

Skills mismatch and change confidence: the impact of training on change recipients' self-efficacy

Skills
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change
confidence

Filippo Ferrari

*Department of Management, Alma Mater Studiorum University of Bologna,
Bologna, Italy*

69

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Abstract

Purpose – Drawing on Bandura's social learning theory (SLT), the purpose of this paper is to investigate, analytically, the impact that after-training skills level (i.e. perceived skill match) has on change self-efficacy. Moreover, this research also aims to identify which specific skills sets (if any) act as a protective factor during organizational change, supporting the change confidence (CC) level of the people involved.

Design/methodology/approach – Quantitative research was carried out on a sample of 200 workers in the bank sector.

Findings – Findings of this study suggest that skill match has a significant impact on the CC level. Furthermore, this study demonstrates that, even in front-office jobs, a perceived skill match of soft skills does not have a significant impact on staff CC, unlike that suggested by common sense and by literature.

Research limitations/implications – Future research should investigate if and how a training process enables change self-efficacy over time or instead shows its utility only when it is relating to a specific and limited period.

Practical implications – This study suggests that in designing training, top and middle management should pay specific attention to change recipients' needs by adopting a bottom-up approach. Moreover, to improve training effectiveness, it would be advisable to also train change recipients' supervisors.

Social implications – This study has social implications in suggesting how to foster the adaptive capabilities of change recipients in current turbulent times. In doing so, it suggests how to prevent some undesirable change consequences such as anxiety, intention to quit, work-related stress and change cynicism.

Originality/value – This paper shows that, from a methodological point of view, it is necessary to evaluate training effectiveness at the level of a specific skill area and not simply by comparing the trained/not trained people, as typically practiced until now.

Keywords Social learning theory, Self-efficacy, Organizational change, Training effectiveness, Change confidence, Skill mismatch

Paper type Research paper

Introduction

Literature highlights a high failure rate in organizational change projects (Balogun and Hailey, 2004). Miller *et al.* (1994) posit that, while the failure to successfully implement planned change may be attributed to many factors, few issues are as critical for success as the employees' attitudes towards change. It is worth mentioning that, in dealing with



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resistance to change, more attention has been paid to changing negative attitudes (e.g. disengagement or cynicism) and dysfunctional behaviours (e.g. deviance), neglecting the role that positivity (what works well) has in organizational change (Avey *et al.*, 2008). Empirical research has instead highlighted the advantages for organizations of enhancing (for instance, by training activities) factors such as self-efficacy and the perception of control, rather than trying to remove obstacles to change (de Jong *et al.*, 2016). However, research that treats training for preparing an organizational change as a positive approach and emphasizes the strengths of individuals is still insufficient, and needs more empirical evidence, as advocated by recent literature (for a review, see Uyan and Aslan, 2019).

During a radical organizational change, the perception of control and sense of self-efficacy are strategic assets for the involved people (Avey *et al.*, 2008). Successfully coping with change can be perceived by recipients as a challenging task, and can affect career choices (e.g. withdrawal behaviours or even the intention to resign). Bandura (1995) has found that an individual's self-efficacy plays a major role in how goals, tasks and challenges are approached. Literature highlights that people with a strong sense of self-efficacy develop deeper interest in the activities in which they participate, form a stronger sense of commitment to their interests and activities, recover quickly from setbacks and disappointments and view challenging problems as tasks to be mastered (Bandura, 1977, 1992). Change self-efficacy (or, often referred to as, *change confidence* [CC]) is thus considered a pivotal factor in facing an organizational change successfully (Armenakis *et al.*, 2007a; Emsza *et al.*, 2016; Roczniowska *et al.*, 2020; Weiner, 2009).

It is well known that self-efficacy develops thanks to a *social learning process* (Bandura, 1986). Indeed, the growth of self-efficacy continues to evolve throughout people's working lives as they acquire new skills, experience and understanding (Bandura, 1995). Training processes should therefore play a strategic role in addressing and developing self-efficacy in preparation for an organizational change. However, to date, empirical research has focused on the impact of training on readiness to change in general, and not on change self-efficacy specifically (see, for instance, Sherlock-Storey *et al.*, 2013; Grant, 2014). Recently in their review, Arghode *et al.* (2020) show that training and education foster *general* self-efficacy, which in turn plays a vital role in career decision-making, but their review highlights a lack of specific focus on *change* self-efficacy.

