures are easier to apply to their situation. Trainers should receive support from colleagues, supervisors, and the organisation itself, including feedback, reinforcement, and coaching. In this case, measures that have proven to be effective in the contexts of general and teacher training, such as the training of entire teams and the participation of supervisors, can be implemented.

5.3.2 | Organisational Culture and Environment

Several meta-analyses have indicated that transfer is more likely to occur if participation in training is voluntary (Blume et al. 2010; Gegenfurtner et al. 2016; Lacerenza et al. 2017). Teachers also identify with the training content more strongly if participation is voluntary (Kennedy 1998; Vigerske 2017). Another transfer-enhancing factor is the possibility of applying the training content in the workplace. The longer skills are not used after training, the less those skills are retained (Arthur et al. 1998). Grossman and Salas (2011) reported that opportunities for use also require appropriate resources in the workplace. Findings regarding opportunities to use have been replicated in the context of teachers (Lipowsky 2014; Vigerske 2017). Finally, Blume et al. (2010) reported that the general transfer climate in organizations is related to transfer.

These findings regarding a transfer-enhancing organisational culture and environment are partly applicable to self-employed trainers: participation in train-the-trainer programmes is naturally voluntary, and trainers should be encouraged during training to use the skills they have acquired shortly after participating in the programme. It is also plausible that the organisational culture and transfer climate of the companies for which trainers provide training can affect trainers' transfer success. If trainers are employees at a company, the advantages of training entire teams should be weighed against the advantages of voluntary participation since these factors can contradict each other. In any case, such employed trainers should be offered transfer opportunities and relevant resources such as time and material, and they should generally encounter a transfer-supporting organisational culture.

If trainers are self-employed but regularly work for the same company, this company might consider implementing a common development strategy for its freelance trainers. Such measures could strengthen the aforementioned networking and social support and subsequently enhance transfer.

We expect these contextual factors to affect (a) certain individual factors; (b) the perception, interpretation, and use of learning opportunities; (c) learning processes; and (d) levels of training success.

5.4 | Perception, Interpretation and Use of Learning Opportunities

In line with the constructivist perspective in offer-and-use models, our model suggests that the effectiveness of train-the-trainer programmes does not depend solely on the aforementioned external, individual, and contextual factors. It is further influenced by the perception, interpretation, and use of learning opportunities by the participating trainers (Lipowsky and Rzejak 2015). The perception of learning opportunities refers to participants' observations during training, whereas interpretation represents their internal processing of what they see or experience. The use of learning opportunities is defined as the involvement of the participants in training, including thorough active participation in group activities or discussions.

Colquitt et al. (2000) reported that valence, that is, participants' beliefs regarding the desirability of training outcomes, is closely linked to the participants' motivation to learn, which in turn is linked to the participants' learning outcomes. For teachers, the perceived usefulness of training content is an important motivator with regard to the incorporation of new content into one's own teaching (Lipowsky 2014; Vigerske 2017). Transfer is also enhanced if teachers identify with the content of the training that they attended (Vigerske 2017).

It is clear that certain individual factors, such as self-efficacy, learning motivation, and transfer motivation, are closely connected to the perception, interpretation, and use of learning opportunities, and we expect these factors to interact with each other. Train-the-trainer programmes should try to keep the motivation and engagement of the participating trainers high, for example, by stressing how they can benefit from the learning content in their professional practice. Furthermore, the way in which the participating trainers react to training can influence the design and delivery of training. For example, training can be adapted if trainers report that the content is not relevant to them or if they express reluctance to participate in exercises.

Therefore, we expect the perception, interpretation and use of learning opportunities to influence (a) individual factors and vice versa; (b) training design and delivery and vice versa; and (c) learning processes and vice versa.

5.5 | Learning Processes

The previous section focused on how trainers who participate in train-the-trainer programmes perceive learning opportunities and whether they decide to engage in them. To our understanding, the next steps involve internal learning processes. While other offer-and-use models have incorporated the factor *transfer process* (e.g., Lipowsky and Rzejak 2015) at this point in the model, we want to highlight the importance of the preceding step of learning processes. We hereby follow the suggestions of Baldwin and Ford (1988), who differentiated between initial learning and retention on the one hand and generalisation and maintenance at the workplace on the other hand. To our understanding, during the train-the-trainer programme, learning must occur before the four levels of training outcomes can—or cannot—be observed, as depicted in the lower section of Figure 2. In the sense of Alliger et al. (1997), Level 3 of training outcomes thus constitutes the transfer of the train-the-trainer programme.

