CHAPTER TWO

Empirical Studies on Strategic Competence

Introduction

In this chapter, this researcher will review the empirical studies and trace the developments accompanying the research on communication strategy and learning strategy, the results attained by the various studies that covered the various types of strategic behaviours of foreign language learners, and the factors that affect quality and quantity.

I) Empirical Studies on Communication Strategies

Types of strategies

The first systematic study\(^1\) on communication strategy was undertaken by Varadi (1983).\(^2\) He presented a detailed analysis of the strategic behaviour of the foreign language learner that was called “message adjustment”. In that empirical study of communication strategy, Varadi tried to establish a model of inter-language production, which in

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1 Tamas Varadi, first, presented the study at the 6\(^{th}\) Conference of Rumanian-English Linguistics Project, Timisoara; Rumania, in 1973 and it was published in IRAL VoL: 18/1 pp.59-71 (1980), and then it has been included in the editorial work of Faerch and Kasper (1983).
particular focused on the strategies employed by the foreign language learners while experiencing a difficulty in expressing themselves in the target language. Varadi (1983) argued,

"the question of how close to the target language the foreign language learner comes to, communicating what he wanted to, must not be disregarded in assessing success in foreign language acquisition".  

Taking into account the implication of this criterion and the failure of the previous approaches such as error analysis and the contrastive analysis in presenting a clear and expressive picture of the foreign language learners’ ways to express their ideas without having enough resources in comparison to the native language learner, Varadi presented “a schematic view of the communication process of the target language learners”. However she noticed that learners were not assumed necessarily to pass through all these stages in a logical sequence as it was formulated. This model was served only to clarify processes that underlie the strategic behaviour of language learner at the time of producing language despite his low resources of the target language. The first stage of the target language learner’s communication processes was “described as a search for a suitable linguistic form to convey the intended meaning”. That wish by the learner to express himself in a target language was called an optimal message. This optimal message had two forms depending on whether they were considered from the point of view of the native language speaker or target language learner. So, there would be two forms of mental representations of the intended message that in turn would have two target language forms.

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3 ibid., p. 80.
4 ibid.
5 ibid., p. 82.
The first form would be proper if the native speaker produced it or if the learner’s mother tongue was matched to that of the target language. In this part of his model, Varadi considers language production a linear process in that the speaker thinks in his native language then produces the linguistic form accordingly. The second form would be the form that the learner selected in the belief that it conveyed his meaning. However, the chosen form would be of two types of optimal meanings and two types of linguistic forms. At that stage, the learner seemed to search for a suitable linguistic form that would convey his intended meaning.

Meanwhile, difficulties emerged since the learner’s approximation system was by definition impoverished, the range of available formal means to express this meaning was much more limited in the target language than in the base language ‘the mother tongue’. Moreover, even the available formal alternatives were presumably less readily accessible. So, two possibilities might arise at that point: “1) the learner might find a satisfactory linguistic form through formal reduction or replacement and having found a viable means to express his meaning”\(^6\) that could be “deviant or even subject to misinterpretation”\(^7\) or a proper form. 2) Also he might fail, “by any means available to him to formulate his optimal meaning so as to bring it within the sphere of his encoding capabilities”.\(^8\) That adjustment of meaning usually involved sacrifices of the parts of the optimum message; loss of precision or it might lead to complete shift of optimal meaning.

\(^6\) ibid., p. 83.
\(^7\) ibid.
\(^8\) ibid.
That empirical study aimed at investigating some of the aspects of the message adjustment phenomenon. For fulfilling the objective, she carried out a small-scale experiment “to arrive at a preliminary assessment of the validity of the theoretical formulations”. She selected two groups of nine and ten adult learners of English at an intermediate level as the subjects of the study. The experiment was conducted in two phases. In the first phase both groups were asked to describe related a series of drawings. Group-One was asked to describe the picture story in English within 45 minutes; Group-Two was asked to describe it in the mother tongue within 30 minutes. Subjects were not allowed to use dictionary in either phase of the experiment. Immediately after finishing the task, they were asked to describe the picture story for the second time in the other language. For a technical reason, the second phase of the experiment was conducted some days later. The subjects were asked to translate the English version to their mother tongue version and vice versa.

