

Rethinking Introspection: Teachers' Perception of Introspective Methods in L2 Research^{*}

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Suh, Jae-Suk. (2015). Rethinking introspection: Teachers' perception of introspective methods in L2 research. *Modern English Education*, 16(2), 141-160.

The purpose of this paper was to investigate EFL teachers' perception of introspective methods in L2 research. To this end, a study was undertaken in which twenty pre- and in-service teachers participated as subjects, and data were collected by means of a questionnaire designed to view subjects' perception as consisting of three domains, cognitive, affective and behavioral. Most subjects were found to be unfamiliar with introspection as an L2 research method, and their low familiarity with introspective methods in L2 was explained by their lack of exposure to them in an academic context. They were also shown to reach a high consensus about a need to learn about introspection as a source of data in L2 research, and to have high motivation to promote their knowledge of how to deal with introspective data for their research in terms of collection, analysis and interpretation. The overall findings of the study indicated that though subjects had low familiarity with introspection in L2 research, they were sure about the facilitative role of introspection as a research tool in achieving a better understanding of students' learning as well as their own teaching in L2.

[introspection/verbalization/verbal data/teacher education/L2 research /
자기성찰/구두/구두 자료/교사 교육/제 2언어 연구]

I. INTRODUCTION

Research is a systematic, scientific approach to a certain problem or phenomenon in an effort to gain knowledge (Fraenkel & Wallen, 1993; Hatch & Farhady, 1982). In the early days of second language acquisition (SLA), the SLA field was not an independent, autonomous discipline (Gass & Selinker, 1994), and was not well-equipped for research

^{*} This work was supported by Inha University Research Grant.

methodologies as Larsen-Freeman and Long (1991) mentioned that “much of the research in the 1960s comparing language teaching methods was inconclusive and thus unable to quell methodological disputes” (p. 10). Such a shortage of research methodologies seemed to motivate L2 researchers to turn to neighboring fields such as linguistics, education, sociology, psychology and L1 acquisition to borrow research agenda, theoretical orientations, instrumentation, and measurement, among others (Gass & Selinker, 1994). These days despite a wide variety of methodologies in SLA research, two major research paradigms (i.e., quantitative and qualitative) play a central role in eliciting and evaluating learner language (Larsen-Freeman & Long, 1991). In light of unique and notable characteristics of the two paradigms, it would be futile or useless to determine which is worth more between the two since each paradigm comes with its own merits and demerits, and since there is a danger in a blind preference for one paradigm over the other in conducting research (Seliger & Shohamy, 1989). Instead, as pointed out by Larsen-Freeman and Long (1991), “The point is that what is important for researchers is not the choice of *a priori* paradigms ... but rather to be clear on what the purpose of the study is and to match that purpose with the attributes most likely to accomplish it” (p. 14).

Nonetheless, there has been a strong tendency for quantitative methodologies in L2 research over the last several decades (Lazaraton, 1995). A quick look at studies on various areas of L2 learning clearly indicates that a majority of them were undertaken in a quantitative manner, which suggests “a distinctive trend toward quantitative research and greater use of inferential statistics” (Henning, 1986, p. 703) in the field of SLA. Such an overwhelming popularity of quantitative research can be explained by Henning (1986) who said that “Without some recourse to quantitative methods, some marriage of words and numbers, it is inconceivable that the investigation of language acquisition will ever be said to belong to the realm of scientific inquiry” (p. 702). Researchers working under quantitative paradigms often rely on experimental or quasi-experimental research designs in which they “gain objective data by controlling human and other extraneous variables and thus gain what they consider to be reliable, hard data and replicable findings” (Davis, 1995, p. 428). In well-controlled settings L2 quantitative researchers employ elicitation procedures that control over everything happening to subjects during study, and instruct them to do what they are supposed to do for data collection.

Meanwhile, around the early 1970s there was a noticeable shift in research focus in the field of SLA. As compared to a majority of researchers operating with a major focus on universal success in L2 acquisition, others started to recognize individual differences among learners in ultimate achievement of L2 competence (Brown, 2007). They noted that despite the same teacher, method and materials in L2 class, some learners tended to be more successful than others in L2 development. Such a recognition stimulated quite a little of research on learner-external factors contributing to individual variations such as learning

strategies, learning styles, learning beliefs and personality, among others (Naiman, Frohlich, Stern & Todesco, 1995; Rubin, 1975). This line of research can be differentiated from previous research in that rather than observing or recording learner performance through elicitation techniques, the research on learner differences espoused verbalization as viable indicators of individual learners' tendencies, preferences or cognitive processes in L2 learning and use. As O'Malley, Chamot, Stewner-Manzanares, Kupper, and Russo (1985) pointed out, verbal report in interviewing was more effective than observation in the identification of learning strategies. Learners in interviews are encouraged to "describe as precisely as possible what they experience and feel, and how they act. The focus is on nuanced descriptions that depict the qualitative diversity, the many differences, and varieties of a phenomenon" (Kvale & Brinkmann, 2009, p. 30). Gaies (1983) also noted a clear need to be accessible to mental, decision-making processes in learner mind by using self-report through verbalization in L2 research.

