



Utrecht University

## **Reflection and Learning: The Gateway(s) to Team Resilience?**

Team Learning Orientation and Team Resilience: A Serial Mediation Model of Team Reflexivity  
and Team Learning

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### **Abstract**

The current study contributes to the growing body of research on the topic of resilience. Specifically, it examined the role of team learning orientation as a potential predictor of team resilience. Furthermore, the study also investigated the underlying mechanisms that may be at play; in particular, by testing whether team reflexivity and team learning sequentially mediate the relationship. The research hypotheses were tested using team-level data collected from organizations that are geographically located in Germany, the Netherlands, United Kingdom, and Italy and operate in various sectors, ranging from healthcare to manufacturing. Team members rated team learning orientation, team reflexivity, team learning, team resilience, and the perceived impact of COVID-19 on team functioning. The team-level data analyses revealed a significant relationship between team learning orientation and team resilience. Moreover, that this relationship may be mediated by team learning. However, the study did not find team reflexivity and team learning to sequentially mediate the relationship between team learning orientation and team resilience. With these results, theoretical and practical implications are made in the hopes to encourage future researchers to further study the variables examined and inspire leaders to take actions in building team resilience with their respective teams. Furthermore, limitations of the study, as well as recommendations for the future, are discussed.

**Keywords:** *team resilience, team learning orientation, team reflexivity, team learning, COVID-*

### **Reflection and Learning: The Gateway to Team Resilience?**

Today, most businesses operate in ever-changing, complex, and uncertain business environments, where adversity is almost inevitable (King et al., 2015). To retain competitive advantage, organizations need to adapt and bounce back quickly when faced with such adversities. In short, organizations must be resilient. In the year 2020, the COVID-19 pandemic has disrupted businesses across various industries globally (Brammer et al., 2020). As the pandemic subsides, organizations need to start thinking of ways to become more future proof and be more prepared when faced with upcoming adversities, particularly in the face of the new normal (Brammer et al., 2020).

As present organizations are increasingly structured in teams (Grant et al., 2011), teams have become the most relevant organizational unit for employees (Van Knippenberg & Van Schie, 2000) and its functioning are key drivers of an organization's success (Stoverink et al., 2020). Work teams are defined as “interdependent collections of individuals who share responsibility for specific outcomes for their organizations” (Sundstrom et al., 1990, p. 120). With teams taking a central role in the modern workplace and the inevitability of adversities, there has been an increased interest in finding the various ways teams can navigate through such crises. A recent study (Traylor et al., 2020) found that one of the best ways for teams to be equipped for a crisis is by consciously boosting team resilience.

The concept of resilience has been studied at the individual level since the 1970s. However, it has only recently been studied on the team level (Chapman et al., 2020). Although studies on the topic are scarce, the concept is gaining popularity among both researchers and practitioners. In the year 2020 alone, three extensive meta-reviews have been published on team resilience (e.g., Chapman et al., 2020; Hartwig, et al., 2020; Stoverink et al., 2020). This is not

surprising since evidence that team resilience fosters team performance has started emerging (Ceschi et al., 2017).

Nevertheless, as the three reviews highlight, team resilience remains a novel concept. Not much is known of its antecedents and a consensus is yet to be reached regarding its definition. The present study is an attempt to respond to the call of these reviews and seeks to contribute to the current literature on team resilience by exploring its antecedents. Specifically, it aims to examine the mechanism between team learning orientation and team resilience by looking at the mediating functions of team reflexivity and team learning.

In this study, team resilience is defined as “a team’s capacity to bounce back from adversity-induced process loss” (Stovernik et al., 2020, p. 1). This definition has been chosen as it is most in line with Hobfoll’s (2011) Conservation of Resources (COR) theory, which the current study draws on to explain the proposed underlying mechanism. Furthermore, the way teams respond to the changes in their environment depend on various complex bottom-up phenomena that emerge over time from individual cognition, affect, behavior, and interactions among team members (Kozlowski & Klein, 2000). Therefore, this study considers team resilience as an emergent state, that is, a team-level property that emerges from interactions among its members (Marks et al., 2001).

Stoverink et al. (2020) suggests that the COR theory can be applied to the team level by incorporating Westman’s crossover model (2001). The model states that resources cross over from one individual to another through interpersonal exchange. The extent to which a team is resilient depend on the team-level exchanges that develop via team members’ interactions. Teams that are resilient frequently interact and observe each other’s resilient behaviors, actions, cognitions, and affect (Stoverink et al., 2020). In short, a resilient team can adapt and overcome

unprecedented changes in the external environment and work together to ensure the best outcome through their interactions and transfer of resources across team members. Drawing on the COR theory, this study proposes that team learning orientation could be one of such resources.

Moreover, this study suggests team reflexivity to be one of such interactions that act as the underlying mechanism between team learning orientation and team resilience. Specifically, the study suggests that team reflexivity leads to team learning. When team learning has taken place, teams are able to draw upon reservoir of potential behaviors when needed and become more resilient. Hence, the proposed serial mediation model of the study can be found in Figure 1.

By identifying the mechanisms leading to team resilience, the study hopes to answer the call by previous meta-reviews (e.g., Chapman et al., 2020; Hartwig et al., 2020; Stoverink et al., 2020) to further narrow the research gap in the literature on team resilience. Moreover, the findings hope to provide practical implications for organizations, leaders, and teams on how they can be more resilient in the face of future adversities. This leads to two research questions: First, is there a direct relationship between team learning orientation and team resilience? Second, is the relationship between learning orientation and team resilience sequentially mediated by team reflexivity and team learning?

## **Theoretical Framework and Hypotheses Formation**

### **Team Learning Orientation and Team Resilience**

Team learning orientation is defined as a shared belief of the extent to which a team emphasizes learning goals (sometimes referred to as *mastery goals*) and the importance of development (Harvey et al., 2019). Teams with high learning orientation perceive work as a way

of developing skills and mastery (Harvey et al., 2019) and are involved in various learning activities, such as discussion of errors and experimentation with novel actions (Edmondson, 1999; Edmondson, 2003). When teams face an adversity, they suffer a process loss and need to restore the processes that have been broken down by way of adaptation, perseverance, or both (Stoverink et al., 2020). According to the COR theory, people protect their resources because resource loss is more salient than resource gain (Hobfoll, 2011). In order to protect themselves against process loss, recover from a loss, or gain any new resource, teams and individuals must invest in their current resources. This is because those who possess more resources are less vulnerable to resource loss and better equipped to gain even more resources (Hobfoll, 2011). This principle implies that the process of resource investment requires pooling of existing resources and having enough resources at hand (Hobfoll, 2011). This paper argues that high learning-oriented teams have more resources at their disposal to engage in various activities needed for them to become resilient, because they perceive adversities as opportunities to develop their skills and mastery, and challenges as opportunities to learn and grow.