With those procedures, Varadi accounted the mother language version to represent the learners’ optimal meaning and the English version to represent the adjusted message arrived at by reconstruction through their actual message whenever the two did not coincide. Thus, it would be possible to attribute the differences between the two versions to the adjustment phenomenon resorted to by the learners under the compelling force of their imperfect competence in Target language. Also, it was important to ascertain, whether the learner was fully aware that the preferred form failed to convey his optimal meaning but was chosen because it provided the closest approximation that his approximative system allowed or whether the learner felt that the chosen form did not

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9 ibid., p. 87.
convey his optimum meaning. In this way, it could be possible to ascertain that the deviant was an indication of the lack of awareness of the difference between the native and target language or that the adjustment had occurred.

The study reveals that the results that ascertained “the general validity of the theoretical presuppositions that presented, in particular, the concept of message adjustment”. Furthermore, the retranslation of English into Mother tongue often failed to serve the purpose of establishing the distinction between cases of adjustment and unintentional incorrect use of adjustment of Target language elements. Also, there was a variation in the length of the two versions and their state of completion. Those differences were accounted by Varadi to support the view that starting with Mother tongue was easier than to begin with Target language. In addition, significant reduction between the two versions was clearly evident. The English version was a series of simple, isolated statements. The relation between these statements was chronological that was not indicated by any means of linguistic means other than the mere succession of the sentences. The failure to indicate explicitly another type of relationship, causality, was also marked. Another characteristic of the English versions by contrast with the Hungarian versions was extreme stylistic economy and simplicity. However, a distinction between “intensional and extensional” reduction was highlighted by the study. Within intensional reduction, Varadi also distinguished between two different cases: 1) generalization that was the use of a super-ordinate term

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10 ibid., p. 96.
11 Varadi meant by the “intensional” reduction in meaning, the relaxation of precision caused by selection of forms whose meaning though related to it, fell short of optimal meaning. On the other hand, “extensional” reduction was the elimination of parts of the meaning and manifested in the omission of particular forms.
with reference to its hyponym and 2) the approximation that was roughly
defined as an attempt to reconstruct the optimal meaning by explicating.
It was noted that if enough of the semantic components “balloon” have
been extensionally rendered for the offered form to convey the optimal
meaning inherently, it should no longer be regarded as an approximation
but rather as a circumlocution.

Factors affecting selection and use of strategies

Exploiting a different classification of communication strategies,
Bialystok’s (1983)\textsuperscript{12} attempted to examine the issue of implementation of
strategies by dealing with three questions ‘who uses which strategy’, and
‘when and with what effect’. The purpose of the study was to locate
regularities attributable to any of these factors with respect to the
approach by various second-language learners to specific communication
problem.

Thus, in order to elicit the use of communication strategies when
appropriate target language vocabulary of the learner was deficient, she
designed a task to meet three criteria. The task had to stimulate real
communication exchange in which one of the interlocutors was a
monolingual speaker of the target language. Second the task had to
provide an incentive for the learner to attempt to convey difficult
information. Third, it was necessary to have control over the items for
which the communication strategies were to be examined. The task used

\textsuperscript{12} Ellen Bialystok, “Some Factors in the Selection and Implementation of
Communication Strategies,” in Faerch, C. and Kasper, G. (eds.). \textit{Strategies in
in that study was picture description in which a subject was asked to describe a picture, so that a native speaker of that language ‘the interlocutor’ could accurately reconstruct it.