Indeed verbalization as a viable and stable source of data in L2 has been considered a legitimate research tool in which "with guidance from the researcher, learners examine their own behavior for insights into SLA" (Larsen-Freeman & Long, 1991, p. 15). It is also known as introspective techniques since verbalization is done through introspection, "the process of observing and reflecting on one's thoughts, feelings, motives, reasoning processes and mental states with a view to determining the ways in which these processes and states determine our behavior" (Nunan, 1992, p. 115). Despite growing interests in introspection as a research method and its advantages conducive to a better understanding of learning processes, the field of SLA has been underrepresented in number of both scholars and studies adopting introspection as research techniques. In addition, there is a paucity of information on what introspective techniques are about, how they are best used to produce a viable source of data, and what should be done to enhance the quality of such data.

Moreover, in light of the fact that few universities and teachers' colleges in this country provided pre-service teachers of English with courses on research methodologies in a systematic and organized manner, most in-service teachers of English nationwide are believed to suffer from lack of knowledge of introspection as it is employed in L2 research. A similar point was made by T. S. Yang (2009) who claimed that "many English teacher education programs in Korea mainly focus on theories from linguistics and second language acquisition and language teaching methods ... As a result, many of them in teacher education programs are uncertain about what action research involves and how to do it" (p. 256). Also, given that one of the important goals in L2 teaching profession is to make learners empowered to become self-directed, autonomous learners (Brown, 2007), and that such a goal can be achieved by guiding learners in knowing how to learn by themselves (Freire, 1970 as cited in Brown, 2007; Wenden, 1985), the first step to be taken

apparently is for teachers to have a solid understanding of individual learners who are assumed to bring a variety of learner characteristics (e.g., learning beliefs, learning styles, learning strategies and personality, among others) to the L2 task. One good way of identifying such learner characteristics is through action research, “teacher-initiated classroom investigation which seeks to increase the teacher’s understanding of classroom teaching and learning and to bring about change in classroom practices” (Richards & Lockhart, 1994, p. 12). It seems highly likely that a teacher’s classroom investigation in action research makes a frequent use of learner verbalization through introspective methods in order to gather information on learner characteristics during L2 learning and use. As K. J. Ahn (2010) and T. S. Yang (2009) suggested, however, many English teachers in our nation showed deficiency in knowledge and skills in conducting action research, and demanded support for courses or teacher training programs that can offer full, detailed guidelines or explanations about doing their own research, and can help them to have a solid understanding of diverse research methodologies in L2. In sum, given that most pre- and in-service teachers of English nationwide lack the knowledge of theory and practice on their research investigation in general, it would be worthwhile to examine what opinions and feelings those teachers have about introspection as research techniques in L2. The current study started along this line of inquiry, and its aim was to have an in-depth look at the perception of Korean teachers of EFL about introspection used as a research tool in L2.

II. PREVIOUS STUDIES

1. Background

Since the 1900s, there have been two main polarized schools of thoughts in the field of psychology: behaviorism and mentalism (Brown, 2007). Behaviorists attempted to account for acquisition and change in the behavior of organisms within scientifically structured environments. In contrast, mentalists concerned about the nature of human mind stressed the significant role of internal states or processes in the use and development of mental abilities or cognition. In their efforts to investigate mechanisms of such mental, cognitive processes, mentalists in cognitive psychology saw informants’ verbal reports or oral statements as a valuable source of information on what goes on inside their mind (Ericsson & Simon, 1980; Nunan, 1992). Thus the advent of mentalism increased interest in verbalization as a research technique for examining mental processes in human behavior. As verbalization is made possible through introspection that involves observing or describing one’s consciousness or mental processes, introspection is a window into the

workings of mental mechanisms occurring during learning or performing various cognitive tasks or activities. A strong support for introspective data came from Ericsson and Simon (1980) in psychology who suggested that if carefully elicited and interpreted, introspective reports are a viable source of data on cognitive, mental activities. Also Lieberman (1979) lamented behaviorists' rejection of introspective data, and advocated a frequent use of them by claiming that introspective reports help to predict and control specific human behaviors.

