The Impact of Language on Team Effectiveness

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ABSTRACT

Using a sample of 264 Chinese students studying Japanese, we conducted an experimental study to examine the impact of language on stress, team cohesiveness, and satisfaction in a team setting. We also examined how language interacts with psychological empowerment and communication in influencing team outcomes. We found that team members’ use of the foreign language rather than their native language had a direct and negative impact on team outcomes. Moreover, language moderated the relationship between psychological empowerment and team cohesiveness such that the relationship was weaker when team members used the foreign language. We found a three-way interaction between language, psychological empowerment, and communication in influencing team cohesiveness and satisfaction. Our findings indicate that it is important for firms to apply an explicit language strategy, enhance empowerment, and foster communication within teams.

Keywords: cross culture experiments; language; teams and teamwork; stress; team cohesiveness; satisfaction
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INTRODUCTION

“Language is a range of possibilities, an open-ended set of options in behavior that are available to the individual in his existence as social man” (Halliday, 1973, p. 49). Since language can be a source of power that can both distort and facilitate communication in multinational corporations (MNCs) (Marschan-Piekkari, Welch, & Welch, 1999), language started to be discussed as an important factor, separated from culture, in international business. Although a team-based structure has evolved in modern organizations (DeChurch & Mathieu, 2009), only a few pioneering studies have investigated language diversity in multinational teams (MNTs) (Henderson, 2005; Tenzer, Pudelko, & Harzing, 2013; Zakaria, Amelinckx, & Wilemon, 2004). Research into the effects of language on team processes is therefore long overdue.

The effect of language has been studied as a key factor that influences attitudes (Bond & Yang, 1982; Kemmelmeier & Cheng, 2004; Ralston, Cunniff, & Gustafson, 1995; Trafimow, Silverman, Fan, & Law, 1997) and behavior (Akkermans, Harzing, & Van Witteloostuijn, 2010). In our research, we focus on the different effects of foreign language (FL) and native language (L1) on team effectiveness. The goal of this study is to address unexplored issues in language and team-level research in international business studies by examining the relationship between language impact and team effectiveness.

Here, the different language environment (Japanese as the FL and Chinese as the L1) is treated as an independent variable and a moderator variable; stress, team cohesiveness, and satisfaction within teams are examined as outcomes (dependent variables); communication (information sharing and cooperation) functions in a moderator role, interactively related to language in the relationship between psychological empowerment and team outcomes.
Job stress is considered as the first-level outcome of the organization and the job. The second-level outcomes include commitment, satisfaction, motivation, and performance (Parker & DeCotiis, 1983). Stress and cohesiveness can be seen as process (Ellis, 2006; Powell, Piccoli, & Ives, 2004) or outputs (Parker & DeCotiis, 1983; Shaw, 1981). In the current research, rather than distinguishing between process and outcomes, we include stress, team cohesiveness, and satisfaction as team outcomes and dependent variables.

The basic structure of modern organizations has evolved in two main directions, namely team-based organization and empowerment within teams (DeChurch & Mathieu, 2009). Organizations have developed a team-based structure (Sundstrom et al., 1999). Rather than depending on individual jobs as the nucleus, organizations gain benefit from collectives such as task forces and project teams (DeChurch & Mathieu, 2009). Our research consequently focuses on the team level and individual affectivity within teams (DeChurch & Mathieu, 2009).

The other evolving direction of organizations is the move toward empowerment (Argyris, 2001; Spreitzer, 1995). Because empowering workers can improve job attitude and enhance team effectiveness (DeChurch & Mathieu, 2009), we focus on the moderating role of language in the relationship between psychological empowerment and team outcomes. Finally, we analyze the interactive relationship between language and communication.

Our study contributes significant insight into the effect of language in international business and team effectiveness. First, we conducted implications for theory regarding the interdisciplinary research on language and team effectiveness. Second, we performed an experimental study and statistical analysis on language study in an international business area. Third, we offer managerial implications for firms, such as establishing explicit language strategy rather than only adopting corporate language; enhancing empowerment, and
emboldening employees to communicate and share information within teams.
**LITERATURE REVIEW**

**Language studies in international business and in team level**

Language started to be discussed as an important element in international business at the end of 20th century. Before that, language studies in international business was discussed under the harbourage of culture. For instance, the effect of language has been discussed by Schein (1984), who found that if members cannot communicate with and understand each other, a group is impossible by definition when defining the concept of organizational culture. The discussion on language in IB was opened up by defining the drivers underpinning the language barrier based on sociolinguistic theories (Feely & Harzing, 2002). After language was newly opened up as a brand-new research agenda in IB (Feely & Harzing, 2002), further efforts have been to outline dimensions of the language barrier into language diversity, language penetration and language sophistication (Feely & Harzing, 2003).

Language has great strategic impact on communication within grand and scattered MNCs (Marschan-Piekkari, Welch, & Welch, 1999a), and it is also the fertile environment of propagating the language barrier, which has led to language studies in IB being chiefly discussed based on MNCs. Based on the level of MNCs, some of the studies featured in-depth assessments of one or two MNCs (Barner-Rasmussen & Björkman, 2007; Marschan-Piekkari et al., 1999b), and some featured on large-scale overviews (Harzing & Pudelko, 2013). Harzing and Pudelko (2013) presented the first extensive analysis of language competencies, policies and practices in MNCs by distinguishing four language clusters. However, in this stage, the effect of language in specific aspects such as knowledge transfer, social capital, autonomy, communication or expatriation in IB has not been discussed by most scholars (Harzing & Pudelko, 2013).
To reduce negative influence of language diversity, many MNCs have chosen a common corporate language in the condition of communication and documentation (e.g., Jeanjean, Stolowy, Erkens, & Yohn, 2014; Marschan-Piekkari et al., 1999a). English as the common corporate language alleviates some of the horizontal communication problems (Charles & Marschan-Piekkari, 2002). However, the language barrier did not disappear despite that the corporate language was standardized by opting for English (Marschan-Piekkari et al., 1999b). In some situations, people will seek language links and language alliances due to the language barrier (Marschan, Welch, & Welch, 1997). Learning corporate language also is a method to decrease the barriers of language between subsidiaries (Marschan et al., 1997).

Meanwhile, language was investigated between HQ and its subsidiaries systematically (Harzing, Köster, & Magner, 2011). The relation between HQ and subsidiaries influenced by language and the language barrier definitely damages HQ-subsidiary interactions (Harzing & Pudelko, 2014). Harzing, Köster and Magner (2011) have demonstrated the language barrier is a significant factor in reducing the efficiency and increasing the expense of decision-making by large-scale analysis of the HQ-subsidiary relationship. Furthermore, language studies were also included in inter-subsidiary relationships (Marschan-Piekkari et al., 1999b).

Extant studies on languages in international business have been discussed within MNCs, between HQ and its subsidiaries, even in inter-subsidiary relationships. Based on the foregoing studies, the interplay of language and the other factors that occurred within the organization have been assessed. Many scholars shifted their attention to human-centred psychology-based research rather than economics-based research (Evans, Pucik, & Barsoux, 2002). Language can be a barrier (Feely & Harzing, 2003), a source of power (Hinds, Neeley,
& Cramton, 2013; Marschan-Piekkari et al., 1999b; Śliwa & Johansson, 2014), element affect trust formation (Tenzer et al., 2013), leadership (Zander et al., 2011), employees’ commitment and emotion (Tenzer, 2012; Tenzer & Pudelko, 2013; Yamao & Sekiguchi, 2015), influenced by cognitive load (Volk, Köhler, & Pudelko, 2014). Rather than from the whole perspective of the MNCs, more and more scholars have started to narrow their perspectives into the level of international teams. Meantime, language also plays an essential role at the individual level (Barner-Rasmussen et al., 2014). Individuals may adjust their thought and behavior, relying on the language that they are using (Zander et al., 2011).

At the team level, on one hand, how to build a knowledge-sharing culture is argued by global virtual teams (Zakaria et al., 2004). Language diversity influences team building (Henderson, 2005). Language diversity in teams surpasses the boundary of culture diversity and has become a challenge for multinational teams and interactions between members of international teams in MNCs (Zakaria et al., 2004).

On the other hand, “the basic structure of the modern organization is evolving in two primary directions”: team-based organisation and empowerment within teams (DeChurch & Mathieu, 2009). Organisations are becoming team-based structure (Sundstrom & others, 1999). Rather than depending on individual jobs as the nucleus, organisations are gaining benefits from collectives such as task forces and project teams (DeChurch & Mathieu, 2009). This is also one reason that our research is focusing on the team level, and individual attitudinal affectivity within teams (DeChurch & Mathieu, 2009). Another evolution of organisation is the move towards empowerment (Argyris, 2001; Spreitzer, 1995), which we will discuss in the empowerment part in our research. With the complexity and specialisation of work in organisations, the interface between individuals and team members becomes essential (DeChurch & Mathieu, 2009).
Team effectiveness

“Team effectiveness is an evaluation of the outcomes of team performance processes relative to some set of criteria” (Salas, Rosen, Burke, & Goodwin, 2009). It can judge the degree that if team performance can meet the demands of objective (e.g., metrics of productivity) and subjective (e.g., supervisor or observer ratings) requirement (Salas et al., 2009). Team effectiveness has been defined into three dimensions by Hackman (1987). First, the quality and quantity standard that the relevant stakeholders judge. Second, the satisfaction within team participation that team members’ judge. Third, the degree of interaction within teams influences on team capacity to work together towards the team goal. The second and third dimension have profound association with satisfaction and cohesiveness within teams which we will discuss in the current research. IPO model has served as the foundational framework among numerous models within team effectiveness. However, the IMOI (input-mediation-output-input) model is always used as alternative of IPO (input-process-output) framework since it is suggested that IPO framework is insufficient for charactering teams (Moreland, 1996). Furthermore, many mediational factors interfering input and output are not processes (Ilgen, Hollenbeck, Johnson, & Jundt, 2005). In addition, IPO framework limits research in a single-cycle linear route from input through outcomes (Ilgen et al., 2005). Finally, the IPO framework predisposes a linear evolution of I.P.O procedure. (Ilgen et al., 2005).
THEORY AND DEVELOPMENT OF HYPOTHESIS

![Conceptual Model](image)

**Figure 1.** Conceptual model.

**Language Effect on Team Outcomes**

*Language effect on perceived stress within teams.* Stress in an organization is extremely important and has been linked with physiological, psychological, and behavioral symptoms (Schuler, 1980). Gupta and Beehr (1979) explored the relationship between job stress and employee behavior (absenteeism and turnover). Job stressors, such as role conflict, role overload, and resource inadequacy, have been found to be negatively linked with job motivation, performance, and patient care (Jamal, 1984). Stress has been noted as a factor affecting team performance through mental models (Ellis, 2006). Job stress also contributes to organizational problems such as low productivity, dissatisfaction, and high turnover (Schuler, 1980).

