THE JOURNAL OF ASIA TEFL

Vol. 15, No. 2, Summer 2018, 516-529 http://dx.doi.org/10.18823/asiatef1.2018.15.2.20.516



The Journal of Asia TEFL

http://journal.asiatefl.org/

e-ISSN 2466-1511 © 2004 AsiaTEFL.org. All rights reserved.



Topics and Transitivity Choices in Iranian Learners' English Writings

Sara Yazdani

Ferdowsi University of Mashhad, Iran

Atiyeh Kamyabi Gol

Ferdowsi University of Mashhad, Iran

Introduction

Halliday (2004) considered three meta-functions for language: interpersonal, ideational, and textual. From the ideational perspective, language helps individuals build a bridge between their experience and their mental images of the world that surrounds them. The system that facilitates this process is called transitivity which includes three types of processes: (a) material, (b) mental, and (c) relational.

One of the most important means that contribute to transferring our experience into verbal expression is writing. Through writing, issues like cognition, social, and linguistic materials can combine with each other perfectly and might lead to a problem-solving theory.

As an international language, English deserves to receive its due attention in Iran's education curriculum. In Iran, students learn English as a foreign language through traditional exam- oriented methods by focusing on grammar, reading, and translation and the grammar translation method still persists in many classrooms in Iran (Ghorbani, 2009). This long-established approach not only is inadequate but also highlights the need for further study to achieve the desired results.

Purpose of the Research

Objectives of the study

In general, writing becomes more challenging when we write in another language, especially in Iran where English is taught as a foreign language. Therefore, this study, attempts to find the presumptive effect of topic on the learner's selection of material and mental verbs based on their cognition in writing. Having knowledge about this topic will pave the way for writers, help them explain, clarify, and support their hypothesis, and it can assist readers by easing the transformation of knowledge as well.

Research questions

This research tries to address the following questions:

1. What is the frequency of material verbs?

- 2. What is the frequency of mental verbs?
- 3. Is there any significant difference between groups A and B in using verbs of material and mental process in Iranian learners' English writing?
- 4. Does the topic affect Iranian learners' English writing in choosing verbs of material and mental process?

Literature Review

Related Research Outside of Iran

There is a large volume of published studies describing transitivity and its usage in different fields such as medical research articles, story books, and visual grammar. Only a few researchers have specifically conducted studies on types of processes.

Wanodyatama, Tuckyta Sari Sujatna, and Bayusena (2013) explored cognitive verbs in English clauses. In this research, they only paid attention to mental process in Danielle Steele's (2008) novel named *Heartbeat*. In this descriptive study, Wanodyatama et al. (2013) considered the clause as the unit of measurement and for each, they determined the sensor and phenomenon. The findings of the study revealed that verbs that represented mental process focused on perception, emotion, and cognition.

In another study, Yuli and Yushan (2012) compared the transitivity system in English and Chinese. They tried to examine the similarities and differences according to Halliday's theory in using the transitivity system and its six process types between English and Chinese. The results of the study represented the fact that verbal, existential, and behavioral processes are similar in both languages; therefore, they would not change during the translation from English to Chinese while mental material and relational processes will undergo some changes in their passive forms or frequent usages.

To further investigate the six types of processes, Caili (2005) scrutinized a text about the problem of smoking. The text was entitled "weeping for my smoking daughter," and consisted of 8 paragraphs and 49 clauses. The findings demonstrated the fact that the majority of the processes were material ones. The second most frequent processes were mental, relational, and behavioral.

Related Research in Iran

In Iran, many studies have highlighted factors that are associated with the transitivity system proposed by Halliday from different aspects such as structure (Seraj, 2014), style (Pahlavan nezhad & Vazirnezhad, 2009), cohesion (Masbugh & Delshad, 2016), and lexical collocation (Mir Emadi & Karbalai Sadegh, 2009).

Overall, these studies highlight the need for providing reasonably consistent evidence of an association between writing topic and its impact on the transitivity process. Considering the importance of the writing task, no previous study has investigated the aforementioned issue. Therefore, the present study will explore the usage of two main processes, material and mental, in Iranian leaners' English writing based on the given topics.

Material and mental verbs

The definition and classification parts of the ideational function which are related to transmission of information are called transitivity. The essential part of this system is made up of various kinds of processes. To represent and categorize our understanding of the world through language, these processes are connected to participants (i.e., animate or inanimate) and circumstances (i.e., temporal or spatial).

