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#### ABSTRACT

It has been commonly assumed that language learning strategy training would improve language learning and should be included in foreign language instruction. However, few empirical studies have explored that effectiveness of strategy training in improving learners' target language learning. The effectiveness of strategy training on language learning is still not conclusive. This study evaluates a semester-long language learning strategy course in terms of its effect on the target language learning process. Moreover, the long-term effect of the training is examined. The study participants were 47 Taiwanese college students who were divided into an experimental group and a control group. The experimental group participants attended the language strategy training course, while the control group participants did not receive the strategy training. The main findings address the effectiveness of strategy training on students' target language learning in terms of their improvement in strategy use, the affective domain, and proficiency levels. Factors that might hinder students' strategy application are also identified. (Contains 40 references.) (Author/SM)



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# Training of Foreign Language Learning Strategies:

# **Effects on Learning Process**

Abstract It has been commonly assumed that language learning strategy training would improve language learning and should be included in foreign language instruction. However, rather few empirical studies have explored the effectiveness of strategy training in improving learners' target language learning. The effectiveness of strategy training on language learning is still not conclusive. This study attempts describe and evaluate semester-long language-learning-strategy course in terms of its effect on the target language learning process. Moreover, the long-term effect of the training is examined. The participants of the study, 47 Taiwanese college students, were divided into an experimental group and a control group. The experimental group participants attended the language-strategy-training course; while the control group participants did not receive the strategy training. Main findings address the effectiveness of strategy trainings on students' target language learning in terms of their improvement in strategy use, the affective domain, and proficiency levels. Factors that might hinder students' strategy application are also identified.

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Language learning strategy issues have been widely discussed in the second language education field since the mid 1970s (e.g. Rubin, 1975). The research focus developed from good learners' learning strategy identification, through factors affecting learners' choice of learning strategies, to training of language learning strategies. The training of language learning strategies to language learners was encouraged by researchers because of the important role learning strategies play in second/foreign language learning (see Huang, 1997; Norman, 1980; Weinstein & Mayer, 1986). Since the mid 1980s, the training of language learning strategies has gained the attention of researchers in the second language field (e.g., Norman, 1980; Oxford et. al, 1990; Weinstein & Mayer, 1986) under the assumption that strategy training might enhance the process and the product of language learning. However, not all strategy-training projects were successful or conclusive. According to Oxford (1993), the strategy-training studies which showed no or negative effect usually "revealed some methodological problems that might have obscured some potentially important findings" (p. 181). On the other hand, although many studies have been conducted in foreign language contexts (e.g., Chamot, 1993; Chamot & Kupper, 1989; Johnson, 1997; Oxford et al., 1990; Thompson & Rubin, 1996), the studies only focused on certain aspects



of language learning. There were few studies which investigated language learning strategy training in all the four language skills. Before educators promote the idea of language learning strategy training in the foreign language education field, it is necessary to conduct research in order to discover whether language learning strategy training is actually effective for learners. This study aims to find out the effect of language learning strategy training on English-as-a-foreign language learners in terms of their proficiency development in the target language and in affective domain, and to examine learners' continued retention of the learned strategies.

For the above purposes, the researcher designed a language learning strategy instruction course based on the principles summarized from previous research, and evaluated the effects of the course on the learners' learning process. One year after the training course, the learners' strategy use frequency was re-examined to know the maintenance of the learned strategies. The effects of the course were looked at in terms of the learners' change in target language proficiency, language learning strategy use, target language learning motivation, and target language learning anxiety.



#### CONCEPTUAL BACKGROUND

In this section, the development of language learning strategy studies, and the assumption of and need for language learning strategy training will be identified.

Development of Language Learning Strategy Studies

According to Rubin (1987), the focus of language learning strategy studies in the seventies was on the identification of language learning strategies used by good language learners. Following Rubin's proposal (1975) for the need for examining the learning strategies used by successful language learners, researchers (e.g. Bialystok, 1979; Chamot, 1987; Chamot et al., 1988; Cohen & Aphek, 1981; Naiman et al., 1978; O'Malley et al., 1985; Oxofrd, 1990) have identified categories of strategies used by good language learners. The common finding of these studies is that good language learners tend to use a variety of appropriate metacognitive and cognitive strategies.