Literature suggests that distinguishing self-efficacy into general and specific increases conceptual parsimony and the predictive power of each construct (for a critical review, see Oney and Oksuzoglu-Guven, 2015). Differently from general self-efficacy, specific self-efficacy beliefs vary depending on the domain of functionality and the circumstances surrounding the occurrence of behaviour, for instance during an organizational change. Therefore, change self-efficacy is related to a specific change context, and helps change recipients in facing that specific context (Armenakis *et al.*, 2007a; Roczniowska *et al.*, 2020). In this study, a change agent is defined as a person from inside or outside the organization who helps an organization transform itself by focusing on matters such as organizational effectiveness, improvement and development (Hamlin *et al.*, 2019). From the change agent's point of view, it would be useful to identify which specific set of skills fosters change self-efficacy, to design training activities appropriately. Nevertheless, to date, research has mainly investigated the effectiveness of training activities in preparing for an organizational change by comparing trained versus untrained people, not considering a specific set of skills (for an exception, see Veloso-Besio *et al.*, 2019). Moreover, the effect of training on individual change self-efficacy must be quantitatively and empirically tested, as suggested by the available literature (Ferrari, 2019; Kristof-Brown *et al.*, 2002, 2005).

In summary, although many organizational change processes fail because the people involved are not adequately trained for the specific type of change (Bovey and Hede, 2001),

research has until now overlooked the relationship between training activities and change self-efficacy (Uyan and Aslan, 2019). Given this theoretical scenario, and its limitations, the first purpose of this paper is to investigate, analytically, the impact that the post-training perceived level of skills (skill match) has on change self-efficacy. The second purpose is to identify which specific skills sets (if any) act as a protective factor during organizational change for the involved people.

Theoretical background

Positive actions such as coaching and training programs during an organizational change were found to be significant in terms of constructing positive feelings, positive behaviours and/or positive cognitive thought processes (Fackler *et al.*, 2021; Grant *et al.*, 2009; Grant, 2014; Sherlock-Storey *et al.*, 2013) and generalized positive experiences (West *et al.*, 2009). Research provides evidence of the role played by readiness to change in making the organizational change process easier, suggesting how to assess it (Armenakis *et al.*, 2007a; Holt *et al.*, 2007), and shows the organizational factors that can support it (Andersen, 2008; Taufikin *et al.*, 2021). Literature has also widely highlighted the impact of training processes on people's readiness to change in general (Sherlock-Storey *et al.*, 2013; Grant, 2014; Grant *et al.*, 2009; Mueller *et al.*, 2012; Martin, Jones and Callan, 2005). A key positive factor in readiness to change is *change self-efficacy* (Armenakis *et al.*, 2007a, 2007b; Holt *et al.*, 2007), known for its protective effect on individual well-being and for its positive impact on professional performance (Stajkovic and Luthans, 1998a, 1998b). Drawing from Bandura (1997), self-efficacy is "one's conviction (or confidence) about his or her abilities to mobilize the motivation, cognitive resources and courses of action needed to successfully execute a specific task within a given context" (Stajkovic and Luthans, 1998b, p. 66). Weiner (2009) suggested change efficacy as one of the relevant dimensions for assessing readiness to change. Several other authors such as Choi *et al.* (2016), Choi and Ruona (2011, 2013), Judge *et al.* (1999), Meyer *et al.* (2002) and Neves (2009) concluded that individuals with more confidence in their ability to cope with organizational change have a stronger commitment to changes.

According to Bandura's social learning theory (SLT) (1995), there are four major sources of self-efficacy: mastery experiences, social modelling, social persuasion and psychological responses. Hence, consistent with SLT, training should be designed as a social process rather than delivered as an educational event (e.g. a course, a lecture). Social processes are the ways in which individuals and groups interact, adjust and readjust, and establish relationships and patterns of behaviour, which are again modified through social interactions (Brown, 2006). Furthermore, by impacting on an organizational population, change often generates a learning process that has a social nature; the change agents and recipients can therefore be considered together as a *community of practice* (Lave, 1993; Wenger, 1998). According to this approach, self-efficacy is co-constructed, through informal interaction and training on the job, in addition to a training event (e.g. a course, a lecture), which is more structured and limited in time.

However, to date, literature investigating the "if" and "how" training affects change self-efficacy is still inconclusive. For instance, Lewis (2012) did not find a direct relationship between training activities and self-efficacy. Several other studies have dealt with the relationships between self-efficacy, training and performance in various contexts (see for instance Stajkovic and Luthans, 1998; Tims *et al.*, 2014), but empirical literature has focused mainly on self-efficacy as a moderator between training activities and work performance (Kraut *et al.*, 2016; Zaki *et al.*, 2019). Martocchio and Hertenstein (2003) have noted that training that results in high self-efficacy is more likely to lead to positive training outcome,

but they did not investigate the relationship between training and self-efficacy as the outcome. Moreover, the available literature on change management shows that having a perceived *skill-match* for dealing with a new situation is a fundamental factor at the base of self-efficacy (Kristof-Brown *et al.*, 2002, 2005). Nevertheless, research has seldom (and not recently) investigated the direct relationship between the perceived skills level after the training activities and the change self-efficacy level (for an exception, see Baron and Morin, 2010; Zhao *et al.*, 2008).