The subjects in that study were sixteen students in the twelfth class, learning French in high school, who were divided into two groups 10 regular and 6 advanced students, and a group of fourteen adults learning French in a civil program. The adults were generally more advanced in their studies than the students of high school. In addition, all subjects completed a cloze test to get an individual assessment of proficiency, and a more difficult test was required for the adult learners than the one for the twelfth grade students.

As for the first question, ‘who uses which strategy’ the study showed these results: by considering the two groups of the twelfth grade and the advanced adult learners separately, there were no differences among the three groups in their quantitative use of the strategies. A significant difference in selection emerged, however, by considering the L1-based and L2-based strategies separately. The twelfth grade used significantly fewer L1-based strategies. Nonetheless, since they used the same mean number of strategies per item as the other two groups, they compensated by a relative increase in L2-based strategies. Individual differences on these measures obtained through the correlation between proficiency level -as indicated by the cloze test- and the individual’s strategy use. Again the average number of strategies used bore no relation to proficiency, but the blend of these strategies in terms of their base in the L1 or L2 did. For the adults, there was a significant negative relationship between the proficiency level and the L1-based strategies used. For the learners, the relationship was negative but not significant, although when
separated into two groups, it was found that the advanced class, which used L1-based strategies most profusely, displayed a positive non-significant relationship between cloze scores and the proportion of L1-based strategies.

Determining exactly 'which strategy and when' was also investigated in the study. The results showed that specific intention to be conveyed had an effect in selecting a particular strategy from those broad categories. In detail, the more advanced learners were more sensitive to the concept to be conveyed in selecting specific strategies. In addition, adult learners modified their strategy selection as a function of the target concept with greater flexibility than the students did.

The study also revealed interesting facts regarding the third question ‘with what effect?’ that the selection and the proficiency variables had an effect on the quality of the chosen strategy. The same strategy seemed to be more effective when the learners who had greater formal control over the target language used it. Answering these three questions, the study concluded that the best strategy was the one based on target language and the best users were those who had formal control over the target language.

**Effect of proficiency on communication strategy use**

Poulisse and Schils (1989)\(^\text{13}\) conducted a study investigating the effect of foreign language learners’ proficiency level on compensatory strategies

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used in resolving lexical problems. Besides, the effect of task-related factors on compensatory strategies use was examined. The subjects were three groups of Dutch learners of English at three different proficiency levels. They were tested on three different task levels: picture naming and description, story retell and oral interview with a native speaker of English.

The compensatory strategies in task I, picture naming and description, were identified on the basis of problem indicators such as pauses, repetitions, false starts, a rising intonation, sighs, and laughs. While in tasks II and III, two identification methods were combined to identify the compensatory strategies. Firstly, two independent judges determined where compensatory strategies had occurred on the basis of problem indicators in the data. Secondly, the identification was based on third person’s interpretation of retrospective data, namely, comments that the subjects themselves had given on their performance immediately after having completed the task. Eventually, the criterion for a clear case of compensatory strategies use in tasks II and III was set up as identified by both the judges and on the basis of retrospective comments.

The apparent cases of compensatory strategies were classified by means of a process-oriented taxonomy that distinguished between conceptual and linguistic strategies. In the case of a conceptual strategy, the speaker manipulated the concept and referred to it either by listing some of its defining and characteristic features, or by using the word for a related concept that shared a number of these features. In the first case the approach was analytic; in the second it was holistic. Often analytic strategies include a reference to a related concept that was subsequently modified to enable the listener to identify the intended concept uniquely.
The results revealed that proficiency level is inversely related to the number of compensatory strategies, where the most advanced subjects used fewer compensatory strategies than the least proficient ones did. Also, the type of compensatory strategies chosen by the subjects was not to any large extent related to their proficiency level. Rather the data indicated that task related factors play a large role in that respect. Whereas the subjects predominantly used analytic strategies in the picture naming/description task, they frequently resorted to holistic strategies and transfer strategies in the story retell task and the oral interview.