Therefore, we expect learning processes to affect the levels of training outcomes.

5.6 | Levels of Training Outcomes

We expect the aforementioned domains of the offer-and-use model to impact the four levels of training outcomes either directly or indirectly based on Kirkpatrick's evaluation model (Kirkpatrick and Kirkpatrick 2016) and the meta-analysis conducted by Alliger et al. (1997). However, in our model, we understand those levels as training outcomes, not only in the

sense of (methodological) evaluation levels. Although we employed Kirkpatrick's levels, we want to emphasise the existence of certain subfacets that must be considered, as suggested by Alliger et al. (1997). On the other hand, an even broader distinction of transfer outcomes was suggested by Wang and Wilcox (2006). These authors grouped reactions and learning into the category of short-term outcomes, and they combined behaviour on the job and organisational impact into the category of long-term outcomes. We included these broad categories in our model as proximal and distal outcomes since they have been highlighted by previous empirical studies (Grohmann and Kauffeld 2013) and could be a useful taxonomy if outcomes cannot be investigated in a more differentiated manner.

Since the proposed offer-and-use model focuses on the promotion of transfer, ultimately, the success of transfer (Level 3) should be evaluated. For this purpose, the participating trainers could be observed while conducting training sometime after the train-the-trainer programme. If transfer cannot be evaluated, the participating trainers should at least be asked about their utility reactions, i.e., the perceived usefulness of the training at Level 1. These judgements are correlated more strongly with transfer than affective reactions, such as whether participants liked the training (Alliger et al. 1997). Acquired knowledge and skills (Level 2) can be assessed via tests or training simulations at the end of the programme. At Level 4, the learning and transfer success of the trainees of the participating trainers should be assessed.

Attention should also be given to whether a summative or formative evaluation is more beneficial. During the process of implementing newly designed train-the-trainer programmes, an initial formative evaluation is recommended so that the programme can be adapted if necessary. The Learning Transfer Systems Inventory (LTSI; Holton III et al. 2000) could be used for this purpose.

6 | Discussion

The central contribution of this article is its proposal of an offer-and-use model for the professional development of trainers that integrates factors that have been shown to be relevant for transfer. We therefore elaborate on previously developed offer-and-use models and transfer models pertaining to both training in general (Baldwin and Ford 1988; Burke and Hutchins 2008) and teacher training (Lipowsky and Rzejak 2015, 2019; Schäfer and van Waveren 2025; Vigerske 2017). We discussed and integrated empirical findings drawn from the international and multidisciplinary science of training as well as from continuous teacher training. With our proposed model, we hope to advance the interdisciplinary understanding of the professional development of trainers.

Notably, the domain of internal factors/work environment, which was drawn from the aforementioned models, required extensive adaptation and was renamed to develop the domain of contextual factors. As trainers are often self-employed (Giménez Marín et al. 2011; Wisshak et al. 2020), we believe that train-the-trainer programmes must be adapted to the two possible scenarios in this context. For trainers who are

employed by a company or training provider, aspects such as social support, application opportunities, and a transfer-promoting climate can be offered by those companies. Self-employed trainers, on the other hand, are responsible for a large part of such transfer-promoting measures themselves, which therefore require adaptations. We suggest that these trainers should seek support through different channels, such as from peer dyads or networks with colleagues. Such support systems can already be established during train-the-trainer programmes. Furthermore, transfer-promoting resources for self-employed trainers and in-company trainers may include guidelines, checklists, apps, journals, or other tools that can remind them of their transfer goals and help them reflect on their transfer process (Koch and Wisshak 2025). Such reminders can be used as tools for cognitive offloading and, with respect to the transfer of training, so-called intention offloading (Risko and Gilbert 2016). However, while research has suggested that cognitive offloading can promote learning, we know very little about the effect of intention offloading on the transfer of training.