Thus, given this theoretical scenario and its limitations, this study aims to fill the research gap by testing the following hypothesis:

- H1. In a context of organizational change, the higher the post-training change recipient's skill-match level, the higher their change self-efficacy level.

The literature suggests that not all skills are equally important for the development of change self-efficacy. With a few exceptions (Holten *et al.*, 2019; Olsen and Stensaker, 2014), the change management literature to date has investigated the effectiveness of training only on a general level, comparing a trained versus untrained group (see, for instance, Kim *et al.*, 2019). By not investigating the specific contents of the training, this general approach overlooks the role played by specific skills areas in fostering change self-efficacy. By their very nature, front-office jobs and, more generally, service activities are characterized by high relational content. Literature on front-line interactive service work has pointed to the importance of so-called *soft skills* (managerial and relational). Soft skills are defined by Moss and Tilly (1996, p. 253) as "skills, abilities and traits that pertain to personality, attitude and behaviour rather than to formal or technical knowledge". Soft skills are very important in many disciplines, both technical and managerial, such as accounting (Stovall and Stovall, 2009), information systems (Richards *et al.*, 1998), finance (Dixon *et al.*, 2010), and also project management (Alam *et al.*, 2010) and leadership (Newell, 2002). In the retail banking sector, the ever-increasing emphasis on providing 360° consultancy services (in multifunctional teams) and less and less specific technical services suggests a growing importance of managerial and relational skills such as customer care abilities, service encounter management, negotiation, team work and problem solving (Nickson *et al.*, 2012; Targetjob, 2019). Ample research has been carried out on the importance of soft skills in the workplace (Klaus, 2010; Maes *et al.*, 1997; Mitchell *et al.*, 2010; Nealy, 2005; Smith, 2007). One study found that 75% of long-term job success depends on people skills (soft skills), while only 25% is dependent on technical knowledge (Klaus, 2010). Another study indicated that hard skills contribute only 15% to one's success, whereas 85% of success is due to soft skills (Watts and Watts, 2008, as cited in John, 2009). Finally, Levasseur (2010, 2013) theoretically suggests that soft skills can help recipients during an organizational change, but empirical literature still lacks evidence.

It can therefore be assumed that in the service sector in particular, soft skills may have the greatest impact on change self-efficacy; consequently, the skill-match level in this specific area of competence would be seen to have a greater protective effect during an organizational change. However, the currently available literature is still largely anecdotal, or qualitative or self-reported (Robles, 2012); research is often the result of surveys conducted by learning agencies (Targetjobs, 2019) and not by scholars. Furthermore, soft skills have so far been investigated in the different periods of the *person's career* (newcomer, middle manager, top manager), not during organizational change (Robles, 2012; Wellington, 2005; Wilhelm, 2004). Additional empirical and quantitative efforts are therefore needed to measure if and how much soft skills really influence CC, as requested in the most recent

literature (Hamlin, 2019; Ferrari, 2019). Thus, given this theoretical scenario, this research aims to fill the literature gap by testing a second hypothesis:

- H2. In the context of organizational change, the post-training managerial/soft skills level has the greatest impact on change self-efficacy.

The research

Change context and training processes

This research focuses on a business model change in a large Italian bank. This bank aims to achieve a business model based on a network of subsidiaries in a couple of years, when their staff will be required to present an ample skills portfolio to face all customers' needs/demands. This requires an extensive re-organization of personal skills, and a more flexible, and lifelong learning oriented workforce. In service sectors in particular, (bank, insurance, trade, healthcare, etc.), every organizational change has an impact on customer-facing employees at the bottom of the company in particular (CNBC, 2013; Ferrari, 2019a; Lovelock, 1990). In their longitudinal literature review, De Jong *et al.* (2016) showed that low-level hierarchical workers suffer more during organizational restructuring, also in the long term. They showed that most studies highlight negative changes over time for workers, both in the short and long term. However, some groups of workers reacted less negatively: for example, workers with high organizational status before a merger and workers who underwent a change of work group. In the organizational scenario here investigated, the change recipients were workers at the bottom level and therefore more vulnerable. Hence, readiness to change and the employees' adaptability become strategic issues in human resource management. As a result, researchers have called for a better understanding of change managed by recipients at the bottom of the organization instead of the top (Piderit, 2000), but few studies have subsequently been conducted (Mars, 2009).

