

SELF-EFFICACY AND MOTIVATION CONSTRUCT: AN INSTRUMENT DEVELOPMENT

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Abstrak

Penelitian ini bertujuan untuk mengembangkan kuesioner sebagai instrumen yang valid dan dapat diandalkan untuk mengukur *self-efficacy* dan motivasi siswa dalam belajar bahasa Inggris. Proses pengembangan dalam penelitian ini didasarkan pada dua teori konstruksi utama (*self-efficacy* dan motivasi). Penulis menggunakan wawancara kognitif untuk membuat beberapa penyesuaian dan/atau adaptasi agar sesuai dengan pembelajaran di Indonesia dan konteks proses, dan uji coba dilakukan kepada sekelompok siswa. Produk dari penelitian ini adalah kuesioner yang siap digunakan yang dianggap sesuai dalam konteks bahasa Indonesia. Penelitian lebih lanjut disarankan untuk memeriksa validitas dan reliabilitas instrumen ini dalam konteks lain.

Kata kunci: Self-efficacy, Motivasi, Pengembangan Instrumen.

Abstract

This study aims to develop a questionnaire as the valid and reliable instrument to measure the students' self-efficacy and motivation in learning English. The development process in this study was based on the theory of the two main constructs (*self-efficacy* and motivation). The writers employ cognitive interview to create some adjustment and/or adaptation to fit the Indonesian learning and process context, and pilot tested to a group of students. The product of this study is a ready-to-use questionnaire that is considered appropriate in Indonesian context. Further research is suggested to check the validity and reliability of this instrument in other contexts.

Keywords: Self-efficacy, Motivation, Instrument Development

A. INTRODUCTION

English proficiency is unquestionably necessary to acquire in this modern era, especially because English has been nominated as the global language (Crystal, 2003). In Indonesian context, students are required to learn English as a foreign language (EFL) started from the lower secondary schools to the higher educational institutions. In learning EFL, self-efficacy and motivation are two important constructs that are associated with the students' English achievement that need more research, especially in Aceh, where educational research on the aforementioned variables are limited in the literature (Raoofi, Tan & Chan, 2012). There have been a number of studies about the relationship of self-efficacy, motivation and academic achievement in different countries, school level (primary, secondary and higher education) and school type (public, private and vocational). For example, it is found that students' self-efficacy strongly affects students' English achievement (Pintrich & De Groot, 1990; Bandura, 1997; Schunk, 2003; Mahyuddin, et al., 2006; Yusuf, 2011).

Additionally, some studies also found a positive relationship between self-efficacy and motivation (Pintrich & De Groot, 1990; Schunk, 2003; Lunenburg, 2011). Furthermore, motivation is also found to have a significant influence on academic achievement (Green, Nelson, Martin & Marsh, 2006; Brown, 2007; Wang, 2008; Choosri & Intharaksa, 2011). Nevertheless, Raoofi, Tan and Chan (2012) claim that research in foreign language learning self-efficacy and motivation are still required since there is limited number of studies in this area, especially in Asian context. Those available studies are important not only to inform the previous research findings, but also to suggest possible instruments that could be used in data collection. However, the instruments used in the previous studies are not directly applicable into the study that focuses to measure students' self-efficacy and motivation at the same time. This suggests that the ready-to-use questionnaire that could help researchers know about the level of students' English self-efficacy and students' motivation in learning English is still very limited. Therefore, this study aims to find out the appropriate instrument to measure the level of students' self-efficacy and motivation in English subject.

B. RESEARCH METHOD

The study is considered as descriptive study, which Creswell (2014) defines as the study that focuses on describing a phenomenon or the process of creating or developing a certain thing, which in this case in questionnaire. This study, in fact, employs the theory description, application and development, as the main guide. In addition, the study also used a cognitive interview with 2 people (English teacher and senior high school student) as well as a mini pilot study project with a small group of 10 senior high school students to ensure the validity and reliability often instrument. The result are described and elaborated in detail in word.