Empirical findings (e.g., Bell & Kozlowski, 2002; Porter et al., 2010) have shown that team learning orientation is positively associated with a variety of adaptive behaviors and outcomes - a key attribute of team resilience. Similarly, a study by Morgan et al. (2013) found that elite sport teams with higher team learning orientation were more resilient and saw setbacks as learning opportunities. However, to the author's knowledge, there has been no research examining the relationship between team learning orientation and team resilience in a workplace context. Nevertheless, as elite sport teams share key similarities with work teams, such as that they both constitute individuals who are interdependent on one another to achieve one or more

common goals, it is expected that work teams with higher learning orientation will also possess higher team resilience.

*Hypothesis 1: Team learning orientation is positively associated with team resilience.*

### **Mediating Effect of Team Reflexivity**

Teamwork is particularly advantageous when there are process gains - so-called “synergy” - over process losses (Hertel, 2011). It is argued that reflecting and learning from past experiences as a team sparks process gains (Hertel, 2011) and prepares teams to be more resilient when facing future adversities. However, the process of restoration during and following adversity does not happen in a vacuum, but through interactions among team members. As teams are increasingly becoming information-processing systems, activities such as sharing, analyzing, storing, and using information becomes the nucleus of teamwork (Schippers et al., 2014). A recent study (Wang et al., 2021) found that team reflexivity leads to knowledge sharing among team members. In the face of adverse events, knowledge sharing increases in importance as team members need to rely on each other for information to produce well-grounded solutions (Sharma & Sharma, 2016).

Team reflexivity is defined as the extent to which group members reflect upon and communicate their objectives, strategies and processes, and adapt them to their current or anticipated conditions accordingly (Schippers et al., 2014). Teams that reflect on a regular basis are more detail-oriented, able to identify potential problems a priori, and are better equipped to adapt appropriately (West, 2002). By consciously reflecting on various aspects of the work, it is

expected that they are better able to prepare themselves for future adversities and be more resilient.

Teams high on team reflexivity also engage in critical information-processing activities, such as discussions of privately held information and in the process, they may detect individual biases and errors that otherwise would have gone undetected, thereby reducing information-processing failures in decision-making (Schippers et al., 2014). In other words, they exhibit more learning behaviors. As teams with high learning orientation are more involved in those learning activities (Edmondson, 1999; Edmondson, 2003), it is argued that teams with higher learning orientation will have higher team reflexivity, in comparison to teams with lower learning orientation. Following this logic, the author argues that team learning orientation leads to team reflexivity, which in turn leads to team resilience.

*Hypothesis 2: Team reflexivity mediates the relationship between team learning orientation and team resilience.*

### **Mediating Effect of Team Learning**

Team learning can be seen as “a change in the group’s repertoire of potential behavior” (Wilson et al., 2007, p. 103) that happens over time via team interactions (Edmondson, 2004). When teams have learned from their previous interactions, they can assess their current situation and try to find solutions for current problems (LePine et al., 2008).

Bell et al. (2012) argues that team learning orientation is one of the most important factors for team learning. This is because teams that are highly learning-oriented feel more motivated and engage in more learning behaviors, facilitating team learning (Edmondson, 1999;



Edmondson, 2003). When team learning has taken place, teams are able to make the necessary maneuvers based on their “lessons learned,” such as restructuring their roles and responsibilities, improving their ways of working, and reformulating their current strategies (Stoverink et al., 2020). In other words, the team’s future capacity to adapt - a characteristic of team resilience - improves. This is because successful strategies are added to the transactive memory, enabling teams to leverage, or draw upon, more previous experiences when developing novel solutions in the future (Stoverink et al., 2020). According to the COR theory, this occurs because resources function in self-reinforcing spirals (Hobfoll, 2001). Therefore, the author argues that team learning orientation leads to team learning, which in turn leads to team resilience.

*Hypothesis 3: Team learning mediates the relationship between team learning orientation and team resilience.*

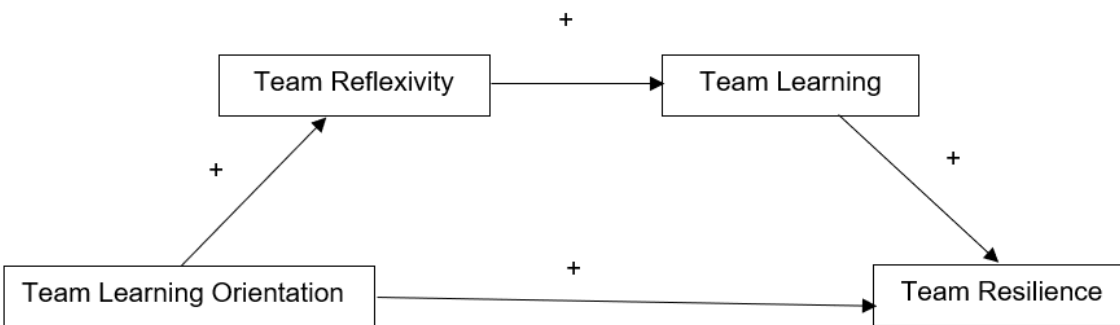
### **Sequential Mediating Effects of Team Reflexivity and Team Learning**

Team reflexivity can be seen as the actual occurrence of the team-level process conducted among team members (Kozlowski & Ilgen, 2006). On the other hand, team learning can be seen as the cognitive state that occurs as a result of team reflexivity. These cognitive- and knowledge-based outcomes such as collective knowledge, team mental models, and transactive memory represent the most important indications of learning (Kozlowski & Bell, 2008). It has been argued that team reflexivity is an essential driver, or prerequisite, of team learning (Schippers et al., 2018) and team reflexivity theory implies that reflexivity can initiate team adaptation through team learning (Marks et al., 2001). When teams consciously reflect on their previous interactions, they are capable of learning from them and in turn use this learning to

improve their future performance (Schippers et al., 2013) and become more resilient. Earlier research suggests there is a positive relationship between team learning orientation and team learning (e.g., Harvey et al., 2019).

