CONSTRUCTION AND VALIDATION OF A QUESTIONNAIRE ON LANGUAGE LEARNING MOTIVATION

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Abstract. This article describes the steps and phases involved in constructing a questionnaire on the motivation to learn a second or foreign language (or L2 motivation). It evaluates psychometric properties of the instrument by performing exploratory and confirmatory factor analyses. Participants in this study were 194 students. The results of the exploratory factor analysis indicated that four dimensions formed the construct of L2 motivation, namely Instrumental orientation, Integrative orientation, Commitment and Effort. The findings from a subsequent confirmatory factor analysis validated the four-dimensional structure. The conclusions reached by this study as well as the steps and phases involved in the development of research instrument on L2 motivation could be informative for educators interested in issues related to language learning motivation and useful for future scholarly investigations of L2 motivation.

Keywords: language learning (L2) motivation, socio-educational model of L2 motivation, questionnaire design, questionnaire validation.

Introduction

Motivation is one of the most researched constructs in studies on psychology and education. Since the pioneering studies by Robert Gardner and Wallace Lambert (1959, 1972) motivation to learn a second or foreign language (or L2 motivation) has become a prominent topic in educational research. A deeper understanding of the language learners’ motivation has a substantial pedagogical value. This is because a good grasp of the nature of L2 motivation and

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motivational ebbs and flows could aid language educators in devising better and more effective pedagogical strategies.

Due to its complex nature, L2 motivation has been defined and operationalized in various ways and instruments employed by researchers aimed to investigate different facets of this construct. However, as Dörnyei (2007: 102) observed, “questionnaires that yield scores with sufficient (and well-documented) reliability and validity are not that easy to come by in our field”. The present article aims to address the problem concerning a lack of empirically-based evidence. A specific research question that guided this study was: Will the newly-developed questionnaire on L2 motivation have adequate psychometric properties as far as reliability and validity are concerned?

This article describes the process of designing and validating a questionnaire on L2 motivation and gives a detailed description of the phases and steps involved in the questionnaire construction. By doing so, it hopes to address the need of language educators for some guidelines concerning the development of research instruments to assess various psychological constructs that are important in the course of learning and teaching an additional language. Such expertise could be a valuable addition to the professional knowledge of language teachers.

The Concept of Motivation in Psychology

Motivation remains “one of the most elusive concepts in the whole domain of the social sciences” (Dörnyei, 2001: 2). Researchers recognize that the most important component of this construct is action (Leontiev, 1971). As Ryan and Deci (2000: 54) asserted, “to be motivated means to be moved to do something”. An important aspect of a motivated behaviour is the pursuit of a goal, which is known as a motivational ‘orientation’ (Gardner & Lambert, 1972; Ryan & Deci, 2000).

As Ryan and Deci (2000: 54) put it, “orientation of motivation concerns the underlying attitudes and goals that give rise to action – that is, it concerns the why of actions”. There are two widely-accepted motivational orientations: ‘intrinsic motivation’ and ‘extrinsic motivation’. Intrinsic motivation refers to “doing something because it is inherently interesting or enjoyable”, while extrinsic motivation takes precedence when people are “doing something because it leads to a separable outcome” (Ryan & Deci, 2000: 55).

Socio-educational Model of L2 Motivation

In the socio-educational model of L2 motivation, motivation to learn a new language is viewed as “the combination of effort plus desire to achieve the goal of learning the language plus favourable attitude toward learning the language” (Gardner, 1985: 10). In line with approaches in general psychology, this definition suggests a structure of motivation which includes a goal and
the effort exerted to achieve this goal. In research on foreign language education, the goals to learn a new language are known as ‘integrative orientation’ and ‘instrumental orientation’ (Gardner & Lambert, 1959). It should be noted that though Gardner and Lambert (1959, 1972) differentiated integrative and instrumental orientations in their early studies, this was done only for the purpose of measurement. The two motivational orientations should not be considered as a dichotomy (Gardner, 1985).