C. HASIL DAN PEMBAHASAN

THEORITICAL REVIEW

The questionnaire in this study is designed based on two main theories, namely *social cognitive* theory (Bandura, 1997) and *self-determinant* theory (Deci & Ryan, 1985), and supported by other relevant previous works available in the literature. The questionnaire developed in this study consists of the items combination from the two main constructs (English

self-efficacy and motivation). For the clarity purposes, each construct's definition and development process will be elaborated separately as follows:

English Self-efficacy

Self-efficacy is an important construct, but often miss-confused with other relevant concepts such as self-esteem (Bandura, 2006). Self-efficacy, basically, refers to personal beliefs or judgments of individual capabilities to accomplish the specific tasks (Bandura, 1997), while self-esteem is a more general concept of self-worth. In relation to *social cognitive* theory, Zimmerman (2000) claims that self-efficacy questionnaire should be specific, have various difficulty levels and indicate confidence level. He further explains that measuring self-efficacy has a focus on measuring performance capabilities. However, Schunk (1996) argues that a self-efficacy scale in educational context could also focus on measuring learning capabilities (capability to learn something new), namely self-efficacy for learning, which is different from self-efficacy for performance (capability to performed the already learned skills). For the purpose of designing the English self-efficacy questionnaire, I consider that combining self-efficacy for learning and performance is more appropriate for my study.

Reviewing the previous self-efficacy questionnaire, it is found that most of the available instruments are not specific to foreign language context, such as Motivational Strategies for Learning Questionnaire (MSLQ) by Pintrich & De Groot (1990) in which very few items could be modified to fit into this study. For example, item 23 in self-efficacy subscale (*'I know that I will be able to learn the material for this class'*) could be modified to *'I can learn difficult vocabulary in English texts'*. Besides, other self-efficacy instruments do not measure self-efficacy for English as a general proficiency, but focus on certain English skills (such as speaking), which is not the focus of my study. A study by Wang, Kim, Bong and Ahn (2013) proposed English skills (Listening, Speaking, Reading and Writing) as four main components in English self-efficacy scale. Unfortunately, I could not access the questionnaire from their study. This indicates that creating a new instrument, based on the main theory and relevant previous studies, is likely to be the best option.

In developing English self-efficacy construct, I follow Wang et al.'s (2013) suggestions to employ four English skills as the sub-scales of self-efficacy. This is in line with Nunan (1999) who also claims the four English skills as the major components in learning English language. Each component will then have three items (12 items in total). For designing the English self-efficacy's items (statements), it is important to bear in mind that self-efficacy is a perceived capability (what we believe we can do). Therefore, Bandura (2006) suggests the items in self-efficacy questionnaire should use 'can'. Furthermore, Bandura (2006) and Zimmerman (2000) elaborate that self-efficacy items should include different level of task difficulty (easy, medium, and difficult).

Apart of using the theory to brainstorm possible items, I also create the items and its responses by referring to the available literature in questionnaire design. I choose to employ 19 close-ended items with 5-point *Likert* scale (1=strongly disagree; 2= disagree; 3= neither agree nor disagree; 4= agree; and 5= strongly agree). I include a middle response since it will slightly increase the instrument reliability and validity as suggested by Lietz (2010). Additionally, I also choose to label the response with phrases and put the responses directly next to the items. This

aims to give more clarity in the responses. Furthermore, I keep my items simple and specific to avoid ambiguity as recommended by Siniscalco and Auriat (2005), Liets (2010) and Creswell (2014). I also do not include negatively worded items and put demographic question at the end (Lietz, 2010). This is all done, particularly in order to produce good items and understandable responses that could encourage high response from the research participants.

In terms of the organization, I group the relevant items with similar response format together as proposed by Siniscalco and Auriat (2005). In this self-efficacy questionnaire, I also arrange the items on component-based and from easy to difficult tasks, for example, listening (item 1-3), speaking (item 4-6), reading (item 7-9) and writing (item 10-12) (See Appendix 1 for detail). In order to address the potential threats to validity in this instrument development, cognitive interview is conducted. This process will be further explained under *Cognitive Interview* section.

English Motivation

Another important construct in foreign language learning is students' motivation (Dörnyei, 2001). Many experts define and explain motivation from different perspectives. For example, in the second and foreign language-learning context, Brown (2007) defines motivation as *the intensity of one's impetus to learn* (p.88). The theory of motivation, in fact, has been developed since a long time ago. One of the famous theories in human behavior motivation is Deci and Ryan's *self-determinant* theory (1985). Ryan and Deci (2000) define motivation as a desire to act. They classify motivation based on people's orientation (reasons – 'Why am I doing this?'), namely intrinsic and extrinsic motivation. Intrinsic motivation refers to doing something because of internal rewards/personal merits, such as self-interest or personal enjoyment, while extrinsic motivation refers to doing something because of external rewards/outcomes, such as prize, punishment and grade. This theory believes that people's motivation in doing things will be along the continuum from deeply internal to strongly external (Brown, 2007). This concept is applicable in second/foreign language learning research. Therefore the development of motivational questionnaire in learning English for secondary school students will be developed from this definition and classification.