In conclusion, this study argues that teams high in learning orientation reflect on their past interactions and experiences and discuss their “lessons learned” to understand what could be improved in the future. These reflections foster their learning and through learning, they become more resilient.

*Hypothesis 4: Team reflexivity and team learning sequentially mediates the relationship between team learning orientation and team resilience*



*Figure 1. Proposed conceptual model of the current study*

## Method

### Design

To answer the research questions of the study, quantitative research was conducted using a cross-sectional design. The data was gathered using an online survey and was collected by 5 students researching the topic of 'Team Resilience,' via convenience data sampling. This data collection method was chosen to ensure sufficient teams - and therefore data - were gathered.

### Sample

This research focuses on employees working in teams. During the recruitment process, the teams were made sure to fall under certain criteria. First, the teams must comprise minimum 2 and maximum 20 employees. Second, they should consist of a direct leader, meaning the team should not be a self-managing team. Third, they must operate in Europe.

In total, data from 48 of teams were collected. After data screening, 5 teams were removed due to missing values. The final sample consisted of 135 team members and 43 teams ( $N = 43$ ). The average team size is 7, with the smallest team consisting of 3 members and the largest team consisting of 20 members respectively. Out of all members, 43.7% were male and 56.3% were female, 57.8% had at least a Bachelor's, Master's, or Doctorate degree, the mean age was 36.87 years ( $SD = 11.12$ ), the mean work experience was 13.88 years ( $SD = 10.91$ ), and the mean job tenure was 43.44 months ( $SD = 51.67$ ). The teams operate in various sector (see Table 1). Moreover, 48.8% of the teams operate in Germany, 37.2% in the Netherlands, and 9.3% in the UK. One team (4.3%) operates in Italy. However, the team consists of British nationals and operates in a British environment. Therefore, it is assumed that despite located in Italy, the culture is closer to that of the UK. Table 1 shows an overview of the frequencies and

percentages of the sample's sectors and industries.

**Table 1.**

*Frequencies and Percentages of the team's countries (N = 42) and sectors/industries (N = 43)*

		Frequency	Percentage
Country	Germany	21	50.0
	Netherlands	16	38.1
	UK	4	9.5
	Italy	1	2,4
	Total	42	100
Sector/Industry	Other services	6	20.9
	Educational/ scientific/ technical	8	18.6
	Health care/ social	8	18.6
	Information and communication	9	14
	Other	4	11.6
	Manufacturing & production	3	9.3
	Financial/insurance	5	7
	Total	43	100

## Procedure

The first point of contact with participants was done via email, phone call, or LinkedIn. During this contact, a brief explanation of what the research entails and how participation could benefit their teams were mentioned. In some cases, a promotional flyer consisting of information of the study was sent out. The team criteria were checked with the contact person, followed by a briefing detailing the necessary information of the study and agreements on next steps. The

contact person was then asked to send the survey to relevant employees. In some instances, however, each team member had direct contact with the researcher and therefore was given the survey directly.

The questionnaire was available on desktop and mobile device and participants may choose to answer in English, Dutch, or German. Participants must provide their consent on the use of their personal data that will be gathered anonymously and with confidentiality, before moving forward with filling out the survey. If they choose to not give their consent, the survey promptly ends, and no further action must be taken. In order to increase the participation rate, teams that have been recruited were also given reminders if they do not fill out the survey within two weeks following initial contact.

## **Measures**

Following the standard methodology of back translation (Brislin, 1970), the original English questionnaires were translated into Dutch and German to accommodate participants who prefer to answer in those languages. After the translation, a native speaker translated all the items back to English. The items that needed correction were corrected accordingly and were sent once again to native speakers for a final check. At the end, the following scales were used to measure these 4 variables: team learning orientation, team reflexivity, team learning, and team resilience.

## **Measurement Instruments**

### *Team Learning Orientation*

Team learning orientation was measured using a 5-item sub-scale originally developed by Van de Walle (1997) and later adapted by Bunderson & Sutcliffe (2003). This scale has been chosen as it has previously been used to analyze learning orientation at the team level (e.g., Harvey et al., 2019). The scale contains items such as: ‘We often look for opportunities to

develop new skills and knowledge'. The questionnaire is measured using a 5-point Likert scale ( $1 = strongly\ disagree$ ,  $5 = strongly\ agree$ ) and the Cronbach's alpha was  $\alpha = .78$ .

#### *Team Resilience*

Team resilience was assessed using a scale based on Mallak's principles (1998) for resilience in organizations (Meneghel et al., 2016). In this study, items that directly measure team resilience were used, with items such as: 'In difficult situations, my team tries to look on the positive side'. The questionnaire uses a 6-point Likert scale ( $0 = never$ ,  $6 = always$ ) and the Cronbach's alpha was  $\alpha = .80$ .

#### *Team Reflexivity*

To assess team reflexivity, a 4-item scale developed by Swift & West (1998) and adapted by Schippers et al. (2013) was used. This scale contains items such as: 'We regularly discuss whether the team is working effectively together'. These items have been validated by Schippers et al. (2007). The questionnaire is measured using a 5-point Likert scale ( $1 = strongly\ disagree$ ,  $5 = strongly\ agree$ ). The Cronbach's alpha was  $\alpha = .65$ , which is slightly below the cut-off point of  $.70$ . However, Bernardi (1994) suggests that this does not immediately put the results of the analysis into question. The items were examined, and results indicated that the  $\alpha$  would not increase by removing any of the items, so all items were kept.

#### *Team Learning*

The variable team learning was measured using a 3-item scale developed by De Dreu (2007). Example items include: 'My team learns from mistakes and errors'. The questionnaire uses a 5-point Likert scale ( $1 = never$ ,  $5 = always$ ) and the Cronbach's alpha was  $\alpha = .73$ .

### *Control variables*

This study also controlled for team-level variables that could influence aspects of team resilience, such as team size (Giannoccaro et al., 2018) and average team tenure (Goodman & Leyden, 1991). Furthermore, average work experience and the perceived impact of COVID-19 on team functioning (measured with a single-item, 'Our team functioning was strongly affected by COVID-19'), were also included, as they were expected to affect team dynamic, processes, and outcomes. However, at the end, only perceived impact of COVID-19 on team functioning, which will be referred to simply as the 'COVID-19' variable from now on, was included in the serial mediation analysis, since it showed the highest significance.