Since the publication of Gardner and Lambert’s (1959, 1972) studies, integrative orientation has been one of the most disputed and widely-researched concepts in studies on L2 motivation. Over the decades, definitions of integrative orientation have expanded to include attitudinal dispositions on the part of language learners toward the target language country, its culture, language and native speakers of the target language. Nowadays, as Gardner (2010) points out, integrative orientation or integrativeness is recognized as a complex and multilevel concept. More commonly, integrative orientation involves a favourable interest in the target language country, its culture and native speakers (Gardner, 2010).

DEVELOPMENT OF THE QUESTIONNAIRE ON L2 MOTIVATION

Designing and validating a questionnaire involves qualitative and quantitative phases. In the qualitative phase, the first author conducted a thorough review of the relevant literature, identified constructs and measures to be included in the questionnaire, formulated questionnaire items and sought experts’ opinion as to which of the proposed constructs and pre-selected items should be included in the research instrument. This process was in accordance with literature on questionnaire development (Colton & Covert, 2007; Rasinski, 2008).

The instrument developers paid a special attention to the following two points. First of all, considering criticisms that studies on L2 motivation have not always been grounded in the “real world domain” of the language classroom (Crookes & Schmidt, 1991: 470), special attention was given to ensuring that the resulting instrument has pedagogical and educational value. Secondly, a special care was accorded to the cultural appropriateness of the constructs’ operationalizations and to the wording of the questionnaire items. In order to effectively address these two concerns, the researchers heeded advice given by Onwuegbuzie, Bustamante and Nelson (2010: 63) and consulted the “key informants, which include those on whom the instrument will be administered” and also foreign language educators.

In the quantitative phase, a set of statistical procedures is used to evaluate the newly-developed instrument and establish its psychometric properties. The following sections of this article describe the steps involved in the qualitative and quantitative phases of developing and validating the questionnaire to measure L2 motivation among Malaysian university students.
The socio-educational model of L2 motivation developed by Gardner and Lambert (1959, 1972) and refined by Gardner (1985) guided the conceptual stage of the instrument construction, while relevant studies on motivation in the field of psychology (Ryan & Deci, 2000) informed about pertinent measures that need to be considered for the inclusion in the research instrument. In order to develop a questionnaire that would yield valid and reliable data, the instrument developer reviewed and consulted questionnaires employed in previous empirical investigations done in various educational contexts, including Malaysia (Ainol & Isarji, 2009; Dörnyei & Czisér, 2012; Gardner, 1985, 2004; Kouritzin, Piquemal & Renaud, 2009; Nikitina & Furuoka, 2008; Ryan, 2009).

As an outcome of the literature review process, three relevant motivational constructs or measures were identified. These measures and their operational definitions are as follows:

1. General motivation (6 items): effort and commitment that students are willing to expend to learn the target language (TL) in order to achieve their learning goals;
2. Instrumental orientation (5 items): language learners’ perceptions of the TL utility and their intention to use the TL for pragmatic purposes, such as future studies, travel, employment or obtaining financial benefits;
3. Integrative orientation (5 items): language learners’ intention to learn the TL in order to communicate with the TL speakers and their favourable interest in culture, worldviews and ways of life of the TL speakers. (For the full set of questionnaire items on L2 motivation please refer to the Appendix).

This L2 structure and operationalizations of the L2 components are in line with Gardner’s (1985: 10) definition of motivation as “the combination of effort plus desire to achieve the goal of learning the language plus favourable attitude toward learning the language”. This study also recognizes the importance of including educational practitioners’ perspectives and viewpoints on L2 motivation. As Crookes and Schmidt (1991: 480) observed, “When teachers say that a student is motivated, they are not usually concerning themselves with the student’s reason for studying, but are observing that the student does study, or at least engage in teacher-desired behaviour in the classroom and possibly outside it”. For this reason, some of the questionnaire items measuring ‘general motivation’ assessed language learners’ commitment to learn a foreign language (e.g., items #2 and #6 of the questionnaire, see Appendix).
Questionnaire Validity and Cultural Appropriateness

The most acknowledged methodological issues concerning instrument validity are face validity, content validity and construct validity. Face validity is described as the degree to which an instrument appears to measure the construct of interest, while content validity is “the degree of which an instrument is representative of the topic and process being investigated”; lastly, construct validity is the “degree to which an instrument actually measures” the proposed constructs of interest (Colton & Covert, 2007: 66–68; Rasinski, 2008). The former two types of validity are established in the qualitative phase of instrument construction, while the latter is quantitatively gauged by a set of statistical procedures in the quantitative phase.