Based on the job demands-resources (JD-R) model and self-efficacy theory, we argue
that FL has a negative effect on stress within teams. The JD-R model (Bakker & Demerouti, 2007; Bakker, Demerouti, De Boer, & Schaufeli, 2003; Bakker, Demerouti, & Verbeke, 2004) specifies that stressors in the workplace are produced by two categories, namely job demands and job resources. Job demands represent characteristics of the job that require effort or skills associated with physiological or physical costs. Job resources refer to all the aspects of the job that can facilitate the completion of tasks and reduce job demands. Personal development and learning are also job resources (Bakker & Demerouti, 2007). Self-efficacy refers to the belief individuals have in their confidence to accomplish a particular task successfully (Bandura, 1977). High self-efficacy is related to aspects such as the regulation of the stress process, higher self-esteem, better well-being, and greater job satisfaction; low self-efficacy is related to greater symptoms of anxiety and depression (Bandura, 1977, 1982; Karademas, 2006).

In the current study, when working in the FL, compared with using one’s L1, the job demands come from not only the team task but also from using the FL; the job demands are higher in a FL environment than in a L1 environment. The job resources consist of physical and psychological effort, and skills (Bakker & Demerouti, 2007). According to self-efficacy theory, when working in the FL environment, individuals may have lower confidence and self-esteem, and higher language anxiety than when using their L1, which will all result in lower psychological effort within teamwork. Furthermore, when engaging in teamwork in the FL, the language skills are not equal to those of one’s L1. In addition, cognitive load increases with lower language proficiency, which in turn further depletes cognitive resources (Volk, Köhler, & Pudelko, 2014). Thus, cognitive resources during FL use cannot meet the job demands and the job resources will be decreased because of the lower psychological effort and poorer language skills. Therefore, compared with L1 use, the job demands are higher and the job resources are inadequate in the FL environment; in other words, the job resources
cannot meet the job demands in the FL environment. In this situation, the job demands of the FL skills may become job stressors when the demands require a greater effort than an employee can adequately make (Meijman, Mulder, Drenth, & Thierry, 1998). Hence, the FL is a stressor that may cause stress to the members of a team. We thus propose the following hypothesis:

**Hypothesis 1a.** People working in the foreign language in teams will display a higher stress score than people working in their native language.

**Language effect on team cohesiveness.** Festinger (1950) described team cohesiveness as “the resultant forces which are acting on the members to stay in a group.” Team cohesiveness is also described according to the degree to which team members exhibit interpersonal attraction, group pride, and commitment to a task (Mullen & Copper, 1994; Salas, Rosen, Burke, & Goodwin, 2009). Team cohesiveness has been widely investigated within team effectiveness as input (Rasker, 2001; Tannenbaum, Beard, & Salas, 1992), process (Powell et al., 2004), and output (Shaw, 1981). Cohesiveness and team performance are strongly correlated (Beal, Cohen, Burke, & McLendon, 2003).

Based on team cohesiveness, self-efficacy theory, and social identity theory, we argue that the FL has a negative effect on team cohesiveness. First, interpersonal attraction in team cohesiveness includes friendship, and the feelings of belonging and togetherness. Tenzer and Pudelko (2013) have shown that language barriers can be a source of negative emotions, which in turn negatively influence the interpersonal relationships between team members (Yashima, Zenuk-Nishide, & Shimizu, 2004). Therefore, when using the FL, the feelings of belonging and togetherness are diminished and interpersonal attraction cannot be realized.
Second, the FL will decrease commitment to a task. Team cohesiveness is closely related to the quality and quantity of team cohesiveness (Greene, 1989), lower anxiety, and higher self-confidence (Clément, Dörnyei, & Noels, 1994). Self-efficacy determines how much effort people expend on an activity and the persistence required to address challenging jobs and situations (Schunk & Pajares, 2009). Individuals with strong efficacy will set ambitious goals and make a strong commitment; those with low efficacy will overestimate the task and narrow their perceptions of solutions (Schunk & Pajares, 2009). Those using a FL in their workplace will make less effort and set relatively lower goals because of their low confidence in their capabilities, which can in turn decrease commitment to the task.

Third, group pride is influenced by the FL. According to social identity theory as defined by Ashforth and Mael (1989), social identification refers to the perception of oneness within groups, the prestige of the group, the salience of out-groups, and factors associated with group formation. Social identity also supports the activities that are consistent with the identity. We can assume that when individuals use the FL as the working language, it is not congruent with their identity, which gives rise to a negative effect on their pride in the group and its activities, in turn affecting intergroup cohesiveness (Ashforth & Mael, 1989). The sense of pride in belonging to the team is thus lower when using the FL.

In sum, the three dimensions of team cohesiveness, namely interpersonal attraction, commitment to the task, and group pride, will be diminished in the FL environment.

**Hypothesis 1b.** People working in the foreign language in teams will display a lower score of team cohesiveness than people working in their native language.

**Language effect on satisfaction.** Satisfaction has been addressed as an outcome in
team effectiveness models in a number of studies (Blendell, Henderson, Molloy, & Pascual, 2001; Klimoski & Jones, 1995; Rasker, 2001; Salas, Dickinson, Converse, & Tannenbaum, 1992). Job satisfaction within teams is determined by a combination of factors such as the composition of the team, group processes within the team, and the nature of the work itself (Campion, Medsker, & Higgs, 1993).

In this section, we establish the relationship between language and satisfaction based on the framework of job satisfaction. Job satisfaction theory was defined by Kallerberg (1977) based on the two key explanatory variables of work values and job rewards on six dimensions: intrinsic; convenience; financial; relationships with coworkers; career opportunities; and resource adequacy. The intrinsic dimension refers to characteristics associated with the task itself, i.e., whether the task is interesting and provides workers with the opportunity to use their abilities. Convenience, financial, relationships with coworkers, and career opportunities are extrinsic dimensions. Resource adequacy is different from intrinsic and extrinsic dimensions, which does not refer to the ultimate need. For example, equipment, authority, and information required for job, cooperation among coworkers, supervision support, etc.

First, from the perspective of the intrinsic dimension in job satisfaction, when engaging in a team task in a FL, it may not seem enjoyable or interesting because of the language barrier. In such tasks, people tend to be less intrinsically motivated (Deci & Ryan, 1985; Ryan & Deci, 2000) and have fewer opportunities to exploit their skills. Therefore, intrinsic work values are relatively low when a FL is the working language.

Second, from the perspective of the extrinsic dimension, the FL barrier will negatively affect communication between coworkers. As noted, people tend to avoid communicating in a FL (Yashima et al., 2004) because the mutual sense of reliance, respect,
and caring about others (Baumeister & Leary, 1995) decreases; relationships with coworkers are thereby affected. It may also be deduced that the FL impedes communication and intragroup relationships, which may have a negative influence on promotions or career opportunities. Hence, the extrinsic dimension will also be influenced by the FL.

Third, from the perspective of resource adequacy, the resources of one’s FL skills are insufficient compared with those of one’s L1 and cognitive resources are deficient during the cognitive load increase experienced in a FL environment. Information sharing during teamwork will be impeded as a result of the FL barrier, and supporting behavior will be influenced by an unwillingness to communicate. Therefore, we can deduce that resources are inadequate when using the FL.

In sum, we can say that the intrinsic and extrinsic dimensions and resource adequacy of work values will be disrupted in a FL environment.

The JD-R model has also provided important evidence that the dual pathways leading to employee well-being can be predictors of organizational outcomes. The demanding aspects of work and the absence of job resources predict strain and burnout, which in turn result in negative outcomes such as intention to quit or job dissatisfaction (Bakker & Demerouti, 2007; Schaufeli, Bakker, & others, 2004). According to self-efficacy theory (Saks, 1995), when people perceive a negative disparity between performance and standards, they feel dissatisfied, which provides incentives for action (Bandura, 1977) and leads to low self-fulfillment and self-evaluation (Schunk & Pajares, 2009). Therefore, when people use a FL in the workplace rather than their L1, the gap between their resources and their demands, and the perceived disparities between real performance and expectations, will lead to dissatisfaction at work. Thus, based on job satisfaction theory, JD-R theory, and self-efficacy theory, our next hypothesis is as follows:
Hypothesis 1c. People working in the foreign language in teams will display a lower satisfaction score than people working in their native language.

Moderating Effect of Language

We predict that language not only has a direct effect on team outcomes, but also moderates the effect of critical factors that facilitate team effectiveness. Here, we focus on the moderating effect of language on the relationship between psychological empowerment and team outcomes. Since the relationship between empowerment and team outcomes has been well established, we omit a hypothesis.

Psychological empowerment and team outcomes. Empowerment was defined psychologically by Spreitzer (1995) as a combination of four active cognitive dimensions, namely meaning, competence, self-determination, and impact (Spreitzer, 1995).

The JD-R model notes that job resources, such as social support, feedback, and autonomy, can help employees meet job demands, buffer stressors, and benefit individual development (Bakker & Demerouti, 2007). Autonomy is included in the self-determination dimension of psychological empowerment, meaning that enhancing psychological empowerment increases the autonomy within teams, which in turn reduces the disparities between job resources and job demands. Therefore, perceptions of empowerment are negatively related to stress within teams.

In self-determination theory, psychological empowerment can be seen as identified regulation, which encourages people to accept regulation as their own (Ryan & Deci, 2000), thereby contributing to commitment to team tasks. Empowerment is not only a relational construct, but also a motivational one (Conger & Kanungo, 1988). As extrinsic motivation,
empowerment can engage people to realize that they are essential and valuable to a team, which may provide them with a sense of belonging and relatedness within the team (Ryan & Deci, 2000). Relationships within the team are thereby enhanced and interpersonal attraction increases. In sum, perceptions of empowerment are positively related to team cohesiveness.

From the perspective of intrinsic satisfaction, when enhancing psychological empowerment, the cognitive dimension of meaning and intrinsic caring about the task increases, which in turn increases intrinsic satisfaction. From the viewpoint of self-determination, psychological empowerment can provide people with greater freedom in the workplace and a sense of being the initiator of one’s tasks (Deci, 1975). The autonomy from psychological empowerment will work as resource adequacy of job rewards, which can enhance satisfaction in team performance. In sum, perceptions of empowerment are positively related to satisfaction within teams (Kirkman & Rosen, 1999).

**Moderating role of language.** We now turn to the moderating role of language in the relationship between psychological empowerment and team outcomes discussed above. Language not only works as an independent variable, but also as a moderator variable. Based on cognitive load theory, the cognitive capacity of working memory is limited, which means that activities will be hindered if a task requires too much capacity (De Jong, 2010). FL processing increases working memory load and ties up scarce cognitive resources (Volk et al., 2014), leaving fewer processing capacities for other cognitive tasks. Therefore, when enhancing psychological empowerment within teams, employees working in the FL have less capacity to absorb the effects of empowerment on team performance. The relationship between psychological empowerment and team outcomes is hampered due to the cognitive load of the FL. The effects of the four cognitive dimensions of psychological empowerment—meaning, competence, self-determination, and impact—will be weaker when using the FL.
Based on a psychological framework, together with the theories discussed, our hypotheses concerning the moderating role of language are as follows:

**Hypothesis 2a.** Language will moderate the negative relationship between the perception of empowerment and stress in teamwork: the negative relationship will be stronger during the use of the native language than with the foreign language.

**Hypothesis 2b.** Language will moderate the positive relationship between the perception of empowerment and team cohesiveness: the positive relationship will be stronger during the use of the native language than with the foreign language.