### **Aggregation**

Prior to aggregation of the data to the team level, the Rwg, ICC1, and ICC2 scores were calculated to assess the within- and between-group agreements on the variables measured and to measure inter-rater reliability (James et al., 1984). These values can be found in Table 1. All the ICC1 scores were above the cutoff point of .12 for ICC1 (James et al., 1984). Apart from team reflexivity, the ICC2 scores were above the threshold of .50 (LeBreton & Senter, 2008). Previous studies have also reported low ICC scores (e.g., Shin et al., 2017). A low ICC value might occur due to the small difference between the within- and between-group variance and a small sample size. In such cases, researchers may consider reporting within-group agreement indices such as Rwg, instead of reliability indices such as ICC1 and ICC2 (James et al., 1984), as shown in some studies (e.g., Keil et al., 2017). As all the Rwg values were above the cut-off score of .70 (LeBreton & Senter, 2008), the aggregation of individual to team level responses were considered appropriate.

**Table 2.** *Within-group agreement (Rwg), intraclass correlations (ICC1 and ICC2), and Cronbach's alpha*

Variable	ICC1	ICC2	RWG	$\alpha$
1 Team learning orientation	.28	.55	.94	.78
2 Team reflexivity	.13	.31	.94	.65
3 Team learning	.26	.53	.94	.73
4 Team resilience	.41	.69	.94	.80

### Data Analyses

An a priori power analysis using G\*Power (Faul & Erdfelder, 1992) was conducted to get the required sample size for a *power* ( $1-\beta$ ) > .8, with a medium effect size of  $f^2 = .05$ . Including four predictors, namely team learning orientation, team reflexivity, team learning, and COVID-19, the results indicated that a sample size of  $N = 129$  is required for a serial mediational analysis.

The data from Qualtrics was exported to the *Statistical Program for Social Sciences* (SPSS) and analyzed with Hayes PROCESS macro, a bootstrapping method based on linear regression (Hayes, 2018). Specifically, model 6 was used for the serial mediator analysis, as this allows for the measurement of both direct and indirect effects of the model (Hayes, 2018). Data inspection was conducted prior to the analyses of the data to remove any invalid or missing data. Scores were then aggregated to the team level; outliers were screened and multicollinearity of all the variables were checked. The significance level was set to .05.

Considering the problems of small sample sizes, such as precision, in order to ensure transparency, all statistical reports such as p-values, effect sizes,  $\beta$ , and confidence intervals are reported, whenever deemed necessary.



## Results

### Preliminary Analyses

#### *Descriptive Statistics*

The descriptive statistics were calculated for all the variables under study and are displayed in Table 3. Data accuracy was evaluated by examining maximum and minimum values. Outliers and high influential points (Leverage) were evaluated by Cook's and Mahalanobis Distance. Furthermore, normality, homoscedasticity, and multicollinearity can be assumed. Moreover, the correlations among the variables were tested. Table 4 demonstrates their intercorrelations.

**Table 3.** *Descriptive statistics of the study variables*

Study Variables	<i>M</i>	<i>SD</i>	<i>Skewness</i>	<i>Kurtosis</i>
Team learning orientation	3.96	.39	.28	.83
Team reflexivity	3.83	.46	.55	.04
Team learning	4.08	.46	-1.55	4.31
Team resilience	5.56	.62	-.06	-1.02
COVID-19	3.10	.79	.02	-.40
Team size	8.54	3.77	1.74	3.52
Team tenure	43.44	51.67	1.73	1.84
Work experience	13.88	8.35	.44	-.34

**Table 4.** *Intercorrelations among variables*

Variables	1.	2.	3.	4.	5.	6.	7.	8.
1. Team Learning Orientation	-	.316*	.432**	.467**	-.005	-.126	-.355*	-.126
2. Team Resilience		-	.022	.356*	-.285	-.070	-.342*	-.158
3. Team Reflexivity			-	.444**	.108	-.146	-.172	.140
4. Team Learning				-	.027	.001	-.296	-.199
5. COVID-19					-	-.235	-.044	.033
6. Team Size						-	.032	.005
7. Team Tenure							-	.454**
8. Work Experience								-

\* $p < .05$ . \*\* $p < .01$  (two-tailed)

### Primary Analyses

To test the hypotheses, PROCESS model 7 was used. In the first phase, average team size, average team tenure, average work experience, and COVID-19 were controlled for. The results yielded significant results for COVID-19 ( $\beta = -.25$ , 95% CI[-.43, -.1],  $t(37) = -2.87$ ,  $p < .01$ ) and team tenure ( $\beta = -.003$ , 95% CI[0, 0],  $t(35) = -.003$ ,  $p = .106$ ) and non-significant results for team size ( $\beta = -.03$ , 95% CI[-.06, .01],  $t(35) = -1.28$ ,  $p = .208$ ) and work experience ( $\beta = .008$ , 95% CI[-.01, .03],  $t(35) = .75$ ,  $p = .460$ ). This revealed an overall model that was significant,  $F(2,40) = 8.04$ ,  $p < .001$ ,  $R^2 = .18$ , meaning that the proposed model explains 18% of the variance.

### Serial Multiple Mediation Analyses

Results of the serial mediation analyses are presented in Figure 2. In accordance with Hypothesis 1, the results indicated that team learning orientation predicts team resilience,  $\beta = .50$ , 95% CI [.045, .962],  $t(40) = 2.22$ ,  $p = .03$ . On the other hand, Hypothesis 2 was not

confirmed. Team reflexivity was not found to mediate the relationship between team learning orientation and team resilience, *indirect* = -.142, 95% CI [-.338, .074],  $t(38) = -.160$ ,  $p = .118$ .

However, Hypothesis 3 was confirmed. The study found a significant indirect effect of team learning orientation on team resilience via team learning, *indirect* = .184, 95% CI [.009, .533],  $t(38) = 1.73$ ,  $p = .092$ . On the other hand, Hypothesis 4 was not confirmed. Contrary to our prediction, team reflexivity and team learning do not mediate the relationship between team learning orientation and team resilience, *indirect* = .07, 95% CI [-.018, .210],  $t(38) = 1.57$ ,  $p = .124$ . In other words, the relationship between team learning orientation and team resilience is not mediated by first, team reflexivity and second, team learning.

In summary, results of the study shows that there was a direct positive relationship between team learning orientation and team resilience. The study also confirms that team learning mediates this relationship. However, contrary to prediction, reflexivity does not seem to mediate the relationship between team learning orientation and team resilience. Similarly, the study also did not find team reflexivity and team learning to mediate the relationship.

