

Learner Designed Measures of Motivation

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1. INTRODUCTION

Much research has been done on language learner motivation, many reliable and valid instruments have been developed to measure it, and many articles have been written on the subject. One common theme underlying these articles is that of the researcher as “expert” and learner as “subject”. Much like a craftsman, a researcher uses his or her expertise to try and disassemble, analyze, and reconstruct the various aspects of motivation that each language learner possesses. Much has been learned through this process.

However, there is a very real risk that by relying too much on the expertise of the researcher, we may ignore the input of another very important group of experts: the learners themselves.

This project proposal describes an attempt to increase learner motivation by having students in a class design their own motivation measuring instruments. Specifically, students in a class would be asked to design items that measure intrinsic, extrinsic, and integrative motivation. Along with the obvious benefit of making the students aware of the importance and influence of motivation in language learning, this activity should also result in the creation of a pool of learner-originated items.

2 LITERATURE REVIEW

2.1 Motivational Strategies

One of the more important discoveries of the Cognitive-Situated approach to motivational research was that motivation is dynamic and temporal (Dörnyei 2005: 83). Motivation fluctuates not only in terms of

months or weeks, but can change “even during a single class” (*ibid.*). Longer-term trends in motivation also exist: one trend that has been observed here in Japan is that English language motivation among first-year university students declines after university entrance exams have been taken (Sawyer, 2007: 4). An obvious question raised by the above research is how high levels of language learning motivation can be kept stable across these time periods.

Dörnyei suggests that the systematic application of motivational strategies by teachers can both generate and maintain motivation in language learners (2005: 110). He lists four main dimensions of motivational second language (L2) teaching practice:

- 1) creating the basic motivational conditions
- 2) generating initial student motivation
- 3) maintaining and protecting motivation
- 4) encouraging positive retrospective self-evaluation

These dimensions can also be thought of cyclical stages, running from Stage 1 to 4, and then back to 1 again. An in-class activity directing students to design items that measure intrinsic, extrinsic, and integrative motivation would be a part of the second and third stages. Student motivation (or at least an awareness of the importance of motivation) would be *generated* through the process of brainstorming the reasons why people study a foreign language. Student motivation would be *maintained* through a comparison between the reasons that were brainstormed, and the students’ own reasons for studying English. This motivational maintenance would also serve as a self-motivational “commitment control strategy” which would “help to preserve or increase the learners’ original goal commitment” (2005: 113), and may help address the decline in university student English motivation as noted by Sawyer.

2.2 Motivation Measuring Instruments

When using a motivation measuring instrument, Dörnyei stresses the importance of adapting that instrument to the specific situation:

“...every questionnaire-based research project requires the development of its own assessment tool that is appropriate for the particular environment and its sample” (2001: 190). This quote is the direct inspiration for this project: what better way to tailor an instrument to a particular population than to involve the population itself in the instrument’s creation? Although many good instruments already exist, none seem to have been created with any learner input. The 2003 issue of the Japan Association for Language Teaching’s (JALT) *JALT Journal* was dedicated to English language learning motivation. Not one of the articles in it reported an instrument developed with any input from Japanese learners themselves. In a separate journal article, Kobayashi (2001) did use a qualitative set of interview questions to elicit Japanese language learners’ opinions of English, and the first of these questions was “why are you studying English now?”. No follow-up instrument, however, appears to have been created with the answers.

There are, obviously, a myriad of reasons for learning a foreign language. Some reasons may be so deeply personal that they can never be applied to anyone else beyond one or two individuals, and would therefore make poor items. Other reasons, however, may be shared by certain subsets of people (e.g. people linked by hobbies, clubs, or subcultures). Even the most investigative researcher may never discover these reasons simply because they are not aware of, or do not have access to, these subsets. With a large enough sample size, some of these shared reasons should be generated by the item-designing activity outlined in this proposal.

Irie closes her 2003 *JALT Journal* article by stating “if one of our goals is to capture the characteristics of the L2 motivation of Japanese EFL learners... we need to keep looking for the most appropriate constructs that function as common denominators across studies and between different learning contexts” (97). Involving the learners themselves in this identification process would be one important way of contributing to the successful achievement of this goal.

3 PROJECT PROPOSAL

3.1 Research Questions

Two specific research questions guide the design of this project proposal:

- 1) Will having students design a motivation measuring items as a class activity increase motivation (as measured by a pre- and post-test)?
- 2) Will these learner-designed instruments yield original, useful items, unthought of by previous researchers?