**Hypothesis 2c.** Language will moderate the positive relationship between the perception of empowerment and satisfaction in teamwork: the positive relationship will be stronger during the use of the native language than with the foreign language.

**Moderating Role of Communication**

We predict that the degree of communication within a team will moderate the interaction between psychological empowerment and language in influencing team outcomes such that communication will help to reduce the gap between the FL and the L1 in terms of the effects of psychological empowerment, as hypothesized above.

Communication is key for building a successful team (Zakaria et al., 2004). Communication difficulties will also impede the performance of MNTs (Chen, Geluykens, & Choi, 2006), and one of the major barriers to communication in MNTs is language barriers (Schweiger, Atamer, & Calori, 2003). Language and thought are interdependent processes
related to social interaction, and are hypothesized to influence communication processes within MNTs (Chen et al., 2006). Language studies have also shown that a willingness to communicate has a positive relationship with the frequency of communication, which in turn influences the level of satisfaction in interpersonal relationships (Yashima et al., 2004). Communication was explored as one of the four dimensions of teamwork by Smith-Jentsch and colleagues, who highlighted the significance of phraseology and communication type (Smith-Jentsch, Zeisig, Acton, & McPherson, 1998). It has also been argued that communication has a positive relationship with team cohesiveness (Shaw, 1981).

In sum, psychological empowerment is negatively related to stress, and positively related to team cohesiveness and satisfaction within teams. Language moderates the relationship between perceptions of empowerment and team outcomes. When using the FL, the relationship between psychological empowerment and team outcomes is weaker than it is when using the L1 due to increased cognitive load.

Information sharing by team members plays an important role in the team process and performance (Tindale & Sheffey, 2002). A high-communication environment can contribute to information sharing, feedback, social support from team members, and feeling to work as one’s own will. Communication and information sharing can increase the quality and quantity of interaction within teams (Greene, 1989). Hence, expanding communication and information sharing can cushion the effect of insufficient cognitive capacity and relieve cognitive load, which can alleviate the negative effect of the FL on the relationship between psychological empowerment and team outcomes. Thus, we can deduce that communicating with peers plays an important role in the moderating effect of language.

Accordingly, we hypothesize that if people share information and communicate with each other in teams, language will have an interactive impact on the relationship between
Hypothesis 3a. There is a three-way interaction between communication, psychological empowerment, and language that influences stress. In a high-communication environment, empowerment is negatively related to stress in teamwork in both the foreign and the native language. However, in a low-communication environment, the negative relationship between empowerment and stress in teamwork only occurs when using the native language.

Hypothesis 3b. There is a three-way interaction between communication, psychological empowerment, and language that influences team cohesiveness. In a high-communication environment, empowerment is positively related to team cohesiveness in both the foreign and the native language. However, in a low-communication environment, the positive relationship between empowerment and team cohesiveness only occurs when using the native language.

Hypothesis 3c. There is a three-way interaction between communication, psychological empowerment, and language that influences satisfaction in teamwork. In a high-communication environment, empowerment is positively related to satisfaction in teamwork in both the foreign and the native language. However, in a low-communication environment, the positive relationship between empowerment and satisfaction in teamwork only occurs when using the native language.
METHODS

To test our hypotheses, we conducted a three-round laboratory study using an independent-measures design rather than a repeated-measures design. Each participant performed only one condition (in either Japanese or Chinese).

Participants

This study group consisted of 264 participants (average age, 21 years; 77% female) divided into 68 teams, most of which were composed of four members, although some had three or five members. All of the participants were Chinese students from universities in China (Tianjin and Shanghai) and Japan (Osaka and Sapporo). All participants had a native-speaker level of Mandarin, although some spoke a dialect, and most had Japanese as a major. Of the 68 teams, 32 were experimental groups using Japanese and 36 were control groups using Chinese.

Procedure

In the laboratory, a brief questionnaire was distributed, which participants were asked to complete within 10 min. This pretest recorded demographic information and indicated participants’ perceived Japanese language competence. We then randomly assigned participants to different teams of four members (and a few teams with three or five members to adjust the numbers), followed by a brief introduction about the research and the 30-min team task. Participants were told they would receive a small gift at the end. Half of the teams engaged in the task in Japanese and half in Chinese. On completion of the task, we distributed a posttest questionnaire (to be completed within 10 min), which asked for participants’
perceived affective reactions during or after the team task, relating to empowerment, stress, cohesiveness, satisfaction, and communication. All the factors are perceived estimation. After completion of the posttest, we explained our actual research objectives and gave each participant the small gift. Since language might have an impact on questionnaire responses, we translated all questions into Chinese and both groups answered in Chinese.

Prior to this experiment, we conducted a pilot study (in Shanghai) with 24 students in six teams to test our experimental procedure and understanding of the questionnaire. Data from the pilot study are not included here.

Team Task

We tasked teams with designing a marketing strategy for a *tatami* company in Japan. The case had been tested in an interdisciplinary program at Osaka University to ensure that all students could solve the task, regardless of their discipline or whether they had specific knowledge about marketing. We translated the team task information into both Japanese and Chinese. Half of the participants were divided into Japanese language teams and the other half were in Chinese language teams. We divided the teams and the language randomly. Students using Japanese in their discussion were given information in Japanese, while those using Chinese were given the information in Chinese. They used the designated language to perform the entire team task. The propositions they handed in were in the language they used during the discussion. Because the *tatami* company was an actual company in Japan, we used a pseudonym to preserve anonymity. We provided teams with information about the history of the company, and the advantages and disadvantages of the new *tatami* over the traditional *tatami*, such as the modern design and allergy prevention. Before commencing discussion, we gave a very brief introduction about the case, explaining that the goal of our research was to
investigate how to help language major students to overall the situation of less professional
knowledge except language proficiency. We also noted that such discussion might simulate
their working environment in MNTs in the future. We asked students to base their discussion
on addressing the question concerning who was the company’s target for this new tatami and
on producing a marketing plan to increase sales. At the end of the team task, all teams handed
in their proposals in Japanese or Chinese. We evaluated their propositions from the
perspectives of quantity, quality, and creativity (data not included here).

**Measures**

*Native language and foreign language.* Language is an independent and moderator
variable; dummy variables took a value of 1 (team task in Japanese) or 0 (team task in
Chinese).

*Empowerment.* Psychological empowerment was measured using a six-item scale
generated by Jung and Sosik (2002). Participants rated their perceptions of empowerment on a
seven-point Likert-type scale from 1 (strongly disagree) to 7 (strongly agree). One sample
item was “I have significant influence over what happens in my team.” The alpha measure
was 0.88.

*Stress within teams.* Participants indicated their stress level within the team based on
the 14-item scale of a global measure of perceived stress devised by Cohen, Kamarck, and
Mermelstein (1983). We selected eight items from this scale that were relevant to our research
and edited the items as team-based questions. Sample items included “During/after the
teamwork, how often were you upset because of something that happened unexpectedly?” and
“During/after the teamwork, how often did you feel nervous and stressed?” We also added
one item related to language and only one half of the teams would be answering this question:
“During/after the teamwork, how often did you feel nervous and stressed because of the foreign language (Japanese)?” The respondents rated each of the nine items on a seven-point Likert-type scale from 1 (never) to 7 (very often). The alpha measure was 0.80.

**Team cohesiveness.** We assessed the dependent variable of team cohesiveness by adapting the three-item scale devised by Jung and Sosik (2002) rated on a seven-point Likert-type scale from 1 (strongly disagree) to 7 (strongly agree). One sample item was “I felt that the people in my team had high social skills.” The alpha measure was 0.86.

**Satisfaction within teams.** The dependent variable of satisfaction within teams was measured using a 14-item scale based on the Minnesota Satisfaction Questionnaire (Weiss, Dawis, & England, 1967) and participants’ satisfaction and desire to continue to work with the groups (Schweiger, Sandberg, & Ragan, 1986) rated on a seven-point Likert-type scale ranging from 1 (strongly disagree) to 7 (strongly agree). One sample item was “On my teamwork, this is how I feel about: the feeling of accomplishment I get from the teamwork.” The alpha measure was 0.94.

**Communication within teams.** The moderator variable of communication within teams was measured using the three-item scale devised by Campion and colleagues (1993) rated on a seven-point Likert-type scale from 1 (strongly disagree) to 7 (strongly agree). One sample item was “Members of my team are very willing to share information with other team members about our work.” The alpha measure was 0.90.

**Control variables.** To minimize the influence of other exogenous variables, we included three demographic control variables in our study. Details concerning age (in years), gender (male = 0, female = 1), and education level (0 = undergraduate school, 1 = graduate school) were provided by participants in the questionnaire. We also controlled participants’ Japanese language competence to ensure that no matter the capabilities of language, FL will
have negative impact on team effectiveness.
RESULTS

Prior to examining our hypotheses, we conducted confirmatory factor analyses (CFA) to assess the properties of the five factors (empowerment, stress, team cohesiveness, satisfaction, and communication) using the package “lavaan” in R (Rosseel, 2012). Since the original measures, especially the scale of satisfaction, consisted of many indicators, we reduced the number of indicators for the satisfaction measure. Following the item-parceling approach used in Mathieu and Farr (1991), we reduced the number of items for satisfaction to 7 indicators. For other measures, we did not parcel their items. The proposed four-factor baseline model showed a good fit to the data ($\chi^2[289] = 632.25, p < 0.05; \text{TLI} = 0.90; \text{CFI} = 0.91; \text{SRMR} = 0.08; \text{RMSEA} = 0.07$). This result provides support for the validity of the measures used in this study (Browne, Cudeck, Bollen, & Long, 1993).

Table 1 presents correlations of all variables included in the analysis and alpha coefficients of moderator and dependent variables.

