

Original Paper

Effects of Pairing on the Relationships between Motivation and Task Performance in an Interactive Task

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Abstract

This study investigates how learners' own motivational variables are related to task performance and how learners' task performance is influenced by their partners' motivational variables in an interactive task. A total of 28 Japanese first year university students engaged in a computer mediated, decision making task, and the number of words produced and turns taken during the task was counted as their task performance. Questionnaires were administered to measure eight motivational dispositions related to the task. Correlation analyses were used to examine the relationships between task motivation and performance. The results showed that (a) learners' task motivation was positively correlated with task performance, suggesting a positive role of task motivation in performing a task and (b) learners' task performance was negatively correlated with the interlocutors' task motivation, except for the highly motivated pairs, which implied limited effects of pair work. This study finally provides some pedagogical and future implications.

Keywords

motivation, interactive task, pairing effect, individual difference

1. Introduction

Motivation has long been believed to be an important individual difference (ID) factor that leads to successful second and foreign language (L2) learning. For example, previous studies revealed that motivation shows robust correlations with general measures of L2 achievement (e.g., Masgoret & Gardner, 2003; Tremblay & Gardner, 1995). However, these studies shed light mainly on the relationship between general motivational and attitudinal dispositions (i.e., integrative orientation and

attitudes toward learning L2) and global learning outcomes (i.e., grades), rather than focus on a motivational influence on actual L2 learning processes in a certain situation. Kormos and Dörnyei (2004) indicated that this tendency generated a sense that “theories of motivation and related affective determinants of L2 behaviour remain isolated from mainstream applied linguistic research, interacting only tangentially with the key issues preoccupying the field” (p. 1). Even after Crookes and Schmidt (1991) called for the need to take into consideration the influence of motivation on actual L2 learning processes and behavior in a specific situation, many studies did not deal with this issue, except for some studies on learning strategies (Matsumoto, Hiromori, & Nakayama, 2013; Oxford & Ehrman, 1995) and pragmatic awareness (e.g., Tagashira, Yamato, & Isoda, 2011; Takahashi, 2005). This suggests that there is still a need to investigate how L2 learner motivation is related to L2 learning processes and behavior from a more micro-perspective.

2. Previous Studies

2.1 Task and Motivation

Ever since communicative language teaching flourished in language classrooms around the world, language learning tasks have gained much attention from language teachers and second language acquisition (SLA) researchers. According to Ellis (2003), a task (a) is a workplan, (b) involves a primary focus on meaning, (c) involves real-world processes of language use, (d) can involve any of the four language skills, (e) engages cognitive processes, and (f) has a clearly defined communicative outcome (pp. 9-10). Within task-based language teaching and learning, a focus is placed primarily on achieving the task goal (e.g., bridging an information gap and giving a direction correctly) communicatively with learners’ spontaneous attention to language form. In a very strict term, although learners are expected to use a target grammatical item, they do not receive an explicit grammatical instruction and a chance to practice to use it. Meaningful interaction between learners is also a key factor for task achievement. A task usually refers to a speaking task and the task goal is attained orally (Ortega, 1999). For this reason, in many educational contexts including Japan, where being able to communicate in the target language is a primary educational goal, task-based language teaching (TBLT) is now one of the most popular language teaching methods and approaches.

From the view of researchers, a task is a unit of analysis that represents the discrete segments of language learning processes with well-defined boundaries (Dörnyei & Kormos, 2000). In other words, by conducting task-based research, researchers will be able to observe a part of processes of how learners develop their interlanguage through task achievement (e.g., Crookes, 2008; Ellis, 1987; Foster & Skehan, 1996; Robinson, 2001). It is assumed that, during the task, the development of the interlanguage system occurs through various kinds of language learning behavior and processes. For example, L2 learners interact with the interlocutor during a task, and thus are expected to focus on form and pay attention to the interlocutor’s utterances while exchanging messages. At the same time, they need to perform the task with cognitive efforts, such as the use of strategies (Nakatani, 2010; Ortega,

1999). Each of these processes is believed to lead successful language acquisition. In addition, a task can be achieved without using target grammatical items that learners are expected to use. For this reason, which grammar and vocabulary to use to complete the task is largely left to learners. Considering these L2 learning and goal achievement processes, a task is a learner-centered activity where learners are expected to be responsible for their own learning processes.