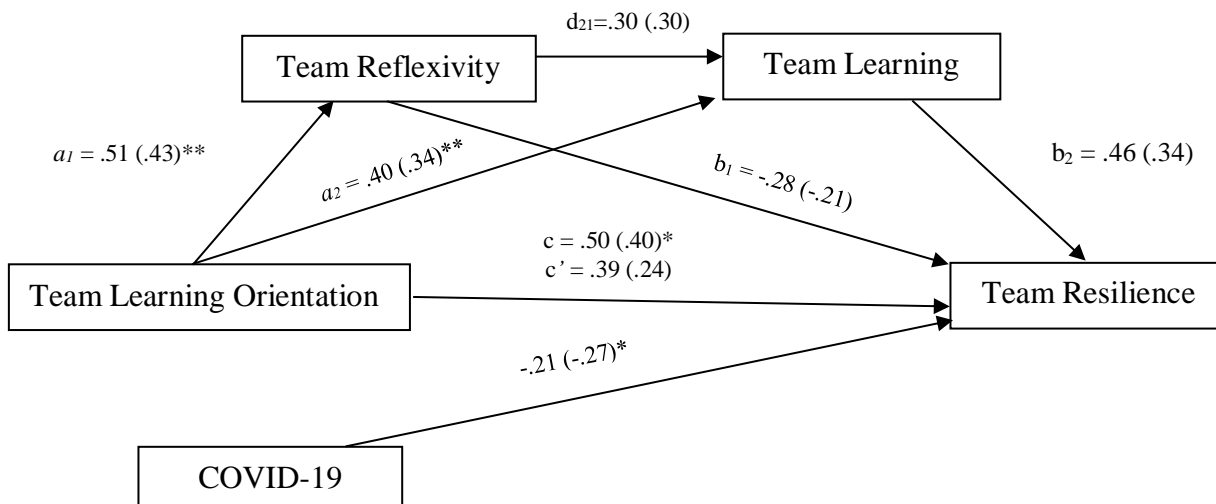


Figure 2. Results of the serial mediation model. Values shown in brackets are standardized coefficients.  $*p < .05$ .  $**p < .01$ .

### Additional Analyses

As the study shows that team learning orientation and team resilience are positive related and COVID-19 came out as the most significant variable in this study, its influence on the relationship was further investigated. To examine whether COVID-19 moderates the relationship between team learning orientation and team resilience, a model 1 analysis using PROCESS was conducted. The results showed that COVID-19 did not seem to moderate the relationship,  $\beta = -.15$ ,  $t(29) = -.40$ ,  $p = .694$ . Therefore, no further investigation was pursued.

**Table 5.***Results of the various pathways in the model, including direct and indirect effects*

Path	Coefficient	95% CI	
		Lower limit	Upper limit
Team learning orientation -> Team reflexivity ->Team resilience	-.142	-.338	.074
Team learning orientation -> Team learning -> Team resilience	.184	.009	.533
Team learning orientation -> Team reflexivity -> Team learning -> Team resilience	.070	-.018	.210
Total effect	.503	.045	.962
Direct effect	.390	-.112	.893
Total indirect effect	.113	-.141	.515

## **Discussion**

Overall, by examining the underlying mechanisms that lead to team resilience, this team-level study fulfilled its aim to contribute to existing empirical literature on the topic. In line with the hypothesized prediction, controlling for COVID-19, the study found a positive direct relationship between team learning orientation and team resilience. On the other hand, the study did not find team reflexivity to mediate this relationship. However, the study did confirm the hypothesis that team learning positively mediates the relationship between team learning orientation and team resilience. Contrary to prediction, the study did not find team reflexivity and team learning to sequentially mediate the relationship.

### **Theoretical Implications**

The current study confirmed the hypothesis that team learning orientation is significantly positively related to team resilience. In line with the COR theory, the findings may indicate that high learning-oriented teams may have more resources available at hand that enable them to be more resilient. This likely because they view challenges as learning opportunities and adversities as chances for growth and development.

However, this study did not indicate team reflexivity to be a mediating factor in the relationship. In other words, it is not team reflexivity that transfers the effects of team learning orientation to team resilience. The results came as a surprise since in theory, highly learning-oriented teams engage in more learning activities, such as reflection. When this happens, they are capable of learning from previous interactions and become more resilient (Schippers et al., 2013). Future research must further explore the underlying mechanism that mediates team learning orientation and team resilience, since team reflexivity does not seem to be the enabler of this relationship.

In line with hypothesis 3, the study found that team learning mediates the relationship between team learning orientation and team resilience. In accordance with the COR theory, the findings indicate that teams that are highly learning-oriented may be more resilient because they are more likely to learn. In times of adversities, they can draw upon their previous learnings and experiences or “lessons learned” (Hobfoll, 2011). Put differently, because teams with high team learning orientation are more likely to learn, they are more likely to become resilient. Future research should examine this relationship further by, for example, including potential moderators.

Finally, the results did not find significance in the overall serial mediation. In other words, team reflexivity and team learning were not found to sequentially mediate the relationship between team learning orientation and team resilience. Specifically, the study found that team learning orientation is associated with team reflexivity. However, team reflexivity is not related to team learning and team learning is not related to team resilience. These results come as a surprise as many researchers have highlighted the importance of reflection in learning and there are theoretical frameworks (e.g., reflexivity theory by Marks et al., 2001) showing a positive relationship between team reflexivity and team learning. McCarthy & Garavan (2008) and Schippers et al. (2018) even propose that reflective practices are one of the main drivers of team learning. Furthermore, it was expected that team learning would relate to team resilience as the more teams learn, the more they are able to make the necessary movements and adapt during adverse events – a key feature of team resilience.

Nevertheless, team learning was shown to mediate the relationship between team learning orientation. In other words, it transfers the effects of team learning orientation to team resilience. Moreover, as mentioned earlier, team learning does not happen in a vacuum but via team

interactions (Kozlowski & Bell, 2008). Therefore, future research should investigate other drivers of team learning (i.e., factors or interactions that encourage team learning). For example, by looking into the role of job resources, such as organizational support, autonomy, enrichment, empowerment, and team efficacy in driving team learning (Nellen et al., 2020). Furthermore, by exploring the function of organizational infrastructure, such as procedures, formalization, knowledge management, and work systems (Decuyper et al., 2010; Mathieu et al., 2008).