The individual or group that undertakes the task of initiating and managing change in an organization is known as a *change agent* (Lunenburg, 2010). A change agent is anyone who has the skill and power to guide and facilitate the change effort. The success of any change effort depends heavily on the quality and workability of the relationship between the change agent and the key decision makers within the organization (Anderson, 2011; Burke, 2011). In this change context, the quality of this relationship appeared to be poor. For instance, the strategic plan presented to the chief executive officer (change management plan) contained the training activities that had to be carried out to accompany the business model change. The training needs analysis was consequently carried out by the human resources (HR) department, involving branch managers as a source of information, but without involving the change recipients actively. The strategic training plan was then presented to change recipients in separate meetings at the geographical area level, thus following a top-down approach. The subsequent managerial/soft skills training was delivered in the traditional way (lectures); for other areas of expertise (legal, technical and credit skills), training was provided through an online platform. At the time of this research, the company had completed the training activities and was preparing to implement the new business model.

Procedure and participants

This research involved a sample of approximately 500 tellers (the bank employees who deal directly with customers, the so-called "gestori retail"), operating in the subsidiaries of the bank. Data was collected using an online questionnaire working on a Google platform, and

administered 2–3 weeks after the end of the training activities. The data collection began in December 2019 and was completed at the end of January 2020. In total, 200 correctly compiled questionnaires have been collected; hence, the return rate is approximately 40%, a highly valuable outcome. The characteristics of the sample are as follows: age: 18–25, 5.50%; 26–35, 28.50%; 35–50, 34.00%; >50, 17.50%; gender: M = 51%, F = 49%; tenure (in years): up to 5 = 12.00%; from 6 to 10 = 33.00%; from 11 to 20 = 29.00%; >20 = 26.00%; educational qualification: none = 5.50%; secondary school (accountant) = 33.50%; secondary school (other) = 17.50%; university degree (economics) = 32.00%; university degree (other) = 10.00%. The non-respondent bias was assessed by comparing the responses from early and last waves with a *t*-test, such as the first and last quarter of responses. No significant difference emerged ($p = 0.05$).

Independent variables

To measure the *perceived skill mismatch* at the end of training activities, this research used the *job requirement approach*, a well-suited tool especially when applied at a job-specific skill level rather than in the usual more generic sense (Pelizzari and Fichen, 2013). The JRA method originates from the psychology of work field and focuses on the importance of skills as key components of professionalism and work. Job requirements are defined as “the job requirements of any given job can be thought of as the personal characteristics which the job requires on the part of incumbents for reasonably satisfactory performance” (Mc-Cormick *et al.*, 1957, p. 358).

Starting from the available job description, the job-related skills were divided into four specific areas:

- (1) technical skills (TS) (knowledge related to product, services and procedures);
- (2) legal skills (laws currently regulating the bank sector);
- (3) credit skills (financial analysis); and
- (4) managerial (MS)/soft skills (teamwork, customer care, negotiation, problem solving, etc.).

Thus, following the *job requirement approach*, each area was transformed into a list of skills in the questionnaire. A self-reporting six-point scale was used for each skill to collect the participants’ self-evaluation about the degree to which an individual’s abilities match the demands of their job, in the context of organizational change. The six-point scale methodological option was selected/chosen because of the following assessment. Firstly, the neutral or undecided option is not suitable in this study, as the research focuses on a perceived skill match, not on an attitude. Moreover, respondents have a tendency to avoid the cognitive effort required to pick an opinionated answer when reporting their opinion (Krosnick, *et al.*, 2002) – in other words, neutrality is the path of least resistance, and a neutral option may inaccurately skew results towards neutrality. However, that is not all, respondents may also choose a neutral option because of ambivalence (Bishop, 1987) – “to avoid the negative feelings associated with their conflicted views on an issue”. Cognitive effort may be required for individuals to choose between their positive and negative feelings, and a neutral option would make this less likely to occur (Nowlis *et al.*, 2008). For these reasons, among others, some researchers have suggested doing away with the neutral option on Likert scales altogether (Garland, 1991; Krosnick *et al.*, 2002; Kalton *et al.*, 1980) – the central argument being that removing the neutral option forces respondents to exert cognitive effort whether they are simply tending towards neutrality or strongly ambivalent

about a topic. This requires individuals to use what they perceive to be the most important point of an argument to make a decision (Weijters *et al.*, 2010; Nowlis *et al.*, 2002).

Examples of questionnaire items:

- “In order to apply the new business model, how adequate do you consider your current level of the following *technical skills* to be? (0 = not at all, 5 = maximum level): knowledge related to the products/services offered: customer asset management skills.”
- “In order to apply the new business model, how adequate do you consider your current level of the following *credit skills* to be? (0 = not at all, 5 = maximum level): non-performing loans management.”
- “In order to apply the new business model, how adequate do you consider your current level of the following *legal skills* to be? (0 = not at all, 5 = maximum level): regulations on privacy.”
- “In order to apply the new business model, how adequate do you consider your current level of the following *managerial skills* to be? (0 = not at all, 5 = maximum level): negotiation.”