We conducted hierarchical regression analyses to test hypotheses. Table 2 summarizes the regression results. Models 1–4 tested the associations between stress (i.e., dependent variable), language (i.e., independent and moderator variable), psychological empowerment, communication (i.e., moderator variables), and control variables. Models 5–8 tested the associations between team cohesiveness (i.e., dependent variable) and the other variables. Models 9–12 tested the associations between satisfaction (i.e., dependent variable) and the other variables. In models 1, 5, and 9, we included all the control variables in the analysis. In models 2, 6, and 10, we added language as an independent variable to the analysis. In models 3, 7, and 11, two-way interaction terms were added to the analysis. In models 4, 8, and 12, three-way interaction terms were added to the analysis.
### Table 1 Descriptive statistics and correlations of study variables

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>α</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Stress</td>
<td>3.58</td>
<td>.88</td>
<td>.80</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>2. Team cohesiveness</td>
<td>5.04</td>
<td>1.01</td>
<td>.86</td>
<td>−.32***</td>
<td>1.00</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Satisfaction</td>
<td>5.13</td>
<td>.77</td>
<td>.94</td>
<td>−.35***</td>
<td>.63***</td>
<td>1.00</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>4. Language (language dummy)</td>
<td>.48</td>
<td>.50</td>
<td></td>
<td>.19***</td>
<td>−.15*</td>
<td>−.21***</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>5. Empowerment</td>
<td>4.34</td>
<td>.81</td>
<td>.88</td>
<td>−.26***</td>
<td>.29***</td>
<td>.42***</td>
<td>−.08</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
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<td>6. Communication</td>
<td>5.59</td>
<td>.91</td>
<td>.90</td>
<td>−.36***</td>
<td>.63***</td>
<td>.65***</td>
<td>−.24***</td>
<td>.20***</td>
<td>1.00</td>
<td></td>
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<td></td>
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<tr>
<td>7. Age</td>
<td>21.05</td>
<td>1.40</td>
<td></td>
<td>−.05</td>
<td>−.11†</td>
<td>.06</td>
<td>−.03</td>
<td>−.11†</td>
<td>.04</td>
<td>1.00</td>
<td></td>
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<td></td>
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<tr>
<td>8. Gender</td>
<td>.78</td>
<td>.41</td>
<td>.07</td>
<td>.11†</td>
<td>.13†</td>
<td>.01</td>
<td>−.05</td>
<td>.21***</td>
<td>−.06</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Education</td>
<td>.07</td>
<td>.25</td>
<td>−.06</td>
<td>−.06</td>
<td>.12†</td>
<td>−.02</td>
<td>−.06</td>
<td>.13†</td>
<td>.69***</td>
<td>.07</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Japanese competence</td>
<td>5.90</td>
<td>1.26</td>
<td>−.11†</td>
<td>.03</td>
<td>.14*</td>
<td>.08</td>
<td>.18***</td>
<td>.06</td>
<td>−.03</td>
<td>−.08</td>
<td>.05</td>
<td>1.00</td>
<td></td>
</tr>
</tbody>
</table>

**Notes.** *N* = 264.

Gender: 0 = male; 1 = female.

Education: 0 = undergraduate school; 1 = graduate school.

†*p < 0.10, *p < 0.05, **p < 0.01, ***p < 0.001.
Table 2 Regression coefficients

<table>
<thead>
<tr>
<th>Variables</th>
<th>Controls</th>
<th>Team cohesiveness</th>
<th>Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model 1</td>
<td>Model 2</td>
<td>Model 3</td>
</tr>
<tr>
<td>Age</td>
<td>-.02</td>
<td>-.00</td>
<td>-.03</td>
</tr>
<tr>
<td>Gender</td>
<td>.15</td>
<td>.16</td>
<td>.15</td>
</tr>
<tr>
<td>Education</td>
<td>-.11</td>
<td>-.12</td>
<td>-.11</td>
</tr>
<tr>
<td>Japanese competence</td>
<td>-.07</td>
<td>-.08†</td>
<td>-.05</td>
</tr>
<tr>
<td><strong>Independent terms</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language</td>
<td>.35**</td>
<td>.02</td>
<td>3.56</td>
</tr>
<tr>
<td>Empowerment</td>
<td>-.29***</td>
<td>.35</td>
<td>.50***</td>
</tr>
<tr>
<td>Empowerment × Language</td>
<td>.07</td>
<td>-.83</td>
<td>-.40†</td>
</tr>
<tr>
<td><strong>Three–way interaction</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication</td>
<td>.11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Empowerment × Communication</td>
<td>-.09</td>
<td></td>
<td>-.14</td>
</tr>
<tr>
<td>Language × Communication</td>
<td>-.61</td>
<td></td>
<td>-1.35*</td>
</tr>
<tr>
<td>Empowerment × Language × Communication</td>
<td>.15</td>
<td>.36**</td>
<td></td>
</tr>
</tbody>
</table>

R²  | .02 | .05 | .12 | .20 | .03 | .05 | .15 | .48 | .05 | .10 | .25 | .52  |
ΔR² | .00 | .03 | .09 | .16 | .01 | .03 | .12 | .46 | .04 | .08 | .23 | .52  |

F   | 1.24 | 2.97* | 4.50*** | 5.15*** | 1.66 | 2.64* | 5.89*** | 19.72*** | 3.47*** | 5.52*** | 11.54*** | 22.46***


†p < 0.10, *p < 0.05, ** p < 0.01, ***p < 0.001.
According to the regression results, language had significant and negative associations with stress ($\beta = 0.35$, $p < 0.01$ in model 2), significant and positive associations with team cohesiveness ($\beta = -0.32$, $p < 0.05$ in model 6), and satisfaction ($\beta = -0.34$, $p < 0.001$ in model 10). Therefore, Hypotheses 1a–c are supported.

The interaction term between language and psychological empowerment was statistically significant and negative for team cohesiveness ($\beta = -0.40$, $p < 0.05$ in model 7). Slope analysis was performed to demonstrate significant interactions based on the interaction interpretation procedures developed by Aiken and West (1991). As proposed in Hypothesis 2b, language moderated the positive relationship between perception of empowerment and team cohesiveness. In both the Chinese and the Japanese language context, team cohesiveness was stronger when team members’ perceptions of empowerment were stronger. However, the positive relationship between psychological empowerment and team cohesiveness was weaker when using the FL in teams (i.e., one standard deviation below the mean) rather than using the L1 (i.e., one standard deviation above the mean). Hence, Hypothesis 2b is supported. However, the interaction term between language and psychological empowerment was not statistically significant for stress (see model 3) and satisfaction (see model 11). Although we could not test them further, we may conclude that Hypotheses 2a and 2c are not supported.
Three-way interaction shows that the interaction term between communication, language, and psychological empowerment was statistically significant and positive for cohesiveness ($\beta = 0.36$, $p < 0.01$ in model 8). The interaction term between communication, language, and psychological empowerment was statistically significant and positive for satisfaction ($\beta = 0.27$, $p < 0.05$ in model 12). We performed slope analysis to examine the interactions based on the interaction interpretation procedures developed by Aiken and West(1991).

As proposed in Hypothesis 3b, language and communication had an interactive effect on the relationship between psychological empowerment and team cohesiveness: in a high-communication environment, empowerment was positively related to team cohesiveness in both the native and the FL environment. In contrast, in a low-communication environment, empowerment was positively related to cohesiveness in the L1 context. Psychological empowerment was negatively related to cohesiveness using the FL in teams. Thus,
Hypothesis 3b is supported.

**Figure 3.** Three-way interaction plot for language, empowerment, and communication in relation to team cohesiveness.

Figure 4 displays the results relating to Hypothesis 3c, that language and communication had an interactive effect on the relationship between psychological empowerment and satisfaction within teamwork. In a high-communication environment, empowerment was positively related to satisfaction within teamwork whether using the FL or the L1. Although the degree of impact from empowerment was almost identical given that the slopes in Figure 4 are almost parallel, the satisfaction level was higher when using the L1. However, in a low-communication environment, the positive relationship between empowerment and satisfaction within teamwork only occurred when using the L1, thereby supporting Hypothesis 3c.
In contrast, the interaction term between communication, language, and psychological empowerment was not statistically significant for stress (see model 4). Therefore, we can conclude that Hypothesis 3a is not supported.
DISCUSSION

This study investigates the impact of language on team effectiveness. Although language is considered to be a key element at the heart of international business communication (Brannen, Piekkari, & Tietze, 2014), few studies have examined the language effect at the team level. Given that the basic structure of modern organizations has evolved toward team-based organization and empowerment within teams (Argyris, 2001; DeChurch & Mathieu, 2009; Spreitzer, 1995; Sundstrom & others, 1999), we focused here on the moderating role of language in the relationship between psychological empowerment and team outcomes. In addition, since communication and language have an interactive relationship, we added communication as another moderator. Our study has established an important link between the literature on language in international business and team effectiveness, and thereby makes an important contribution to each area.

Main Findings and Implications for Theory

First, although gender and Japanese language competence had some influence on team effectiveness in the current study, language had a much greater impact on stress, team cohesiveness, and satisfaction in our dataset. Previous studies have shown the impact of FL competence on commitment (Yamao & Sekiguchi, 2015), of the language barrier on trust formation (Tenzer et al., 2013), and of the language effect on emotional management (Tenzer, 2012) using both quantitative and qualitative research methods. We used an experimental research design to demonstrate the impact of language on team outcomes at the team level. We found that regardless of Japanese language competence, the FL had a negative effect on stress, team cohesiveness, and satisfaction within teams. Our study extends previous findings
into more general and practical contexts, and makes interdisciplinary connections between areas within linguistic studies, experimental studies, and international business. In relation to the team effectiveness framework, our study contributes the finding that language can be a variable that profoundly influences team outcomes.

Second, we found that psychological empowerment was significantly negatively correlated with stress, and positively related to team cohesiveness and satisfaction. As an enabling process, empowerment influences both inception and persistence in any task behavior (Conger & Kanungo, 1988). In the current study, empowerment not only had an impact on behavior, but was also strongly correlated with team outcomes.

Furthermore, language moderates the relationship between psychological empowerment and team outcomes, such as team cohesiveness. Increasing empowerment can enhance team cohesiveness, whether in the native or FL environment. However, the moderating effect is weaker when using the FL. Therefore, our findings indicate that when enhancing empowerment in the workplace, especially in a FL environment, other factors should be considered, such as communication. The FL environment may alter the interactive mechanism occurring with respect to attitudes and behavior.

Our study confirms that it is not sufficient to consider only language as a moderator; communication (information sharing and cooperation) has a decisive interactive association with language. In particular, we found that a high-communication environment is crucial to the language moderating effect. Only in a high-communication environment does empowerment have a positive effect on team outcomes such as team cohesiveness and satisfaction irrespective of the native or FL context. However, when using the FL, especially if team members do not share information and communicate with each other (i.e., in a low-communication environment), empowerment has no impact or a negative impact on team
effectiveness.

In addition, unsupported Hypotheses 2a and 2c give some weight to the finding that language alone as the moderator is not sufficient. Although language is strongly associated with stress and satisfaction within teams, other moderating factors interactively related with language are still required. However, Hypotheses 2a and 3a may not have been supported because of the questions we asked participants, which were possibly rather general and unsuitable for the team task. Most of the participants in our research had Japanese as a major. Because they were exposed to a Japanese language environment all the time, they may not have perceived the situation as stressful, as we had assumed.

Finally, we found that gender and Japanese competence had some effect on the moderator and dependent variables. Because language skills can empower and disempower subjects via communication and competence (Vaara, Tienari, Piekkari, & Säntti, 2005), the reason that Japanese language competence correlated with stress, satisfaction, and psychological empowerment in the current study can be explained. However, regardless of the competence level in the FL, the different language environment had an impact on team effectiveness. Gender had a significant association with team cohesiveness, satisfaction, and communication; females displayed higher levels of team cohesiveness, satisfaction, and communication within teams. Gender differences in attitudes and behavior have been noted in previous studies; for example, women reported higher levels of job satisfaction (Clark, 1997), exhibited different cooperative behavior (Sell, Griffith, & Wilson, 1993), and were less selfish than men (Eckel & Grossman, 1998). However, because the impact of gender differs according to the situation, resources, and a number of other factors, findings are inconclusive. In our study, females had higher scores on cohesiveness, satisfaction, and communication, possibly due to the gender effect on language; that is, men and women tend to use distinct
language. “Men pursue a style of interaction based on power, while women purse a style based on solidarity and support” (Coates, 2004). Women are predisposed to using language more politely and extensively than men (Coates, 2004) and tend to be involved in supportive rather than competitive interaction (Wardhaugh, 2011). Women tend to communicate more with each other and more easily set common goals, in turn becoming more satisfied.