Because a task is a learner-centered activity, learners' active engagement is a precondition for obtaining successful task outcomes. However, some tasks can be completed in a very short time with the minimum amount of effort: some learners attempt to avoid negotiation and interaction with their interlocutors, and sometimes they are reluctant to use certain words and phrases that are challenging for them to use. It is the case that the task can sometimes be completed without learners' active engagement and effort, so it will end up with premature, unmotivated results. Therefore, it is clear that learner motivation, which determines the direction and magnitude of learners' behavior, is a key factor within the task-based framework.

2.2 Task Motivation in the Previous Literature

For decades, a considerable number of L2 motivation studies have dealt with various types of motivational factors in their research that determine L2 learning achievement and behavior (e.g., Gardner, Masgoret, Tennant, & Mihic, 2004; Schmidt & Watanabe, 2001). Because L2 learning and acquisition take place in many different situations, it is not surprising that some motivational factors are more relevant in a certain situation than others. Tremblay, Goldberg, and Gardner (1995) demonstrated that state motivation, or situation-specific motivation, is more likely to be related to behavior and performance during a task than trait motivation. State motivation refers to a motivational state that fluctuates from situation to situation over time, while trait motivation, or general motivational disposition, is consistently stable and unlikely to change over time (e.g., integrative motivation and ideal L2 self), and is related to global measures, such as L2 proficiency or achievement. Gardner and Tremblay (1998) also found that trait motivation is an antecedent of state motivation, and state motivation is a direct predictor of task performance.

Julkunen (2001) adopted this trait / state dichotomy and proposed the structure of task motivation of EFL learners, assuming that various ID variables, such as learners' perceptions of task demands and competence, trait motivation, and state motivation, interact with each other to generate their motivational tendency to do the task. Dörnyei and Kormos (2000) also investigated how situation-specific motivation (task attitudes) and trait motivation (e.g., self-confidence and the need for achievement) are related to task performance (i.e., the number of spoken words and turn-taking). In their research, they used an interactive task, where learners made a pair and discussed with the interlocutor to select three items from the list through negotiation processes (i.e., oral argumentative task). They demonstrated that task attitudes (i.e., whether learners like the task) and English course attitudes (i.e., whether learners like English classes) were significantly correlated with both measures of task performance. Moreover, they found that the magnitude of task attitudes produced two different

correlational patterns. When learners' task attitudes were high, other motivational factors, such as need for achievement and self-confidence, showed significant correlations with the number of words. On the other hand, when learners' task attitudes were low, only course attitudes showed the significant correlation with the number of words.

Dörnyei (2002) followed up Dörnyei and Kormos (2000) and focused on motivational influence on interaction between the speaker and the interlocutor. Drawing on the same research condition as Dörnyei and Kormos, he investigated the relationship between the speaker's task performance and the interlocutor's motivational disposition. While task performance consistently related to course attitudes and task attitudes as a whole, he discovered that these relationships were significant and stronger for learners with high task attitudes than those with low task attitudes. Dörnyei also demonstrated that the speaker's task performance was influenced by the interlocutor's task attitudes, course attitudes, and incentive value of the task (i.e., extrinsic motivation or instrumental orientation). Finally, he compared correlation coefficients among the variables after aggregating the speaker's and the interlocutor's data in each dyad with those calculated using individual participants' data. He then showed that the former correlations were much higher than the latter, especially in terms of the relationship between task attitudes and task performance. Based on these findings, he concluded that task motivation is co-constructed.

With attention paid to a communicative decision-making task, Konno and Koga (2017) explored the relationships between Japanese learners' on-task behavior and their partners' and their own motivational variables, by counting tokens and turn-takings as performance measures and evaluating task specific motivational dispositions and trait intrinsic motivation. They discovered that highly motivated learners completed the task more successfully through communication with their partners than less motivated ones. One of their interesting results was that for effective task-based learning to take place, highly motivated learners needed to be paired with those with similar characteristics as the research found that motivated learners, when paired with unmotivated partners, did not demonstrate better task performance.

The above task motivation studies imply that certain motivational factors, whether trait or state, would be relevant and prominent in each actional stage of a task or at a certain moment during a task. However, these studies share in common the view that more than one motivational factor interactively influence task performance. In other words, much research is still needed to examine the relationships between task performance and various motivational dispositions, together with strong emphasis on the pairing effects.

2.3 Context of This Study

As mentioned earlier, task motivation has not been the central focus of L2 motivation studies, although the framework of TBLT has gained much attention from various SLA researchers. This indicates that more empirical evidences on interaction between learner motivation and task are necessary. In the Japanese EFL context, the speaker's task performance might be affected by the partner's motivational disposition in a different way from the results proposed by Dörnyei (2002), possibly due to the cultural

differences. Moreover, L2 learners' interaction during the task has rarely been analyzed from the view of motivation or other ID factors. With these in mind, we scrutinized the following two research questions for this study.