A growing interest in introspection in cognitive psychology led researchers in SLA to be positive about introspective reports as a useful source of information in L2. Advocates for the use of introspective data in L2 research fully acknowledged that there is a definite need to know about learners' mental states or processes in L2 learning, and that existing elicitation procedures based on an observation or analysis of learner performance have no access to such internal activities (Cohen & Hosenfeld, 1981; Cohen & Olshtain, 1993). Cohen and Hosenfeld (1981) made this point clear, saying that "it is difficult, if not impossible, to obtain accurate insights about learners' conscious thought processes through conventional observations ... Classroom observation can be used to record nods of the head, smiles, eye movements, and what students say, but not what they are thinking about, how they are thinking, or how they feel" (p. 307-308). Cohen (1996) was concerned about cognitive processes involved in the production of L2 speech acts, and adopted verbal report which offers "insights regarding the choices made by individuals in their speech behavior. Cohen added that "By now it has been clearly demonstrated that verbal report is not one measure, but rather encompasses a variety of measures, intended to provide mentalistic data regarding cognitive processing" (p. 26). Likewise, Lennon (1989) mentioned that the field of SLA has been unwilling to employ learner self-report as data, and argued that such data are conducive to the uncovering of internal processes involved in L2 tasks. Faerch and Kasper (1987) also remarked that introspective methods facilitate a more direct access to how learners process L2 knowledge, and become "an alternative or supplement to inferring learners' thoughts from behavioral events" (p. 9).

Though scholars in SLA fail to reach consensus about introspection as a viable source of data in L2 research, as mentioned earlier, with no help of introspection, there is almost no way of knowing what goes on in learner mind during learning or using the L2, and thus no complete picture of L2 competence would be obtainable. This is one important rationale for adopting introspective techniques in various areas of L2 research in which direct observation is impossible of mental, cognitive processes involved in the production or comprehension of the target language.

2. Classification of Introspective Techniques

Since the introduction of introspection as a research tool into the field of SLA, a variety of different introspective techniques have been developed and employed in studies of various areas of L2 such as reading, writing and learning strategies. According to Cohen (1996), introspective techniques provide various types of “data that reflect self-report (learners’ descriptions of what they do, characterized by generalized statements about learning behavior), self-observation (the introspection of specific, not generalized language behavior introspectively or retrospectively), self-revelation (think-aloud, stream-of-consciousness disclosure of thought processes while the information is being attended to)” (p. 26). Much effort has been made to search for criteria according to which introspective techniques can be classified (J. S. Suh, 2001). For instance, Faerch and Kasper (1987) gave a classificatory framework that included six categories such as object of introspection, relation to concrete action, temporal relation to action, informant tracing, elicitation procedure and combination of methods. Cohen and Hosenfeld (1981) offered a model for researching mental states which consists of three dimensions: activities (e.g., thinking aloud and self-observation), time between mental state and verbalization of it and content of thoughts. Matsumoto (1994) proposed a two dimensional model that contained time of verbalization and relationship between heeded and verbalized information. Among the aforementioned, various criteria, time of verbalization is seen as most important in the classification of introspective techniques. That is, the question of whether verbalization occurs during a task, after a task, or with no relation to any task has great influence on the quality of oral data since the interval between acquisition of information and verbalization of information determines the extent to which acquired information is verbalized accurately and reliably (Ericsson & Simon, 1980).

Thus a criterion, time of verbalization, classifies introspective techniques into two types, concurrent and retrospective verbalization. Concurrent verbalization takes place when informants are engaged in a task, and at the same time, give oral report on everything that they think, feel or do during a task. During verbal reporting, informants do not make any attempt to analyze or control anything that comes into their mind (Cohen & Hosenfeld, 1981; J. S. Suh, 2001). A typical example of concurrent verbalization is think-aloud procedures which are frequently used in reading research in L1 and L2. Meanwhile, retrospective verbalization involves oral reporting either after a task or with no relation to any task. So it has two sub-types, immediate and delayed retrospection (Cohen & Hosenfeld, 1981; Faerch & Kasper, 1987; Matsumoto, 1994). Immediate retrospection refers to oral report on whatever comes to mind immediately after a task while delayed retrospection indicates that verbal report is done either later after the completion of a task or regardless of any specific task. Some typical examples of retrospective verbalization

include questionnaire, interviews, discussions and diary keeping (Matsumoto, 1994; J. S. Suh, 2001).