Halliday (1985, 2004, pp.170-171) divided these processes into three major categories:

- 1. Material: process of doing→ e.g. Richard ate his sandwich.
- 2. Mental: process of thinking, feeling and perceiving

 e.g. One of my classmates does not like cookies.

3. Relational: process of being→ e.g. Sarah looks stunning today.

Material process, as aforementioned, refers to an intentional performance of a physical action by actor (i.e., doer) and will describe the concrete event. It might explain the visible changes caused as the results of these actions. This type of process can be manifested by verbs such as run, study, write, eat, kick, bury, give, collapse, bend, reduce, and paint.

Mental verbs indicate the conscious feeling that an individual might feel toward an action. This process designates the affection, cognition, and perception attitudes that a participant would sense via an action. This type of process can be illustrated by verbs such as think, see, hear, taste, feel, enjoy, dislike, encourage, imagine, believe, offend, and pretend.

Among these three categories, the focal point of the present study would be material and mental verbs. The reason behind choosing these two processes is that they are the basic means for describing human actions and experiences via a theoretical framework which was introduced in the mid-80s and is still one of the fundamental criteria for classification.

Method

Sample and Participant Selection

The population for this study was 80 Iranian English learners from 3 branches of one of the private language institutes in Mashhad. All of these Iranian students were female, aged between 18 to 25 years (Mean=20.68, SD=2.20). From an educational background perspective, they were either university students or university graduates. The selection was based on convenience sampling. To avoid the impact of gender on the result of the present study, only females were selected.

Assessments and Measures

To have a homogeneous sample, a Cambridge Placement Test was administered. According to the results of the test and based on Krejchi and Morgan's table (1970) of sample size, 50 Iranian English learners were assigned to the Upper Intermediate group. Then, the selected participants were divided randomly into two groups. In each group, 25 students were chosen.

Procedures

To check students' general use of verbs in English, both groups were asked to write a 150-word essay about a neutral topic * entitled "Write a biographical essay about a famous person." as a control instrument. Subsequently, each of these groups received a topic on which they were asked to write a 150-word essay. Group A was required to write an essay entitled "some people prefer to eat at food stands or restaurants. Other people prefer to prepare and eat food at home. Which one do you prefer?". This topic was related to material function. On the other hand, group B was given a topic entitled "some people think that they can learn better by themselves than with a teacher. Others think that it is always better to have a teacher. Which one do you prefer?" This topic was material process related. It should be noted that to ensure the gathering of more natural data, neither group was made aware of the transitivity system. The time given for this task was 45 minutes, which was in line with the normal class time assigned to writing tasks.

Once the participants were finished, each of the essays was scrutinized to find the verbs which presented the material and mental process based on Halliday (2004). To increase the reliability of this

^{*} neither mental nor material, according to two linguistic professors' perspective

study, three raters who majored in linguistics, were asked to check the papers again to ensure the results.

Results

Outcome of Evaluation

To evaluate the normality of variables, the Kolmogorov-Smirnov test was used. The results showed that the significance (2-tailed) is more than >.05 in all the variables, therefore all the variables are distributed normally (see Appendix A).

To illustrate the probable similarities and differences between the two groups, their frequencies and percentages have been calculated and are shown in Table 1.

TABLE 1
Numbers and Frequencies of Material and Mental Verbs in Groups A and B

Group	Type	Frequency	Percentage	
A	Material	156	63.67%	
	Mental	89	36.32%	
В	Material	91	33.09%	
	Mental	136	59.91%	

The findings according to Table 1 indicate that the number of verbs showing material process in group A (63.67%) and in group B (33.09%) were higher than the number of mental verbs in group A (36.32%) and in group B (59.91%).

A paired t-test was run to check that students' general use of the verbs in group A. The results are shown in Tables 2 and 3.

TABLE 2
Paired Sample Statistics in Groups A for verbs' general use

Group	Type	Mean	N	Std. Deviation	Std. Error Mean	
A	Material	1.28	25	.98	.20	
	Mental	1.28	25	.89	.18	

TABLE 3
Paired Sample T-test in Groups A for verbs' general use

Grou	р Туре	Mean difference	95% Confidence Inter	t	df	sig	
			Lower	Upper			
A	Material-Me	ental .00000	4999	.4999	.0000	24	1.0000

According to Tables 2 and 3, there is no significant difference between the material (M=1.28, SD=.98) and mental verbs (M=1.28, SD=.89), t(24)=1.0000, p>.05 for the neutral topic being assigned to group A.