In addition, Khanji (1996) studied the use of communication strategies by Jordanian learners. He sought whether or not different language proficiency levels of EFL could be characterized by the use of certain type of communication strategy. Khanji followed the criteria that were proposed by Bhaskaran (1988).

The findings of the study showed that the students who used the repetition strategy would usually repeat it in an expanded form in order to gain time for the selection of the next lexical/syntactic items or to improve their executed utterances, “Build up”. Message abandonment was registered when students started to talk about something but were unable to complete the utterance due to lack of knowledge of message structure, which consequently caused a conversation breakdown. In all instances of that strategy use, students became frustrated in the middle of

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an utterance and gave up after frequent long pauses, with no appeal for help from the teacher or conversation partner. Semantic contiguity was noticed when students replaced a lexical item by another one that shared certain semantic features with it. In those cases, students provided an approximate item of the unknown word by using a similar but known lexical item. Transliteration was registered when students used second language lexicon and structure to create a literal transliteration of an item originated in their first language. Topic shift was noted. It was registered when students had to shift immediately to another topic or message after realizing that it was quite difficult to talk about a certain point for which vocabulary or structure items were not known. Code switching was also observed when students inserted a word or phrase in his mother tongue intentionally due to lack of knowledge of the needed language item. It was produced instantly and without much thinking by using quite simple words or phrases which students think of as their English counterparts. The appeal for assistance strategy was registered when students asked for help in English either from their interlocutors or their teachers.

With respect to the proficiency level, high percentage of reduction use among low-level learners was considered an indication of their low proficiency level since it was not resorted to by the advanced-level group and the intermediate-level group. The reduction strategies were repetition and message abandonment. On the other hand, other types of strategies were categorized as achievement strategies. Those strategies were prevalent among the advanced and the intermediate groups. In detail, transliteration, semantic contiguity and code switching were the most prevalent types of strategies used among the intermediate group. Khanji noted that,
it stands to reason that as linguistic competence grows, as seen in the increased use of achievement strategies and the low occurrences of the reduction strategies, speakers are willing to get around the language inadequacy by trying to keep the channel open.”

So the rare use of repetition, message abandonment and appeal for assistance were assumed to indicate that the advanced learners had gained more creativity and flexibility in using language than the low level students, in other words, got more language input at their disposal to be able to talk their way out of difficulty. In the study the advanced learners seemed to have a greater control on their linguistic resources where the topic shift and semantic contiguity appeared to be the most used strategies. These two risk-taking strategies were claimed to require more serious attempts on the part of the learners to come up with an approximate translation of the needed language items and to demand greater lexical and syntactic knowledge.

Also, Paribakht (1985) studied the effect of proficiency level on the use of communication strategies. The subjects were three groups of twenty adults: two groups of Persian ESL students at intermediate and at advanced level, and a group of a native speaker. The task designed for the study was ‘concept-identification’. All the subjects were required to communicate twenty single lexical items comprising concrete as well as abstract concepts to native speakers of English interlocutor in an interview situation.

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17 Ibid., p. 150.
The results revealed that the native speakers and advanced level learners used fewer communication strategies than low proficiency level that was because they did not encounter communicative problems as frequently as low-proficiency learners but when they faced such communicative problems, like the low proficiency learners, they seemed to appeal to the same strategies and drew upon similar knowledge sources for solution.

Rabab’ah (2001)\(^9\) conducted a study of the strategic competence of Arab English majors at Yarmouk University in Jordan. Its main aim was to determine which communication strategies were used by English majors while communicating in L1 Arabic and L2 English. Furthermore, it aimed to examine whether the messages transmitted by the learners were successful and comprehensible or not. Also, it aimed to investigate how and by means of which strategies Arab English majors overcame their communication problems, and which strategies they used in communicating in their native language. The subjects of the study were 30 English majors at Yarmouk University, put into three proficiency levels according to an adapted TOEFL test. The collected data were based on the learners’ performance in three communicative tasks especially designed for the study that represented typical classroom tasks. The subjects' communication strategies were identified from features of their performance such as hesitation, pauses and repeats. The researcher and two of his English colleagues assessed message transmission success on the basis of whether the transmitted messages were comprehensible or not.