Dependent variables

For the purpose of this research, the *change self-efficacy* subscale from the Italian version (Cronbach’s alpha $\alpha = 0.9123$) of the readiness to change questionnaire proposed by Armenakis *et al.* (1999, 2007a), revised and improved by Holt and colleagues (2007), was used to measure the employees’ change self-efficacy level.

Control variables

Literature suggests that some variables can have an impact on the change process outcomes (Caldwell *et al.*, 2004). Research (Kunze *et al.*, 2013) suggests routine job seeking, cognitive rigidity and emotional aversion to change should be more pronounced for long-tenure staff members; thus, the results have been controlled for *tenure*. Furthermore, individual differences theory argues that because of differing cognitive structures, individuals react differently to the same change message (Armenakis *et al.*, 1993; Armenakis and Harris, 2002; Holten *et al.*, 2019). Therefore, the findings have also been controlled for *age*, *gender* and *type of qualification/s*.

Results

The level of change self-efficacy is generally medium–low in the sample ($M = 2.68/5$, $SD = 0.41$), as well as the overall skill match level ($M = 3.13/5$, $SD = 0.67$; see Appendix 1 for details). A one-way MANOVA was conducted to test whether males reported a higher mean overall skill level (OSL) and/or change self-efficacy (CC) than females: the results indicated that gender does not have a correlation either with OSL or with CC (see Table 1). To further explore the

	Males	Females	Mean	Difference	df	F	P-value*
Overall skill match level (OSL)	3.27	2.98	3.13	0.29	1.196	2.007	0.174
Change self-efficacy (CC)	2.7	2.66	2.68	0.04	1.198	1.0906	0.298
Mean	2.99	2.82					

Note: * $p < 0.05$

Table 1.
Gender differences

differences among participants for each control variable, a series of univariate ANOVAs were conducted, after checking homoscedasticity with an F -test: age ($F(3, 20) = 0.0026, p < 0.05$), tenure ($F(3, 20) = 0.00066, p < 0.05$), and type of qualification ($F(4, 25) = 0.0070, p < 0.05$) were found not to be related to CC. Thus, following the research hypotheses, differences in change self-efficacy should be due to other factors.

The positive correlation between the self-reported overall skill (match) level and the change self-efficacy level is statistically significant ($0.2713, p < 0.05$). In particular, a perceived adequate level of technical skills ($0.2410, p < 0.05$), credit skills ($0.2597, p < 0.05$) and managerial skills ($0.2311, p < 0.05$) show a significant positive statistical correlation with change self-efficacy level. Thus, $H1$ is supported (see Table 2 for a general correlation matrix).

For each statistically significant correlation, a linear regression was calculated to predict change self-efficacy. The findings suggest that a significant regression equation was observed for overall skill (match) level in affecting change self-efficacy ($[F(1, 198)] = 15.728, p < 0.05$), with a R multiple = 0.27 and $R^2 = 0.073592$ (constant = $2.157 + 0.1660$ [OSL]). For each point of overall skill (match) level, change self-efficacy increased by 0.1660.

Considering each factor (technical Skills, credit skills and managerial/soft skills), the findings suggest that a significant regression equation was found for affecting change self-efficacy ($[F(3, 196)] = 5.679, p > 0.05$), with a R multiple = 0.2712 and $R^2 = 0.08$; constant = $2.192 + 0.055$ (TS) + 0.071 (CS) + 0.032 (MS). Managerial/soft skills match shows the lowest impact on change self-efficacy, in comparison with TS and credit skills. Thus, $H2$ is not supported (see Appendix 2 for details of linear regression).

Discussion

Findings of this study suggest several issues worthy of discussion.

Literature has, to date, shown that participation in training has a positive impact on readiness to change (Grant, 2014; Grant *et al.*, 2009; Mueller *et al.*, 2012; Martin *et al.*, 2005; Sherlock-Storey *et al.*, 2013). By supporting $H1$, this study confirms this relationship, and the positive correlation with CC in particular. However, to date, research has not measured the *intensity* of this relationship. In this sample, approximately 10% of the change self-efficacy is because of the perception that training had provided the appropriate skills to deal with an ongoing change. This study therefore provides empirical support for that hypothesized by recent theoretical literature (Ferrari, 2019a; Uyan and Aslan, 2019).