However, in discussing any impact of gender in our study, it should be noted here that the majority of the participants (77%) were female.

**Implications for Management**

Based on our findings, we contend that language has a profound impact on team effectiveness, and that the use of a FL has a negative impact on team outcomes. What are the implications for firms that adopt the use of a FL as their corporate working language? In Japan, a well-known example is the use of English at the company Rakuten, which can be seen as a milestone in linguistic innovation in Japanese firms. However, this step can also lead to a loss of productivity, a lack of time to study, and conflicting views among managers, all of which may impede staff success (Neeley, 2011, 2013). Since the use of a FL has a negative effect on team effectiveness, we suggest that firms should establish a clear linguistic strategy according to concrete circumstances rather than merely compelling employees to use a FL in the workplace. For example, firms can adopt a corporate language based on functional departmentalization to diminish the negative effect of the FL.

Second, since psychological empowerment is strongly correlated with team effectiveness, leaders of multinational corporations should empower employees to increase the levels of satisfaction within work teams and team cohesiveness, and at the same time, reduce stress within teams. Especially for employees using the FL as the working language,
leaders should trust their ability and enhance their empowerment. Transformational leaders increase team effectiveness by empowering employees to work independently, which can create more cohesive teams (Jung & Sosik, 2002). Empowerment may not only affect employees’ attitudinal outcomes, but may also have an impact on the input and feedback in the next loop.

Third, as noted by Jung and Sosik (2002), empowerment is positively related to collective efficacy, which in turn is positively related to group members’ perceived group effectiveness. However, based on our findings, when switching to the FL during teamwork, especially when language barriers are high, team members become unwilling to share information, and communication within the team is relatively low. In this situation, regardless of the degree of empowerment, the levels of cohesiveness and satisfaction within teams will not be improved. Team leaders should therefore increase team effectiveness by empowering team members, while at the same time increasing and encouraging information sharing and communication within the team, especially in a context in which the FL is used.

Limitations and Suggestions for Further Research

Our study provides some significant insights into the impact of language on team effectiveness and extends experimental research methods in this area; however, there are a number of limitations. First, all of the participants were native Chinese speakers proficient in Japanese. Because the language space of Chinese is close to that of Japanese, and Chinese and Japanese share many written characters, it is likely easier for Chinese students to use Japanese within teams, which would result in less stress, and higher team cohesiveness and satisfaction. Future studies should be designed with different languages in other countries, and compare close languages, such as Japanese and Korean, with those that are more distant, such as
Japanese and French. In addition, most of our participants had Japanese as a major, which may be different from ordinary FL learners without a language major. As noted, students majoring in Japanese are exposed to the language all the time, which may lessen the negative effect of language and heighten the positive effect. Hence, future studies should be designed in different disciplines with participants with different majors.

Second, our experimental study was an independent-measures design rather than a repeated-measures design. In the latter, each individual participates in the same experiment in two languages. Because students have limited time and are busy with other courses, we could not use a repeated-measures design. Therefore, it is possible that two separate teams will have distinctive features other than language. We would like to develop further our experimental approach. In addition, some students knew each other, and this familiarity may have reduced any perceived stress and increased team cohesiveness and satisfaction during the team task. Future studies may be conducted using participants who are not known to each other. Furthermore, our data may suffer from the limitation that all self-reported questionnaires share, namely we cannot be sure whether participants indicated their perceptions accurately, or in some way hid their true affective reactions.

From the perspective of research content, we only focused here on the team outcomes of stress, team cohesiveness, and satisfaction. In future work, behavioral outcomes such as productivity within teams should be included in team effectiveness; furthermore, examining cognitive outcomes would be of potential interest. These avenues of research would extend our knowledge on team effectiveness, not only in terms of personal outcomes, but also in relation to productivity, behavioral, and cognitive outcomes.
CONCLUSION

Our experimental study examined the interplay of language and team effectiveness, and our findings suggest systematic implications for theory, research methodology, and practical management. Our aim is to build a research connection between language and team effectiveness in international business communication. In terms of managerial implications, language should be included in the strategy loop of the company (Marschan, Welch, & Welch, 1997), and team effectiveness can be bolstered through empowerment and communication; these are measures that can have far-reaching consequences. Our study illustrates a useful approach to language and team-level research in the field of international business communication.


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Appendix 1: The List of Selected Survey Items in the Current Paper

*Empowerment*

1. I have significant autonomy in determining how I do my job.
2. I can decide on my own how to go about doing my work.
3. I have considerable opportunity for independence and freedom in how I do my job.
4. My impact on what happens in my team is large.
5. I have a great deal of control over what happens in my team.
6. I have significant influence over what happens in my team.

*Team Cohesiveness*

1. I felt that the people in my team had high social skills.
2. I felt that the people in my team had high problem-solving skills.
3. I felt that my team was focused on completing the task.

*Communication*

1. Members of my team are very willing to share information with other team members about our work.
2. Team enhance the communication among people working on the same product.
3. Members of my team cooperate to get the work done.

*Stress*

The questions in this scale ask you about your feelings and thoughts during/after the
teamwork. Although some of the questions are similar, there are differences between them and you should treat each one as a separate question.

1. During/after the teamwork, how often have you been upset because of something that happened unexpectedly?
2. During/after the teamwork, how often have you felt nervous and “stressed”?
3. During/after the teamwork, how often have you felt nervous and “stressed” because of the foreign language (Japanese)?
4. During/after the teamwork, how often have you felt confident about your ability to handle the team task? (R)
5. During/after the teamwork, how often have you found that you could not cope with all the things that you had to do?
6. During/after the teamwork, how often have you angered because of things that happened that were outside of your control?
7. During/after the teamwork, how often have you found yourself thinking about things that you have to accomplish?
8. During/after the teamwork, how often have you been able to control the way you spend your time? (R)
9. During/after the teamwork, how often you felt difficulties were piling up so high that you could not overcome them?

**Satisfaction**

Be frank and honest. Give a true picture of your feelings about your teamwork. Ask yourself, how satisfied am I think aspect of my teamwork? On my teamwork, this is how I feel about…

1. Being able to keep busy all the time.
2. The chance to work alone on the teamwork.
3. The chance to do different things from time to time.
4. The chance to be “somebody” in the team.
5. The chance to tell people what to do.
6. The chance to do something that makes use of my abilities.
7. The freedom to use my own judgement.
8. The chance to try my own methods of doing the teamwork.
9. The working conditions.
10. The way my team members get along with each other.
11. The praise I get for doing a good job.
12. The feeling of accomplishment I get from the teamwork.
13. I would be willing to work with this team on other projects in the future.
14. Working with my team was an enjoyable experience.
Appendix 2: Pre-test

我的编号是：

Pre-test

感谢各位同学在百忙之中参与本次问卷调查。为了使本次调查收获理想效果，也为了消除大家可能抱有的疑虑，请在各位正式作答之前，稍稍抽出时间，阅读以下内容。

首先，我们将向大家承诺，我们会对本次调查收集到的信息进行严格保密，并仅将这些信息用于学术研究。

其次，本次调查的目的是了解日语学习者的语言学习状况，并致力于为今后大家在职场生涯中面临的问题提出切实可行的解决方案。因此我们希望各位同学在填写问卷时，圈选出最符合个人实际情况的答案。

最后，本次调查采取的是匿名调查的形式，且所有问题的答案没有好坏对错之分，希望大家不必顾忌“选择哪个答案更好”，而是呈现出最真实的结果。

再次感谢各位同学参与本次调查，祝愿大家能在今后的学习，生活和工作中，有所成长和收获。
一. 个人情况调查

年龄:_______________(岁)
性别(圈出):男／女
学历(已获学位或所在年级):__________
专业:_______________

你的母语是什么？(如果你的母语不止一种,请分别列出):_______________
你的方言是什么？(如果你会讲方言):_______________

二. 语言综合调查

1. 请根据熟练程度列出你所了解的语言(A 语言为最熟练):

<table>
<thead>
<tr>
<th>语言种类</th>
<th>A 语言</th>
<th>B 语言</th>
<th>C 语言</th>
<th>D 语言</th>
<th>E 语言</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. 请根据习得顺序列出你所了解的语言(A 语言为母语):

<table>
<thead>
<tr>
<th>语言种类</th>
<th>A 语言</th>
<th>B 语言</th>
<th>C 语言</th>
<th>D 语言</th>
<th>E 语言</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. 请列出你目前及平均在每一种语言上所花时间的百分比。(以下五项百分比总和为 100%):

<table>
<thead>
<tr>
<th>语言种类</th>
<th>A 语言</th>
<th>B 语言</th>
<th>C 语言</th>
<th>D 语言</th>
<th>E 语言</th>
</tr>
</thead>
<tbody>
<tr>
<td>百分比</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. 如果一篇文章的译本涵盖你所掌握的全部语种，你选用每种语言阅读此文的百分比分别是多少？假设你不了解这篇文章源语文本。(各类语言占比总和为 100%):

<table>
<thead>
<tr>
<th>语言种类</th>
<th>A 语言</th>
<th>B 语言</th>
<th>C 语言</th>
<th>D 语言</th>
<th>E 语言</th>
</tr>
</thead>
<tbody>
<tr>
<td>百分比</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5. 如果与一位各语种口语水平和你相同的人交谈, 你选择每一种语言的交谈时间百分比是多少？请写出使用各语言的时间在总时间中的占比。(各类语言占比总和为 100%):

<table>
<thead>
<tr>
<th>语言种类</th>
<th>A 语言</th>
<th>B 语言</th>
<th>C 语言</th>
<th>D 语言</th>
<th>E 语言</th>
</tr>
</thead>
<tbody>
<tr>
<td>百分比</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6. 请写出你所认同的文化。请在 0 到 10 之间打分，表明你对每一种文化的认同程度。(例如：中国文化、日本文化、安格鲁-撒克逊文化等):

<table>
<thead>
<tr>
<th>文化种类</th>
<th>A 文化</th>
<th>B 文化</th>
<th>C 文化</th>
<th>D 文化</th>
<th>E 文化</th>
</tr>
</thead>
<tbody>
<tr>
<td>认同度</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

7. 如果你参加过母语之外的标准化语言能力测试(如日本语能力测试(分为 N1 级,N2 级等), 托福或其他外国语言考试)，请列出各类考试的得分及考试名称。

<table>
<thead>
<tr>
<th>考试名称</th>
<th>得分</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
三．日语学习调查

这是我的（请选择：第一，第二，第三，等）语言。以下所有问题皆与你的日语知识相关。

1. 你在多大年龄：
   - 开始学习日语
   - 可以流利地说日语
   - 开始阅读日语文章
   - 可以流畅地阅读日语文章

2. 请写出你处在日语环境时长（呆了几年几个月）。
   - 讲日语的国家
   - 讲日语的家庭
   - 讲日语的学校或工作场合

3. 从 0 到 10，请选择你在日语口语、理解、阅读和写作方面的分数。
   - 口语
   - 理解
   - 阅读
   - 写作

4. 你每周用于日语学习的时间大概是多少？
   - a. 少于 30 分钟
   - b. 30 分钟－1 小时
   - c. 1 小时－1.5 小时
   - d. 2 小时－3 小时
   - e. 3 小时－4 小时
   - f. 4 小时－5 小时
   - g. 5 小时以上