In 1985, Politzer and McGroarty compared the self-report of learners' strategy use to their development of linguistic and communicative competence and suggested that behaviors were culturally specific, and that researchers must be careful in defining a strategy as absolutely helpful. After the suggestion, the



investigation in the factors affecting learners' choice of learning strategies started to gain researchers' attention. Although varying from study to study, the factors found included the language being learned, duration of learning, degree of awareness, age, gender, affective variables, learning style, aptitude, career, orientation, national origin, language teaching methods, task requirements, motivation, years of study, anxiety, self-esteem, tolerance of ambiguity, and risk-taking (see Huang, 1997; Oxford, 1989; Oxford & Ehrman, 1993; Oxford & Nyikos, 1989).

With the number of studies in factors related to learning strategy choices, researchers gradually paid attention to language learning strategy training.

Language Learning Strategy Training Studies

After the studies on factors related to learners' learning strategy use, researchers started to claim the necessity of including learning strategy instruction in language education with the assumption that most students have the abilities in learning to use language learning strategies (Chamot, 1998; Chamot & O'Malley, 1987; Norman, 1980; Weinstein & Mayer, 1986). In the eighties, the studies on language learning strategy training were mostly limited to vocabulary learning tasks (O'Malley & Chamot, 1990). During the nineties, strategy-training studies



were increased to include the training of more language skills. Although many of the studies conducted in various language skills reported positive results in learners' language learning abilities and confidence (see Chamot, 1998), not all the studies showed the same success (see Oxford, 1993). For example, Chohen and Aphek (1980) studied the relationship between learners' use of association strategies and vocabulary learning, and found that association strategies did help advanced learners in vocabulary learning. However, in 1983, investigating the relationship between strategy training and vocabulary acquisition, Bialystok found no significant relationship between the two variables.

In addition to the fact that there are no conclusive results for the effects of second/foreign language learning strategy training, the training content, training time, skills, or data collection methods previous studies covered is another issue which may have damaged the reliability of training results. Most of the second/foreign language learning strategy training studies focused on only one or two language skills, or even on only one of the language components, for example, vocabulary (e.g. Białysok, 1983; Brown & Perry, 1991; Cohen & Aphek, 1980; O'Malley et al., 1985; Thompson & Rubin, 1996, Yang, 1995). As a result, researchers hardly have a comprehensive view of the training results. Moreover,



while most of the training results of previous studies were only collected during or right after the training, long-term follow-up studies were not conducted. Thus, there are few records which show if learners still kept using the learning strategies a period of time after the training.

As for the training method, following language educators' attention on language learning strategy training, researchers started to analyze and summarize the training methods used in previous training studies. In general, the training methods were categorized and described in terms of the training principle, training type, training activity, and training procedure.

The training principles proposed by researchers mainly consist of the principles for an instructor's performance, for instruction design, and for training evaluation. For an instructor's performance, the main principle is strategy trainers being enthusiastic (see Oxford et al., 1990). For the strategy instruction design, the principles include the explicitness of purpose and content, learners' affective factors being considered, strategies chosen being supportive to each other, training being integrated into target language activities over a period of time, providing a relaxed and warm atmosphere for learning, plenty of practice being provided, strategy training being built upon the strategies which students have



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used, making students aware of the strategies, informing students of the function of strategies, and planning continuous strategy instruction (see Chamot, 1998; Oxford, 1993; Oxford, et al., 1990; Wenden, 1987). Principles for training evaluation proposed by previous research mainly focused on the method and content of evaluation. The principles included using multiple tasks in evaluation, and evaluating learners' improvement in language skills as well as on affective domain (see Oxford, 1993; Oxford et al., 1990).

The training type varies based on two features: the training time period, and the training style. According to Oxford (1990), there are three different types of language learning strategy training: awareness training, one-time strategy training, and long-term strategy training. Long-term strategy training, according to Oxford (p. 203), is likely to be more effective than the other two kinds of strategy training. Based on the training style, Oxford (1990) concluded three kinds of strategy training: blind training, informed training, and completely informed training. Among the three, the completely informed training is predicted to help learners in more aspects of strategy implementation and evaluation than the other two.