Previous research also found psychological safety, that is, the shared belief that the team is safe for interpersonal risk taking, is an affective emergent state that influences team learning (Edmondson, 1999; Harvey et al., 2019). Teams high in psychological safety give rise to the feeling that members may engage in learning behaviors without facing interpersonal sanctions or punishment (Harvey et al., 2019) and its members are more likely to speak up (Edmondson & Lei, 2014). Perhaps the relationship between team learning orientation may be sequentially mediated by team psychological safety and team learning. Future research must explore this possibility further, among other potential mediators.

Overall, the study was able to confirm two out of the four proposed hypotheses. One of the reasons why no significant results were found for the hypotheses 2 and 4 could be the small sample size (i.e., the low number of teams) of the study, alongside their heterogeneity. For example, the teams come from different countries and are active in different sectors. Heterogeneity increases the noise of the study, making it more difficult to yield significant results (Field, 2017).

### **Practical implications**

To the author's knowledge, this study is the first to examine the relationship among team learning orientation, team reflexivity, team learning, and team resilience. Due to its novelty, the



insights gathered through this study may reap several benefits for organizations, leaders, managers, and anyone working in a team within today's modern workplace. Building and sustaining team resilience is especially relevant in today's ever changing economic, political, and social landscapes. For example, post COVID-19, the future of work is likely going to transform with the rise of hybrid and remote working, among others. The question remains as to what this will mean for individual employees and teams. However, it is expected that team resilience will play a positive role during this transition and beyond.

The findings of this study showed that there is direct positive relationship between team learning orientation and team resilience and that this relationship may be mediated by team learning. Therefore, increasing the learning orientation is important in building resilience. However, it is merely half of the equation. It is crucial for organizations and leaders to also ensure that team learning takes place.

The first step is to build a team with high team learning orientation. A growing body of evidence suggest that learning orientation can be "cued" or prompted by situational factors (e.g., Kozlowski et al., 2001). Some of these factors include leadership, openness and trust, and social discourse (Turner et al., 2003). The present study suggests that to build a highly learning-oriented team, leaders must build a growth mindset culture, foster a team climate characterized by openness and trust, as well as to lead by example. Previous research on growth mindset (e.g., Dweck, 1986) found that individuals with learning (instead of performance) goal orientation believe that their abilities are shapeable. They are determined when faced with adversities, accept challenges, use more complex learning strategies, and engage in more learning activities (Bell & Kozlowski, 2002). Most research in the past were done at the individual level, but it is expected that a team

with high learning orientation also engage in more learning behaviors, in turn increasing team learning.

As members of a group experience the same cues and often discuss with one another the meaning of those cues, perceptions of a team climate related to learning goals often converge within a group, creating a collective learning climate (Bunderson & Sutcliffe, 2003). Leaders can foster a team climate characterized by growth mindset, openness, and learning orientation by highlighting the importance of development, encouraging, emphasizing, and rewarding various learning activities, giving their subordinates the room to have an open discussion, experiment with novel ideas, learn from past mistakes, and find innovative solutions in the face of adversities (Han & Stieha, 2020). Furthermore, by showing that intelligence is not a fixed trait and can be developed (Dweck, 1986). For this, an intervention, such as a workshop on growth mindset can be implemented.

Finally, through leading by example, leaders not only state the importance of being a highly learning oriented team, but they also ‘walk the talk’, exemplifying appropriate behaviors. Previous research (e.g., Yaffe & Kark, 2011) has shown that leaders can influence group behavior through exemplary behaviors. In this case, it is expected that when leaders show that they themselves are highly learning-oriented, their team will be more likely to also possess a high learning orientation.

As noted earlier, high team learning orientation is merely a starting point. The mediating role of team learning (i.e., a shift in the group’s repertoire of potential behavior) also plays a role in fostering resilience. A team’s learning orientation merely tells us whether a team emphasizes learning and not whether they will succeed at learning; learning outcomes are separate from a learning emphasis (Bunderson & Sutcliffe, 2003). To ensure a successful learning will take place, team interactions that could lead to learning must be integrated to the team’s ways of working.

This study did not find team reflexivity to be one of such interactions that could foster team learning. However, previous studies have shown evidence that there are various cognitive-contextual factors that foster team learning. As mentioned earlier, these factors include but not limited to psychological safety and team efficacy (Edmondson, 1999; Nellen et al., 2020).

Therefore, it is crucial for organizations and team leaders to build the conditions required for team to effectively engage in team learning. Organizations must implement policies, practices, and interventions which foster open and collective efforts in addressing any problems or ideas faced by a team as this may improve team learning and team resilience (McCarthy & Gravan, 2008). Moreover, human resource development interventions such as trainings and workshops could be done to highlight the impact of team habits, routine, and norms on team learning practices and adaptive capabilities.

Burke et al. (2008) suggest using three strategies, namely storytelling, action learning, and communities of practice. Storytelling can be used to highlight specific team context and experienced action learning can be used as a simulation to prepare teams to tackle unfamiliar situations. Furthermore, communities of practices, which emphasize tacit learning of collectives via informal and unstructured learning, may act a repository that enable information and knowledge sharing, which foster teams to develop new perspectives and ideas. Therefore, teams may investigate in building such communities of practices within their organizations.

### **Limitations and future recommendations**

The findings of this study give rise to relevant implications for empirical, theoretical, and practical purposes. However, this study also has several limitations that will be further discussed in this section. First, the study uses a cross-sectional design. Due to this reason, no causal inference can be made on the results (Levin, 2006). Moreover, a cross-sectional study does not allow for

monitoring changes in the team's interactions and repertoires of learning behaviors as well as team resilience over time. For a more nuanced and realistic reflection, a longitudinal study would have to be utilized.

Second, as mentioned earlier, the heterogeneity of the sample may aid to increased statistical noise, increasing the potential of a type II error (Field, 2017). The participating teams come from four different countries, namely the Netherlands, Germany, the UK, and Italy. In line with the GLOBE cluster classification (Dastmalchian et al., 2020), the Netherlands and Germany fall under the same cluster, due to their cultural similarities. However, the UK and Italy do not belong to the same clusters, resulting in a heterogeneous sample.

The decision was made to include these countries due to two reasons. First, to increase the power of the study by having a larger sample size (Field, 2017). Second, the team originating from Italy operates in an environment that is parallel to the UK culture, despite its geographical location. The difficulties in the data collection process may have been largely due to COVID-19. As teams were working from home and not the office, it was not possible to reach out to them in person. Moreover, many teams mentioned that the pandemic has impacted their workload and they do not have the bandwidth or capacity to participate in the study.

