A PARADIGM SHIFT IN TEACHING BUSINESS ENGLISH VOCABULARY

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Abstract. *The paper provides an overview of a paradigm shift in teaching Business English vocabulary at universities. Metacognitive skills such as self-direction, self-evaluation, and self-control, as well as orientation, planning, monitoring, evaluation and reflection play an important role in facilitating the process of a paradigm shift from teacher-centered environment to autonomous foreign language studies. Synthetic Cognitive Apprenticeship model is suggested as one of the possible ways to help students enhance their metacognitive skills thus becoming more prepared for autonomous foreign language studies.*
The authors use Synthetic Cognitive Apprenticeship method as a means of promoting metacognitive skills in acquisition of new foreign language vocabulary. The main aim of the research is to determine the current situation in enriching new specific vocabulary and techniques used by foreign language teachers in order to define a new role of a teacher in student-centered environment. The results of the application of Synthetic Cognitive Apprenticeship model in the development of Business English vocabulary are described, and the shift in a teacher's role is demonstrated.

Key words*: Business English, teaching vocabulary, paradigm shift*

1. INTRODUCTION

The idea of teaching business English has been discussed for decades and a new teacher's role has been argued. A teacher in front of a group of students is no longer treated as the principal source of information. Following a student-centered approach, a teacher's role has shifted: she/he is a facilitator, a mentor, in some cases a supervisor. The shift was inspired by the usage of new teaching/learning methods which helped to better develop particular language skills. The acquisition and enriching foreign language vocabulary is one of the essential parts of them. Unfortunately, the restrictions imposed by the curricula often do not meet the actual needs of the students. Moreover, the recent research shows that students are not able to use their metacognitive skills that would allow them to be able to master their foreign language vocabulary autonomously. Teachers often teach the way they were taught rather than consider the advantages and disadvantages of alternative approaches and possibilities to use them most effectively. Cognitive apprenticeship (David Jonassen et al., 2008) is an approach in which learning is embedded in activities and which makes deliberate use of the social and physical

context. The cognitive apprenticeship model has been applied in empirical experiments in different domains (Pea, R. D., 2004; Wang, F. K. and Bonk, C. J. 2005; Guldimann & Zutavern, 1993; Pieters & DeBruijn, 1992; Volet, 1991). This has been successful not only in promoting students' higher order thinking skills, but also in shaping the learning interaction from teacher-oriented teaching episodes to joint goal-oriented problem-solving between teacher and student. The paper explores the problem of teaching Business English vocabulary in the context of a new paradigm shift. The main object of the research is Business English vocabulary teaching while using a new method – Synthetic Cognitive Apprenticeship model (abbr. SCAM). The aim of the article is to reveal the paradigm shift of teaching Business English vocabulary in terms of a new teacher's role while adapting SCAM.

2. THEORETICAL BACKGROUND AND LITERATURE REVIEW

Students do not usually have access to the teacher's relevant cognitive processes; nor is the teacher usually able to discover students' cognitive processes, because most subjects are taught and learned without revealing inner thinking processes. Various approaches and methods are designed to bring the subtle cognitive processes of the teacher into the open where students can observe, enact, and implement them with the help from the teacher and their peers. How much effort should a student put in order to become an autonomous ESP learner? Self-regulated learning involves a student's effort to manage learning processes systematically oriented to achieve goals (Zimmerman & Schunk, 2011).

One of the main methods where students study through the guidance on cognitive and metacognitive skills rather than on physical ones is Cognitive Apprenticeship model (Collins et al., 1989). The theory underlying cognitive apprenticeship is that learning is a constructive process when students can meaningfully incorporate new knowledge into the existing knowledge structure. This model is aimed primarily at teaching the mental processes that teachers use to handle complex tasks. Applying the apprenticeship method to largely cognitive skills requires externalization of processes that are usually carried out internally.