The second paired t-test was run to determine the students' general use of the verbs in group B. The results are shown in Tables 4 and 5.

TABLE 4
Paired Sample Statistics in Groups B for Verbs' General Use

	1	1 0				
Group	Type	Mean	N	Std. Deviation	Std. Error Mean	
В	Material	1.32	25	.75	.15	
	Mental	1.44	25	.87	.17	

TABLE 5

Paired Sample T-test in Groups B for verbs' general use

Grou	ір Туре	Mean difference	95% Confidence Inte	t	df	sig	
			Lower	Upper			-
В	Material-M	ental12	5555	.3111	.5695	24	.5743

The findings according to Tables 4 and 5 indicated that there is no significant difference between the material (M=1.32, SD=.75) and mental verbs (M=1.44, SD=.87), t (24)= .5695, p>.05 for the neutral topic being assigned to group B .

To investigate the probable differences within the data set of group A, a paired t-test was administered. The results are presented in Tables 6 and 7.

TABLE 6
Paired Sample Statistics in Groups A

Group	Type	Mean	N	Std. Deviation	Std. Error Mean	
A	Mental	3.5600	25	1.68523	.33705	
	Material	3.6400	25	1.99499	.19900	

TABLE 7
Paired Sample T-test in Groups A

Group	Туре	Mean difference	95% Confidence Interv	t	df	sig	
			Lower	Upper			
A M	ental - Mate	erial08000	9630	.8030	187	24	.853

As it is shown in Table 6 and 7, a paired sample t-test indicated the fact that there is no significant difference between the number of the verbs showing material process (M=3.64, SD=1.99) and number of mental verbs (M=3.56, SD=1.68), t(24)=-1.87, p>.05 in group A.

A paired t-test was run to examine the possible differences among the data set for group B. The results are shown in Tables 8 and 9.

TABLE 8
Paired Sample Statistics in Groups B

Group	Type	Mean	N	Std. Deviation	Std. Error Mean	
В	Mental	5.4400	25	1.35647	.27129	
	Material	3.6400	25	.99499	.19900	

TABLE 9
Paired Sample T-test in Groups B

Group	Type	Mean difference	95% Confidence Interv	t	df	sig		
			Lower	Upper				
B N	Iental - Mat	terial 1.80	1.105	2.494	5.347	2	24 .000	0

According to findings of paired t-test in Tables 8 and 9, the results showed that the number of the verbs showing mental process (M=5.44, SD= 1.35) were significantly higher in comparison to the number of verbs showing material process (M=3.64, SD=0.99), t(24)= 5.34, p<.05 in group B.

To evaluate the relationship between the two groups to find out whether there are any similarities or differences between them, an independent t-test was administered to compare the status of verbs showing material process between groups A and B. The results are presented in Tables 10 and 11.

TABLE 10

Groups A & B Statistics (Material)

Group	Type	Mean	N	Std. Deviation	Std. Error Mean	
Material	A	6.2400	25	1.85472	.37094	
	В	3.6400	25	.99499	.19900	

TABLE 11
Independent Sample T-test in Groups A & B (Material)

	Levene's Equality				t-test for Equality of Means				
Group	F	1 2		df Sig. (2-tailed)	Mean difference	95% Confidence Interval of the Difference			
							Lower	Upper	
Material Equal var assumed	riances		6.176	48	.000	26	1.75362	3.44638	
	9.65	9 .003							
Equal var not assur			6.176	36.757	.000	26	1.74688	3.45312	

According to Tables 10 and 11, the findings of an independent t-test displayed the fact that the usages of the verbs showing material process in group A (M=6.24, SD=1.85) differ significantly from group B (M=3.64, SD=0.99) at the .05 level of significance. (t= 6.17, df= 48, p<.05, 95% CI for mean difference 1.75 to 3.44). To put it another way, the number of verbs showing material process in group A is significantly higher than group B. The results are best shown in Figure 1.

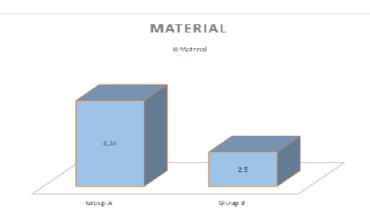


Figure 1. Application of material verbs in group A & B.