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One of the main findings of that study was that English majors made a wide use of communication strategies. These strategies were mostly L2-based strategies. Another finding was that in spite of the learners’ limited linguistic knowledge, English majors managed to communicate their intended meaning by making use of communication strategies. It was also found that the learners’ use of communication strategies was related to their proficiency level, in that L1 based strategies decreased as proficiency improved. One of the most interesting additional findings was the effect of the mother tongue ‘Arabic’, which increased the variety of strategy use. For example, literal translation and word coinage were widely influenced by mother tongue interference. It was found that Arabic speakers used many communication strategies when compared with speakers of other languages in communication strategy research. The subjects’ use of communication strategies was also related to the type of task they were performing. Finally, Arab learners used communication strategies in their native language, but when compared to the communication strategies used in their target language, these were fewer in terms of frequency and varied in terms of type.

**Communication strategy use and culture**

Wongsawang (2001) conducted a study aimed at exploring communication strategy use for culture-specific notions in second language by answering two questions: ‘What kinds of communication strategies will Thai ESL speakers employ to convey these referential

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concepts in English?’ and ‘will there be any patterns that can be observed as different from communication strategy used in other kinds of tasks?’ The subjects were 30 Thai native speakers with intermediate English proficiency. They were asked to perform two tasks that contained culture-specific notions. The analysis focused on 14 concepts that were expected to be problematic.

The results showed that circumlocution and approximation were the most preferred strategies. Patterns of approximation, all-purpose words, and L1 words followed by circumlocution were also seen and found to be similar to the hierarchy of communication strategy found elsewhere in the referential communication strategy research. Finally, the study suggested that the familiarity of the L2 speaker with a concept did not always help them in dealing with communicative problems; rather it was their knowledge of how to talk about it in the L2 that matter more.

Type of task and communication strategy use

Poulisse (1990[^1] in Wongsawang, 2001[^2]) studied the effect of task-related factors on the use of compensatory strategies. In her study, she found that participants preferred long and informative analytic strategies in a picture description task while short, less informative, holistic, and transfer strategies were found more in a story-retell task and oral interviews. Furthermore, some other factors related to communication features had some important roles in affecting the use of communication strategy such as the mutual knowledge by both interlocutors. Poulisse,

[^2]: Wongsawang, p. 114.
argued that the speaker should always take the listener’s knowledge into account in order to make the communication effective. Thus, effective reference use would be achieved if the speaker used referents based on conceptual or linguistic knowledge shared by the interlocutor. She concluded to the fact that not only the type of task but the mutual knowledge had effects on the selection and use of communication strategy.

Evaluating communicative performance through communication strategy use

Ellis (1984) focused only on two general strategies avoidance and paraphrase to show how examining the use of these former strategies can refine the evaluation of the learner’s communicative performance. Two groups of learners were included in the study. One group consisted of six native speakers and the other consisted of six second-language learners studying English in Britain for one year. They were asked to tell a story depicted in three pictures. A number of key information-bits were identified by anticipating what information ought to be included in a notionally ‘good account of the story’.

The results showed that the L1 learners resorted less to avoidance and paraphrase strategies than L2. The analysis suggested that by isolating a number of information-bits relevant to story-telling task, it proved possible to discriminate the overall communicative performance of the

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23 Poulisse, p. 68.
24 Wongsawang, p. 114.
two groups of children on this task. Whereas all learners were able to communicate something about the pictures, LI were able to communicate more information (i.e. used avoidance less) in language that was considered stylistically acceptable (i.e. used paraphrase less).