2.1. Synthetic Cognitive Apprenticeship Model (SCAM)

The origin of cognitive apprenticeship lies in traditional craft apprenticeship. The apprentice observed the master executing the target process. He then attempted to execute the process with guidance and help from the master. This type of learning is universal and describes some typical features in guided participation across cultures, such as the tacit but ubiquitous characteristics of student's guided participation and the wide opportunities for observing.

Cognitive and metacognitive skills to learn to think like a teacher are practiced within the setting of lectures. The quality of students' thinking about teaching events and other related sources of teacher knowledge, in texts, video, etc, is practiced so that they can link specific teaching instances to underlying theoretical ideas. This requires monitoring students' practical reasoning in order to construct a practical argument that draws from and combines description, explanation and justification, offering various kinds of reasons – pedagogical, moral, and ethical – as well as objections and counter-arguments.

These teaching methods reveal and convey the cognitive nature of expertise, helping students to develop a set of cognitive and metacognitive skills that enable them to analyse and reconstruct problems.

2.2. The methods of Synthetic cognitive apprenticeship model

The founders of the cognitive apprenticeship model were Collins, Brown, and Newman (Collins et al., 1987) who distinguished and developed six teaching methods in it: modeling, coaching, scaffolding, articulation, reflection, and exploration.

Modeling, coaching and scaffolding are the core of the cognitive apprenticeship model in relation to the object of the given paper.

1. Modeling: the teacher models how someone proficient in the field would perform the task at hand by making thinking visible as she/he works through it.

2. Coaching: the teacher coaches the students through observation as they practice the task.

3. Scaffolding: the teacher provides scaffolding and support to help students to learn. Gradual withdrawal ('fading') of external control within each instructional step, based on the student's actual level of self-regulated learning, is of great importance here.

Scaffolding is the part which requires closer attention and preparation of the teacher. It is a long process which forms a strong background for the shift in the teacher's role in the classroom.

The essential elements of scaffolding can be summarized as follows (adapted from Hogan, Pressley, 1997).

Pre-engagement: the teacher selects an appropriate task by anticipating students' difficulties, needs, and strategies, and by considering curriculum goals.

Establishing a shared goal: this motivational factor is crucial to the success of scaffolding. It requires a delicate balance between following the lead of the students and setting a course for them. If it is the teacher's responsibility to set instructional goals and a student does not understand them or does not own the same goal, then scaffolding will not work and can become coercive and potentially counterproductive.

Actively diagnosing students' understanding and needs: this requires not only sensitivity towards the student, but also a firm grasp of the content area so as to compare the student's status to external standards for growth.

Providing tailored assistance: assistance might be in the form of questioning, cueing, prompting, coaching, modeling ideal performance, telling (direct instruction), or discussing. Through these verbal acts, the teacher adjusts the scaffolding to the student's needs. Many subtle acts of speech come into play.

Maintaining pursuit of the goal: the more complicated a task is, the more support a student needs in order to stay focused and persistent. Teachers can maintain joint attention on a goal by requesting clarifications, asking questions, and so forth. They can also offer praise and encouragement to help bolster students' motivation.

Giving feedback: the key role of the scaffolder is to summarize the process that has been made and point out behaviors that led to the successes, expecting that eventually students will learn to monitor their own progress. One type of feedback is pointing out the distinction between the student's performance and the ideal. Another important type of feedback is attributing success to effort in order to encourage academically supportive attributions. Explicitly restating the concept that has been learned is another helpful form of feedback.

Controlling frustration and risk: the teacher needs to create an atmosphere in which there is freedom to try out alternatives without penalty. This establishes a safe environment in which mistakes are appreciated as part of the learning process. Comments

about the nature of the problem-solving process, such as "This is really complicated – it is normal to feel a little frustrated while you are trying to understand it" also help students deal with frustration as part of the process of complex learning.