In the qualitative phase researchers need to consider the cultural appropriateness of the measures and items to be included in the instrument. As recommended by methodologists (Onwuegbuzie, Bustamante & Nelson, 2010), the instrument developer consulted views of the key informants, namely Malaysian foreign language learners at the tertiary level, concerning language learning motivation. Earlier exploratory investigations were important sources of information (Nikitina & Furuoka, 2005; Pogadaev, 2007).

Drawing an Items Pool and Establishing Face and Content Validity

The next step was to list all the potential questionnaire items for each of the three constructs in this study, namely, general motivation, instrumental orientation and integrative orientation. Collections of questions or statements to be included in a questionnaire are known as “item pools” (Colton & Covert, 2007). The initial item pool in this study consisted of 59 items.

The items appeared to make a good fit with the relevant constructs, which established the face validity of the instrument. However, some items were found to be very similar, e.g. the statement “I would like to learn as many languages as possible” selected from a study by Dörnyei (2001) was similar to “I would really like to learn many foreign languages” in Gardner’s (2004) questionnaire. This fact indicated that the item pool construction stage had reached a sufficient saturation level. In order to achieve a concise instrument, only one of the matching items was retained for further consideration. As a result, the number of statements in the item pool went down to 26.

Next, content validity of the questionnaire was established. For this purpose, the Q-sort procedure was conducted by a panel of experts as described by Colton and Covert (2007). As a result, the questionnaire items pool was reduced to 16 statements. Finally, each statement was supplied with a five point Likert-type rating scale ranging from “strongly disagree” to “strongly agree”; the statements were then mixed up so that the items measuring the same construct would not appear next to each other. The questionnaire was
supplied with a short preface that explained purposes of the study and a section that sought demographic information about the participants.

THE QUANTITATIVE PHASE: ESTABLISHING INSTRUMENT’S RELIABILITY, UNDERLYING STRUCTURE AND PSYCHOMETRIC PROPERTIES

Data Collection

The questionnaire was distributed to 194 students (26.8% male and 73.2% female). They were learning one of the following languages: French, German, Italian, Portuguese (both Brazilian and European varieties), Russian and Spanish. The participants were in their first semester of the target language study in University of Malaya. All of them had voluntarily chosen to learn a foreign language as an elective course. The students were told that their answers would be treated as confidential. The return of the completed questionnaires was considered as an implied consent to participate in the study.

Reliability analysis and exploratory factor analysis (EFA)

First of all, the reliability or internal consistency of the three scales measuring L2 motivation was assessed based on Cronbach’s alpha (α) coefficients. Then the exploratory factor analysis (EFA) was performed. The main purpose of EFA was to establish the underlying structure of the students’ L2 motivation, and to assess the validity of the constructs.

Prior to conducting the EFA, suitability of the data set for this statistical procedure was checked (Hair, Black, Babin, Anderson & Tatham, 2006). For this purpose, the Kaiser–Meyer–Olkin (KMO) measure of sampling adequacy and the Bartlett’s chi-square test of sphericity were performed. The suitability of the dataset on L2 motivation for the EFA was confirmed. The KMO coefficient at .851 was above the meritorious .80 range for this index. The Bartlett’s test of sphericity was significant ($\chi^2=979.167; p<.01$), which indicated that sufficient correlations existed among the variables.

Confirmatory Factor Analysis (CFA)

As Steiger (1994: 218) pointed out, though exploratory factor analysis and confirmatory factor analysis are viewed as distinct statistical procedures, “in practice the two techniques may be used together in an ‘exploratory-confirmatory’ approach”. This approach is well justified in some instances. For example, when a study intends to proceed with the structural equation modeling (SEM), it can use factors that emerged from the EFA to validate the factor solution with the CFA procedure before building the measurement and struc-
tural models. This was done in a number of previous studies in behavioural sciences (Gardner, Tremblay & Masgoret, 1997; Jöreskog as cited in Steiger, 1994; Tkach & Lyubomirsky, 2006).