Another criterion frequently mentioned in classifying introspective methods is origin of verbalized information (Ericsson & Simon, 1980, 1984). That is, whether verbalized information originates from short-term memory or long-term memory matters to both quantity and quality of oral data. According to Ericsson and Simon's (1980) model of information processing, short-term memory stores the most recently learned information that is immediately available for oral reporting while long-term memory keeps information longer, but needs more time for its later retrieval because information here should be sent to short-term memory first before oral reporting (J. S. Suh, 2001). So in the case of concurrent verbalization in which information is acquired during a task, and at the same time, is immediately available for oral report, it is evident that a direct relationship exists between acquired information and verbalized information (Matsumoto, 1994; Nunan, 1992). But in retrospective verbalization in which oral report occurs either after a task or even irrespective of any task, there is an indirect relationship between acquired information and verbalized information since acquired information is indirectly accessible for oral report in that information stored in long-term memory needs to be traced and found for retrieval, and further be transferred to short-term memory for oral reporting (Matsumoto, 1994; Nunan, 1992). Thus it is clear that concurrent verbalization provides much higher quality of verbal data than retrospective verbalization in terms of accuracy, validity, and reliability of data (Matsumoto, 1994; J. S. Suh, 2001).

3. Previous Studies on Introspection in L2 Research

Studies on introspection in L2 literature can be categorized roughly into two groups. The first group of studies tended to be theoretically oriented toward either stressing the adoption of introspection as a research tool or casting doubt on its contribution to L2 research. Proponents (e.g., Cohen, 1996; Ericsson & Simon, 1980, 1984; Lennon, 1989; Matsumoto, 1994) based their rationale on the assumption that learners' cognitive and metacognitive processes involved in learning are unobservable and inaccessible by existing production-centered research procedures adequately. Opponents of introspection as a source of data (e.g., Doblin, 1986; Seliger, 1983; White, 1980) doubted about an access of introspection to language processing. Seliger (1983) pointed out that internal processes underlying language learning are inaccessible from introspection because learning takes place below the level of consciousness, and are unavailable for verbalization. Similarly, White (1980) claimed that "conscious awareness is limited to the products of mental processes and the processes themselves are beyond the reach of introspection" (p. 105).

The second group of studies made use of various types of introspective techniques to

examine mental activities, decision-making processes, and generalized opinions about L2 learning and use. For instance, Vann and Abraham (1990) were concerned about reasons for lack of success by two learners of ESL, and gathered verbal data via 'think-aloud' during a performance of various tasks. They found that in contrast to the early claim that unsuccessful learners tended to be inactive users of learning strategies, their subjects made frequent use of learning strategies though often applying them to tasks inappropriately. They owed this finding to the collection of oral data from concurrent verbalization which offered "considerable insight into strategies used by language learners" (p. 190). In a study of EFL Korean teachers' perception of communicative language teaching (CLT), Li (1998) interviewed teachers to determine their difficulties of conducting CLT in Korean contexts of EFL. The conducting of interviewing via retrospective verbalization allowed teachers to provide their general beliefs or opinions about implementing CLT in their country, which yielded four differing sources of difficulties such as teachers, students, educational systems and CLT itself.

Recently it is perhaps the field of interlanguage pragmatics that witnessed a plethora of studies investigating learners' decision-making processes involved in the performance of various speech acts in situations. Cohen and Olshtain (1993) were among the first to look into decision-making processes in the production of speech acts such as requests, apologies and complaints. They gathered verbal data in such a way that Hebrew learners of EFL engaged in role play with native speakers in various situations, and later were interviewed about how they went through the performance of a specific speech act in a given situation. Here interviewing right after speech act performance led learners to engage in immediate retrospection to offer oral data, and yielded the finding that they experienced a variety of decision-making processes involving attention to grammar, vocabulary, and pronunciation as well as a general evaluation of utterance in contexts. Also in a study of corrective feedback in L2 pragmatics, Castro (2005) provided Brazilian teachers of EFL with a training program on pragmatics, and observed their English classes to see whether there was any change in teaching behavior on feedback at a pragmatic level. Interviews with teachers after lesson observation revealed that EFL learning situations were not favorable to a successful implementation of pragmatic instruction in terms of offering corrective feedback to students, and that the training program was not effective enough to make teachers sensitive to pragmatics.

Despite benefits of introspection to the field of SLA, there have been warnings against a sole dependence on introspection in research (Cohen & Olshtain, 1994; Vann & Abraham, 1990). As every research procedure comes with its own strengths and weaknesses, so does introspection as a data-gathering method. This indicates that rather than showing a blind preference for introspective data, a combined approach based on multiple procedures is always recommended since strengths of one procedure can pay off weaknesses of another

as Vann and Abraham (1990) mentioned “When combined with other methods, they (introspective techniques) may provide us with convergent validity for certain findings, or force us to reexamine assumptions about ... in language learning” (p. 179). So when supplemented by other sources of data appropriately, various types of verbal data from introspection can make meaningful, productive contribution to an establishment of a complete picture of L2 competence (Cohen & Olshtain, 1994; J. S. Suh, 2001).