II- Empirical Studies on Learning Strategies

Effect of proficiency level on language learning strategy use

Chesterfield and Chesterfield (1986) conducted a study to examine the extent to which language learning strategies were used by children of different second language proficiencies in bilingual classroom and the systematicity in the development of such strategies. They hypothesized that there was a natural order to the development of those strategies. The sample of the study comprised fourteen Mexican American children in bilingual classrooms. Spanish language was the principal spoken language spoken at home. Eight of the fourteen learners formed a part of an experimental group. They were tested on measures of language proficiency and observed systematically in the classroom during their preschool year. The remaining six children were part of the comparison group for the evaluation. Again, both groups were tested and observed in their first grade classroom as part of a follow up study on the lasting effect study of the preschool experience. After that, the sample was stratified into three groups, based on their English language proficiency.

The principal data collection technique was observation. The focus was on those utterances of a target child motivated by an attempt to develop the second language. Twelve categories of the learning strategies employed to spot the occurring strategies within the subject of the study that were based on the framework of Rubin (1981)\(^{27}\) and supplemented by the work of Bialystok (1981)\(^{28}\) and Tarone (1983)\(^{29}\).

The results showed that the use of learning strategies were common among children in bilingual classrooms during the early educational experiences. It was found that in both preschool and first grade a large percentage of the verbal interactions in English involved learning strategies. Though language learning strategies formed a large part of all of the children's discourse in English overtime, there was a consistent progression in the range of strategies used. Through the use of implicational scaling technique, it was shown that at least for young children in bilingual classrooms, there was a natural order to the development of second language learning strategies. However, increasing proficiency in the second language would seem to imply the ability to language learning strategies in more demanding ways. Those with greater language proficiency were found to employ a wider range of strategies than their less proficient peers.

Also focusing on how certain variables, particularly those of proficiency and gender, affect the self-reported use of language learning strategies,


Wharton (2000)\textsuperscript{30} conducted a study that aimed at examining the overall use of learning strategies. The participants in the study included 678 undergraduate university students studying Japanese or French, of whom 72% were engineering or computer science students, 23% were accountancy or business students, and 5% were enrolled in communication studies. The instrument used to collect the data was the ‘SILL questionnaire’, which was developed by Oxford (1990)\textsuperscript{31}. It was accompanied by a background questionnaire designed to elicit information on students major field of study, mother tongue, gender, degree of motivation, languages regularly spoken, proficiency self ratings, the FL and course level currently studied, length of time already spent studying the FL, reasons for taking the FL, and language learning attitude.

The results showed that: a) the mean of overall strategy use was in the medium range of SILL, b) there was a significant difference in means of students of Japanese and those of French “that was attributed to the instrumental motivations that directed their study of FL”, c) the average of frequency of overall strategy use was lower than that found in studies of strategy use in SL settings, d) the learners favor the SILL social strategies more than any other strategy category, e) the degree of motivation had the most significant effect on the use of language learning strategies, f) students with good and fair proficiency self-ratings used SILL strategies in general significantly more often than those with poor proficiency self-ratings, and g) absence of gender overall use of strategies


was found while at specific-item level males used a greater number of strategies significantly more often than females.

**Explicit teaching of learning strategies**

The largest controlled study to date is Cohen, Weaver and Li’s (1996) study. The study used thirty-hour course in strategies-based instruction for training the teachers, who were teaching French and Norwegian classes. It concentrated on three speaking tasks: self-description, story-retelling, and city description. Students completed the SILL and gave evidence in the form of think-aloud protocols. The study compared, in a quasi-experimental design, an experimental group who received the strategies based instruction and a comparison group who did not. There was thus control of input and a direct link between treatment, with or without strategy instruction, and specific language tasks. While the results do not go all the experimental group’s way, the study provides a firm basis for the claim that strategy-based instruction makes a measurable difference in both how students perform (that is, their performance by using strategies and modes of action) and how well they perform (that is, the quality of their performance of the set tasks).