Moreover, literature has extensively shown the importance that the behaviour of the involved employees has in promoting the success of a change; similarly, it has emphasized the role of workers' own reactions in the acceptance and development of change

Table 2.
Correlation matrix
between perceived
skill match level and
change confidence

	<i>M</i> (/5)	<i>SD</i>	<i>TS</i>	<i>LS</i>	<i>CS</i>	<i>MS</i>	<i>OS(m)L</i>	<i>CC</i>
Technical skills	3.11	0.74	1					
Legal skills	3.14	0.68	0.7930	1				
Credit skills	2.88	0.97	0.5972	0.6479	1			
Managerial skills	3.41	0.67	0.7778	0.7286	0.5971	1		
Overall skill (match) level	3.13	0.67	0.8915	0.8929	0.8444	0.8694	1	
Change confidence	2.68	0.41	0.2410***	0.2044	0.2597***	0.2311***	0.2713***	1

Notes: *** $p < 0.05$. Technical skills: knowledge related to product, services and procedures. Legal skills: laws and regulations of the bank sector. Credit skills: financial analysis. Managerial skills: soft skills such as team working and customer care

(Caldwell *et al.*, 2004; Katsaros *et al.*, 2014; Wang, and Kebede, 2020). At the same time, the impact of organizational change at the bottom level of the organization has so far been under-investigated (Piderit, 2000; Uyan and Aslan, 2019). The medium–low level of both change self-efficacy and overall skill (match) level shown by the sample highlights that the bottom-level staff are vulnerable during an organizational change, as suggested by previous literature (de Jong *et al.*, 2016; Mars, 2009). Therefore, this study confirms that bottom-level staff need specific attention during an organizational change.

As expected, reactions of change recipients are one of the main indicators of the measure of organizational success, (Bartunek *et al.*, 2006; Oreg *et al.*, 2011), at least from the point of view of psychological well-being (de Jong *et al.*, 2016). The low levels of change self-efficacy shown by the recipients after training can be due, in this sample, to the lack of involvement of the recipients in the training needs analysis. This study therefore suggests that the design of training paths should also involve the recipients directly, and not only the change agents, as often suggested (Coombs, 2014). In other words, change recipients should be an active part in the training needs analysis process; identifying the skills shortage is not only a task for their supervisor (if he/she acts as a change agent); it is a process involving both supervisor/change agent *and* change recipients.

Furthermore, by showing that change self-efficacy is fostered by some specific areas of skills, this study supports previous literature suggesting that training needs should be identified during target-specific and empirically based training needs analysis (Reed and Vakola, 2006). This result could also, at least partially, explain why *H2* is not supported. Because of the fact that soft skills are critical for productive performance in today's workplace, current business leaders are emphasizing the development of soft skills (Nealy, 2005). However, most research to date has been mainly anecdotal, based on common sense, or not applied to a change management context. This study shows that soft skills *do not* have a protective effect on change recipients: an adequate soft skill match does not have an impact on CC. According to SLT, it is possible that soft skills are perceived as less concretely applicable, more abstract and generic and therefore as having less impact on the self-efficacy levels of trained change recipients. Conversely, technical skills are more easily visible and transferable during training. As a consequence, a technical skill-mismatch can be more easily perceived by change recipients and therefore negatively impact their self-efficacy.

Finally, considering the significant but weak relationship between soft skills and CC, these findings seem to highlight that the current literature (Robles, 2012), especially by practitioners (Nickson *et al.*, 2012; Targetjob, 2019), overestimates the impact of soft skills for the front-office staff. One possible explanation is that the *type* of delivered training (lecture, e-learning) is not adequate for improving soft skills. Indeed, because of their nature, soft skills have social and interactional bases, and they benefit from a more socially based training process. Consistent with SLT (Bandura, 1995), training courses based on coaching, on-the-job training and vicarious peer-to-peer experience could prove more effective in preparing an organizational change in general and supporting CC specifically, as shown elsewhere (Levasseur, 2013; Olsen and Stensaker, 2014). The results of this study suggest that training methodologies in accordance with *situated learning* (Lave and Wenger, 1991) could improve the chances of success of a change, both directly, by favouring the circulation of good practices, and indirectly, by providing vicarious learning (Bandura, 1995). This study therefore confirms the need for a wider use of evidence-based quantitative research investigating the *actual* dynamics during an organizational change (Hamlin, 2019).

Key findings and contributions to the literature

As argued by some scholars (Hamlin, 2019), engaging in “critically reflective” as well as “evidence-based” practice should become an essential feature of managing/facilitating organizational training and change programs. However, literature has until now paid scarce attention to the role a skill match can actually play in organizational change. With the aim of shedding new light on this issue, this study contributes to the current theoretical literature in multiple ways.

Firstly, this study shows a positive correlation between skill-match and CC. The findings also show that in preparing for an organizational change, developing strengths is possible as an alternative to removing obstacles to change. In doing so, it confirms that an approach inspired by positive psychology is desirable and effective, as hypothesized elsewhere but not yet adequately investigated (Uyan and Aslan, 2019). Positive psychology therefore proves to be a promising approach, although often neglected by the literature in the field of change management.