III. METHODS

1. Participants

Subjects in the study consisted of twenty graduate students. As pre- or in-service teachers of English, they were enrolled in a graduate school of education at one major university in the nation, majoring in English education. Most subjects were in their 20s or 30s, and only four were male. Thirteen were in-service teachers who had been teaching English in middle or high schools. Subjects took a course entitled *Language in Society* at the time of study which was designed to heighten subjects’ awareness of communicative, pragmatic aspects of language and to encourage them to introduce those aspects of L2 into their future class. Except for three subjects, the rest in the course had been enrolled in the graduate school for either one or two semesters, which suggests that many subjects had not had enough chances to take courses on research methodologies during their enrollment in the graduate school, and thus did not have sufficient knowledge or skills in design and implementation of research in the field of education or second language acquisition. So quite a few subjects were expected to have difficulty of understanding some items of questionnaire designed to measure their perception of introspection as a research method, and of responding to them accordingly.

2. Instruments and Procedure

Data in the study were collected by means of questionnaire. Since the focus of the study was on determining subjects’ perception of introspection as a research tool in L2 learning, in order to develop the questionnaire, their perception was seen as consisting of three main components such as cognitive, affective and behavioral (Eagly & Chaiken, 1993; Teale & Lewis, 1981). Based on such a tri-component view of perception about introspection in L2 research, the questionnaire was created to reflect what subjects think of introspection as an L2 research method (i.e., cognitive aspect of perception), how they feel about it (i.e., affective aspect of perception), and what they actually do with it for research (i.e.,

behavioral aspect of perception). That is, the questionnaire contained statements about thoughts or opinions about introspection as an L2 research technique, feelings or evaluations of it, and actual behaviors in adopting it in L2 research (J. S. Suh, 2012). In all, twenty statements were included into the questionnaire in which nine statements (i.e., statements 1, 2, 3, 4, 5, 6, 7, 8, and 9) were concerned with the cognitive aspect of subjects' perception of introspection in L2 research while five statements (i.e., statements, 10, 11, 12, 13, and 14) dealt with the affective aspect of their perception of introspection in L2 research. Still the rest of the statements (i.e., statements 15, 16, 17, 18, 19, and 20) were related to the behavioral aspect of subjects' perception of introspection as an L2 research tool (see Appendix). The questionnaire was written in English, and was administered at the last day of course during which subjects were instructed to read each statement carefully, and respond to it in terms of a four-point scale: *Strongly Disagree*, *Disagree*, *Agree*, and *Strongly Agree*.

3. Data Analysis

Since subjects in the study responded to the questionnaire by choosing one of the four numbers from 1 to 4, the resulting data took the form of numerals. This naturally led to a quantitative analysis of data. In order to determine subjects' perception of introspection as an L2 research technique, first, frequencies with which they chose each one of the four numbers in a given statement were counted. Then given that subjects' perception of introspection in L2 research was defined on the basis of a tri-component perspective (i.e., cognitive, affective, and behavioral) in the study, means of individual components were computed for comparison and discussion.

IV. RESULTS AND DISCUSSION

1. Teachers' Cognitive Perception of Introspection in L2 Research

As stated before, the perception of pre- and in-service teachers of EFL about the use of introspective methods in L2 research was measured on the basis of a tri-component view that was built upon three components such as cognitive, affective, and behavioral. More specifically, findings about teachers' perception of introspection as an L2 research tool were given in terms of means in Figures 1, 2, and 3 according to each one of the three components.

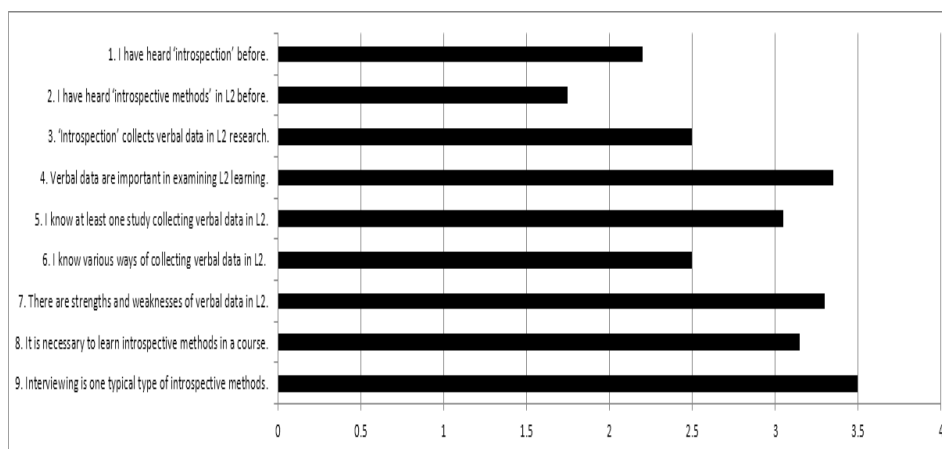


FIGURE 1 Teachers' Perception of Introspection as a Research Method in Cognitive Domain