3.2 Methods

This project proposal involves an experimental design which would be run at the Japanese woman's university where the author is currently employed. A short pilot study has already been completed in order to pre-investigate some aspects of the design, and this pilot study is discussed at length in Section 4 below.

The participants in the project would be four intact classes of first-year students, with each class containing roughly 30 students each. These classes are the author's four first-year "Communication Skills" classes. Two classes would experience the experimental condition, while the other two classes would act as a control group.

At the beginning of the semester all four classes would be given a pre-test designed to measure motivation, but *without* any items that specifically target intrinsic, extrinsic, and integral motivation. An example of this kind of instrument would be Guilloteaux & Dörnyei's (2008) *Student Motivational State Questionnaire* (SMSQ). In the pilot study some of the items from the SMSQ were tested on classes at the author's university in order to check their appropriateness. The results are discussed in Section 4.5 below. The students would be told that this motivation testing would be ongoing, with two more administrations of the same test at the middle and end of the semester.

In the middle of the semester, two of the classes would experience

the item design activity. The students would be shown an example item such as “I am studying English so that I can get a job” with a five point Likert “agree-disagree” scale following it. The students would then be asked to work in small groups to brainstorm “other reasons why people study English”, and then create Likert scale items based on these reasons. The students would be told that the items they create may be used in future studies to investigate the reasons why people study English in Japan (the pilot study also examined the wording of the phrase “why people study English” - this is discussed in Section 4.3). This item design would be done in small groups in order to: a) reduce redundancy; and b) increase the amount of ideas generated. This activity would occur during the first 30 minutes of class time. After this activity the normal lesson plan would resume. In the last 15 minutes of the class the same motivation measuring instrument used as the pretest would again be administered. This pattern of item-design activity, regular lesson, then motivation instrument would be enacted in order to dampen any extreme immediacy effects that may occur if the instrument was administered directly after the item-design activity.

During the same week, the two control classes would also complete the motivation-measuring instrument, but without experiencing the item design activity.

At the end of the semester, all four classes would take the motivation-measuring instrument for a final time. Statistically significant differences between motivation levels in the three administrations across the two conditions would then be checked for. Follow-up interviews with the classes that participated in the item designing activity could then be conducted to ascertain why or why not any changes in motivation levels did or did not occur.

The student-generated items would then be classified and categorized. If any unique items do occur, a mixture of these and pre-existing researcher-generated items could be combined in an instrument and given to different classes in a different semester. Along with traditional reliability and Rasch analyses, these items could be

compared to a criterion variable, such as TOEFL scores, or student grades, to see which items predict better.

3.3 Hypotheses

Based on the literature review and research questions, two hypotheses are proposed:

- 1) learner motivation will probably increase due to the item-designing activity. As mentioned in Section 2.1, the activity itself should act as a kind of self-motivational commitment control strategy
- 2) some useful, new and unique items will be created. The students will be aware of, and will list certain motivations particular to their own situations that researchers are not yet cognizant of

4 PILOT STUDY

4.1 Research Questions

A brief pilot study was run in order to investigate two particular aspects of the project proposal. These two aspects served as the research questions for the pilot study:

- 1) Will items taken from the SMSQ provide reliable measures of overall motivation levels?
- 2) Which of three alternate wordings of the question “Why do people study English?” will yield the highest number of responses?

In addition, a third research question was developed for the pilot study:

- 3) Will higher motivation levels (as measured by items from the SMSQ) yield more responses?

4.2 Participants

The participants in the pilot study were three intact first-year “Communication Skills” classes, the same type of classes which the project would involve. Two of the classes were considered “high level”

English classes, with students assigned to them because of English placement test results. The students in these classes came from a variety of majors. The third class consisted of entirely Mathematics majors, who are at this university traditionally (but not officially) considered “lower level” in terms of both language learning ability and motivation. In the three classes, a total of 71 students participated.

4.3 Materials

The only material used in the pilot study was a brief, two-part questionnaire. Due to scheduling constraints, not only the class time to administer the questionnaire, but also the time to design and produce it, was by necessity very short. The first part of the questionnaire was based on the SMSQ, and was designed to measure overall student motivation. The original SMSQ contained 20 items measuring the three factors of: attitudes towards English; linguistic self-confidence; and L2 classroom anxiety. In order to shorten the length of the questionnaire, the author created a new version by retaining the first two factors (attitudes towards English, and linguistic self-confidence) and adapting three items from both of these sections. Working from the belief that items measuring L2 intended learning effort measure overall motivation better than items measuring anxiety, the author then replaced the third set of items with 3 “intended effort” items from Ryan’s (2009) *Motivational Factors Questionnaire* (MFQ). These 9 items were then rearranged so that the 3 items measuring each factor were not sequential.