Regardless of the limitations, the findings of the study deserve further exploration. However, there are few suggestions for future research to further improve on the study. First and foremost, future research must try to increase the size and homogeneity of the sample size used. It would be interesting to see if there are cultural differences among varying European countries, but also, for example, between North American and Southeast Asian countries, and so forth. Second, the study found team learning to mediate the relationship between team learning orientation and team resilience. However, the predicted serial mediation was found to be non-significant.

Nevertheless, since team learning does not happen in a vacuum but fostered by team interactions, it would be interesting to further explore what sort of interactions need to happen. In other words, future research should investigate other potential mediators.

Third, the COVID-19 pandemic has been a wakeup call for organizations and society at large, as it has shown us just how fast quickly changes can happen and how important it is for organizations and its people to persevere in the face of adversities. The pandemic has also pushed organizations to re-examine the status quo and change their ways of working. For example, by introducing a hybrid model of working from home and at the office, as well as giving more flexibility and autonomy to their employees in designing their jobs to their respective lifestyles. These shifts will further require organizations and teams to be more resilient, as remote working may largely change team dynamics that would impact performance. This is an opportunity for researchers to dive deeper and further explore the role of varying team characteristics on team resilience, as well as the role that an adverse event plays in the interactions.

### **Conclusion**

The past year has shown an increased interest and significance in team resilience due to the disruption that COVID-19 has caused in organizations across varying sectors and countries. The present study contributes to existing literature on team resilience, by exploring its underlying mechanisms. By doing so, researchers will have a better understanding of the development and relation among various team characteristics, interactions, and outcomes. Moreover, practitioners will be better equipped to building an environment in which team resilience can be developed. The most important takeaways of the study are the following: (1) team learning orientation is positively related to team resilience; (2) team learning mediates the relationship between team

learning orientation and team resilience; (3) as team learning does not happen in a vacuum and team reflexivity did not seem to precede it, there is tremendous opportunity in exploring the antecedents of team learning, which in turn fosters team resilience. Moreover, future research should explore other potential mediators of the relationship between team learning orientation and team resilience to further understanding the underlying mechanisms that take place.

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## Appendices

### Appendix 1: Leaflet



### Research On Team Behaviour

Dear Sir / Madam,

Our research group of master students at Utrecht University, led by dr. S.M. Ceri-Booms, is investigating various factors that might influence team behaviour during adverse times. Think of challenging times such as during COVID-19. The target group of this research are employees nested in teams and their respective supervisors.

**What does this mean for you:**



The questionnaire for the employee will take up 5-7 minutes to complete.



The supervisor will fill in a different questionnaire which takes up to 1-2 minutes to complete.



The questionnaire is digitally available.



The data will be anonymous and will be treated confidentially.



Your participation is what will make our research meaningful!  
Your team has the chance to win a 25€ voucher for a team building activity of your choice!

**Contact email: [teamwork202106@gmail.com](mailto:teamwork202106@gmail.com)**

## **Appendix 2: E-mail template**

Dear [insert name],

We are a research group of master students at Utrecht University, led by dr. S.M. Ceri-Booms and we are investigating the various factors that might influence team behaviour during adverse times, such as the COVID-19 pandemic that we are in currently. The target group of this research are employees nested in teams and their respective supervisors. Therefore, it is important for all team members to participate in this survey, if possible.

### **What is the purpose of this research?**

Team resilience refers to a team's capacity to bounce back after an adverse event. This study aims to investigate the antecedents and consequences of team resilience.

### **What is in it for you?**

- You can contribute to scientific theories and findings concerning the functioning of teams and their performance.
- You will be provided with a report and/or presentation with insights that can be utilized by your team or even organization.
- Your team will have the chance to win a €25 Euro Amazon voucher.

### **How will the research be done and what will I have to do?**

You will be asked to complete a short online questionnaire on Qualtrics which will take 5-7 minutes to complete for team members and 1-2 minutes for team supervisors. You may take the survey in English, Dutch or German, which can be chosen on the top right side of the first page.

### **Data Processing**

Data will be treated with the highest degree of anonymity and confidentiality. In addition, your data will be used for scientific purposes only and will never be shared with any third parties. Demographic data will be stored separately from the research data.

### **Why have I been asked to take part? What about the right to withdraw?**

You have been invited to take part because you are currently an employee in or a leader of a team. Your participation in this study is completely voluntary. If you decide to take part, you will still be free to withdraw within 15 days after participation. This is essential to minimise the possible impact of the removal of your data on the ongoing data analysis and write-up of the project. You do not have to give a reason for your withdrawal. If you wish to participate or withdraw from the study, please contact the following email address:

[teamwork202106@gmail.com](mailto:teamwork202106@gmail.com).

Thank you in advance for your time!

### **Appendix 3: Questionnaire (in English)**

Dear participant,

You are about to participate in a survey constructed by 5 collaborating students from the Social, Health and Organizational Psychology masters program at Utrecht University under the supervision of Dr. Meltem Ceri-Booms.

#### **Goal of this survey**

We are collecting data for our master theses on the factors and processes that are needed to achieve positive team outcomes during the COVID-19 period. The survey consists of 5 pages and takes about 6 minutes to complete.

#### **What is in it for you?**

Your cooperation in our research will help us expand scientific theory concerning the functioning of teams and their performance. Through this collaboration, we also would like to benefit your company and teams. For this purpose, if you are interested, we will provide you with a presentation of our findings, with the aim of explaining the practical relevance for your team. Furthermore, we will give away two €25 Amazon vouchers.

#### **Confidentiality and anonymity**

Data will be treated with an highest degree of anonymity and confidentiality. Qualtrics offers strong guarantees for the security of your data. In addition, your data will be used for scientific purposes only and will never be shared with any third parties.

#### **Contact information**

If you are unsure about the characteristics of this research or would like further clarification, you can contact the researchers at the following email addresses:

Carmen Natalie van de Kuilen/ c.n.vandekuilen@students.uu.nl Bernadette Paschertz/  
b.paschertz@students.uu.nl  
Hui (Zoe) Zhu/ h.zhu1@students.uu.nl  
Oliver Molenschot/ o.j.molenschot@students.uu.nl

Ruben Martin/ r.martin@students.uu.nl

#### **Your Permission statement**

I declare that I have been clearly informed about the purpose of the research. I know that the data and results of the investigation will be treated anonymously and confidentially. I also know that no confidential information is passed on to third parties. I hereby grant permission to researchers at Utrecht University to use the information that I will provide in the questionnaire for research. I



reserve the right to terminate my participation in this study at any time during the survey and within 15 days after participation without giving reasons.