There is another argument to consider. Psychometric qualities such as validity and reliability are recognized as the property of samples rather than the property of instruments (Osborne, 2014). This entails the proposition that if scales are strong for one sample they may not be strong for another sample. As Van Prooijen and Van Der Kloot (2001: 780) noted, “if CFA cannot confirm results of EFA on the same data, one cannot expect that CFA will confirm results of EFA in a different sample or population”. Besides, “scales need to be evaluated in the particular population or data that they reside in” (Osborne, 2014: 112). To ensure a ‘full circle’ of investigation, the current study performed the CFA on the same dataset as the EFA.

This study adopted the CFA guidelines proposed by Hair et al. (2006). First of all, construct reliability (CR) was established in order to assess internal consistency of the variables. This step is needed because Cronbach’s alpha, which is a widely-employed estimate for construct reliability, can be underestimated (Hair et al., 2006: 777). The next step was to assess construct validity (CV) for each factor, including convergent validity (or the extent to which the items forming one construct share a high proportion of variance) and discriminant validity (or the extent to which one construct is truly unique and different from others).

**FINDINGS OF STATISTICAL TESTS**

*Results of the Reliability Test*

The findings from the reliability test that estimated Cronbach’s alpha (α) are shown in Table 1. According to Hair et al. (2006) and Dörnyei (2007), Cronbach’s α values between .60 and .70 are acceptable in exploratory research and in studies in the Social Sciences disciplines.

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Number of items</th>
<th>Cronbach’s α</th>
</tr>
</thead>
<tbody>
<tr>
<td>General motivation</td>
<td>6</td>
<td>.697</td>
</tr>
<tr>
<td>Instrumental orientation</td>
<td>5</td>
<td>.831</td>
</tr>
<tr>
<td>Integrative orientation</td>
<td>5</td>
<td>.754</td>
</tr>
</tbody>
</table>

As seen in the table, the three L2 motivation scales had good reliability and their Cronbach’s α coefficients were in the range of .70 and .80.
Findings from the Exploratory Factor Analysis: The Underlying Structure of L2 Motivation

The EFA extracted four factors or dimensions from the data on students’ L2 motivation. One of the 16 items submitted to the analysis had to be removed due to a low communality. The extracted four factors explained approximately 61% of variance, which is satisfactory in the Social Science research (Hair et al., 2006). The underlying structure of L2 motivation was clearly delineated: it consisted of four latent dimensions or factors. All but two of the questionnaire items had a single high loading exceeding .40 on only one factor. These two items were retained in the factors where their loadings were above .50.

Next, reliability of the measures (or internal consistency of the factors) was established based on the Cronbach’s α values. The procedure yielded four factors instead of the three originally proposed: the “General motivation” scale was divided into two factors labelled “Commitment” and “Effort”. All four factors had acceptable levels of internal consistency: Factor 1 “Instrumental orientation” had Cronbach’s α=.831; Factor 2 “integrative orientation” had Cronbach’s α=.754. Factors 1 and 2 contained the items that had been originally linked to this motivational construct by the researchers. Further, Factor 3 “Commitment” had Cronbach’s α=.637, and Factor 4 “Effort” had Cronbach’s α=.630.

The separation of the construct of L2 motivation into the four latent factors is sensible. The Factors 1, 2 and 4 supported the main theoretical underpinnings of Gardner’s (1985) model that proposes that L2 motivation incorporates learning goals (i.e., instrumental and integrative orientations) and requires effort to achieve these goals. Factor 3 substantiates the practitioners’ perspective on L2 motivation that recognizes commitment as an important component of L2 motivation. Therefore, it can be hypothesized that the construct of L2 motivation in this study consisted of instrumental and integrative orientations (or learning goals) plus effort and commitment to achieve these goals. In the following step, confirmatory factor analysis (CFA) is performed using AMOS computer software in order to confirm this hypothesis and evaluate psychometric properties of the instrument in a more rigorous manner.

Findings from the Confirmatory Factor Analysis (CFA)

The findings from the CFA are shown in Table 2. It displays information about the four L2 motivation factors or constructs, their corresponding items, the standardized factor loadings (λ), the estimates for construct reliability (CR) and convergent validity (CV). As can be seen from the table, the results of the CFA were mixed and not entirely satisfactory. Thus, while the construct reliability (CR) estimates for all four factors were above the recommended benchmark of .60, the estimates for convergent validity were acceptable only for one construct, namely, Instrumental orientation (CV=.51). Furthermore, the standardized loading for the item “Studying this language is important
because it will enable me to better understand the way of life in the [TL] country” was below the recommended benchmark of .50.