A second independent t-test was run to compare the status of verbs showing mental process between groups A and B. The results are presented in Tables 12 and 13.

TABLE 12
Groups A & B Statistics (Mental)

Group	Type	Mean	N	Std. Deviation	Std. Error Mean	
Mental	A	3.5600	25	1.68523	.33705	
	В	5.4400	25	1.35647	.27129	

TABLE 13
Independent Sample T-test in Groups A & B (Mental)

	1		1		,			
Levene's Test for Equality of Variances					t-test for Equality of Means			
Group	F	Sig.	t	df	Sig. (2-tailed)	Mean difference	the	ence Interval of Difference wer Upper
Mental								нег сррег
	_							
Equal var assumed	riances		-4.345	48	.000	-1.88	-2.749	-1.010
	.008	.929						
Equal var	riances							
not assur	med		-4.345	45.904	.000	-1.88	-2.750	-1.009

The findings of the independent t-test displayed in Tables 12 and 13 reveal the fact that the usages of the verbs showing mental process in group A (M=3.56, SD=1.68) differ significantly from group B (M=5.44, SD=1.35) at the .05 level of significance. (t= -4.34, df= 48, p<.05, 95% CI for mean difference -2.74 to -1.01). In other words, the number of verbs showing mental process in group B was significantly higher in comparison to group A. The results are shown in Figure 2.

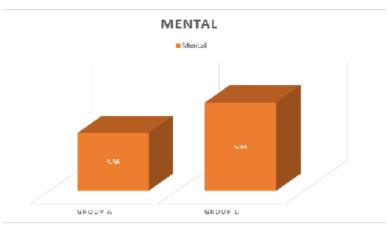


Figure 2. Application of mental verbs in group A & B

Discussion

The Frequency of Material Verbs

The first question in this research addressed the frequency of the verbs showing material process. According to Table 1, the results showed that material verbs were employed more (63.67%) in group A in comparison to these types of verbs in group B (33.09%). The higher usages of material verbs in group A supported Rizqi Arifiani's research (2005) where high usages of material verbs were due to the fact that the reality is mostly about particular actions that needed to be done physically.

The Frequency of Mental Verbs

To answer the second research question about the frequency of mental verbs, the findings in Table 1 also revealed that the verbs showing mental process were greater in rank (59.91%) in group B than in group A (36.32%). The results are similar to those of Song (2013) in that through mental process, not only would the audience or readers enjoy their reading, but they would also visualize the situation which would help them figure out the story better.

The findings according to Tables 2 and 3 for group A and Tables 4 and 5 for group B verified that there was no significant difference between the number of the material and mental verbs in both groups when they received a neutral topic for writing.

The Probable Difference Between Group A & B in Verbs Application

To find the difference between group A and B in using the material and mental verbs based on the third research question, it is necessary to have a closer look at the findings in Tables 6 to 9. The results of the paired t-tests in Tables 6 and 7 demonstrated that in group A, the usage of material verbs (M=3.64, SD=1.99) and mental verbs (M=3.56, SD=1.68) were approximately the same, whereas the usage of mental verbs in group B (M=5.44, SD=1.35), according to results of Tables 8 and 9 were higher.

Comparing group A and B, the results of the independent t-tests in Table 10 and 11 illustrated the fact that

the number of verbs showing material process has increased in group A (M=6.24, SD=1.85) at the .05 level of significance, while the number of verbs showing mental process, as shown in Tables 12 and 13, has raised in group B (M=5.44, SD=1.35).

All in all, mankind uses language to express his or her world experience by using processes. Halliday (2004) viewed material process as the way of doing physical or tangible actions. The higher percentage of material verbs in this study illuminated the fact that learners attempted to show the connection between the world and language in its physical nature to help the reader visualize the action pattern better. By using material verbs, the Iranian English learners attempted to provide a more vivid picture of the issue. Moreover, by addressing the pre-existing schema about the procedure via using material verbs, they help the readers to perceive and also recognize the matter through a more physical environment. Therefore, the readers' impression and perspective toward the topic might be influenced and become more objective and persuasive as they formulate their assumption and make their decision according to the actions that have been expressed via material verbs.