Since the nineties, researchers have been looking for effective activities in instructing learning strategies. Some activities have been identified as effective in



processing strategy training: annotation method, strategic underlining, the group interview activity, information sharing of learners' language learning experience, project planning proposal, and learning diaries. (see Harris, 1990; Yang, 1996)

. Moreover, Chamot (1998) developed an instructional module to help prepare college-level teaching assistants. In the module, activities for teaching learners learning strategies were divided into preparation activities, presentation activities, practice activities, and evaluation activities. As for evaluation activities, researchers suggested that multiple strategy assessment techniques were effective. (see Chamot, 1998; Oxford, 1990)

The training procedures proposed by previous studies reveal a common sequence: preparing, presenting, practicing, and evaluating strategy instruction. (e.g., Oxford et al., 1990; Yang, 1996) In the preparation stage, steps are taken to discover learners' needs and to select appropriate strategies based on learners' needs and the teaching context. In the presenting stage, rationales and ways for presenting the selected strategies, and achieving the utmost function of informing learners the strategies play the most important role. In the practicing stage, the providence of sufficient practice opportunities is the main concern. And in the evaluating stage, focus is put on the examining of the strategy learning results



through both teacher and learner evaluation, from which the strategy training procedure is rendered for modification.

#### THE STUDY

In this study, the researcher designed and evaluated the function of a foreign language learning strategy training course. The retention of the learned strategies were also examined. The experimental research method was used with a long-term, completely informed strategy training as the treatment. Forty-seven students participated in this study, and thirty-five of them took the English-as-a-foreign language learning strategy training course. The language learning strategy course was designed based on the principles concluded from previous studies. Before and after the three-month instruction, learning questionnaires, English proficiency tests, document examinations, and interviews were conducted with the participants.

## Research Question

This study aims at answering the following questions: 1) Does learning strategy training help improve learning strategy use? 2) Do students retain the strategies they have learned in the course? 3) Does learning strategy training help improve learning in affective domain? and 4) Does learning strategy training help



improve target language proficiency?

Operational Definition. Before the description of the method, the operational definitions for the key points used in this study needs to be made. In this study, the target foreign language is English. The students' learning strategy use is identified as the use of the strategies categorized by Oxford (1990). Students' learning in affective domain is identified as the situation of students' learning motivation and anxiety level. Students' target language proficiency is presented by the participants' English TOEFL exam scores, which have long been seen as a standardized English proficiency evaluation tool. The retention of the participants' learned strategies is examined by looking at the participants' learning strategy use one year after the training course.

### Method

Participants. The participants were forty-seven freshman students from the English Department at National Changhua University of Education in Taiwan. The participants' ages ranged from 18 to 23, who entered the university after passing the Joint College Entrance Exam. They have learned English as a foreign language for at least six years. Among all the students taking part in the study, the total number of participants in the experimental group was 35. The other twelve



strategy training course. All the participants were required to take the same language skill courses, including pronunciation practice, basic listening and speaking practice, and basic reading and writing practice. None of the participants took extra courses to improve their language ability. One year after the course, two participants in the experimental group, and two in the control group dropped out of school. Thus, at the end of the study, there remained 43 participants.

The Course. The course in this study adopted the model of completely informed training proposed by Oxford et al. (1990) as it "empowers learners in a greater number of aspects of strategy implementation and evaluation" (p. 199). Moreover, this course was designed to provide thorough training, which included strategies in cognitive, metacognitive, and affective domains. According to Brown and Palinscar (1982), combining a metacognitive and cognitive training approach is useful in helping learners become able to transfer strategies to new tasks. Also, research showed that affective elements play an important role in the students' continued use of the learned strategies (see Oxford, 1990). This course aimed at helping the students to know the strategies they could use, to practice the ways to use the strategies in the current as well as extended tasks, and to evaluate their



own learning.