Effect of learners’ variables on learning strategy use

Purdie and Oliver (1999) investigated the use of strategy by bilingual primary school-aged learners and the effect of learners’ variables (cultural group, place of birth, period of stay in Australia, and whether they had or had not received English as a second language help) on the use of learning strategy. Also, they investigated the effect of students’ language efficacy beliefs and their attitudes to English as a prediction power on the use of language learning strategy. The study was applied on 58 students who came from three different cultural groups: Asian, Arabic, and European. A questionnaire was used to collect data in respect of language learning strategies, while structured interview was used to collect data on learners’ variables, language efficacy beliefs and attitude on the use of language learning strategy.

The results showed that the most frequently used strategies were cognitive strategies and the students used strategies to compensate for missing knowledge more than any other types of cognitive strategy. Furthermore, only one significant difference was found between longer and shorter-term residents of Australia; they differed significantly in their use of cognitive strategies, particularly in students’ use of strategies to help them to remember more effectively. However, the least used strategies were the social strategies that were not significantly related to their beliefs of language efficacy or their attitude to English in the classroom or in the playground. Also, no significant differences were noted in strategy use between groups of students according to place of

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birth, and cultural group. Only writing efficacy had more predictive power than academic efficacy in terms of total strategy use.

Also, Yang (1999)\(^4\) investigated the relationship between EFL learners' beliefs and learning strategy use. Her study, used two questionnaires: Horwitz's (1987)\(^5\) BALLI, to collect data in respect of language learning beliefs and Oxford's (1990) SILL, to collect data on language learning strategies. The study was applied on five hundred and five university students in Taiwan, who were distributed to four groups: freshmen, sophomores, juniors and seniors.

The results of that study revealed that language learners' beliefs of self efficacy and expectation about learning English and perceived value and nature of learning spoken English were strongly related to their use of all types of learning strategies, while the beliefs about foreign language aptitude was connected with only functional practice strategies, cognitive strategies and meta-cognitive strategies. The beliefs about formal structural studies had a negative correlation with functional practice strategies. In other words, when students believed that learning grammar, vocabulary and translation were the most important part of learning a foreign language and felt that language learning involved a lot of memorization, they would be unlikely to seek or create opportunities to use or practise English functionally by trying to write, read, speak, or think in English.

Effect of learning strategy training on language skills

O’Malley et al. (1985) investigated the range of frequency of learning strategy uses by students learning English as a second language and the effect of training on English language skill development. The study was conducted with 70 learners of high school who were classified as either beginning or intermediate level in ESL. First, interview and classes observations were used with both teachers and learners to identify the strategies associated with a range of tasks, typically found in classroom and other settings. Second, in a natural classroom setting, the ESL learners were randomly assigned to receive learning strategies training. Instruction of learning strategies was applied to a range of tasks. Different combinations of meta-cognitive, cognitive, and socio-affective strategies were presented during training sessions.

The results of the study revealed that students used a variety of learning strategies. Both intermediate and beginning groups used cognitive strategies far more regularly than the meta-cognitive strategies. The analysis of the effect of training in meta-cognitive, cognitive, and socio-affective learning strategies with second language learners in a natural classroom setting produced mixed findings, depending on the language learning strategies and task. In the listening skill tasks, there were indications that the difficulty of the task or the explicitness of directions for using the strategies might both be important determinants of performance, i.e. little help could be gained from using learning strategies with difficult listening tasks. Skills in speaking a second language were

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clearly improved through learning strategies training. In general, training of learning strategies was successfully demonstrated in a natural teaching environment with second language speaking and listening tasks.

Also an experimental study conducted by Almaktary (2001) targeted the effectiveness of strategy-based training on developing the Yemeni students' writing skills. The researcher applied a strategy-training program (STP) on a sample of 100 students (50 students in the control group and 50 students in experimental) who had serious deficiencies in their writing skills. The result showed that significant improvement took place on the subjects' writing skills and on their repertoire of language learning strategies as compared to their previous performance and to that of the control group.

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