Assisting internalization, independence and generalization to other contexts. Assisting internalization of the learning means helping students become less dependent on the teacher's extrinsic signals for what to do next. The teacher can accomplish this goal by making students aware of signals intrinsic to the problem that point to the need for certain strategies. Also, as teachers withdraw their support, they should make students aware of the need to consciously transfer their skills and knowledge to new contexts, and they should give them opportunities to do so.

The other three methods that make up Synthetic cognitive apprenticeship model are called the follow up components in the development of metacognitive skills. They are:

4. Articulation: the teacher plans for articulation, a method by which students show their knowledge, reasoning or problem solving abilities.

5. Reflection: students reflect on their practice, and usually compare with the ideal model.

6. Exploration: students use the skills they have learned to solve a problem on their own. As students step-by-step perform better, the teacher gradually fades his or her helping process, and students apply their knowledge to their own project, essay or assignment.

Hence, the aforesaid material allows us to presume that Cognitive Apprenticeship model could be an instrument for changing the teacher's role resulting in the paradigm shift.

3. TEACHER'S ROLE IN THE APPLICATION OF SYNTHETIC COGNITIVE APPRENTICESHIP MODEL

Having overviewed the stages of Synthetic Cognitive Apprenticeship model it is apparent that contemporary teachers face the reality that most of their instructions tend to focus on content knowledge and not on the process of learning the transferable reflective skills. Reflective students are likely to be more self-aware and self-critical; honest about themselves, and open to criticism and feedback; objective in weighing up evidence; open to, and prepared to try, different approaches; curious to discover other approaches, motivated to improve, and more able to carry through independent learning. It is a challenge to provide the correct amount of guidance without giving too much direction. Direction is needed to help students identify areas of difficulty but too much guidance detracts from their sense of ownership of the learning project. A teacher has to reduce direction and support gradually as the student gets more mature and self-confident.

Teachers will need to develop a class structure and teaching style that encourages creativity, reflective thinking, and self-directed learning. It is important that teachers enable students to have the freedom to ask questions and take intellectual risks in their written assignments and discussion groups. To start using SCAM a teacher needs to restructure the teaching/learning process to autonomous language studies where a student develops metacognitive skills in order to become a self-directed learner.

3.1. Teacher's Functions in the Application of Synthetic Cognitive Apprenticeship Model

Teachers can provide valuable guidance by keeping dialogues focused, relevant and probing deeper into issues. This will require moderating discussions and creating a list of key ideas, references and student contributions. The implementation of SCAM requires changes in ESP teaching methodology based on a shift from the teacher-centered to student-centered approach. A course book is no longer the main source used during the lectures, the teaching/ learning methods are interactive, a vast variety of tasks are proposed to the students. New types of skills are developed while accomplishing various ideas. Activities of the teacher can be grouped into six main functions:

1. Daily retrospection.
2. Presentation of new material.
3. Teacher-monitored practice.
4. Individual practice.
5. Periodic retrospection.
6. Feedback.

Thus, the SCAM method is an explicit way of teaching. According to this method, a good teacher starts workshops from daily retrospection. In this case, retrospection is carried out during each class, because workshops do not take place every day. Retrospection, performed during each class, allows to revise the covered material once again and to direct the students according to their needs. The teacher, by revising the knowledge which the students already have, summarizes the material of the previous class and draws conclusions. Presentation of new material starts with formulating the aims. New material is introduced in small steps. The teacher presents several examples and regularly checks whether the students comprehend the explanation. Having delivered and summarized the new material, the teacher provides the students with sufficient time to practice in groups, pairs or teams. The aim of such activity is to process the theoretical explanation of the teacher during active practice. The role of the teacher during practicing is also significant, as students master new skills, thus the teacher's consultations and encouragement can accelerate the process of improving metacognitive efficiency. During the practice, the teacher presents clear and short tasks and the students practice as long as they need to comprehend the material and be able to perform similar tasks on their own out of class. During the autonomous practice, students get tasks similar to ones performed in the classroom. Their work is corrected by the teacher who immediately provides feedback, explains the mistakes and shows how they could be avoided. Regular retrospection takes place once a month, as students tend to forget the knowledge gained.