Table 2: L2 motivation factors, their loadings and psychometric estimates

<table>
<thead>
<tr>
<th>Factors/Questionnaire items</th>
<th>λ*</th>
<th>CR**</th>
<th>CV***</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Effort</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am working hard at learning the [TL]</td>
<td>.61</td>
<td>0.64</td>
<td>.47</td>
</tr>
<tr>
<td>I put great efforts to understand everything my language teacher teaches us during the class.</td>
<td>.75</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Commitment</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I always volunteer to answer the questions my language teacher asks in the classroom.</td>
<td>.67</td>
<td>0.63</td>
<td>.37</td>
</tr>
<tr>
<td>After I complete this Level 1 of the [TL] I will continue learning this language at Level 2.</td>
<td>.53</td>
<td></td>
<td></td>
</tr>
<tr>
<td>If my [TL] teacher wanted someone to do an extra assignment for the class, I would certainly volunteer.</td>
<td>.60</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Instrumental</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge of the [TL] can be useful for my further studies.</td>
<td>.66</td>
<td>0.84</td>
<td>.51</td>
</tr>
<tr>
<td>Knowledge of the [TL] will increase my job opportunities.</td>
<td>.80</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proficiency in the [TL] can bring me some financial benefits (e.g., translations, etc.).</td>
<td>.71</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge of the [TL] will help me when I travel abroad.</td>
<td>.52</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge of the [TL] will be useful for my future career.</td>
<td>.84</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Integrative</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I decided to study this language because I am interested in the [TL] popular culture.</td>
<td>.61</td>
<td>0.76</td>
<td>.40</td>
</tr>
<tr>
<td>Studying this language is important because it will enable me to better understand the way of life in the [TL] country.</td>
<td>.47</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Studying this language is important for me because it will enable me to appreciate the [TL] art and literature.</td>
<td>.51</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I decided to learn this language in order to better understand the [TL] people way of life.</td>
<td>.79</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I decided to learn the [TL] language so that I can get to know its speakers better.</td>
<td>.72</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes: * λ=standardized loading; acceptable values for λ are above .50 (Hair et al., 2006).  
** CR=“construct reliability”; acceptable values for CR are above .60 (Hair et al., 2006).  
*** CV=“convergent validity”; acceptable values for CV are above .50 (Hair et al., 2006).
As to the requirements concerning discriminant validity, they were mostly fulfilled except for the integrative orientation–commitment pair of constructs. Based on these findings, items with standardized loadings below .65 were removed from the questionnaire in order to improve psychometric properties of the instrument. The CFA performed once again on the reduced dataset and its findings are reported in Table 3. As the results show, psychometric properties of the revised instrument have improved considerably; even though the CV estimate for the “Effort” (.47) and “Commitment” (.47) factors was lower than the recommended level of .50, it was below the benchmark by only a small margin of .03 points. Furthermore, the discriminant validity of the instrument was good.

Table 3: L2 questionnaire items, their loadings and psychometric estimates

<table>
<thead>
<tr>
<th>Factors/Questionnaire items</th>
<th>$\lambda^*$</th>
<th>CR**</th>
<th>CV***</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Effort</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am working hard at learning the [TL].</td>
<td>.62</td>
<td>.64</td>
<td>.47</td>
</tr>
<tr>
<td>I put great efforts to understand everything my language teacher teaches us during the class.</td>
<td>.75</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Commitment</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I always volunteer to answer the questions my language teacher asks in the classroom.</td>
<td>.68</td>
<td>.64</td>
<td>.47</td>
</tr>
<tr>
<td>If my [TL] teacher wanted someone to do an extra assignment for the class, I would certainly volunteer.</td>
<td>.69</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Instrumental</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge of the [TL] can be useful for my further studies.</td>
<td>.67</td>
<td>.84</td>
<td>.58</td>
</tr>
<tr>
<td>Knowledge of the [TL] will increase my job opportunities.</td>
<td>.80</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proficiency in the [TL] can bring me some financial benefits (e.g., translations, etc.).</td>
<td>.70</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge of the [TL] will be useful for my future career.</td>
<td>.85</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Integrative</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I decided to learn this language in order to better understand the [TL] people way of life.</td>
<td>.70</td>
<td>.71</td>
<td>.55</td>
</tr>
<tr>
<td>I decided to learn the [TL] language so that I can get to know its speakers better.</td>
<td>.78</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes: * $\lambda$=standardized loading; acceptable values for $\lambda$ are above .50 (Hair et al., 2006).
** CR=“construct reliability”; acceptable values for CR are above .60 (Hair et al., 2006).
*** CV=“convergent validity”; acceptable values for CV are above .50 (Hair et al., 2006).
Overall, the findings from the second round of the CFA provided empirical evidence in support of a solid internal structure for each of the four L2 motivation factors and good psychometric properties of the reduced questionnaire scales measuring L2 motivation.