RQ1: How are Japanese EFL learners' own motivational dispositions related to their task performance?

RQ2: How is these learners' task performance affected by their interlocutors' motivational dispositions?

3. Method

3.1 Participants

A total of 28 first-year university students in Japan majoring in informatics (male: $n = 27$ and female: $n = 1$) participated in this study. This local, private university was specialized in science and technology, and about 95% of the total number of students were male. Although the situation is changing, this is said to be a typical tendency that can be seen in departments of science and technology in Japan. These students were allocated one of three different compulsory English classes (i.e., advanced, intermediate, and elementary) based on the placement test results. Since these participants were placed in the elementary class, their English proficiency was considered to be the beginning level.

3.2 Class Description

Ninety-minute long required English classes were conducted by one of the authors in a semester, and four basic skills (i.e., speaking, listening, writing and reading) and basic grammar and vocabulary were taught with the aid of a presentation-practice-production (PPP) approach. After reviewing grammatical items during the class, the students were usually provided with opportunities to use them in English activities, although many of these activities were guided by the teacher due to students' limited English proficiency. Therefore, students had output chances to interact with their classmates in English.

3.3 Task

In line with Dörnyei (2002) and Dörnyei and Kormos (2000), we designed an interactive decision-making task for this study. In this task, students were randomly assigned to a total of 14 pairs, and each pair was required to come to an agreement over what to take to a desert island through meaningful negotiation and decision-making processes. First, for the first 15 minutes, each of students in a pair was required to come up with five items that he / she thinks are necessary to survive on the desert island. Then, these students were given 20 minutes to discuss in English with their partner in order to negotiate and choose the three most appropriate items out of a total of 10 items so that they would be alive on the desert. During the task, each student sat next to his / her partner.

These students interacted with their pair not orally but through an online chatroom conversation using their own computers. The author provided chat rooms on the class's e-learning course (i.e., Moodle), and assigned them to each pair randomly. Generally speaking, this type of task is performed orally in a dyad, so they are expected to interact with their partners by speaking English during the task. However, in this study, an online chat was used to observe these learners' interaction for the following reasons (Konno & Koga, 2017). First, texting and online chatting are popular modes of communication today,

so that communicating in a chat room reflects the current real world situation, which is an essential aspect of task. Second, because the mode of communication is not anymore limited to oral communication, it is necessary for students to acquire different types of skill to communicate effectively, such as responding immediately when texting or chatting. Since tasks can take various forms (Ellis, 2003), we tried to extend previous studies' findings to a different skill area, rather than completely replicating previous studies. After choosing the five items to take to a desert island, students entered the chatrooms using their real names and started the conversation. Conversation logs of each pair were recorded automatically on the e-learning course.

3.4 Measures

The participants' motivational disposition was measured through five-point Likert scale questionnaires which included a total of eight scales. Among them, the following six subscales with three items each were developed based on Deci and Ryan's (2004) intrinsic motivation inventory (IMI) that is a set of reliable subscales for assessing subjective experiences of intrinsic motivation toward a target task in an immediate situation: interest ($\alpha = .87$); value ($\alpha = .76$); effort ($\alpha = .68$); competence ($\alpha = .81$); relatedness ($\alpha = .90$); anxiety ($\alpha = .90$). According to Deci and Ryan, the interest subscale measures intrinsic motivation, while the value subscale assesses a self-determined type of extrinsic motivation. Other variables are factors closely related to the concept of intrinsic motivation.

In order to compare results of this study with those of Dörnyei (2002), we also assessed students' task attitudes (2 items; $\alpha = .57$) and course attitudes (3 items; $\alpha = .44$), both of which played distinctive roles in his study. Cronbach's alphas for these subscales were not satisfactory, suggesting that each item of each subscale (e.g., Task attitudes: "I found that this activity is useful." and "I liked this activity.") had different meanings (viz. "useful" is different from "liked") to students in this study. However, as Dörnyei (2002) demonstrated, these two variables, especially task attitudes, influence the relationship between motivational dispositions and language variables. For this reason, we decided to incorporate these variables into our study, although care needed to be taken to interpret the result.

