A Proposal for a New-dimensional Online Feedback System: Focusing on Individual Learner Differences

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Abstract
The purpose of this study is to create a new method of assessing individual learner differences in the contexts of language learning. Our questionnaire-type items used in this system are based on SILL (Strategy Inventory of Language Learning: Oxford, 1989), FLCAS (Foreign Language Classroom Anxiety Scale: Horwitz et al., 1986), PMLP (Preliminary Measurement for Learner Preference: Ely, 1986), and Noels et al.’s (2000) SDT (self-determination theory: Ryan & Deci, 2000) questionnaire items. During an almost three-year research for 3,000 Japanese university students, the number of questionnaire items experienced a nearly two-thirds reduction. From the results of factor analysis and IRT (item response theory)‐based analysis, only reliable items were chosen from original questionnaires, by excluding the items that are psychometrically unsound or semantically overlapped. This feedback system is programmed with PHP and MySQL. By the use of PHP and MySQL, the system users are allowed to obtain their individualized results as well as educational tips immediately after they answer about 50 questions. We will argue that online feedback is more effective in collecting reliable data than the traditional approaches.

Keywords
Online feedback system, Online assessment, self-regulation, strategy use, anxiety, and motivation

Introduction
The purpose of this study is to establish an on-line assessment system called English Course Navigation System. The system enables the system users (i.e., Japanese learners of English) to learn to use a wide variety of learner strategies and to know their individual learner characteristics in terms of strategy use, anxiety and motivation, as shown in figure 1.

Figure 1: Diagnostic feedback of this system

Firstly, the system users will raise the awareness of the strategies they have yet to use as well as the strategies they frequently use. Secondly, they are encouraged to choose English courses that will provide the environment where they can try out the various strategies. We hope to help them become more self-regulated, self-directed, and self-motivated learners of English.

We define learner strategies as self-regulated control of learning. The concept of learner strategies is closely related to self-regulation. According to Zimmerman (1989), self-regulation has three kinds: covert, behavioral, and environmental self-regulations. For a self-regulated learning, learners have to change their mind, behavior and environment. In doing so, learners deploy various strategies proactively and obtain positive or negative feedback of the strategies they have used, by examining whether or not the strategy use is effective and successful in achieving individual goals. They adjust the strategies or try other strategies. This ever-going process can be regarded as self-regulation. In the process of self-regu-
ulation, one may use ‘bad’ and ‘ineffective’ strategies. More importantly, however, one should take an analytic approach to the strategy use and reactively adjust the strategies in order to cope with various deficiencies that learners are experiencing.

Lightbown & Spada (1990) point out that L2 input in classroom is quite limited. Therefore, students have to learn to manage their own learning outside class. As their social interactions are also limited, they have to increase the opportunities for practical communication. The attention is limited (Schmidt, 2001). Therefore, learners cannot deal with a lot of things simultaneously. Therefore, learners must be focused. Their time to study is also limited. Therefore, they have to prioritize what they have to do. Like the forgetting curves illustrated by Ebbinghaus, because one’s memory is limited, they have to try to retain vocabulary in an effective manner. One’s anxiety affects learning (Horwitz et al. 1986). Learners must cope with their own anxiety or other anxiety-triggered situations. Otherwise, they feel pressured and anxious before dealing with many deficiencies. Therefore, learners should take an approach to attending to self-encouragement, self-coaching, and self-efficacy in order to maintain their own learning and motivation as some great athletes do so. Another factor inducing anxiety may be that learners fail to set realistic and intermediate goals to pursue. Attainable goal-setting will be the most efficient way of learning English. We hope this online feedback system will enable learners to facilitate these motivational and behavioral changes.