**Discussion and conclusions**

The present study has described the steps and phases involved in constructing a questionnaire to assess L2 motivation and tested psychometric qualities of the resultant instrument. Besides attending to a purely ‘technical’ aspect of developing and validating a questionnaire on psychological constructs involved in the process of language learning, this study highlights the importance of ensuring that the resulting instrument has pedagogical relevance and educational value. This was achieved by incorporating the language educators’ views on L2 motivation as recommended by Crookes and Schmidt (1991).

The findings of the EFA gave empirical support to viewing L2 motivation as comprising two distinct learning goals (i.e., instrumental and integrative orientations) and the effort expended to pursue these goals. These results concurred with the conclusions in the earlier studies (Ainol & Isarji, 2009; Nikitina & Furuoka, 2008). Regarding integrative orientation, the relevance of which in the context of foreign language learning has been questioned by some researchers (Nikolov, 1999), the findings revealed its distinct presence in the students’ L2 motivation. Based on the EFA results, integrative orientation incorporated the language learners’ appreciation of a TL country’s art and literature, their desire to gain a deeper knowledge about and a better understanding of the TL speakers and their wish to understand the ways of life in the TL country. Similar findings were reported in the earlier studies (Nikitina & Furuoka, 2005; Pogadaev, 2007). However, during the CFA procedure, which involves a more rigorous evaluation of an instrument’s psychometric properties, the number of items forming integrative motivation was reduced from five to two. Such a drastic reduction did not occur in the case of the items forming instrumental motivation: four of the original five items were retained. This finding indicates that integrative orientation could be a more elusive component and that capturing the properties of integrative orientation is a more challenging task.

An important—though unanticipated—outcome of the EFA was that the commitment and effort aspects originally blended into the general motivation construct had formed separate dimensions within L2 motivation. This finding provides empirical support to the existence and prominence of pedagogically and educationally relevant facets of L2 motivation, and not only those that have a high psychological salience. The subsequent CFA validated the strength and uniqueness of these two scales: none of them was reduced in the number of items during the CFA, their internal consistency was good and construct validity sufficient. An implication of this finding is that these and
other pedagogically important indicators of L2 motivation must be included in research instruments to measure L2 motivation if these instruments are to have educational and pedagogical relevance.

There are some limitations to this study. Firstly, it has focused on the learners of European languages. Future studies may want to explore whether the four-dimension structure of L2 motivation would be sustained among learners of English language. Secondly, the participants in this study had voluntarily chosen to learn a foreign language. Further research would be needed among students who learn a foreign language on a compulsory basis. Despite these limitations, the questionnaire has sufficient psychometric properties. Moreover, the instrument presented in this article accommodates not only psychologists’ but also educational practitioners’ viewpoints concerning the nature and determinants of L2 motivation. For this reason the instrument has value for educational research and pedagogical practice.

It is hoped that the description of the questionnaire development process offered in this study, as well as the resultant instrument and the information on its psychometric properties, would be informative for researchers and educators interested in issues related to language learning motivation and that this study could be useful for future scholarly investigations of L2 motivation in various educational contexts. Developers of future instruments on L2 motivation may want to include additional variables that are relevant for their specific educational settings and that have a good potential to inform and enhance foreign language pedagogical practice.