Secondly, this study represents, to the best of our knowledge, one of the first attempts to study the strength of the relationship between training and CC. The significant but weak (<10%) impact of training on CC suggests further theoretical issues, linked in particular to training methods. Consistent with an approach based on SLT (Bandura, 1995), this study suggests it is necessary to profoundly rethink the theoretical foundations of training in preparing for an organizational change. Training activities should be delivered by adopting cooperative and socially situated methodologies rather than ‘traditional’ methods such as lectures or e-learning. This consideration has become critically important, above all in a historical moment in which the use of digital and distance learning tools has developed and been consolidated by the COVID-19 pandemic.

Thirdly, another methodological contribution is presented. Conversely to that which has often been suggested (Coombs, 2014), during an organizational change, the change recipients are not only *the target* of the change, but they should be actively involved in the training needs analysis. This study therefore highlights that the field of change management can be usefully integrated with methodological approaches derived from disciplines such as *adult training*. This integration in the theoretical literature is currently not systematic, with some exceptions.

Fourthly, showing that not all areas of expertise are related to change self-efficacy, this study demonstrates the usefulness of an analytical approach, at the skills level, and not simply based on the trained/untrained employee comparison as practiced so far (for an exception, see Veloso-Besio *et al.*, 2019).

Fifthly, by showing that the skills provided by training processes do not generate significant effects on change recipients automatically, this paper highlights that it is necessary to view the change from both the change agents’ *and* the change recipients’ perspectives (Balogun and Johnson, 2004; Bartunek *et al.*, 2006; Bryant, 2006). In doing so, this paper provides a supplement to the prevalent top management perspective on training and development during change, therefore responding to previous theoretical research calls (Olsen and Stensaker, 2014).

Finally, the hypothesis that soft skills are strategic during a change that involves front-office jobs is not supported; this shows that, occasionally, the anecdotal evidence reported by practitioner and learning agencies is not confirmed. In doing so, this study makes a contribution to evidence-based change management, as requested by current literature (Hamlin, 2019).

Implications for practice

Showing that training has a significant effect on change recipients' CC, this study suggests that professionals and HR managers should design change management actions by enhancing the strengths of change recipients, rather than trying to remove obstacles to change. This means activating coaching paths which, although more expensive and take longer, seem to guarantee an increase in CC and, therefore, greater probability of success. This also means designing and setting in motion a community of practice among the change recipients, to activate situated learning dynamics.

This study has also highlighted that change recipients must be involved in all phases of the change management process. From a practical point of view, this means, first of all, that the training needs analysis process must be conducted with bottom-up logic. The perceived skill match of change recipients should be a fundamental factor in triggering a training process.

Finally, by not supporting *H2*, this study suggests that, contrary to common sense and managerial literature, in this sample, soft skills match shows the lowest impact on change self-efficacy, in comparison with other more technical skills. These results require professionals and HR managers to analyse the importance of soft skills more critically, not considering them *a priori* a universally and transversally strategic category of skills.

Limitations and suggestions for a future research agenda

Beyond its findings and suggestions for practice, this paper of course presents some limitations. It should be noted that the data was collected in a single organization and in a specific group of employees. While this generates added value for the practical applicability of the case study, on the other hand, it does not allow the full generalization of the results to the entire organizational population. Findings must therefore be treated with the usual methodological precautions.

Although this (cross-sectional) research focused on a stable and enduring personal characteristic (*change self-efficacy*), data was collected in a short period, thus overlooking several other variables, both organizational and individual. Future research should investigate if and how the training process enables CC over time or if it instead shows its utility only when it is relating to a specific and limited period.

Furthermore, by focusing on change self-efficacy as a desired outcome, this research overlooks other possible/potential organizational outcomes as consequences of change readiness at different levels (group, organization). Although change management literature shows the robustness of this construct at an individual level in ensuring positive outcomes (for a review, [Rafferty et al., 2013](#)), it also shows some limitations. Hence, future research is called for to show if change self-efficacy leads to actual organizational outcomes, such as perceived organizational valence and managerial support ([Holt et al., 2007](#)).

Finally, although the results were controlled for age, gender, type of qualification and tenure, differences in readiness to change could be due to latent variables that were not included in this model. Therefore, future research should investigate other elements to overcome these limitations, for instance, the role played by personality traits and other personal characteristics (e.g. educational background).

In addition to the methodological limitations, this study has some further specific limitations, which suggest caution in the generalizability of the results. For example, the proposed system of hypotheses is an inevitable simplification of reality: other latent factors relating to the participants could affect the outcomes. Furthermore, this research was carried out in a large company in the banking sector, and is therefore limited to a very specific context in terms of gender composition and educational qualification. Further research will

have to investigate whether the results are the same in different sectors or with different characteristics of human capital.