We made several more adaptations to our model. With regard to the model developed by Baldwin and Ford (1988), we added the professional competence of the facilitators and the training evaluation, as proposed by Burke and Hutchins (2008). These aspects are closely connected to the quality of the training design. The perception, interpretation, and use of learning opportunities are an element that we derived from offer-and-use models. To our understanding, this element constitutes a prerequisite for the respective learning processes. We postulate that the relevant domains affect the internal learning processes, which in turn affect the different levels of training outcomes, which we drew from the model of Kirkpatrick and Kirkpatrick (2016) and from the training criteria proposed by Alliger et al. (1997). However, learning and transfer can be viewed as alternating processes; successful transfer leads to further learning (Bransford and Schwartz 1999) and can be described as a dynamic process rather than a static outcome (Blume et al. 2019). This dynamic should also be considered when investigating train-the-trainer programmes.

6.1 | Limitations

According to Box and Draper (1987), “[...] all models are approximations. Essentially, all models are wrong, but some are useful. However, the approximate nature of the model must always be borne in mind” (p. 424). In this sense, we are aware that our proposed model does not depict reality but can rather serve only as a general approach that features a high level of abstraction. This study represents an initial suggestion that can prospectively be specified with regard to different training contexts. For example, research has suggested that trainers who teach different topics (i.e., hard skills vs. soft skills) might need different types of instructional knowledge and skills (Wisshak and Hochholdinger 2020). Our proposed model is generic and, therefore, cannot address specific training content such as sales or medical training.

The aim of our proposed model is to contribute to the theory- and evidence-based investigation of train-the-trainer programmes

and their effectiveness. Van Veen et al. (2012) noted that investigations of effectiveness run the risk of limiting the discussion to technocratic assumptions. Similarly, Nuthall and Alton-Lee (1993) indicated that variables associated with teaching and learning do not necessarily exhibit a linear relationship. Lieberman and Grolnick (1996) noted that an excessive or insufficient amount of a given factor may interfere with the learning process. Against this backdrop, it must be noted that most of the elements included in our model are based on meta-analytical correlations, which can hardly reflect the complexity of pedagogical processes.

Furthermore, while some factors included in our model are based on several meta-analyses, other factors are informed by very few empirical findings, such as those regarding the positive relationship between evaluation and transfer. In any case, our model and the links we posit among the specific domains require empirical examination before they can be viewed as valid.

Finally, our approach represents an initial attempt to synthesise research on different systems (training in general, the continuous training of teachers, and the training of trainers) that are intended to meet similar requirements but are nevertheless different. The transferability of research findings pertaining to schoolteachers to trainers is especially limited: For example, teachers must adhere to a given curriculum, while trainers must tailor training content to organisational and individual needs. While teachers are employed by an organisation on a long-term basis, trainers are often self-employed. We tried to consider those differences in our model. However, as trainers represent a very heterogeneous group in terms of their different educational backgrounds, professional backgrounds, and training topics, they are difficult to investigate empirically, and we know very little about them. The existence of national differences also makes it even more difficult to generalise the few existing findings concerning trainers.

6.2 | Implications for Future Research and Practice

Despite its limitations, our model is based on a broad foundation that combines substantial international research on the transfer of training with models and findings drawn from research on the continuous training of teachers. We particularly hope to present the idea of offer-and-use models—in general as well as in the specific context of training—to a broad and international audience.

We suggest that our model can be utilised to support investigations of train-the-trainer programmes, for example, for empirical investigations of the relationships among specific factors and for efforts to predict their results. However, empirical studies are needed to investigate the model's validity. This need is especially critical given that some of the underlying models (Lipowsky and Rzejak 2019; Schäfer and van Waveren 2025) have not yet been empirically tested. Future studies could also examine whether this model meets the requirement of general applicability or whether adjustments must be made to address trainers in specific subject areas.

In practice, this model can be used to conceptualise, evaluate, and reflect on the effectiveness of train-the-trainer programmes. In light of the relevance of training and development for our society, learning opportunities for this target group should be designed to be as conducive to learning and transfer as possible.

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Conflicts of Interest

The authors declare no conflicts of interest.

Data Availability Statement

The authors have nothing to report.

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