By contrast, the rise in the usage of mental verbs in group B in comparison to group A manifested that the learners tried to portray the topic in a psychological and subjective way as well as a physical and objective nature. Moreover, both types of articles are written in first-person which claimed that the writer him/herself was talking about their own experiences and this might help the reader clarify the issue and figure out the thoughts and ideology behind the reasoning of the writer.

The Probable Efficacy of Topics on Choosing Verbs

The last question in the current research regards whether the topic impacts the learner's choice of verbs. The results of this study further confirmed Eggin's (2000, p. 241) ideas that "question patterns can be used to differentiate mental process ("What do you think/feel/know about x?) from material processes ("What did X do to Y)".

Similarly, the findings of the current research are in line with the study of "Transitivity in English Medical Research Articles" by Zheng et al., (2014). They claimed that the usages of various types of process might be related to the aim and style of the topic.

The rise in the number of material verbs in group A, with a material related topic, would verify the hypothesis that the topic did have an influence on the learner's choice of verbs. In other words, Iranian English learners used the verbs† such as go, eat, order, gather, clean to present a vivid picture of the issue and make a connection between the topic and the experience of going to the restaurant or staying at home which is very familiar for the readers. Thus, talking about the physical and material topics would visibly lead to the selection of material verbs.

With this in mind, the results of the independent t-test also certified that choosing a mental related topic would have an impact on the verb selection in learners' writings. The rise in the number of mental verbs in group B indicated that the learners' tried to stimulate readers' thoughts and imagination to get involved with circumstances. For this purpose, they used mental verbs that carried out emotional (such as satisfy, discontent, comfort, and enjoy) and cognitive reactions (such as prefer, think, imagine, and consider). Despite this, there was no sign of using mental verbs with perceptive functions.

Therefore, it can safely be said that there is direct relationship between the topic and the verb selections in Iranian English learners' writings.

Conclusion

The results of the current study comparing two groups revealed that the rises in the number of material

 $^{^\}dagger$ The Material and Mental verbs used in Iranian English learners' writings are listed in Appendix C

verbs in group A and the increase in the number of mental verbs in group B verified the research hypothesis that topic would influence the types of verbs in writings.

The findings of the present research might have some pedagogical implications for English teachers to help their students become familiar with transitivity processes to handle the content of their writings better. In addition, this might help the students to focus on the aspects of their writing that they have never considered before and lead them toward a more rhetorical awareness approach in their writing while dealing with different types of topics.

The Author(s)

Sara Yazdani is a Ph.D. candidate at the department of Linguistics, Ferdowsi University of Mashhad.

Department of Linguistics Faculty of Letters and Humanities Ferdowsi University of Mashhad Mashhad, Iran Email: yazdani.sarah@mail.um.ac.ir

Atiyeh Kamyabi Gol is an assistant professor at the department of Linguistics, Ferdwosi University of Mashhad.

Department of Linguistics Faculty of Letters and Humanities Ferdowsi University of Mashhad Mashhad, Iran Email: kamyabigol@um.ac.ir

References

- Caili, W. (2005). The process of transitivity in "Weeping for my smoking daughter". *CELEA Journal*, 28(1), 111-115.
- Eggins, S. (2000). *An introduction to systemic functional linguistics*. Continuum International Publishing: New York.
- Ghorbani, M. R. (2009). ELT in Iranian High schools in Iran, Malaysia, and Japan: Reflection on how tests influence use of prescribed textbooks. *Reflection on English Language Teaching*, 8(2), 131-139.
- Halliday, M. A. K. (1985). Register variation. In M. A. K. Halliday, & R. Hasan (Eds.), *Language, context and text: Aspects of language in a social-semiotic perspective* (2nd ed., pp. 29-43). Oxford: Oxford University Press.
- Halliday, M.A.K. (2004). *An introduction to functional grammar* (3rd ed.). London: Edward Arnold.
- Krejcie, R., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30, 607-610.
- Masbugh, M., & Delshad, Sh. (2016). Investigating textual cohesive ties in the story of Moses via functional linguistics. *Literary and Quranic research*, 4(1), 114-130.
- MirEmadi, A., & Karbalai Sadegh, M. (2009). The investigation of lexical collocation in Molana's poetic and prose works in Halliday's functional framework. *Language and Linguistics*, 5(10), 115-134.
- Pahlavan nezhad, M., & Vazirnezhad, M. (2009). Stylistic review of "I will turn off the lamps" based on the interpersonal role of functional framework. *Literary Research*, 7 & 8, 51-77.
- Rizqi Arifiani, F. (2005). Transitivity system in reading passage of ENGLISH textbook for junior high