In this study, the training for change recipients was provided in a “traditional” way. At the moment, however, there is a lack of research investigating the effectiveness of training approaches based on SLT or situated learning compared with traditional approaches (lectures, e-learning). Future research is therefore necessary to quantitatively investigate whether different methodological options lead to different levels of self-efficacy change. Furthermore, in an era characterized by the extensive use of digital technology for communication and training (webinars, synchronous e-learning), research is needed to quantitatively investigate whether the processes of social learning and vicarious peer-to-peer learning can also be activated and effective in digital/remote contexts.

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Corresponding author

Filippo Ferrari can be contacted at: filippo.ferrari5@unibo.it

Appendix 1

Skills
mismatch and
change
confidence

Items	M	SD
<i>Independent variable – skills</i>		
Knowledge of the products/services offered: financing products	3.00	1.20
Knowledge of the products/services offered: investment products	2.92	1.14
Knowledge of the products/services offered: liquidity management products	2.96	1.15
Knowledge of the products/services offered: customer portfolio management	3.05	1.04
Knowledge of the products/services offered: sales techniques	3.36	1.01
Knowledge of the products/services offered: counter procedure	3.37	1.20
Regulations: on credit activity	2.87	1.08
Legislation: on wear	2.91	1.03
Regulations: on the CAI	3.15	1.11
Legislation: on anti-money laundering	3.36	0.99
Legislation: on privacy	3.39	0.97
Regulations: on the MIFID	3.12	1.00
Regulations: on investments	3.10	1.04
Legislation: on transparency	3.19	0.99
Loans: information elements for credit lines to private individuals	3.04	1.28
Loans: external sources of credit applicant documentation	2.97	1.22
Loans: creditworthiness assessment techniques	2.93	1.12
Loans: preliminary procedure for credit applications	2.98	1.20
Loans: evaluation of guarantees to protect credit lines	2.85	1.16
Loans: definition of quantitative profile/balance sheet analysis	2.73	1.12
Loans: methods of periodic credit control	2.91	1.40
Loans: management of problem loans	2.60	1.12
Use of group tools and procedures	3.38	0.98
Persuasive communication and sales techniques	3.41	0.81
Negotiation	3.48	0.75
Customer care and customer service	3.54	0.97
Commercial development of the customer portfolio	3.35	0.87
Commercial planning	3.27	0.94
<i>Dependent variable – change self-efficacy</i>		
Once the change has taken place, I feel the need for training support to carry out the new tasks *	2.14	0.90
I usually deal with problems as they arise	2.87	0.93
If I commit myself, I can learn all that will be required after the change has taken place	3.13	0.85
I already have the skills to make the required change work	2.67	0.83
I am scared of all the tasks I have to learn due to the change *	2.72	1.03
I feel that I can easily manage this change	2.95	0.72
When I heard about that change, I thought it suited my skills perfectly	2.73	0.82

Note: *Reversed key items

Table A1.
Items and descriptive
statistics

Table A2.
Statistical analysis

Overall skill level (OSL) and change self-efficacy: summary output									
<i>Regression statistics</i>									
Multiple R	0.27127								
Multiple R ²	0.07359								
Adjusted R ²	0.06891								
Standard error	0.39410								
Observations	200								
ANOVA									
	df	SS	MS	F	Significance F				
Regression	1	2.442	2.442	15.7286	0.00010211				
Residual	198	30.7537	0.15532						
Total	199	33.1966							
	Coefficients	Standard error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%	
Intercept	2.1575	0.1340	16.0964	8.0119	1.8932	2.42190	1.8932	2.42190	
OSL	0.1660	0.0418	3.9659	0.0001	0.08349	0.24865	0.08349	0.24865	
<i>Technical skills (TS), credit skills (CS), managerial skills (MS) and change self-efficacy: summary output</i>									
<i>Regression statistics</i>									
Multiple R	0.28281								
Multiple R ²	0.07998								
Adjusted R ²	0.06590								
Standard error	0.39474								
Observations	200								
ANOVA									
	df	SS	MS	F	Significance F				
Regression	3	2.655	0.88506	5.6798	0.000947				
Residual	196	30.5415	0.15582						
Total	199	33.1966							
	Coefficients	Standard error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%	
Intercept	2.1927	0.1452	15.1011	1.103E-34	1.9063	2.4791	1.9063	2.4791	
TS	0.0544	0.0625	0.8694	0.3856	-0.06899	0.1778	-0.06899	0.1778	
CS	0.0710	0.0372	1.9084	0.0577	-0.00237	0.1445	-0.00237	0.1445	
MS	0.0326	0.0686	0.4757	0.6347	-0.10274	0.1680	-0.10274	0.1680	