5. 从 0 到 10，请选择以下因素对你日语学习影响力的大小：
   - 与朋友交流
   - 语言录音／自学
   - 与家人交流
   - 看电视
   - 阅读
   - 听广播

6. 从 0 到 10，你在以下情境中能接触到日语的程度依次是多少？
   - 与朋友交流
   - 听广播／音乐
   - 与家人交流
   - 阅读
   - 看电视
   - 语音室／自学

7. 你觉得，你的日语口语有多少口音？
   - 1 几乎没有 2 很少 3 比较少 4 一般 5 较多 6 比较多 7 非常多

四．其他项目
1. 阅读以下描述，选出最能体现实际情况的描述。
   - ① 我对于学习日语的一大堆规则有些不知所措。
     - 1 非常不符合 2 比较不符合 3 不符合 4 一般 5 符合 6 比较符合 7 非常符合
② 当我要参加一场日语会议时，我的心就会扑通扑通地跳个不停。
1 非常不符合 2 比较不符合 3 不符合 4 一般 5 符合 6 符合 7 非常符合
③ 我担心自己说日语时会被众人嘲笑。
1 非常不符合 2 比较不符合 3 不符合 4 一般 5 符合 6 符合 7 非常符合
④ 我说日语时会感到紧张、困惑。
1 非常不符合 2 比较不符合 3 不符合 4 一般 5 符合 6 符合 7 非常符合
⑤ 上级跟我说日语时，我如果有一个词听不懂，就很紧张。
1 非常不符合 2 比较不符合 3 不符合 4 一般 5 符合 6 符合 7 非常符合
⑥ 上级用日语向我提问时，我若没有提前准备就会十分紧张。
1 非常不符合 2 比较不符合 3 不符合 4 一般 5 符合 6 符合 7 非常符合
⑦ 用日语交流时，我会紧张到忘事。
1 非常不符合 2 比较不符合 3 不符合 4 一般 5 符合 6 符合 7 非常符合
⑧ 我担心上级会纠正我说日语时的每一个错误。
1 非常不符合 2 比较不符合 3 不符合 4 一般 5 符合 6 符合 7 非常符合
⑨ 我用日语交流时并不担心出错。
1 非常不符合 2 比较不符合 3 不符合 4 一般 5 符合 6 符合 7 非常符合
⑩ 我一直认为很多人的日语比我好。
1 非常不符合 2 比较不符合 3 不符合 4 一般 5 符合 6 符合 7 非常符合

2. 以下的品质特征或许符合你，或许不符合。请在每一项表述之后标号，以示你的观点。
   我认为我自己是……
   ① 健谈的
      1 非常不符合 2 比较不符合 3 不符合 4 一般 5 符合 6 符合 7 非常符合
   ② 拘谨的
      1 非常不符合 2 比较不符合 3 不符合 4 一般 5 符合 6 符合 7 非常符合
   ③ 充满活力的
      1 非常不符合 2 比较不符合 3 不符合 4 一般 5 符合 6 符合 7 非常符合
   ④ 充满热情的
      1 非常不符合 2 比较不符合 3 不符合 4 一般 5 符合 6 符合 7 非常符合
   ⑤ 比较安静的
      1 非常不符合 2 比较不符合 3 不符合 4 一般 5 符合 6 符合 7 非常符合
   ⑥ 有决断力的
      1 非常不符合 2 比较不符合 3 不符合 4 一般 5 符合 6 符合 7 非常符合
   ⑦ 有时候有些害羞
      1 非常不符合 2 比较不符合 3 不符合 4 一般 5 符合 6 符合 7 非常符合
   ⑧ 外向的，喜欢社交的
      1 非常不符合 2 比较不符合 3 不符合 4 一般 5 符合 6 符合 7 非常符合

3. 阅读以下描述，选出最能体现实际情况的描述。
   ① 若跨文化交际对言语行为有所要求，我可以作出相应改变（如语音、语调）。
      1 非常不符合 2 比较不符合 3 不符合 4 一般 5 符合 6 符合 7 非常符合
   ② 在不同的跨文化情境里，我会使用不同的停顿或沉默。
      1 非常不符合 2 比较不符合 3 不符合 4 一般 5 符合 6 符合 7 非常符合
   ③ 跨文化交际时若对说话语速有所要求，我会适当调整语速。
      1 非常不符合 2 比较不符合 3 不符合 4 一般 5 符合 6 符合 7 非常符合
   ④ 跨文化交际时若对非言语行为有所要求，我可以作出相应改变。
      1 非常不符合 2 比较不符合 3 不符合 4 一般 5 符合 6 符合 7 非常符合
5. 跨文化交际时若对面部表情有所要求，我可以作出相应改变。
① 非常不符合 ② 比较不符合 ③ 不符合 ④ 一般 ⑤ 符合 ⑥ 比较符合 ⑦ 非常符合

4. 阅读以下描述，选出最能体现实际情况的描述。
① 我有能力实现我为自己设定的多数目标。
② 面对困难的任务时，我确定自己可以完成。
③ 我认为自己基本能把重要的事情完成。
④ 我相信我能竭尽全力获得成功。
⑤ 我有能力克服大量挑战。
⑥ 我相信我可以高效应对不同的任务。
⑦ 同其他人相比，我能很好地完成大部分任务。
⑧ 即使任务艰巨，我也能表现良好。

① 非常不符合 ② 比较不符合 ③ 不符合 ④ 一般 ⑤ 符合 ⑥ 比较符合 ⑦ 非常符合
Appendix 3: Post-test

我的编号是：

Post-test

1. 根据团队表现，请对所在的团队的语言能力做出评价。请从表格所示的几个方面进行评价。评价标准为以下七个层次（圈出对应数字）：
   - 阅读能力：
   - 写作能力：
   - 口语交际：
   - 听力水平：
   - 综合能力：

2. 同其他团队成员相比较而言，以下团队成员的表现如何？请根据团队成员的语言能力（不包括自己）来回答这个问题。使用1-10分的打分表。[1表示比其他成员差很多，10表示比其他成员强很多。]
   - 团队成员（编号：）
     - 对案例分析主题的了解程度
     - 案例分析期间的贡献数量
     - 你认为在所有的贡献中，有用的有多少
   - 团队成员（编号：）
   - 团队成员（编号：）
   - 团队成员（编号：）

3. 考虑到此项案例分析十分复杂，你认为有百分之多少的材料内容（案例公司描述；它们的关系；谈判任务）无法完全理解？
   - （仅限于使用日语分析的同学）你认为让你无法理解的原因有多少来自于日语能力欠缺？

4. 组员之间的摩擦有多少？
   - 极少
   - 很少
   - 较少
   - 中等
   - 一般
   - 较多
   - 很多

5. 组内性格冲突有多明显？
   - 极少
   - 很少
   - 较少
   - 中等
   - 一般
   - 较多
   - 很多

6. 组员之间有多少关系紧张的情况？
   - 极少
   - 很少
   - 较少
   - 中等
   - 一般
   - 较多
   - 很多

7. 组内有多少情绪抵触？
   - 极少
   - 很少
   - 较少
   - 中等
   - 一般
   - 较多
   - 很多
针对即将完成的工作，组内意见相左的频率如何？

<table>
<thead>
<tr>
<th>1 极少</th>
<th>2 很少</th>
<th>3 较少</th>
<th>4 中等</th>
<th>5 一般</th>
<th>6 较多</th>
<th>7 很多</th>
</tr>
</thead>
</table>

观点冲突有多频繁？

<table>
<thead>
<tr>
<th>1 极少</th>
<th>2 很少</th>
<th>3 较少</th>
<th>4 中等</th>
<th>5 一般</th>
<th>6 较多</th>
<th>7 很多</th>
</tr>
</thead>
</table>

针对你的工作，小组内有多少冲突？

<table>
<thead>
<tr>
<th>1 极少</th>
<th>2 很少</th>
<th>3 较少</th>
<th>4 中等</th>
<th>5 一般</th>
<th>6 较多</th>
<th>7 很多</th>
</tr>
</thead>
</table>

小组任务中意见相左的程度？

<table>
<thead>
<tr>
<th>1 极少</th>
<th>2 很少</th>
<th>3 较少</th>
<th>4 中等</th>
<th>5 一般</th>
<th>6 较多</th>
<th>7 很多</th>
</tr>
</thead>
</table>

5. 对于如何工作，我有很大的自主权。

<table>
<thead>
<tr>
<th>1 不符合</th>
<th>2 较不符合</th>
<th>3 不符合</th>
<th>4 一般</th>
<th>5 符合</th>
<th>6 较符合</th>
<th>7 非常符合</th>
</tr>
</thead>
</table>

我可以自己决定如何工作。

<table>
<thead>
<tr>
<th>1 不符合</th>
<th>2 较不符合</th>
<th>3 不符合</th>
<th>4 一般</th>
<th>5 符合</th>
<th>6 较符合</th>
<th>7 非常符合</th>
</tr>
</thead>
</table>

我可以很大程度上独立、自由地选择工作方法。

<table>
<thead>
<tr>
<th>1 不符合</th>
<th>2 较不符合</th>
<th>3 不符合</th>
<th>4 一般</th>
<th>5 符合</th>
<th>6 较符合</th>
<th>7 非常符合</th>
</tr>
</thead>
</table>

我在小组中的影响力很大。

<table>
<thead>
<tr>
<th>1 不符合</th>
<th>2 较不符合</th>
<th>3 不符合</th>
<th>4 一般</th>
<th>5 符合</th>
<th>6 较符合</th>
<th>7 非常符合</th>
</tr>
</thead>
</table>

我在小组中有很强的控制力。

<table>
<thead>
<tr>
<th>1 不符合</th>
<th>2 较不符合</th>
<th>3 不符合</th>
<th>4 一般</th>
<th>5 符合</th>
<th>6 较符合</th>
<th>7 非常符合</th>
</tr>
</thead>
</table>

我在小组中的影响力很强。

<table>
<thead>
<tr>
<th>1 不符合</th>
<th>2 较不符合</th>
<th>3 不符合</th>
<th>4 一般</th>
<th>5 符合</th>
<th>6 较符合</th>
<th>7 非常符合</th>
</tr>
</thead>
</table>

6. 我觉得我的团队成员社交能力很强。

<table>
<thead>
<tr>
<th>1 不符合</th>
<th>2 较不符合</th>
<th>3 不符合</th>
<th>4 一般</th>
<th>5 符合</th>
<th>6 较符合</th>
<th>7 非常符合</th>
</tr>
</thead>
</table>

我觉得我的团队成员解决问题的能力很强。

<table>
<thead>
<tr>
<th>1 不符合</th>
<th>2 较不符合</th>
<th>3 不符合</th>
<th>4 一般</th>
<th>5 符合</th>
<th>6 较符合</th>
<th>7 非常符合</th>
</tr>
</thead>
</table>