All of the items were adapted and chosen based on the author’s own intuition about which items would best measure the students’ motivation levels. Due to the aforementioned time constraints, the items were *not* translated into Japanese, however, the author believed that the students were all (including the Mathematics majors) of a high enough level to understand them. The items from the first part of the survey are listed in Table 1 below:

The second part of the questionnaire asked the students to list the

Table 1 Motivation Measuring Items

FACTOR	ITEM#	ITEM
Attitudes Towards Learning English	1	I really enjoy learning English.
	4	I'm always looking forward to my English classes.
	7	Learning English is really interesting.
English Self-Confidence	2	I believe that I learned a lot of English this semester.
	5	Learning English is easy for me.
	8	I enjoy using English in class.
Intended Learning Effort	3	It is very important for me to learn English.
	6	I did my best to learn English this semester.
	9	After university I will study English by myself.

reasons why people study English. In order to test which wording of this prompt would elicit the most responses, three different versions of the questionnaire, with three different wordings for the second part were used:

- 1) Why is English useful for you?
- 2) Why is English useful for Japanese university students?
- 3) Why is English useful for Japanese people?

These three different versions were distributed randomly among the three classes, so that there would be no confounding effects between ability levels and number of responses. Students were asked to write their responses in English.

4.4 Procedures

The questionnaire was administered only once, with no pre- or post-testing, in the last 15 minutes of a regular class. The students were told that the questionnaire was anonymous, and that the results would be used for research purposes only. Even though the author believed that the items in the first part of the survey were written in simple enough English for the students to understand, he still translated them

verbally for the whole class immediately after handing out the questionnaires. In addition, the author provided two example reasons for the second part of the questionnaire on the blackboard (“to get a job”, “to make friends”).

4.5 Results

The nine-item questionnaire was first analyzed to assess its dimensionality using a Principal Components factor analysis. A Direct Oblimin rotation was chosen as it was assumed that the three factors of attitude towards English, English self-confidence, and intended learning effort would be strongly correlated. The analysis, however, resulted in a two-factor solution only. The small n-size of this pilot study may account for this discrepancy, as Field recommends 300 subjects as being a good n-size for a factor analysis (2009: 647).

The Cronbach's α for Items 1, 4, 7 (attitude towards English) was a moderate .75, with all items scoring above .3 on the corrected item-total correlations. The “ α if item deleted” score for Item 4 (“I'm always looking forward to my English classes”), however, was .8, suggesting that it should be removed from the instrument. The α for these items was also lower than the α reported by Guilloteaux and Dörnyei for the same factor (2008: 77).

For Items 2, 5, 8 (English self-confidence), the α was a very low .49, and only Item 2 (“I believe that I learned a lot of English this semester”) scored above .3 on the corrected item-total correlations. Again, this α was lower than the α for the same factor in Guilloteaux and Dörnyei's article.

Items 3, 6, 9 (intended learning effort) also scored a low α of .57, with only Item 3 (“It is very important for me to learn English”) scoring above .3 on the corrected item-total correlations. Furthermore, the “ α if item deleted” score for Item 6 (“I did my best to learn English this semester”) also suggested that this item be removed.

Although these poor reliability results may be symptomatic of low item numbers (only 3 per factor), they do also suggest that choosing

items based solely on intuition is not an entirely advisable course of action. The answer to the first research question is therefore, unfortunately, a tentative “no”. The nine questions selected by the author do not adequately measure student motivation.

For the second part of the survey, the number of responses per student was tallied ($n=71$, $\text{sum}=158$, $M=2.23$, $SD=1.32$), and these responses were then examined to see if any larger categories could be created. From the 158 responses given, 8 different category “topics” were identified: communication, education, future, knowledge, personal, skill, travel, and unknown. The category “unknown” referred to those responses that were considered incomprehensible due to lexical/grammatical errors. Each category was then further subdivided into specific reasons by examining each of the responses in that category. Similarly worded responses (e.g. “to study abroad”, “to study in a foreign country”) were counted as being the same reason. Table 2 below lists the categories, reasons, and the number of times each reason was chosen by a student (reasons that the author considers to be new and potentially useful are listed in *italics*).