I understand the information given above and give my consent to take part in the survey (1)

I do not give my consent to take part in this survey. (2)

*Skip To: End of Survey If Dear participant, You are about to participate in a survey constructed by 5 collaborating stude... = I do not give my consent to take part in this survey.*

**End of Block: Intro page**

---

**Start of Block: Page 1 - Demo**

teamname

**Fill in the name of your organization followed by the name of your team below.**

This information is necessary to be able to correctly combine the responses of the team members from the same team. After aggregation, this information will be destroyed and the data presented in the end study will be totally anonymous.

Example: Utrecht University-Research and development

\_\_\_\_\_

age What is your age?

\_\_\_\_\_

gender What is your gender?

Male (1)

Female (2)

Other (3)

Prefer not to say (10)

---

teamsize How many members are there in your team?

---

teamenture For how many months have you been working in this team?

---

education What is the highest degree or level of education you have completed?

▼ A-levels / IB / Higher national diploma (13) ... Other (16)

workexperience How many years of work experience do you have?

---

industry What industry does your company operate in?

▼ Information and communication (1) ... Other (7)

End of Block: Page 1 - Demo

Start of Block: Page 2

Instr. **Please think about the last 10 months (COVID-19 period) while evaluating the following items.**

perceivediff Our team functioning was strongly affected by COVID-19.

- Strongly Disagree (1)
- Disagree (3)
- Neither disagree nor agree (4)
- Agree (5)
- Strongly Agree (6)

performance Please rate the following items:

	Poor (1)	Fair (2)	Good (3)	Very good (4)	Excellent (5)
Team members' general performance. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Team members' punctual task completion. (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Team members' ability to achieve organizational objectives. (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Team members' level of performance quality. (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

reflexivity Please indicate your views on the following statements:

	Strongly disagree (1)	Disagree (2)	Neither agree nor disagree (3)	Agree (6)	Strongly agree (4)
The team often reviews its objectives. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The methods used by the team to get the job done are often discussed. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We regularly discuss whether the team is working effectively together. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The team rarely reviews whether it's getting the job done. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



innovation Please indicate your views on the following statements:

	Strongly disagree (1)	Disagree (2)	Neither agree nor disagree (3)	Agree (4)	Strongly agree (5)
Team members often implement new ideas to improve the quality of our products and services. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This team gives little consideration to new and alternative methods and procedures for doing their work. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Team members often produce new services, methods, or procedures. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This is an innovative team. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: Page 2

Start of Block: Page 3

Instruction

**Please think about the last 10 months (COVID-19 period) and evaluate the following items.**

support Please indicate your views on the following statements:

	Strongly disagree (6)	Disagree (7)	Neither agree nor disagree (8)	Agree (9)	Strongly agree (10)
Team members provide practical support for new ideas and their application. (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Help with the development of new ideas is readily available. (10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Team members work together to develop and apply new ideas. (11)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Team members deliver and share resources to apply new ideas. (12)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

resilience In difficult situations, my team...

	Strongly disagree (1)	Disagree (2)	More or less disagree (3)	Neither agree nor disagree (4)	More or less agree (5)	Agree (6)	Strongly agree (7)
tries to look on the positive side. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
adapts to changes in a positive way, and becomes stronger when overcome them. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
gives support to each other. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
has no fear of uncertainty, we can deal with it well and become strengthened. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
can work well even in absence of any group member. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



potency Please indicate your views on the following statements:

	Strongly disagree (1)	Disagree (2)	Neither agree nor disagree (6)	Agree (3)	Strongly agree (4)
This team has confidence in itself. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This team believes it can become unusually good at producing high-quality work. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This team expects to be known as a high-performing team. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This team feels it can solve any problem it encounters. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This team believes it can be very productive. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: Page 3

Start of Block: Page 4

**Instruction Please think about the last 10 months (COVID-19 period) while evaluating the following items:**

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orientation Please indicate your views on the following statements:

	Strongly Disagree (1)	Disagree (2)	Neither agree nor disagree (3)	Agree (4)	Strongly Agree (5)
We look for opportunities to develop new skills and knowledge. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We like challenging and difficult assignments that teach new things. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We are willing to take risks on new ideas in order to find out what works. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We like to work on things that require a lot of skill and ability. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We see learning and developing skills as very important. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



outcome In our team...

	Strongly disagree (1)	Disagree (2)	Neither agree nor disagree (3)	Agree (4)	Strongly agree (5)
attainment for one team member facilitates goal attainment for others. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
success for one team member implies success for others. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
benefits for one team member do not necessarily involve benefits for others. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
gain for one team member means gain for others. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



participative Please indicate your views on the following statements:

	Strongly disagree (1)	Disagree (2)	Neither agree nor disagree (3)	Agree (4)	Strongly agree (5)
My manager encourages work group members to express ideas/suggestions. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My manager listens to my work group's ideas and suggestions. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My manager uses my work group's suggestions to make decisions that affect us. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My manager considers my work group's ideas even when he/she disagrees with them. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My manager makes decisions based only on his/her own ideas. (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My manager gives all work group members a chance to voice their opinions. (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: Page 4

Start of Block: Page 5

Instruction Please think about the last 10 months (COVID-19 period) while evaluating the items.

goal Please indicate your views on the following statements:

	Strongly disagree (1)	Disagree (2)	Neither agree nor disagree (3)	Agree (4)	Strongly agree (5)
Team members have clear performance norms, in line with the team objectives. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Our team formulates clear objectives. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In our team, team members know what is expected from them. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

diveristy Team members differ in...

	Strongly disagree (1)	Disagree (2)	Neither agree nor disagree (3)	Agree (4)	Strongly agree (5)
their way of thinking. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
their knowledge and skills. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
how they view the world. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
their beliefs about what is right or wrong. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

learning Please indicate your views on the following statements:

	Strongly disagree (1)	Disagree (2)	Neither agree nor disagree (3)	Agree (4)	Strongly agree (5)
Team members learn a lot from each other. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My team learns from mistakes and errors. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Team members ask and give each other feedback. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

safety Please indicate your views on the following statements:

	Strongly disagree (1)	Disagree (2)	More or less disagree (3)	Neither agree nor disagree (4)	More or less agree (5)	Agree (6)	Strongly agree (7)
In this team, it is easy to speak up about what is on your mind. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If you make a mistake in this team, it is often held against you. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
People in this team are usually comfortable at talking about problems and disagreements. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
People in this team are eager to share information about what does and doesn't work. (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>