2 Importance of online feedback assessments

Language teachers and researchers traditionally need to carry out these assessments by using paper-and-pencil methods in order to investigate language learners’ learning style, motivation, anxiety, strategic use, learner preferences. However, these methods have some drawbacks. Firstly, learners’ responses should be put into a computer; therefore, it takes a lot of time and efforts before analyzing data. In the case of large-scale research projects, this could be a formidable task, and thus may induce human errors. On the other hand, online assessments make it possible to collect many types of learners, which is indispensable in the study of individual differences. In addition, cross-cultural comparisons are easily carried out because online assessments can collect the data of learners in various countries. Another drawback of paper-and-pencil methods is that learners will not be given instant feedback.

Tsutsui et al. (2006) discussed the significant effects of giving instant feedback and compared the generalizability coefficient (Brennnnan, 2001) of ‘instant feedback group’ and that of no feedback group. ‘Instant feedback group’ (N=445) was initially notified of a diagnostic feedback immediately after the assessment. ‘No feedback group’, (N=445) on the other hand was not informed that they would be given feedback. ‘Instant feedback group’ exhibits higher generalizability coefficients than ‘No feedback group’. Therefore, it should be noted that learners should know the reason why they are doing the test (i.e., assessment) or how useful the test is to them. If not so, some learners may not take it seriously, and the data could be unreliable, if answered dishonestly.

With the advent of user-friendly programming methods, we managed to create an online assessment and feedback system of individual learner differences easily and cost-effectively.

3 What individual learner characteristics are assessed?

3.1 Strategy use

In this system, nine different types of strategies are reported with standardized scores (factor scores). The secondary confirmatory factor analysis indicates that these nine factors are reliably subdivided into two. The first four strategy factors are defined as strategies for holists because these are the strategies that learners with holistic learning styles preferably use. The remaining five factors are strategies for analysts, learners with analytic learning style.

<Strategies for holists>
1) Social strategies
2) Practical writing strategies
3) Anxiety management strategies
4) Contextualized vocabulary learning strategies

<Strategies for analysts>
5) Rational planning strategies
6) Grammar learning strategies
7) Efficient reading strategies
8) Self-training strategies
9) Decontextualized vocabulary learning strategies

If learners are constantly using only holistic strategies, they receive feedback to use analytic strategies more proactively. If learners are more attentive to analytic strategies, they are encouraged to employ holistic strategies in contextualized learning environments. This system suggests that learners need to efficiently control both strategies depending on the situations and tasks. When they want to try out strategies in real situations, they can take several language courses that are suggested by this feedback system.
3.2 Anxiety

In this system, individual learners’ anxiety levels are reported in terms of (1) Class Avoidance, (2) Speech Anxiety, (3) In-class Anxiety, and (4) Procrastination. This part mainly focuses on the mechanism that induces one’s anxiety and eventually hinders one’s learning.

In this anxiety section of this system, the system users are encouraged to try changing their own learning attitude gradually. For example, they receive the following feedbacks: (1) to use note-taking strategies, (2) to try more enjoyable learning methods as well as learning environments, (3) to prepare and plan well for what they are going to say, (4) to tape-record their own speech and analyze it later, (5) to be more attentive to self-efficacy and self-couching and (6) to have a good relationship with teachers and classmates.

3.3 Motivation

One’s motivational directions are reported in terms of (1) instrumental motivation, (2) introjected regulation, (3) identified regulation, (4) motivation triggered by intellectual appetite (5) motivation triggered by a sense of accomplishment, (6) motivation triggered by cultural stimulations

The secondary factor analysis showed that these six factors can be subcategorized into two: intrinsic motivation and extrinsic motivation. In this part, they receive feedback to use a wide variety of motivational strategies to self-regulate their own volition and motivation.

4 Conclusion

Because Japanese learners do not pay much attention to their own learner characteristics, this system will be beneficial for basic and intermediate learners of English. This online feedback system would be a very important first step for learners to be more responsible for their own learning. The next step will be for learners to actively try using the strategies that they become aware of thorough the use of this system in authentic situations. We must emphasize that learners should be provided with the opportunities to try out many different types of learner strategies.

Our system can also make learners realize the role of anxiety and motivation in learning English. The next step will be that learners should take feasible actions for confidence development and anxiety regulations, so that they will become more successful learners of English.

References