In terms of task performance measures, the following two were adopted: the total number of words (i.e., token) each student produced and the total number of turns each student took during the task. The number of words includes every single English word that students typed during interaction. Some students produced Japanese words using alphabets, such as *Nabe* (a pan in English) and *Makura* (a pillow in English), especially when their partners were not able to understand English words. Because these words are not English words, they were not counted. As for the number of turns, even one-word responses to their interlocutors, such as "Yes." and "Really?", were counted as one turn that students generated. The length of the utterance was not considered for this variable. Although both of these measures represent the quantity of learner engagement, the number of turns was an important variable in this study. Any interactive tasks can be achieved by using only a few words and turns and/or end up with an effortless solution due to lack of arguments, negotiations and persuasion. The number of words describes the quantity of students' speech, reflecting to what extent they are motivated to complete the

task. However, an interactive task is not successfully achieved if only one person provides a lengthy monologue. The number of turns reflects the quality of a joint interaction (Dörnyei, 2002), and demonstrates the quantity of learner contribution to task achievement and completion through interaction between students. Thus, it was necessary to measure the number of turn-taking and words produced by students.

3.5 Procedure

This study took place during students' regular English class in the following ways. First, the teacher gave an instruction on the task, explaining the situation of the task and what to do to achieve the task goal. Then, students were assigned to pairs by the teacher, and responded to the pre self-report questionnaire (not analyzed in this study) prepared on the e-learning course. After the questionnaire, students were given about 15 minutes and prepared five items that they wanted to choose to take to the desert island. At this phase, they were encouraged to consider reasons why they chose each of these five items. Finally, students entered the chat room and engaged in the task for about 20 minutes. After the task, they responded to the post self-report questionnaire (analyzed in this study). This task was a part of class activities, although students' effort toward this task and responses to the questionnaires were not graded. The consensus was made that the data the teacher collected could be used for research-only purposes.

In terms of the analytical procedure, we performed cluster analysis and computed correlation coefficients between variables. Cluster analysis was performed in order to classify students into groups according to patterns of motivation during the task, and the following two clusters appeared: students with high motivation (HIGHS) and students with low motivation (LOWs). After this analysis, the following three distinct pairs of subsamples were obtained: pairs of LOWs (L-L: 4 pairs; $n = 8$); pairs of HIGHS and LOWs (H-L: 4 pairs; $n = 8$), and pairs of HIGHS (H-H: 6 pairs; $n = 12$). Table 1 shows the mean scores of task performance and motivational components in each pair. Then, correlation coefficients were computed in the three subsamples separately, with the hypothesis that these subsamples would show different patterns of correlations (Dörnyei, 2002). Whether the correlation is statistically significant varies according to the sample size. When there are eight participants (i.e., L-L, H-L), the correlation coefficient of .72 or above is statistically significant at the 5% level, and when there are 12 participants (i.e., H-H), the correlation coefficients of .58 or above is statistically significant at the 5% level.

Table 1. Profiles of Each Cluster

	TKN	TRN	ANX	CAT	EFF	INT	CMP	REL	TAT	VAL
L-L	23.75	6.75	3.50	3.29	3.33	3.13	2.54	2.96	3.31	3.08
H-L	26.00	9.00	3.29	3.79	3.79	3.96	3.00	4.00	4.00	3.92
H-H	44.83	14.42	2.69	3.89	4.08	4.28	3.94	4.19	4.42	4.25

Note. TKN = token; TRN = turns; ANX = anxiety; CAT = course attitude; EFF = effort; INT = interest; CMP = competence; REL = relatedness; TAT = task attitude; VAL = value.

4. Results and Discussion

4.1 Relationships between Motivational Variables and Performance of Individual Learners

The first examined data was a pair of learners who possessed a lower level of motivation (L-L). These learners showed a positive relationship only between turns and value (see Table 2). Since these learners were less motivated, it was difficult for them to find the task interesting, to make efforts, or to feel competent. Nonetheless, they sensed the value of English, and it correlated positively with performance.

Table 2. Correlations among Each Variable of Individuals in L-L Pairs

	1	2	3	4	5	6	7	8	9	10
1. Token	-	.92**	-.35	.60	-.03	-.47*	-.38**	-.55	-.65**	-.70**
2. Turns		-	-.61	.55	-.13	-.70*	-.56**	-.46	-.64**	-.78**
3. Anxiety			-	.09	-.04	-.77*	-.89**	-.33	-.45**	-.60**
4. Course				-	-.23	-.36*	-.04**	-.38	-.58**	-.42**
5. Effort					-	-.20*	-.09**	-.12	-.00**	-.45**
6. Interest						-	-.81**	-.26	-.52**	-.88**
7. Competence							-	-.38	-.47**	-.63**
8. Relatedness								-	-.92**	-.31**
9. Task									-	-.58**
10. Value										-

Note. $n = 8$. Course = course attitude; Task = task attitude.