The course lasted for one semester, about four months. Each class met for three hours a week. The required textbooks for the course included Language learning strategies: What every teacher should know (Oxford, 1990), and How to be a more successful language learner (Rubin & Thompson, 1994). Two sets of language learning strategies were introduced to the students: the six strategy categories developed by Oxford (1990), and the learning strategies for enhancing language skill development summarized by Rubin and Thompson (1994). The instruction plan for each learning strategy followed the steps concluded from previous studies: preparing, presenting, practicing, and evaluating. For example, in teaching students Oxford's (1990) memory strategy category, the instructor, who is also the researcher, gave 20 new words for the students to memorize in one day and tested them in the class. Right after the test, learners were asked to write down what techniques they used to help them memorize the words. Based on the process the students wrote, the instructor decided one of the strategies the students needed the most was the grouping strategy. Then she showed the students the principles of using the grouping strategy by giving the example of words with a prefix and a suffix. The instructor demonstrated the application of the grouping



strategy by thinking aloud while memorizing the words in front of the class. The instructor further gave more word-grouping demonstrations and examples. Then, the students were given another 20 new words to memorize by using the group strategy in one day, and were tested in the class. Learners were again asked to write down their memorization techniques right after the test. After this, the learners were asked to compare and contrast the memorization techniques and results from the first and the second tasks. Moreover, in each group, the learners were asked to discuss their memorization techniques by comparing the strengths and weaknesses of each step. Finally, students were asked to report their group discussion results to the class. The instruction steps aimed to not only introduce the learners the strategies, but also impress the students with the application experience they went through. Also, by group discussion and class sharing, the learners monitored and evaluated their individual learning.

In addition, the learners were asked to make individual English learning plans on a one-semester basis. The learners were required to set an English learning goal for the semester based on their evaluation of their current English learning situation, to identify short-term goals for achieving the semester goal, to schedule learning activities according to their learning goals and learning



environments, and to evaluate their learning processes as well as their attainment of the goals. This is to provide opportunities to train the learners to use the metacognitive strategies. Furthermore, the learners were required to keep learning diaries. The instructor asked the learners to keep learning diaries with the belief that learning diaries might help learners in the affective domain. Through the recording and reflection of their learning process, the learners monitored their learning, examined their learning conditions, and discovered their learning strengths and weaknesses, and where they might make modifications. The instructor asked the learners to focus the content of their learning diaries on learning strategy use.

During the training course, the instructor observed the students' reactions, and encouraged them from time to time. Echoing the claims by previous research (e.g. Oxford et al, 1990), the instructor believed that learners needed moral support from the instructor to increase their positive development in the affective domain of English learning, which might prolong the sustainability of strategy use. The instructor encouraged the learners with oral persuasion and actual examples of successful language learners.

Evaluation Instruments. The study used both a quantitative and a qualitative



approach to evaluate the course effects based on the rationale that studies combining quantitative and qualitative methods provide thorough information of the actual situation and may offer great validity (see Chang, 1999; Creswell, 1994; Meece, 1991). To know if the learning strategy training helped improve learning strategy use, the Strategy Inventory for Language Learning (SILL), students' learning diaries, and student interviews were used. To know if the learning strategy training helped improve learning in affective domain, the Motivational Intensity Questionnaire (MIQ), the Foreign Language Classroom Anxiety Scale (FLCAS), students' learning diaries, and student interviews were conducted. To know if the learning strategy training helped improve the students' proficiency in the target language, which is English proficiency, the students' scores on the TOEFL exam were collected.

Among the instruments, students' learning diaries have been identified by previous research as a media in improving and evaluating language learning strategy training (see O'Malley & Chamot, 1990; Oxford, 1990). The participants in the experimental group were asked to keep the learning diary every time after they were involved in English learning activities, while the students in the control group were not asked to do so. This is because diary-keeping plays an important



role in metacognitive strategy training. To prevent the diary-keeping method from functioning as the learning strategy training to the control group, the diary keeping activity was limited to the experimental group.

Data Collection. Before the strategy-training course, all participants took the TOEFL examination, responded on the SILL, the FLCAS, and the MIQ. Then the course, which served as the treatment in this study, was offered to the students in the experimental group. At the end of the semester, all the participants took the TOEFL examination, responded on the SILL, the FLCAS, and the MIQ. The students in the experimental group handed in their learning diaries and were interviewed by the researcher. One year after the course was completed, all the participants responded on the SILL to check their retention of the strategy use. After all the data was collected, the researcher started the analyzing process.