As seen in Figure 1, subjects showed a strong disagreement on the first two statements in the questionnaire that measured their familiarity with words, *introspection* in general, and *introspective methods* in particular. A half of subjects responded negatively to statement 1 ("I think I have heard the term *introspection* before"), and even more than half of them (85%) did so in statement 2 ("I think I have heard the term *introspective methods* in L2 research before"). This clearly indicates that many subjects were unaware of a word, *introspection*, and had no idea of introspective methods as a research tool in L2. One simple reason may be because both notions (i.e., *introspection* and *introspective methods*) are quite infrequent, so subjects had few chances to encounter them in either everyday communication or an educational setting. Further such a lack of familiarity led subjects to show a lower degree of agreement on statements 3 and 6. In other words, the fact that subjects' insufficient knowledge of adopting *introspection* as a source of L2 data made 40% of them choose either *Strongly Disagree* or *Disagree* on statement 3 ("I think *introspection* involves collecting verbal data in L2 research"). Likewise, 50% of subjects who seemed to have little idea of *introspection* as an L2 research technique made a negative response to statement 6 ("I know about various ways of collecting verbal data in L2 research").

In contrast, subjects tended to show a higher degree of agreement on statements 4, 5, 7, 8, and 9. In response to statement 4, nineteen out of twenty subjects (95%) acknowledged that oral data gathered from *introspection* made a great contribution to a better understanding of L2 learning and use. Also 85% of subjects in statement 7 agreed that there were both advantages and disadvantages of using oral data in L2 research, and 95% of subjects in statement 9 knew that one typical way of gathering verbal data was through

interviewing from introspection. Similarly, 75% of subjects responded positively to statement 5, saying that they had some experience to read at least one study with verbal data in L2 research. At this moment it would be somewhat surprising that a negative response pattern in previous statements 1, 2, 3, and 6 was clearly contrasted with a positive response pattern in the present statements 4, 5, 7, and 9. That is, while many subjects showed unfamiliarity with terms, *introspection* and *introspective methods* in L2 research in the first few statements, quite a few subjects here were believed to have some knowledge of introspective methods as a source of oral data in their positive response to the statements. As one possible explanation for the difference in a response pattern, subjects were assumed to have been exposed to a term, *verbal data* more often than *introspective methods* in and out of school. A more frequent exposure to ‘*verbal data*’ seemed to lead them to make intelligent guesses at meanings of statements containing it than statements including *introspective methods*, help them to figure out what ‘*verbal data*’ is in terms of nature, role and features in L2 research, and thus to make it rather easy for them to make a positive response to the present statements. In this sense, it is understandable that in statement 8 (“I think it is necessary to learn about introspective methods in a graduate course”), eighteen out of twenty subjects (90%) were active in reaching an agreement on the need for pre- and in-service teachers to take a course on research methodologies dealing with *introspective methods* in a graduate school.

2. Teachers’ Affective Perception of Introspection in L2 Research

From the affective perspective, subjects’ overall perception of using introspection in L2 research was not positive-oriented. As seen in Figure 2, means of each one of the five statements were all below 3 which was the value given to a choice *Agree*.

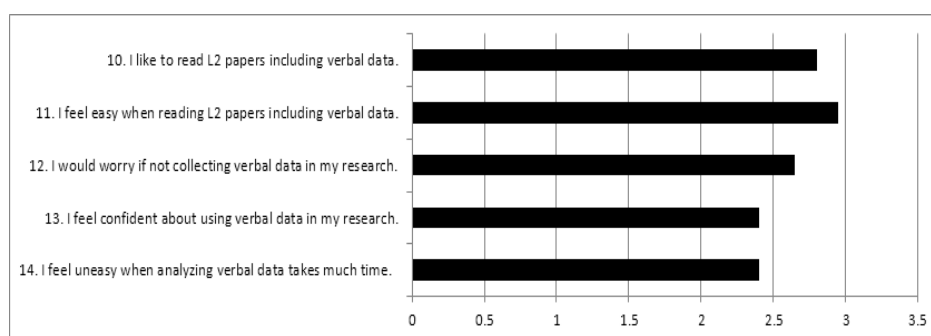


FIGURE 2 Teachers’ Perception of Introspection as a Research Method in Affective Domain

In particular, subjects reached a lower degree of agreement on statements 13 and 14 that involved handling oral data from introspective techniques in terms of collection, analysis and interpretation in L2 research. 60% of subjects disagreed that they felt confident when they should deal with verbal data from introspection for analysis and interpretation in statement 13 (“I feel confident about analyzing and interpreting verbal data if I collect them from introspective methods”). In the same vein, 60% of subjects said that they felt uneasy when they had to spend much time and energy on an analysis of verbal data. This finding indicated that though most subjects acknowledged the facilitative role of oral data gathered via introspection in L2 research, they had insufficient knowledge necessary to deal with verbal data for their research in an effective, successful manner. The need for subjects’ being equipped with such knowledge was emphasized earlier in statement 8 in which 90% of subjects showed willingness to learn about introspection as a research tool in a graduate course.