* $p < .05$; ** $p < .01$

The next is a pair of learners with high motivation and with low motivation (H-L). Table 3 illustrates correlations among each variable. As can be seen, token is more strongly correlated with motivational components, compared with turns, implying that learners with high motivation produced many words to complete the task whereas those with low motivation hesitated to produce words. In other words, the former learners seemed to dominate and control the task. One more suggestion is that the latter learners responded to the former by making a-few-word turns such as “Yes” and “Really?”, which in turn caused weak correlation coefficients between turns and motivational components. Regardless of their levels of motivation, both learners generated a comparatively large number of turns. We as educators frequently and ideally hope that highly motivated learners can encourage unmotivated learners to positively participate in learning through pair or cooperative work, but this result may raise an alert

over this optimistic hope since unmotivated learners probably quailed during the task when paired with motivated learners.

The last is a pair of learners with high motivation (H-H). Interestingly enough, they did not show strong correlations between task performance and motivational dispositions (see Table 4), but they showed the highest levels of motivational variables and task performance in this study. This is also supported by the correlations between token / turns and effort; even if they are given tasks that may not be considered so interesting and valuable, they make lots of efforts to complete them. It is also inferred from the positive correlation between turns and interest that these learners prefer spontaneous real-world interactive tasks. The more they are intrinsically motivated, the more immediate and spontaneous turns they generate as if they were orally communicating. From a perspective of practical teaching contexts, this pairing is certainly ideal.

Table 3. Correlations among Each Variable of Individuals in H-L Pairs

	1	2	3	4	5	6	7	8	9	10
1. Token	-	.53	-.83*	-.86**	-.54**	-.72**	-.76*	-.23*	-.84**	-.49**
2. Turns		-	-.49*	-.43*	-.40**	-.21**	-.50*	-.78*	-.62**	-.55**
3. Anxiety			-	-.73**	-.55**	-.89**	-.96**	-.41*	-.84**	-.68**
4. Course				-	-.86**	-.77**	-.72*	-.15*	-.91**	-.70**
5. Effort					-	-.60**	-.65*	-.36*	-.79**	-.78**
6. Interest						-	-.81*	-.16*	-.84**	-.72**
7. Competence							-	-.47*	-.81**	-.72**
8. Relatedness								-	-.43**	-.54**
9. Task									-	-.88**
10. Value										-

Note. $n = 8$. Course = course attitude; Task = task attitude.

* $p < .05$; ** $p < .01$

Table 4. Correlations among Each Variable of Individuals in H-H Pairs

	1	2	3	4	5	6	7	8	9	10
1. Token	-	.68*	-.10	.16	-.70*	-.22*	-.21*	-.48	-.11**	-.30
2. Turns		-	-.07	.21	-.62*	-.67*	-.44*	-.28	-.56**	-.46
3. Anxiety			-	.41	-.24*	-.43*	-.17*	-.06	-.25**	-.22
4. Course				-	-.10*	-.10*	-.14*	-.48	-.09**	-.13
5. Effort					-	-.59*	-.48*	-.34	-.49**	-.34
6. Interest						-	-.61*	-.21	-.92**	-.35
7. Competence							-	-.27	-.74**	-.41

8. Relatedness	-	-.20**	-.53
9. Task		-	-.37
10. Value			-

Note. $n = 12$. Course = course attitude; Task = task attitude.

* $p < .05$; ** $p < .01$

As the results demonstrated, the answer to RQ1 can be that individual students' task motivation is positively related to their own task involvement. This implies that regardless of the level of their pair's motivation, students' own motivation plays an important role in achieving the task.

4.2 Effects of an Interlocutor's Motivational Components on Task Performance

This section attempts to discuss how a learner's task performance was influenced by the pair's motivational components. To investigate this unique aspect of pair work, we first replaced a learner's motivational variables with the pair's ones, and then examined correlations between the learner's task performance and the replaced pair's motivational variables. The correlation table shown in Table 5 is the pair of L-L, and the observed correlation coefficients are largely negative. The negative correlations informed that if a pair's motivational components were high, the partner tended to lose his / her intention to contribute to the task. Low motivation did not have a dampening effect on the pair's task performance, but rather perceiving the pair's motivation as positive worked against task performance.

Table 5. Correlations between Speaker's Performance and Partner's Motivation (L-L dyad)

	Anxiety	Course	Effort	Interest	Competence	Relatedness	Task	Value
Token	.56*	.17	-.68	-.47*	-.41**	-.09	-.17**	-.61**
Turns	.77*	.07	-.56	-.76*	-.66**	-.03	-.25**	-.78**

Note. $n = 8$. Course = course attitude; Task = task attitude.