By referring to the theory of *self-determinant* (Deci & Ryan, 1985), I decide to have two components for motivation construct; extrinsic and intrinsic components. I focus the motivation questionnaire in terms of the underlying reasons of why students learn English. Each component will then be developed into three items in the questionnaire (six items in total). Most of the items will be adapted from the already existing instrument in English motivation's studies that are also developed from the *self-determinant* theory and that has been clarified in terms of its validity and reliability in foreign language context. For example, two items (items 1 and 14) from Motivation and Attitudes toward Learning English Scale for Children (MALESC) by Carreira (2006) and three items (item 3, 9, and 17) from Language Learning Motivation (LLM) by Chang (2005) are adapted to fit into the research instrument in my study. I modify their statements by cutting off unnecessary words and structure them in short rather than long statements. For example item no 17 '*I learn English because it is a required course*' is shortened to be "English is a mandatory school subject" (See Appendix 1). Furthermore, I add one more item in my motivation questionnaire that is '*English is a high status language*'. Finally, in terms of creating good items

and responses, I follow the same criteria as I did in developing self-efficacy questionnaire. However, for the organisation in the motivation questionnaire, I mixed the items of the two components; intrinsic (item 1, 4, 5) and extrinsic (2, 3, 6) (See Appendix 1). The process of cognitive interview is also done to address threat to validity.

Cognitive Interviews and Mini Pilot Study

Two cognitive interviews were conducted, especially to address possible threats to validity. The first cognitive interview is conducted with an Indonesian student majoring at TESOL, who had experienced in teaching English in Aceh, in order to ensure the representativeness of the construct. The other cognitive interview was conducted with a 17-year-old Indonesian student, who previously learns English in an Indonesian school, in order to check over the item clarity (to make sure that the respondent share the same understanding of the items). Having applied the needed changes based on the cognitive interview, the questionnaire is then pilot-tested to a group of 10 Indonesian senior high school students with the same age, in order to know whether it will take more than 15 minutes to response and to crosscheck whether the items are clear enough.

The first cognitive interview analysis reveals that the chosen items have represented the constructs. This indicates that the items in the questionnaire are valid. However, item 3 in self-efficacy section '*...understand English news from radios*' is claimed to be not applicable in learning English in Aceh context because access to English news in radios is not available. Therefore, the word 'radios' is replaced with 'television'.

Moreover, the analysis from the second cognitive interviews exposes that most of the items in both sections of the questionnaire are clear. There are no necessary changes made in motivation section. However, in English self-efficacy section, the word 'implicit' in item 2 is omitted. Additionally, the interviewee thinks that item 10 '*...learn writing different parts of essay in my writing class*' is confusing and ambiguous, and should be modified to be '*...learn how to write introduction, body and conclusion for an essay*'.

Finally, the result of mini pilot test revealed that the questionnaire completion takes less than 15 minutes and the items on the questionnaire are also considered clear enough because the vocabulary and the language used is simple and easy to understand.

D. CONCLUSION

The final questionnaire is divided into two main parts and has 19 total items. The only demographic item recorded in this questionnaire is gender, which is put at the end of the questionnaire (About You section). Part 1 contains 12 items asking about students' perceived ability of certain English tasks. Part 2 consists of six items asking about students' reason of learning English. Responses of each item are a 5-point Likert scale (1=strongly disagree; 2= disagree; 3= neither agree or disagree; 4= agree; and 5= strongly agree). Furthermore, it is suggested that this questionnaire employ a back-translation process into Bahasa (as the first language of the research participants) for the convenience and understanding purposes, but only if needed.