References


APPENDIX

Questionnaire sample

*L2 motivation among learners of French*

Mark your answer to each of the following questions. Note: 1=Strongly disagree (SD); 2=Disagree (D); 3=Neither disagree nor agree (N); 4=Agree (A); 5=Strongly agree (SA).

<table>
<thead>
<tr>
<th>No.</th>
<th>Questions</th>
<th>SD</th>
<th>D</th>
<th>N</th>
<th>A</th>
<th>SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>I decided to study this language because I am interested in French popular culture.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2.</td>
<td>I am working hard at learning the French language.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3.</td>
<td>I always volunteer to answer the questions my language teacher asks in the classroom.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4.</td>
<td>Studying this language is important because it will enable me to better understand the way of life in France.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5.</td>
<td>After I complete this Level 1 of the French language I will continue learning this language at Level 2.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6.</td>
<td>If my language teacher wanted someone to do an extra assignment for the class, I would certainly volunteer.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7.</td>
<td>Knowledge of the French language will help me when I travel abroad.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8.</td>
<td>I put great efforts to understand everything my language teacher teaches us during the class.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9.</td>
<td>Knowledge of the French language can be useful for my further studies, such as at the Master’s or PhD level.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>10.</td>
<td>I decided to learn the French language so that I can get to know its speakers better.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>11.</td>
<td>Studying this language is important for me because it will enable me to appreciate French art and literature.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>12.</td>
<td>Knowledge of the French language will increase my job opportunities.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
13. If the French language was not offered in University of Malaya I would try to go to this language classes somewhere else.  
14. Proficiency in the French language can bring me some financial benefits (e.g., translations, etc.).  
15. I decided to learn this language in order to better understand the French people way of life.  
16. Knowledge of the French language will be useful for my future career.
Construction and validation of a questionnaire on language learning motivation

Konstruisanje i validacija upitnika za ispitivanje motivacije za učenje stranog jezika

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Abstract

In this study, the steps and phases in the construction of a questionnaire to assess motivation for learning a second language (L2 motivation) are described. Psychometric characteristics of the instrument were evaluated using exploratory and confirmatory factor analysis. The study involved 194 students. The results of the exploratory factor analysis showed that the construct of motivation for learning a second language consists of four dimensions: instrumental orientation, integrative orientation, commitment, and invested effort. The results of the confirmatory factor analysis confirmed the existence of a four-dimensional structure. The conclusions drawn from the study, as well as the described steps and phases in developing a research instrument for assessing motivation for learning a second language, can be helpful to teachers interested in issues related to motivation for learning a second language, and are very useful for future studies in which motivation for learning a second language will be investigated. Key words: motivation for learning a second language (L2 motivation), socially educational model of motivation for learning, questionnaire validation.
КОНСТРУИРОВАНИЕ И ВАЛИДАЦИЯ ВОПРОСНИКОВ 
ДЛЯ ИССЛЕДОВАНИЯ МОТИВАЦИИ К ИЗУЧЕНИЮ 
ИНОСТРАННОГО ЯЗЫКА

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Аннотация

В работе описываются шаги и этапы в конструировании вопросника для ис- 
следований мотивации к изучению второго или иностранного языка (Л2 моти- 
вации). Психометрические характеристики инструмента оценивались на осно- 
вании эксплоративного и конфирматорного факторального анализа. В иссле- 
довании участвовало 194 студентов. Результаты эксплоративного фактораль- 
nого анализа показали, что конструкт мотивации для обучения второму языку 
составляют четыре измерения: инструментальная ориентация, интегративная 
ориентация, посвященность и приложенные усилия. Результаты конфирма- 
tорного факторального анализа подтвердили существование четырехизмери- 
tельной структуры. Выводы исследования, а также описанные шаги и этапы в 
развитии исследовательского инструмента для выявления мотивации к обу-
ченю второму языку, могут помочь учителям, интересующимся вопросами, 
связанными с мотивацией к изучению иностранного языка, и имеют большую 
pользу для будущих исследований, в которых предметом анализа будет моти-
вация к обучению второму языку. 
Ключевые слова: мотивация к обучению второму языку (Л2 мотивация), обще-
ственнообразовательная модель мотивации к обучению второму языку, конс- 
труирование вопросника, валидация вопросника.