* $p < .05$; ** $p < .01$

Similar to L-L pair, H-L pair demonstrated significantly negative correlations between task performance and motivational components (see Table 6). As discussed earlier, here again the negative effect of pairing became prominent. Motivated learners, regardless of the partner's motivational level, endeavored to succeed in the given task by producing large numbers of words and turns. On the other hand, unmotivated learners, probably not being affected positively by the partner's high motivation, but rather relying simply on the partner's performance, were not willing to be engaged actively in the task. H-L pairing did not result in the development of task performance of unmotivated learners.

Table 6. Correlations between Speaker's Performance and Partner's Motivation (H-L dyad)

	Anxiety	Course	Effort	Interest	Competence	Relatedness	Task	Value
Token	.82*	-.88**	-.76*	-.78*	-.83*	-.38	-.95**	-.87**
Turns	.46*	-.72**	-.35*	-.67*	-.34*	-.48	-.56**	-.28**

Note. $n = 8$. Course = course attitude; Task = task attitude.

* $p < .05$; ** $p < .01$

Finally, in H-H pair we did not observe significant correlations, except for the correlation between interest and turns (see Table 7). One point to mention in this pair is that we found positive correlations, although not significant and high, among task performance, intrinsic motivation, and task attitude. If both learners are well motivated, they accept the partner's interest in participating in the task and attempt to perform it successfully. In spite of the absence of strong correlations in H-H pair, we can safely say that this pairing was the most effective because of a large number of token and turns produced and a high level of motivational components activated in this particular task.

According to these results reported above, the answer to RQ2 can be that the students' task involvement is affected by their interlocutors' task motivation in different ways, depending on the level of interlocutors' motivation. When low motivated students are paired with either unmotivated or motivated interlocutors, their motivational dispositions would have negative influences. This was not the case with highly motivated students being paired with highly motivated interlocutors.

Table 7. Correlations between Speaker's Performance and Partner's Motivation (H-H dyad)

	Anxiety	Course	Effort	Interest	Competence	Relatedness	Task	Value
Token	-.10	.27	-.15	*.48*	*.17*	-.08	*.46**	*.10
Turns	-.25	.18	*.47	*.70*	*.45*	*.19	*.59**	*.20

Note. $n = 12$. Course = course attitude; Task = task attitude.

* $p < .05$; ** $p < .01$

4.3 General Discussion

Dörnyei (2002) suggested that task motivation is co-constructed with task participants, but his suggestion may be true only when learners with high motivation (i.e., H-H pair) are paired together; only this pair showed positive correlations between task performance and motivational variables in both correlational analyses. The participants in this study are limited especially in terms of their English proficiency, which was considered to be relatively low, but it is still difficult to claim that the L-L and H-L pairs co-constructed task motivation because they did not affect each other positively and saliently. This finding is similar to that of Konno and Koga (2017) in which communicative work played an important part in task-based learning only when learners with high motivation were paired

together. Most importantly, we as educators teaching English in this Japanese EFL context tend to optimistically expect the synergetic effect when highly motivated learners are paired with unmotivated learners who can be influenced to be actively engaged in pair or cooperative tasks in restricted classroom situations, but we need a wake-up call as for this expectation. We cannot simply count on pair work in which learners are expected to co-construct motivation and task performance. The positive correlations found in this study between an individual learner's motivational variables and task performance, however, may rescue us from being so pessimistic about pair work. Even though some of the correlations are not significant, they are all consistently positive. This tendency implies that if pairs can stimulate each other in a positive and cooperative way, we can highly expect the development of task performance.

In terms of the L-L and H-L pairs, however, learners' own motivational components were more important in carrying out the given task due to the positive correlations witnessed in the correlation analyses. The limitation of the analyses does not clearly tell us about the effect of pair work on motivation and task performance; therefore, we have to focus on either task difficulty (i.e., to what extent individual learners find a task easy or difficult) or task complexity (i.e., to what extent a task itself is easy or difficult; Robinson, 2001), rather than task administration (i.e., pair or group work).

In line with Dörnyei (2002), Dörnyei and Kormos (2000) and Konno and Koga (2017), the result of this study demonstrated that motivational variables were associated with task performance measures in different ways depending on situations; each group of the pairs showed different relationships between motivation and task performance, indicating that pairing has considerable effects on learners' motivation and task performance. The result of this study indicated that doing interactive tasks does not always play a positive part in fostering their motivation. Rather, partners' motivational tendencies may affect learners' motivation negatively, leading to less motivated task outcomes, depending on how they are paired.