Meanwhile, subjects’ response pattern in statements 10, 11, and 12 tended to be more positive than that in statements 13 and 14. For example, 75% of subjects agreed that they would feel easy or comfortable when reading articles or papers with verbal data collected from various introspective methods in statement 10 (“I like to read research papers including verbal data through interviews or survey”). Similarly, 75% of subjects definitely responded that they would feel more comfortable reading research papers with verbal data from introspective techniques than papers with numerical data from elicitation procedures in statement 11 (“I feel easy when I read research papers including verbal data rather than numerical data”). Even 70% of subjects went one step further, and agreed that they were highly motivated to gather oral data through introspective methods in their own research in statement 12 (“I would be worried if I do not collect verbal data in my research”).

3. Teachers’ Behavioral Perception of Introspection in L2 Research

Subjects in this domain reached a strong agreement on most statements. Above all, they showed the highest degree of agreement on statement 16 (“I am willing to take a course or a program if it helps promote my ability to deal with verbal data”). As seen in Figure 3, nearly all subjects (95%) responded positively to the statement, revealing that they had high motivation to develop their research skills in using introspective methods by actively taking a course or a program.

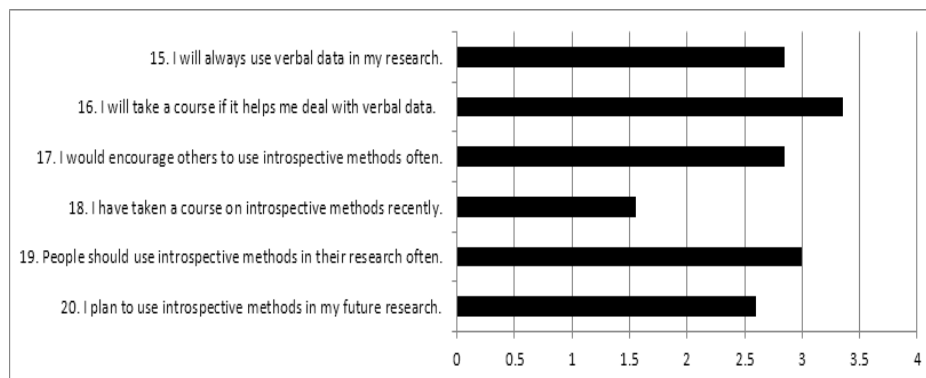


FIGURE 3 Teachers' Perception of Introspection as a Research Method in Behavioral Domain

Such a high degree of consensus on this statement naturally led most subjects to make a positive response to statements 17 and 19. 85% of subjects in statement 19 wanted other people to be more active in adopting introspective methods in their research, and further 75% of subjects in statement 17 showed willingness to help others to use oral data from introspection more often. Even in statement 15 ("I am always willing to collect verbal data in order to conduct my future research") 75% of subjects definitely responded that they would always make sure that they gather oral data by using introspective methods in their study.

Nonetheless, in statement 20 ("I have a plan to use introspective methods to gather verbal data in my future research"), only 55% of subjects responded positively, and one possible explanation for a somewhat low agreement here is that though many subjects had some ideas of what verbal data is about in L2 research, and had high motivation to use them for their research, they seemed unready or unprepared to do so due mainly to their lack of knowledge of introspective techniques as they are adopted in L2 research. As a result, a relatively small number of subjects were positive about planning to use introspective data for research at the earliest possible time. Such an explanation makes sense in light of a strong disagreement by most subjects (95%) on statement 18 ("I have taken a course on research methodologies including introspective methods recently"). Also a very high disagreement on this statement is reminiscent of subjects' response to statements 2 and 8 in which quite a few subjects expressed unfamiliarity with the term, *introspective methods* in L2 research, and at the same time, expressed concern about learning about introspective methods in an academic context. From this it follows that though many subjects had few chances to know about introspection as L2 research techniques in a systematic, organized way, they had much interest and enthusiasm to learn about it to have a better understanding of L2 learning and use in their future study.