Data Analysis and Synthesis. The data collected from the quantitative approach was analyzed with the statistical method. Both the descriptive statistics and the inferential statistics will be reported. The data collected from the qualitative approach, along with the results from the quantitative data, was analyzed and synthesized with the method of professional reviews. Borg et al. (1993) indicated that, professional reviews "provide a synthesis of research



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findings as reported in selected primary sources, but they also use primary source analyses and conceptual-methodological critiques as data sources to arrive at implications for practice" (p. 175). The study used the professional review method because it is able to contain both research evidence and explicit implications for practice.

#### Results

In this section, the participants' learning strategy use before, right after, and one year after the learning strategy training course will be presented. Also, the students' learning in affective domain, and their language proficiency change before and after the strategy training course will be shown.

Learning Strategy Use. For the experimental group, the results from the SILL showed a statistically significant increase from before the course to right after the course. The results also showed a statistically significant increase from before the course to one-year after the course. There also showed no significantly statistical decrease from right after the course to one-year after the course. For the control group, the results from the SILL presented no statistically significant increase from before the course to right after the course. The results also presented no statistically significant increase from before the course to one-year



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after the course. There also was no significant statistical increase from right after the course to one-year after the course (see Table 1).



\*p<.05

Table 1						
Strategy Use	of Experime	Strategy Use of Experimental and Control Groups	rol Groups			
		Experimental group	group	OI	Control group	
	Before	Right after	One-year after	Before	Right after	One-year after
Mean(SD)	3.14(.39)	3.14(.39) 3.43 (.32)	3.40 (.30)	3.09(.49)	3.13(.29)	3.23(.44)
Before		t = 4.56	t = 2.34		t = .38	t = .62
		*00° = d	p = .02*		p = .70	p = .54
Right after	t = 4.56		t =747	t = .38		t = .70
	*00' = d		p = .46	p = .70		p = .49



Results from the experimental-group participants' learning diaries and student interviews revealed the following facts. First, students would try to apply learned strategies to learning tasks, to feel the function of the strategies, and to transfer the strategies to other learning tasks. Second, when applying the strategies to the four language skills, students tended to use certain strategies in specific language skill more often than they used others. In reading, writing, speaking, and listening, students tended to use compensation and metacognitive strategies frequently. However, only in listening did students often use cognitive strategies. Third, the results showed that in the third month of the course, students started to transfer the application of learning strategies to the learning of other subjects. For example, one of the students wrote in her diary:

In preparing for the Debate course, we needed to memorize a lot of new words. Here, the grouping strategy, which we learned from the strategy course, helped us greatly. Our preparation proceeded smoothly.

Fourth, most students sensed that their learning strategy use changed during the course. The changes were mainly in the use of memory strategies, social strategies, and metacognitive strategies, which included the students' previous knowledge about learning strategies being brought into play. Fifth, students tended to take



their laziness and lack of confidence as the reasons for their failing to use newly learned strategies. "At the beginning, I did it [following the learning plan]. But later, I did not catch up with the schedule. Finally, I became too lazy to do it", said one of the students. Another student said: "I am not sure if I can make it [having English improved by using the strategies], so, I just continued using the strategies that I was familiar with."

Learning in Affective Domain. The results from the MIQ showed the motivation of the participants in learning English before and after the course. For the experimental group, the motivation intensity values presented a statistically significant increase from before the course to after the course. For the control group, the motivation intensity values presented no statistically significant decrease from before the course to after the course (see Table 2). The results from the FLCAS showed the anxiety degrees of the participants. For the experimental group, student anxiety showed a statistically significant decrease from before the course to after the course. For the control group, student anxiety also presented a decrease; however, with no statistical significance (see Table 3).