As can be seen from Table 2, the most common reasons listed for learning English were: to get a job (32); to speak with foreigners (23); to speak a lingua franca (16); and to travel (14). For no great surprise, these reasons are often cited as examples of intrinsic, extrinsic, and integrative motivation. What was interesting were some of the unexpected, but less cited, reasons. Students often list the general desire to communicate with foreigners, in this questionnaire, one respondent indicated that she would like to learn English for a more specific reason: to do business with them. Another student listed “romance with foreigners” as a use for learning English, which although certainly motivating, does not seem to appear on most motivational inventories. Two respondents indicated that they would specifically use English to further their academic career in a specific subject. Three other students remarked that they would like to use English to further their knowledge of non-academic hobby-type subjects. Finally one respondent wrote that

Table 2 List of Categories, Reasons, and Responses

CATEGORY	REASON	#OF RESPONSES
Communication	to speak with foreigners	23
	<i>to do business with foreigners</i>	1
	to make foreign friends	10
	<i>for romance with foreigners</i>	1
	to communicate with many people	9
	to speak a lingua franca	16
	TOTAL	60
Education	to enter/graduate from school	3
	to succeed in English classes	1
	to study abroad	1
	<i>to specialize in a subject</i>	2
	TOTAL	7
Future	to get a job	32
	to get a specific job	3
	general future success	7
	to work abroad	1
	TOTAL	43
Knowledge	to understand foreign media	3
	to understand foreign cultures	10
	<i>to get information about a particular subject</i>	3
	TOTAL	16
Personal	<i>to become more active</i>	1
	to get a new perspective	2
	to gain confidence	2
	for enjoyment	1
	TOTAL	6
Skill	to get a qualification	2
	to learn a new skill	2
	TOTAL	4
Travel	to travel	14
Unknown	meaning unknown	8
TOTAL		158

she would like to use English to become a more active person in general.

In order to answer the second research question, and determine if the prompt wording for the second part of the questionnaire affected the number of reasons listed, an ANOVA was performed. Although the Levene's Test of Equality of Error Variances was acceptable ($p > .05$), the ANOVA itself was not significant $F(2, 68) = 0.002$, $p = 0.99$, partial $\eta^2 = .00$. The answer to Research Question 2, therefore, was "no". The wording of the prompt eliciting reasons for studying English did not affect the number of reasons students provided.

In regards to the third research question, a second ANOVA was performed to see if the level of motivation related to the number of reasons listed. Three arbitrary categories of motivation (low, medium, and high) were created by dividing the range of motivation scores ($M = 31.39$, $SD = 4.96$, $\min = 20$, $\max = 41$) by 3. Individual subjects were then assigned to one of the three categories depending on their total motivation score. Again, the ANOVA was not significant $F(2, 68) = 1.38$, $p = 0.26$, partial $\eta^2 = .04$. The fact that the motivation measuring items displayed very low reliability is no doubt a confounding factor in this inability to achieve significance. However, in answer to Research Question 3, we must conclude that motivation levels did not affect the number of reasons the students listed.

5 CONCLUSION

Based on the limited results of the pilot study, five conclusions can be drawn.

Firstly, it would appear to be more efficient to choose a short, pre-existing, motivation measuring instrument for use in the project instead of trying to develop an original one. Scheduling constraints kept the author from using the full version of the SMSQ, however, at only 20 items, it would be reasonable to use if time is not an issue. And although it may be prudent to pilot this instrument one more time with students who will not be involved in the experiment to ensure that it does indeed suit the target population, if the instrument has well-tested

reliability this additional piloting may be unnecessary.

Secondly, although the pilot study's second research question was not adequately answered, it seems logical that asking students to brainstorm reasons why English is useful for "university students" will elicit answers most relevant to this particular target population.

Thirdly, some of the responses provided by the students could not be understood because of English grammar/vocabulary errors. This problem may be resolved by having the students work together in small groups when brainstorming reasons for studying English. Higher level students can aid lower level ones in forming comprehensible answers.

Fourthly, more reliable and generalizable categories and reasons may be identified if additional researchers are involved in classifying the responses. For the pilot study the author worked alone: while categorizing the answers he felt that additional assistance would create a more robust scheme.

Finally, and most importantly, the pilot test showed that new, original, and interesting items can be elicited from students. Whether or not these items are useful would depend on the further testing and comparisons outlined in Section 3.2. This author, however, firmly believes that new insights into language learning motivation can be gleaned from the processes described in this paper.

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