V. CONCLUSION

The focus of the present paper was on examining the perception of English teachers on introspection as a research tool in L2. To this end, a study was conducted in which twenty pre- and in-service teachers of English responded to a questionnaire containing twenty statements created from a tri-component perspective. Among many findings, most important, subjects showed more familiarity with *verbal data* than *introspective methods* as they were used in L2 research, and agreed that introspective data should be used more often in research for a better understanding of L2 learning and use. Subjects' low familiarity with *introspection as a research method* was accounted for by their lack of exposure or experience with it in an educational setting. Also many subjects expressed an overwhelming consensus about the need for learning more about introspection used as a source of data in L2 research. In the same vein, quite a few subjects were found to have high motivation to meet their desire to promote knowledge about how to deal with oral data from introspection in terms of collection, analysis and interpretation for their own research. According to the overall findings of the study, though subjects had insufficient knowledge of introspective methods in L2 research, they recognized their beneficial role in complementing numeral data from quantitative elicitation procedures and helping to gain a complete picture of learner language system underlying L2 learning or use. From the findings it follows that there is a strong need for teacher training in diverse L2 research methods including introspective techniques. Work by K. J. Ahn (2010) indicated that an in-service teacher of English in a semester-long course was able to broaden her understanding of qualitative research through reading research papers and designing a research project with a qualitative method, interviewing. Likewise, in a study examining English teachers' perception of conducting action research, T. S. Yang (2009) concluded that "teacher education programs in Korea regularly offer some courses with practical guidelines of how to conduct action research. Those practical guidelines should include effective techniques (i.e., keeping a language teaching diary and interviewing, etc.) and instruments ... for classroom observation" (p. 256).

Regarding weaknesses of the study, first, since there were more females than males in the sample, it suffered from a gender discrepancy. Second, the sample size was somewhat small, which made it difficult to conduct statistical analyses, and thus to generalize the findings of the study into a larger population. Third, items in the questionnaire were not arranged randomly, and this might have negative effect on the overall findings of the study. Finally, nearly all subjects were enrolled in a graduate school for just one or two semesters at the time of study, and as mentioned earlier, such a short period of enrollment in a graduate school might be one main reason for their low familiarity or lack of knowledge about *introspection as an L2 research method*. If students with more than two semesters of

enrollment had been selected as subjects, they could have showed more knowledge of introspective methods by taking more research-related courses in a graduate school. In other words, depending on how many semesters subjects are enrolled in a graduate school, they might differ greatly from one another in their way of responding to questionnaire, which would be likely to have much influence on the overall findings of the study. So it would have been desirable to make subjects in the sample more evenly distributed in terms of an enrollment period in a graduate school. Despite these problems, it is evident that English teachers in the study seemed sure about what they should do with *introspection as a research tool* in their efforts to gain a better understanding of students' learning as well as their own teaching in L2. Thus it would be necessary for them to have an opportunity to experience such benefits from introspection as a research method in their own study in which verbal data lead them to be in a better position to know about what takes place inside the L2 classroom on the part of both students and teacher.

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APPENDIX

Questionnaire

Male () Female ()

The following is questionnaire as part of my research. Your contribution is very important. I'd really appreciate it if you could answer the questionnaire as truthfully and seriously as possible. Thank you very much!

Please read each statement, and respond to it in terms of one of the following:

'Strongly Disagree' (1), 'Disagree' (2), 'Agree' (3), 'Strongly Agree' (4)

- ___ 1. I think I have heard the term ‘introspection’ before.
- ___ 2. I think I have heard the term ‘introspective methods’ in L2 research before.
- ___ 3. I think ‘introspection’ involves collecting verbal data in L2 research.
- ___ 4. I think verbal data play an important role in examining L2 learning and use.
- ___ 5. I think I remember seeing at least one study collecting verbal data in L2 research.
- ___ 6. I know about various ways of collecting verbal data in L2 research.
- ___ 7. I know there are both strengths and weaknesses of using verbal data in L2 research.
- ___ 8. I think it is necessary to learn about introspective methods in a graduate course.
- ___ 9. I think interview is one typical type of introspective methods to collect verbal data.
- ___ 10. I like to read research papers including verbal data through interviews or survey.
- ___ 11. I feel easy when I read research papers including verbal data rather than numerical(number) data.
- ___ 12. I would be worried if I do not collect verbal data in my research.
- ___ 13. I feel confident about analyzing and interpreting verbal data if I collect them from introspective methods.
- ___ 14. I feel uncomfortable when I spend much time and energy on analyzing and interpreting verbal data.
- ___ 15. I am always willing to collect verbal data in order to conduct my future research.
- ___ 16. I am willing to take a course or a program if it helps promote my ability to deal with verbal data.
- ___ 17. I would encourage others to use introspective methods(collect verbal data) actively and frequently.
- ___ 18. I have taken a course on research methodology including introspective methods recently.
- ___ 19. People should be more active in using introspective methods in their L2 research.
- ___ 20. I have a plan to use introspective methods to gather verbal data in my future research.

Examples in: English**Applicable Languages: English****Applicable Levels: Tertiary**

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Received 20 March 2015

Revised 11 May 2015

Accepted 25 May 2015