BIBLIOGRAPHY

- Bandura, A., (1997). *Self-efficacy: The exercise of control*. New York: W.H. Freeman and Company, New York.
- _____, (2006). *Guide for constructing self-efficacy scales*. In F. Pajares & T. Urdan (Eds.), *Self-efficacy beliefs of adolescents* (pp. 307-337). CT: Information Age Publishing, Greenwich.
- Brown, H. D., (2007). *Teaching by principles: An interactive approach to language pedagogy* (3rd ed.), Pearson Longman Inc, New York.
- Brown, H. D., & Abeywickrama, P. (2010). *Language assessment: Principles and classroom practices* (2nd ed.), Pearson Education Inc., New York.
- Carreira, J. M., (2006). *Motivation for learning English as a foreign language in Japanese elementary schools*. JALT Journal, 28(2), 135-158.
- Chang, H. H., (2006). *The relationship between extrinsic/intrinsic motivation and language learning strategies among college students of English in Taiwan*. Unpublished Master thesis, Ming Chuang University , Taipei.
- Choosri, C., & Intharaksa, U., (2011). *Relationship between motivation and students' English learning achievement: A study of the second-year vocational certificate level Hatyai Technical College Students*. Paper presented at the Third International Conference on Humanities and Social Sciences, Prince of Songkla University, Thailand.
- Creswell, J. W., (2014). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (4th ed.), Pearson. Boston.
- Crystal, D., (2003) *English as a global language*, Cambridge University Press, New York.
- Deci, E. L., & Ryan, R. M., (1985). *Intrinsic Motivation and Self-Determination in Human Behavior*, Plenum Press, New York.
- Dörnyei, Z., (2001). *Teaching and researching motivation*, Longman , UK.
- Field, A., (2014). *Discovering statistics using IBM SPSS statistics* (4th ed.), Sage, London.
- Green, J., Nelson, G., Martin, A. J., & Marsh, H., (2006). *The causal ordering of self-concept and academic motivation and its effect on academic achievement*. International Education Journal, 7(4), 534-546.
- Lietz, P., (2010). *Research into questionnaire design. A summary of the literature*. International Journal of Market Research, 52(2), 249-272.
- Lunenburg, F. C., (2011). *Self-efficacy in the workplace: Implications for motivation and performance*. International journal of management, business, and administration, 14(1), 1-6.
- Mahyuddin, R., Elias, H., Cheong, L. S., Muhamad, M. F., Noordin, N., & Abdullah, M. C., (2006). *The relationship between students' self-efficacy and their English language achievement*. Jurnal Pendidik dan Pendidikan, 21, 61-71.
- Nunan, D., (1999). *Second language teaching and learning*, Heinle and Heinle, Boston.
- Pintrich, P. R., & De Groot, E. V., (1990). *Motivational and self-regulated learning components of classroom academic performance*. Journal of Educational Psychology, 82(1), 33-40.
- Raoofi, S., Tan, B. H., & Chan, S. H., (2012). *Self-efficacy in second/foreign language learning contexts*. English Language Teaching, 5(11) 60-73.
- Ross, K. N., (2005). *Sample design for educational survey research*. Paris: UNESCO International Institute for Educational Planning.
- Ryan, R. M., & Deci, E. L., (2000). *Intrinsic and extrinsic motivations: classic definitions and new directions*. Contemporary Educational Psychology, 25, 54-67.
- Schunk, D. H., (1996). *Self-efficacy for learning and performance*. Paper presented at the Annual Conference of the American Educational Research Association, New York.

- _____ (2013). *Self-efficacy for reading and writing: Influence of modelling, goal setting, and self-evaluation*. *Reading & Writing Quarterly*, 19(2), 159-172.
- Siniscalco, M. T., & Auriat, N., (2005). *Questionnaire design*. In K. N. Ross (Ed.), *Quantitative research methods in educational planning*. Paris: UNESCO International Institute for Educational Planning.
- Wang, C., Kim, D. H., Bong, M., & Ahn, H. S., (2013). *Examining measurement properties of an English self-efficacy scale for English language learners in Korea*. *International Journal of Educational Research*, 59, 24-34.
- Wang, F., (2008). *Motivation and English achievement: An exploratory and confirmatory factor analysis of a new measure for Chinese students of English learning*. *North American Journal of Psychology*, 10(3), 633-646.
- Wood, D. S., (2003). *A comparison of group-administered and mail-administered surveys of Alaskan village public safety officers*. *Policing: An International Journal of Police Strategies & Management*, 26(2), 329-340.
- Yusuf, M., (2011). *The impact of self-efficacy, achievement motivation, and self-regulated learning strategies on students' academic achievement*. *Procedia Social and Behavioral Sciences*, 15, 2623–2626.
- Zimmerman. B. J., (2000). *Self-efficacy: An essential motive to learn*. *Contemporary Educational Psychology*, 25, 82–91.