5. Conclusion

This study attempted to reveal a unique aspect of tasks in motivation research. We observed a relatively large number of positive correlations between learners' motivational variables and task performance, which implies that task motivation played an important role in performing the interactive task. However, we provided interesting results in terms of pairing. On the one hand, the interactive task functioned well when motivated learners were paired together, but on the other hand, it did not work well if we took into account L-L and H-L pairs. It is no doubt that the interactive task has a large potential to enhance learners' L2 acquisition in classroom, but we should carefully consider the psychological processes underlying students' performance.

As for the pedagogical implications, we suggest that since task motivation is co-constructed in a limited setting (i.e., only H-H pair), we teachers should not expect the positive effects of interactive tasks too much, hoping that motivated learners help unmotivated learners carry out the tasks and lead to better

task performance. Besides, sound relations among learners are the prerequisite for interactive tasks in classroom contexts, and thus we are first required to devote ourselves to establishing a friendly classroom atmosphere; otherwise, we cannot expect the fundamental effects of interactive tasks.

We also suggest that teachers should select an interactive task carefully considering their students' motivational dispositions toward the task when they utilize it in the classroom. It is mentioned above that any tasks do not always work as teachers expect, especially for the L-L pair and H-L pair, because interlocutors' motivational dispositions affect the speakers' task performance in unexpected ways. Motivational variables used in this study, such as task attitudes and interest, measured whether learners liked the task or perceived the given task valuable. Thus, as the H-H pair showed, if learners evaluate the task positively (i.e., they like the task, or they perceive that the task is worth to do), their interlocutors' motivational dispositions do not play a negative role. In other words, if teachers select the appropriate task, to which learners shows favorable attitudes, they can complete an interactive task with their pair successfully.

Moreover, the pedagogical importance of interactive tasks is expected to increase if students have opportunities to learn how to scaffold with their partners in interactive tasks. Our results of the negative pairing effects suggest that highly motivated learners do not know how to support their interlocutors to complete the task successfully. As mentioned earlier, interactive tasks can be completed even if one of a pair does not show his / her best performance. However, it is highly questionable whether this can be considered successful task completion. An interactive task without effort is not worth administering in the classroom. Therefore, it is important for teachers to teach students ways to make interactive tasks or pair activities more effective for their learning to take place.

Although the results of this study contribute to understanding of the relationship between motivation and L2 learning processes, there were two limitations. First, the number of participants was considerably small because they were sampled from only one English class. With the more number of participants and greater variations in motivational tendencies in other situations, different results can be obtained. Second, we used only one type of interactive tasks. Different tasks have different characteristics in terms of task complexity, task difficulty, and task condition (Robinson, 2001). All of these perspectives of a task will influence learners' motivational disposition in different ways. Thus, further research should examine task motivation using other types of the task. Moreover, it should be noted that learners in this study interacted with their interlocutors through an online chat discourse. This task condition might have influenced their motivation and anxiety. Results may vary if learners engage in a different mode of communicative task (i.e., tasks that require spoken discourse to achieve outcomes), where learners need to engage in face-to-face communication with their partner. By compensating for these limitations, we strongly hope that future studies will make clear the effects of interactive tasks on learner task motivation and task performance so that we can select and use appropriate tasks with confidence in language classrooms.