我觉得我的团队能全神贯注地完成任务。

<table>
<thead>
<tr>
<th>1 不符合</th>
<th>2 较不符合</th>
<th>3 不符合</th>
<th>4 一般</th>
<th>5 符合</th>
<th>6 较符合</th>
<th>7 非常符合</th>
</tr>
</thead>
</table>

7. 我力求完成团队的建议和设想。

<table>
<thead>
<tr>
<th>1 不符合</th>
<th>2 较不符合</th>
<th>3 不符合</th>
<th>4 一般</th>
<th>5 符合</th>
<th>6 较符合</th>
<th>7 非常符合</th>
</tr>
</thead>
</table>

我对团队的建议和设想表示满意。

<table>
<thead>
<tr>
<th>1 不符合</th>
<th>2 较不符合</th>
<th>3 不符合</th>
<th>4 一般</th>
<th>5 符合</th>
<th>6 较符合</th>
<th>7 非常符合</th>
</tr>
</thead>
</table>

团队里大部分成员都有机会参与决策。

<table>
<thead>
<tr>
<th>1 不符合</th>
<th>2 较不符合</th>
<th>3 不符合</th>
<th>4 一般</th>
<th>5 符合</th>
<th>6 较符合</th>
<th>7 非常符合</th>
</tr>
</thead>
</table>

人人参与决策是建立团队的宗旨。

<table>
<thead>
<tr>
<th>1 不符合</th>
<th>2 较不符合</th>
<th>3 不符合</th>
<th>4 一般</th>
<th>5 符合</th>
<th>6 较符合</th>
<th>7 非常符合</th>
</tr>
</thead>
</table>

8. 我们力求完成团队目标。

<table>
<thead>
<tr>
<th>1 不符合</th>
<th>2 较不符合</th>
<th>3 不符合</th>
<th>4 一般</th>
<th>5 符合</th>
<th>6 较符合</th>
<th>7 非常符合</th>
</tr>
</thead>
</table>

我们认为完成团队目标很重要。

<table>
<thead>
<tr>
<th>1 不符合</th>
<th>2 较不符合</th>
<th>3 不符合</th>
<th>4 一般</th>
<th>5 符合</th>
<th>6 较符合</th>
<th>7 非常符合</th>
</tr>
</thead>
</table>

我们关心团队目标的实现。
1. 非常不符合 2. 较不符合 3. 不符合 4. 一般 5. 符合 6. 较符合 7. 非常符合

9.
① 如果有人工作落后，我们会伸出援手。
1. 非常不符合 2. 较不符合 3. 不符合 4. 一般 5. 符合 6. 较符合 7. 非常符合
② 我们合作完成工作。
1. 非常不符合 2. 较不符合 3. 不符合 4. 一般 5. 符合 6. 较符合 7. 非常符合
③ 我们鼓励彼此，力争上游。
1. 非常不符合 2. 较不符合 3. 不符合 4. 一般 5. 符合 6. 较符合 7. 非常符合
④ 我们认可且珍视每一位成员在任务完成过程中的贡献。
1. 非常不符合 2. 较不符合 3. 不符合 4. 一般 5. 符合 6. 较符合 7. 非常符合
⑤ 我们关心团队成员的身心健康。
1. 非常不符合 2. 较不符合 3. 不符合 4. 一般 5. 符合 6. 较符合 7. 非常符合

10.
① 团队成员的专业领域各不相同。
1. 非常不符合 2. 较不符合 3. 不符合 4. 一般 5. 符合 6. 较符合 7. 非常符合
② 团队成员的背景和经历各不相同。
1. 非常不符合 2. 较不符合 3. 不符合 4. 一般 5. 符合 6. 较符合 7. 非常符合
③ 团队成员的各项技能互为补充。
1. 非常不符合 2. 较不符合 3. 不符合 4. 一般 5. 符合 6. 较符合 7. 非常符合

11.
① 团队成员十分愿意和其他成员分享工作信息。
1. 非常不符合 2. 较不符合 3. 不符合 4. 一般 5. 符合 6. 较符合 7. 非常符合
② 团队能加强生产同种产品成员间的交流。
1. 非常不符合 2. 较不符合 3. 不符合 4. 一般 5. 符合 6. 较符合 7. 非常符合
③ 我的组员能合作完成工作。
1. 非常不符合 2. 较不符合 3. 不符合 4. 一般 5. 符合 6. 较符合 7. 非常符合

12.
① 如果我有自己的方法，我不会让其他组员对项目的重要事宜有任何影响。
1. 非常不符合 2. 较不符合 3. 不符合 4. 一般 5. 符合 6. 较符合 7. 非常符合
② 为完成项目，让其他成员全权负责，我也不会有异议。
1. 非常不符合 2. 较不符合 3. 不符合 4. 一般 5. 符合 6. 较符合 7. 非常符合
③ 我确实希望我能有好方法监督项目中其他成员的工作。
1. 非常不符合 2. 较不符合 3. 不符合 4. 一般 5. 符合 6. 较符合 7. 非常符合
④ 即使在我无法监督的情况下，我也愿意将项目的关键任务或问题交给组员处理。
1. 非常不符合 2. 较不符合 3. 不符合 4. 一般 5. 符合 6. 较符合 7. 非常符合

13.
① 我十分相信团队中其他成员的能力。
1. 非常不符合 2. 较不符合 3. 不符合 4. 一般 5. 符合 6. 较符合 7. 非常符合
② 其他组员非常了解需要完成的工作。
1. 非常不符合 2. 较不符合 3. 不符合 4. 一般 5. 符合 6. 较符合 7. 非常符合
③ 其他组员拥有可以提高我们工作表现的专业能力。
1. 非常不符合 2. 比较不符合 3. 不符合 4. 一般 5. 符合 6. 比较符合 7. 非常符合

4. 其他组员都能胜任工作。
1. 非常不符合 2. 比较不符合 3. 不符合 4. 一般 5. 符合 6. 比较符合 7. 非常符合

5. 其他组员有足够的能力来执行自己的任务。
1. 非常不符合 2. 比较不符合 3. 不符合 4. 一般 5. 符合 6. 比较符合 7. 非常符合

6. 其他组员在他们负责的活动中似乎都取得了成功。
1. 非常不符合 2. 比较不符合 3. 不符合 4. 一般 5. 符合 6. 比较符合 7. 非常符合

14.
① 当出现困难时，团队成员多久进行一次分享，来确定最佳解决方案？
1. 极少 2. 很少 3. 较少 4. 中等 5. 一般 6. 较多 7. 很多
② 在快速发现问题时，团队成员多久会进行一次分享？
1. 极少 2. 很少 3. 较少 4. 中等 5. 一般 6. 较多 7. 很多
③ 在使用团队综合专业知识解决问题时，团队成员多久会进行一次分享？
1. 极少 2. 很少 3. 较少 4. 中等 5. 一般 6. 较多 7. 很多
④ 在解决影响团队表现问题的过程中，团队成员多久会进行一次分享？
1. 极少 2. 很少 3. 较少 4. 中等 5. 一般 6. 较多 7. 很多
⑤ 在团队的未雨绸缪方面，团队成员多久会进行一次分享？
1. 极少 2. 很少 3. 较少 4. 中等 5. 一般 6. 较多 7. 很多
⑥ 在研究解决问题的方案时，团队成员多久会进行一次分享？
1. 极少 2. 很少 3. 较少 4. 中等 5. 一般 6. 较多 7. 很多
⑦ 在解决刚出现的问题时，团队成员多久会进行一次分享？
1. 极少 2. 很少 3. 较少 4. 中等 5. 一般 6. 较多 7. 很多

15.
① 在团队合作中/后，你因突发情况感到担心的频率如何？
1. 极少 2. 很少 3. 较少 4. 中等 5. 一般 6. 较多 7. 很多
② 在团队合作中/后，你感到紧张或有压力的频率如何？
1. 极少 2. 很少 3. 较少 4. 中等 5. 一般 6. 较多 7. 很多
③ 在团队合作中/后，你因为使用外语（日语）感到紧张或有压力的频率如何？
1. 极少 2. 很少 3. 较少 4. 中等 5. 一般 6. 较多 7. 很多
④ 在团队合作中/后，你对处理团队任务感到自信心的频率如何？
1. 极少 2. 很少 3. 较少 4. 中等 5. 一般 6. 较多 7. 很多
⑤ 在团队合作中/后，你感到实力不足的频率如何？
1. 极少 2. 很少 3. 较少 4. 中等 5. 一般 6. 较多 7. 很多
⑥ 在团队合作中/后，你因为情况失控而发火的频率如何？
1. 极少 2. 很少 3. 较少 4. 中等 5. 一般 6. 较多 7. 很多
⑦ 在团队合作中/后，你考虑如何完成迫不得已的任务的频率如何？
1. 极少 2. 很少 3. 较少 4. 中等 5. 一般 6. 较多 7. 很多
⑧ 在团队合作中/后，你能自己决定时间分配方法的频率如何？
1. 极少 2. 很少 3. 较少 4. 中等 5. 一般 6. 较多 7. 很多
⑨ 在团队合作中/后，感到困难积压如山，无法完成的频率如何？
1. 极少 2. 很少 3. 较少 4. 中等 5. 一般 6. 较多 7. 很多

16.
① 没有团队中其他成员的信息或材料，我就无法完成任务。
1. 非常不符合 2. 比较不符合 3. 不符合 4. 一般 5. 符合 6. 比较符合 7. 非常符合
② 团队中的其他成员也依赖我的信息和材料执行任务。
    1 非常不符合 2 比较不符合 3 不符合 4 一般 5 符合 6 比较符合 7 非常符合
③ 在我的团队中，成员们的工作息息相关。
    1 非常不符合 2 比较不符合 3 不符合 4 一般 5 符合 6 比较符合 7 非常符合

17. 请自问，我对自己团队合作的满意度如何？针对我的团队合作，我对以下各项的满意度：
① 总能保持忙碌
    1 非常不符合 2 比较不符合 3 不符合 4 一般 5 符合 6 比较符合 7 非常符合
② 有机会独立工作
    1 非常不符合 2 比较不符合 3 不符合 4 一般 5 符合 6 比较符合 7 非常符合
③ 总有不同的工作机会
    1 非常不符合 2 比较不符合 3 不符合 4 一般 5 符合 6 比较符合 7 非常符合
④ 能发挥影响力
    1 非常不符合 2 比较不符合 3 不符合 4 一般 5 符合 6 比较符合 7 非常符合
⑤ 能告诉他人如何工作
    1 非常不符合 2 比较不符合 3 不符合 4 一般 5 符合 6 比较符合 7 非常符合
⑥ 能发挥所长
    1 非常不符合 2 比较不符合 3 不符合 4 一般 5 符合 6 比较符合 7 非常符合
⑦ 有独立判断的自由
    1 非常不符合 2 比较不符合 3 不符合 4 一般 5 符合 6 比较符合 7 非常符合
⑧ 有机会尝试自己开展团队合作的方法
    1 非常不符合 2 比较不符合 3 不符合 4 一般 5 符合 6 比较符合 7 非常符合
⑨ 工作环境
    1 非常不符合 2 比较不符合 3 不符合 4 一般 5 符合 6 比较符合 7 非常符合
⑩ 组内成员的相处方式
    1 非常不符合 2 比较不符合 3 不符合 4 一般 5 符合 6 比较符合 7 非常符合
⑪ 从出色工作中获得的表扬
    1 非常不符合 2 比较不符合 3 不符合 4 一般 5 符合 6 比较符合 7 非常符合
⑫ 从团队合作中获得成就感
    1 非常不符合 2 比较不符合 3 不符合 4 一般 5 符合 6 比较符合 7 非常符合
⑬ 未来愿意和这个团队开展新合作
    1 非常不符合 2 比较不符合 3 不符合 4 一般 5 符合 6 比较符合 7 非常符合
⑭ 在这里工作很愉悦
    1 非常不符合 2 比较不符合 3 不符合 4 一般 5 符合 6 比较符合 7 非常符合
Appendix 4: Team Task in Japanese