- school. Transform Journal of English Language Teaching and Learning of FBS UNIMED, 3(4), 1-13.
- Seraj, A. (2014). The study of Halliday's functional grammar in ten novels from ten female Iranian writers. *Story Studies journal*, 2(2), 60-77.
- Song, Z. (2013). Transitivity analysis of "A Rose for Emily". *Theory and Practice in Language Studies*, 3(12), 2291-2295.
- Steele, D. (2008). *Heartbeat*. New York: Bantam Doubleday Dell Publishing Group, Inc. ISBN10: 0440211891.
- Wanodyatama P, N. P., Tuckyta Sari Sujatna, E., & Bayusena, B. (2013). Verbs of cognition in mental processes in the English clauses: A functional grammar approach. *International Journal of Social Sciences*, 12(1), 76-85.
- Yuli, S., & Yushan, Z. (2012). A comparison of transitivity system in English and Chinese. *Cross-Cultural Communication*, 8(4), 75-80.
- Zheng, Sh., Yang, A., & Ge, G. (2014). Functional stylistic analysis: Transitivity in English-medium medical research articles. *International Journal of English Linguistics*, 4(2), 12-25.

Appendix A

The result of Kolmogorov Smirnov Test

Mental	Material
25	25
.695	1.385
.719	.053
25	25
1.300	.936
.068	.345
	25 .695 .719 25 1.300

Appendix B

Samples of Iranian English learners' writings

Group A: Material- related topic

Without doubt, cooking and eating food at home offer more advantageous in comparison with eating out. It is good for our health in different respects.

For one thing, cooking is used by therapists to treat psychological problems such as depression and anxiety. It is agreed that cooking can keep people happy and energetic.

Therefore, it should not be considered only as a domestic chore, but a way for relieving tension.

Moreover, provided that homemade foods are generally cooked by fresh ingredients, they have higher nutritional value and are much healthier for your body.

Another point is that eating at home is more economical. Cheap foods are not nourishing and a decent food at a fine restaurant costs a lot.

Overall, considering our general and mental health, and high expenses of eating out, it is far better to prepare and eat food at home.

Group B: Mental- related topic

Although some people believe they can learn by themselves, others feel the pretense of a teacher is necessary for learning. I personally reckon that Teacher-based acquisition has more advantages such as the interaction between the teacher and the student and also the instant access to an instructor for asking immediate questions.

The First advantage is that through an interactive method of teaching students have the big chances of communicating, exchanging ideas, and analyzing different issues, of which they would be deprived in learning by themselves. Through such interactions sometimes students have to speak ad lib which would help them improve their ability to change their passive vocabularies and grammatical structures to active one.

The second advantage is that students, preferring a Teacher- based method of teaching, would have the opportunity to pose questions which might come to their mind at the moment. The teacher as an accessible source of knowledge is of great advantage for students since they can open up what they have in their mind instantly with no need to either ignore or postpone it until other time.

To recapitulate, the process of learning would be much none helpful if we have a teacher as there would be an alive communication among the teacher and students, and the students would enjoy the access to the teacher for asking their immediate questions on vocabularies, structures and different issues.

Appendix C

List of Material and mental verbs used by Iranian English learners in writings

	Material Verbs	No. of Verbs	Mental Verbs	No. of Verbs
	Go	30	Prefer	35
	Eat	32	Think	18
	Order	27	Imagine	10
	Sit	15	Discuss	7
Group A	Gather	11	Disturb	9
	Swallow	2	Forsake	4
	Cook	7	Consider	5
	Speak	18	Compare	4
	Clean	5		
	Chew	9		

	Material Verbs	No. of Verbs	Mental Verbs	No. of Verbs
	Teach	25	Prefer	33
	Go	16	Think	27
	Build	9	Know	21
	Sit	7	Believe	3
	Read	3	Understand	9
	Sleep	4	Improve	7
~ ~	Watch	5	Satisfy	17
Group B	Talk	2	Discontent	18
	Lie down	8	Comfort	9
	Do	1	Perceive	2
	Write	2	Concentrate	7
			Focus	5
			Disapprove	6
			Postpone	3
			Enjoy	2
			Foster	11
			Develop	12