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References

- Crookes, G. (2008). Planning and interlanguage variation. *Studies in Second Language Acquisition*, *11*, 367-383. <https://doi.org/10.1017/S0272263100008391>
- Crookes, G., & Schmidt, R. W. (1991). Motivation: Reopening the research agenda. *Language Learning*, *41*, 469-512. <https://doi.org/10.1111/j.1467-1770.1991.tb00690.x>
- Deci, E. L., & Ryan, R. M. (2004). *Self-determination theory: An approach to human motivation and personality*. Retrieved from <http://www.psych.rochester.edu/SDT/measures/word/IMIfull.doc>
- Dörnyei, Z. (2002). The motivational basis of language learning tasks. In P. Robinson (Ed.), *Individual differences and instructed language learning* (pp. 137-158). Amsterdam: John Benjamins.
- Dörnyei, Z., & Kormos, J. (2000). The role of individual and social variables in oral task performance. *Language Teaching Research*, *4*, 275-300. <https://doi.org/10.1177/136216880000400305>
- Ellis, R. (1987). Interlanguage variability in narrative discourse: Style shifting in the use of the past tense. *Studies in Second Language Acquisition*, *9*, 1-20. <https://doi.org/10.1017/S0272263100006483>
- Ellis, R. (2003). *Task-based language learning and teaching*. Oxford: Oxford University Press.
- Foster, P., & Skehan, P. (1996). The influence of planning and task type on second language performance. *Studies in Second Language Acquisition*, *18*, 299-323. <https://doi.org/10.1017/S0272263100015047>
- Gardner, R. C., & Tremblay, P. F. (1998). Specificity of affective variables and the trait/state conceptualization of motivation in second language acquisition. In R. K. Agnihotri, A. L. Khanna, & I. Sachdev (Eds.), *Social psychology perspectives on second language learning* (pp. 31-52). New Delhi, India: Sage Publication.
- Gardner, R. C., Masgoret, A.-M., Tennant, J., & Mihic, L. (2004). Integrative motivation: Changes during a year-long intermediate-level language course. *Language Learning*, *54*, 1-34. <https://doi.org/10.1111/j.1467-9922.2004.00247.x>
- Julkunen, K. (2001). Situation- and task-specific motivation in foreign language learning. In Z. Dörnyei, & R. Schmidt (Eds.), *Motivation and second language acquisition* (pp. 29-41). Honolulu, HI: University of Hawai'i Press.
- Konno, K., & Koga, T. (2017). Exploring the relationships between motivation and on-task behavior during interactive tasks. *Language Education & Technology*, *54*, 223-247.
- Kormos, J., & Dörnyei, Z. (2004). The interaction of linguistic and motivational variables in second language task performance. *Zeitschrift für Interkulturellen Fremdsprachenunterricht*, *9*, 19. Retrieved from <http://www.zif.spz.tu-darmstadt.de/jg-09-2/beitrag/kormos2.htm>

- Masgoret, a.-M., & Gardner, R. C. (2003). Attitudes, motivation, and second language learning: A meta-analysis of studies conducted by Gardner and associates. *Language Learning*, *53*, 123-163. <https://doi.org/10.1111/1467-9922.00212>
- Matsumoto, H., Hiromori, T., & Nakayama, A. (2013). Toward a tripartite model of L2 reading strategy use, motivations, and learner beliefs. *System*, *41*, 38-49. <https://doi.org/10.1016/j.system.2013.01.006>
- Nakatani, Y. (2010). Identifying strategies that facilitate EFL learners' oral communication: A classroom study using multiple data collection procedures. *Modern Language Journal*, *94*, 116-136. <https://doi.org/10.1111/j.1540-4781.2009.00987.x>
- Ortega, L. (1999). Planning and focus on form in L2 oral performance. *Studies in Second Language Acquisition*, *21*, 109-148. <https://doi.org/10.1017/S0272263199001047>
- Oxford, R. L., & Ehrman, M. E. (1995). Adults' language learning strategies in an intensive foreign language program in the United States. *System*, *23*, 359-386. [https://doi.org/10.1016/0346-251X\(95\)00023-D](https://doi.org/10.1016/0346-251X(95)00023-D)
- Robinson, P. (2001). Task complexity, task difficulty, and task production: Exploring interactions in a componential framework. *Applied linguistics*, *22*, 27-57. <https://doi.org/10.1093/applin/22.1.27>
- Schmidt, R., & Watanabe, Y. (2001). Motivation, strategy use, and pedagogical preferences in foreign language learning. In Z. Dörnyei, & R. Schmidt (Eds.), *Motivation and second language acquisition* (pp. 313-359). Honolulu, HI: University of Hawai'i Press.
- Tagashira, K., Yamato, K., & Isoda, T. (2011). Japanese EFL learners' pragmatic awareness through the looking glass of motivational profiles. *JALT Journal*, *33*, 5-26.
- Takahashi, S. (2005). Pragmalinguistic awareness: Is it related to motivation and proficiency? *Applied Linguistics*, *26*, 90-120. <https://doi.org/10.1093/applin/amh040>
- Tremblay, P. F., & Gardner, R. C. (1995). Expanding the motivation construct in language learning. *The Modern Language Journal*, *79*, 505-518. <https://doi.org/10.1111/j.1540-4781.1995.tb05451.x>
- Tremblay, P. F., Goldberg, M. P., & Gardner, R. C. (1995). Trait and state motivation and the acquisition of Hebrew vocabulary. *Canadian Journal of Behavioural Science*, *27*, 356-370. <https://doi.org/10.1037/0008-400X.27.3.356>