チームでオリザ畳のケースをもとに、自分は豊中畳会社の社員であると仮定し、豊中畳会社に対して、以下の質問と参考にして、提案を考えてください。

設問1：オリザは、＜誰の＞＜どのような＞ニーズを捉えようとしていますか？
設問2：オリザがもっと売れるようになるためには＜何が＞＜どうなる＞ことが必要でしょうか？

制限時間は30分です。30分後、チームで提案を提出してください。各大学の優勝チームには5000円相当のプレゼントが贈られます。

評価基準：
① 質と量
②「クリエイティブ」、「有用性」と「実現可能性」

畳の未来は？—豊中畳会社の事業創造ケース

オリザ畳 （登場人物：豊中太郎—豊中畳会社社長）
日本の文化は、中国大陸からの伝承をもとにしたものが多いが、畳（たたみ）は日本独特の生活品であり、湿度が高く、天候の変化が激しい日本の風土で「敷物」として育てられ、伝承されている。

変わゆく生話スタイルと畳製造業としての苦惱
人口の増加が止まり、新設着工数は年々減少を続けている。また、国民生活の西洋化が進み一戸建て住宅からマンションなどの集合住宅に住まう核家族が増加する中で、和室そのものの数とともに畳の需要も減り続けていた。こうした需要の減少とともに、安価な中国産のいぐさの輸入が盛んになり、国内農家は手間のかかる割に単価の安いいぐさから、他の作物に変更する農家が後を経たなかった。
畳産業の衰退は顕著な課題となっていた。「畳って、つくればつくるほど赤字なんですね。」と豊中畳会社の社長、豊中太郎が話した。

豊中畳会社の和モダンな畳：オリザ畳
知れば知るほど困難な畳の事業について、何か良いアイデアはないだろうかと考え、豊中畳会社は和モダンな畳「オリザ」を作り出した。「開発のきっかけは、私のアレルギーなんですね。」と豊中さん。豊中さんは、家業の畳工場の手伝いをしているとひどいアレルギーにかかってしまった。原因は、畳に使われている防虫剤だった。豊中さんは、現在の畳離れの原因も、そこにあるのではないかと考え、防虫剤の必要ない畳の開発に力を入れ始めた。

オリザ畳の特徴：
1. デザイン
伝統的な畳も素敵だが、今風のモダンな空間に合わせないと畳離れは進んでいる。オリザは「和室に畳」の時代から「洋室に畳をデザインする」世界を追求している。オリザは、形や色を自由にカスタマイズして組み合わせることができるようになっており、何色もの色を組み合わせることも可能で、畳というよりも、ラグや絨毯のような感覚している。
ラグ感覚で楽しむデザイン畳：オリザは縁がないので、より鮮明に畳の形や色が印象に残る。リビングにソファと組み合わせてラグのように使うことも出来る。
和モダンはもちろん、北欧風インテリアやオーソドックスなインテリアにも、違和感なく溶け込む。ビビットなカラーでポップな雰囲気を表現できる。

2. アレルギー対応
天然素材が湿度を含んだときに起こるカビやダニの問題や、それを防ぐために用いられる防虫剤（農薬）に揮発性有機化合物が含まれないようオリザはアレルギー専門医と研究を重ね、より健康的な新しい素材の畳として誕生した。

3. メンテナンス
耐久性のほか、耐水性、非褪色性に優れた「オリザ」はメンテナンスフリーの新しい床材と言える。日差しの下で光り輝く、汚れが気になる場合には、水拭きでの手入れも可能である。

4. 用途
オリザは他の時代の多様な生活環境やライフスタイルによって変化する様々なシーンに合わせて、より最適な床材や敷物として素材を厳選し、素足で過ごせる安心感と心地よい開放感をお楽しみの用途で選べる。安全性やメンテナンス性、滑りにくさなどの点から保育施設や高齢者施設への納入もできる。

5. 経済性
人々が安易な使い捨てをやめ、ものを大切に使っていくエコの時代。商品の耐久性が大きなキーワードと考える。その点オリザは丈夫な素材と製法を用い長い寿命力を達成した商品で、天然畳の5倍の耐久性を有している。そのため、通常の畳に比べ割高いが、長い目でみればお得な商品である。

6. リフォーム
和室の畳を「オリザ」に交換するだけで、全く新しい和の空間に生まれ変わる。洋室では畳屋の一部に敷いたり、フローリングの代わりにデザインしたオリザを敷き詰めることで、部屋の雰囲気がガラっと変わり、手軽に癒し空間を演出できる。

7. 環境循環型
オリザは再生資源化可能なポリプロピレン材、木質材やパルプ材などを原材料としている。使い捨ての商品ではなく、再利用できるように製法を工夫しており、リフォーム・リサイクルを推奨している。

8. ユニバーサルデザイン
オリザはすべての人々が使える商品を目指し安全性・快適性・利便性を追求している。夏は涼しく冬は暖かく気候風土に調和することで生活のあらゆるシーンで利用できるよう工夫がなされている。

みなさん、いかがでしたか。ダニやカビ、防虫剤の心配もなく、メンテナンスもしやすい新しい畳の形 「デザイン畳」。これからのインテリアのアイテムとして、活躍しそうな予感はしたが、残念ながら予想を下回る販売実績という結果になってしまった。
Appendix 5: Team Task in Chinese

小组以“オリザ榻榻米”的案例为基础，假设自己是豊中畳公司的员工，针对豊中畳公司，请以以下问题为参考，考虑方案。

问题 1：オリザ想要掌握“谁的”“怎样的”需求？
问题 2：オリザ要想卖的更好，“什么”是必须的，或者应该“怎样做”？

时间限制 30 分钟。30 分钟后，以小组为单位提出方案。各大学的优胜小组将会得到价值 5000 日元的奖品。

评价标准：
③ 质和量
④ 有独创性、有价值、有可行性

榻榻米的未来是？豊中畳公司的事业创造案例

オリザ畳（出场人物：豊中太郎－豊中畳公司总经理）
日本文化大多是中国大陆文化的传承，但榻榻米却是日本独有的生活品，湿度高，在气候变化剧烈的日本作为一种坐席被发展传承下来。

逐渐变化的生活方式和榻榻米制造业的苦衷
人口增加停止，新设开工数年年减少。另外，随着国民生活的西式化，从独栋住宅搬到公寓等集合住宅去住的小型家庭也越来越多，日式房间减少的同时榻榻米的需求也越来越少。伴随着需求的减少，便宜的中国产灯心草的输入就变得越来越兴盛，日本国内的很多农户都将既费时又便宜的灯心草换成了其他的作物。

榻榻米产业的衰退已经成了很显著的课题。“榻榻米是越做越财政赤字。”豊中畳公司的总经理豊中太郎这样说道。

豊中畳公司的和式现代化榻榻米：オリザ榻榻米
对于越了解越觉得困难的榻榻米事业，豊中畳公司就考虑难道没有其他好的想法吗？怀揣着这个问题做出了和式现代化榻榻米：オリザ榻榻米。“开发的契机是我的过敏。”豊中先生说。豊中先生在去自家的榻榻米工厂帮忙时出现了严重的过敏现象。过敏源是榻榻米上用的防虫剂。然后豊中先生就想现在大家都不喜欢用榻榻米是不是跟这个有关系呢，从那以后就开始致力于不用防虫剂的榻榻米开发。

オリザ榻榻米的特征：

1、设计
虽然传统的榻榻米很漂亮，但是一旦跟现在流行的摩登空间不搭调的话，大家也会越来越远离榻榻米。オリザ追求的不再是“日式房间中的榻榻米”而是“西式房间中的榻榻米设计”。オリザ可以自由地个性化定制形状和颜色并将其进行组合，也可以对多种颜色进行组合，与其说是榻榻米更像是小毯子和地毯那样的感觉。

可以享受到绒毯感觉的榻榻米设计：オリザ没有边缘，它的形状和颜色可以给人留下更加鲜明的印象。可以放在起居室与沙发进行组合当作地毯使用。日式现代化风格就不用说了，像北欧风格以及一些正统的室内装饰也可以毫无违和感。用鲜艳的颜色也可以表现出很时髦的空间感。
2. 应对过敏
天然素材在湿度比较高的时候会起霉菌和虫螨，要解决这个问题会用到防虫剂，为了使防虫剂中不含有挥发性的有机化合物，オリザ与过敏防治专家进行了反复研究，因此就诞生了更健康的新型素材榻榻米。

3. 保养
“オリザ”的耐久性、防水性强，不褪色，可以说是一种不需要保养的新型地板材料。平常可以用扫帚和除尘器清扫垃圾和灰尘，脏了的地方也可以用湿布打理。

4. 用途
オリザ为了迎合因为这个时代缤纷的生活环境和生活方式而变化着的各样的场景，严格挑选出了最合适的地板材料和席垫素材，提供给大家赤脚的安全感和心情舒畅的开放感，供人们随心所欲地选择。从安全性和易保养性、不易滑倒等多方面进行考虑的话，也可以引入到保育和高龄者设施中去。

5. 经济性
不再简单地用完扔掉，而是精心长久使用下去的绿色环保时代。商品的耐久性成了最大的关键点。在这一点上オリザ就是使用了结实的素材和制作方法使得商品拥有长久的生命力，它拥有天然榻榻米5倍的耐久力。因此，オリザ跟普通榻榻米相比会比较贵，但是从长远角度来看是比较划算的商品。

6. 翻新
只需把日式房间的榻榻米换成“オリザ”，就会衍生出全新的和式空间。在西式房间中铺一小部分オリザ或者全部铺满设计好的オリザ以取代复合地板，房间肯定会氛围突变，轻松演绎治愈系空间。

7. 环境友好型
オリザ的原材料是可再生的聚丙烯材料、木质材料和纸浆。并不是一次性的商品，而是采用了可再利用的制作方法，提倡翻新和循环利用。

8. 通用设计
オリザ以所有人都能使用为目标，追求安全性・舒适性・便利性。力求做到冬暖夏凉，能与风土气候相协调，并且生活中的各个场面都可以使用。

大家感觉怎样？不用担心霉菌、虫螨和防虫剂，又易于保养的新型榻榻米“オリザ榻榻米”。作为今后室内设计的一项感觉会很受大家欢迎。但遗憾的是实际的销售业绩并没有预想的那么好。假设自己是豊中畳公司的员工，针对豊中畳公司，请以小组为单位提出切实可行的方案。