Table 2

Motivational Intensity Value of Experimental and Control Groups

	Experimer	ntal	Control	
	Before	After	Before	After
Mean (SD)	2.15 (.23)	2.31 (.21)	2.30 (.26)	2.24 (.21)
Before		t = 3.57		t = -1.00
		p = .00*		p = .34
				*p<.05

Table 3

Anxiety Degree of Experimental and Control Groups (from the FLCAS)

	Experimer	ital	Control	
	Before	After	Before	After
Mean (SD)	3.12 (.51)	2.79 (.38)	3.23 (.58)	3.06 (.59)
Before		t = 5.48		t = 1.49
		p = .00*		p = .16
				*n< 05

<sup>\*</sup>p<.05

Results from the participants' learning diaries and interviews showed the following facts. First of all, the participants' change in the affective domain is



associated with their strategy learning. For example, after applying the planning strategy in the metacognitive category, one of the students stated in the interview, "...because I learned how to make a learning plan and followed the schedule I made for myself, I feel I have learned much more than before. I like learning English much more than before." Moreover, students' change in anxiety tended to be related with the confidence they gained after they applied the strategies. For example, in their diary, one of the students wrote:

I was always passive. But today, I encouraged myself, according to what I had been taught in the course, to volunteer to speak out several times. How happy I am! I found I was braver than before and found there was nothing to be fearful about when I was speaking English.

English Proficiency. For the experimental group, the scores from the TOEFL exams showed a statistically significant increase from before the course to after the course. For the control group, the results from the TOEFL exams showed no statistically significant decrease from before the course to after the course (see Table 4).



Table 4

English Proficiency Value of Experimental and Control Groups

	Experime	ntal	Control	
	Before	After	Before	After
Mean (SD)	504 (26.56)	525.23 (28.40)	517.27 (29.20)	516.36 (33.11)
Before		t = 5.33		t = -0.10
		p = .0.00*		p = 0.91
	-			* < 05

\*p<.05

#### Discussion

Results of this study support the assumption made by previous research that strategy training helps the process of language learning. (e.g., Hargett et al., 1994; Oxford et al., 1990) The results also demonstrated that learning strategies are teachable. Strategy training helped improve the frequency and variety of learners' strategy use. Moreover, the strategies learned in the course could be retained after the training. In O'Malley's study (1987), the Asian students in the treatment group performed more poorly than those in the control group. O'Malley suspected that one of the explanations for the failure of Asian students in the treatment groups to perform better than those in the control group was the persistent use of familiar



strategies by the learners. (p. 141) However, in O'Malley's study, the students in the treatment group received strategy training 50 minutes daily for eight days in roughly a two-week period (O'Malley, 1987, p. 136). In this study, students in the experimental group received strategy training three hours a week for about sixteen weeks. The students in the experimental group in this study seems to have more time to become familiar with the strategies than the students in O'Malley's. This endorses O'Malley's assumption that, "the treatment groups needed time to gain familiarity with the strategies" (p. 141).

The two main reasons for those students who preferred to use the strategies they were familiar with were related to the affective aspects. Previous research has suggested the fact that new strategies might seem burdensome to learners. (e.g. Chamot and Kupper, 1989) Teachers are suggested to plan required practice tasks which are motivating for students to initiate their real use of the newly-taught strategies. Then they will become able to evaluate the applicability and function of the new strategies, in order to determine their preference for particular strategies.

Moreover, this study found that it took the learners about three months to start transferring learning strategies to other contexts. Previous research has



demonstrated the difficulty of strategy transfer because the amount of instruction time was insufficient. (e.g. O'Malley, 1987) However, in evaluating the effect of learning strategy training, strategy transfer was identified as essential to look for. (Wenden, 1987) According to the current study, learners' transfer behavior might not be expected until a three-month, three-hour-a-week long strategy training. *Conclusion* 

This study showed that language learning strategy training helps improve students' learning in the learning process, affective domain, and language proficiency. Also, the taught strategies can be retained after the training course. The training of language learning strategies are necessary in language programs. Although previous studies recognized the integration of learning strategy training with language skill training, in this study, students were not given any language skill training due to the limited time students had to complete the course. Whatever format may be decided, the training of language learning strategies is suggested to be done to help learners learn the target language effectively. In addition to the sufficient time teachers need to provide for learners to master the taught strategies, it is suggested that teachers provide enough strategy application opportunities for learners. Learners need to be exposed to different learning



strategies and ample strategy application opportunities before they can make a decision in using certain strategies. Finally, to prevent learners' laziness and lack of confidence in applying strategies during the training process, teachers may want to plan compulsory learning tasks to initiate learners' application of target strategies. This may help learners decide which strategy to use in order to make a realistic evaluation of the applicability of the target strategies, which may consequently motivate learners' frequent use of those effective strategies according to individual needs.

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