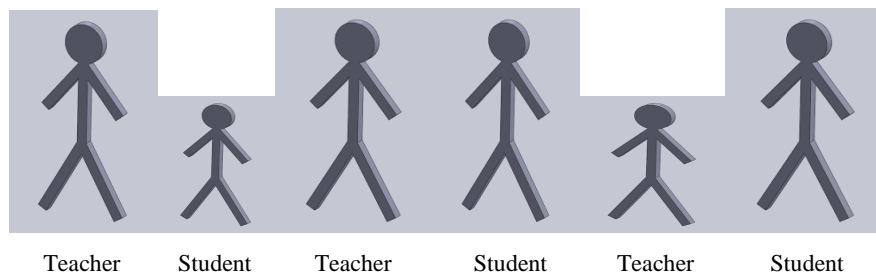Teacher   Student   Teacher   Student   Teacher   Student

Figure 1 A shift in teacher's role while adapting SCAM

Figure 1 presents the shift of the teacher and student's roles during enhancement of metacognitive skills. First, the teacher monitors the activities of linguistic enrichment and the students depends on the teacher; however, when the synthetic cognitive apprenticeship model is applied, students' metacognitive skills enhance. Dependence of students on the teacher decreases, *the importance of their roles in the process of linguistic enrichment becomes equal. As metacognitive skills enhance, the teacher's role shift from primary to secondary; the teacher becomes a consultant. She or he performs the role of an assistant during the class, more control is given to students, they are more actively engaged in the management of the process. The pace of learning is adjusted to students; they are given more responsibility only when they are ready for it, until eventually students themselves take charge of their activities.*

4. Methodology

An experiment was carried out at Vilnius Gediminas Technical University, Business Management Faculty. Before the experiment, the data was obtained during the pilot researches which created a need for an instructive experiment, during which the methodology of enhancement of metacognitive skills was put into practice and statistically substantiated. The instructive experiment was conducted using three foreign language learning methods for three different groups: the first group was instructed according to the synthetic cognitive language learning method, the learning process of which is student- centered with the teacher being the supervisor and the guide. The second experimental group enriched their vocabulary following a mixed method, i.e. the learning process was teacher-centered, whereas the third group – the control group – did not employ any special learning method to expand their vocabulary: the students followed different learning methods set out in the programme.

4.1. Methods

The main research methods included the analysis of methodological references, a qualitative data interpretation and a quantitative research, statistical data analysis (SPSS statistical package for social sciences). Statistical data used analysis of variance (ANOVA), the statistical analysis for the estimation of correlation between variables, T-TEST statistical correlation analysis of pair-models, statistical significance assessed by Cronbach Alfa coefficient, Post Hoc Fisher's LSD test, and others. The paper explores the problem of teaching Business English vocabulary in the context of a new paradigm shift. Therefore, the main hypotheses of this research are: 1) by employing the synthetic cognitive apprenticeship model to enrich language activity, the basis is provided for autonomous development of Business English vocabulary; 2) having acquired metacognitive skills, students usually show better results.

4.2. Participants

The participants of the experiment were first year students of Business Management study programme at Vilnius Gediminas Technical University. It was decided that besides Cognitive Apprenticeship method, a part of the students would be instructed according to the Direct Instruction method, while the control groups will get no specific instruction at all. The Direct Instruction method was chosen because researchers agree that it is effective for vocabulary

acquisition, including vocabulary instruction in the content areas. The two main approaches of direct vocabulary instruction are: definitional and contextual. Besides, the authors' previous research has proven that the majority of teachers of English among the respondents prefer to use exactly this method during their lectures. The intake of the students was 92 (Synthetic Cognitive Apprenticeship), 58 (Direct Instruction) and 44 (none).

5. RESEARCH RESULTS

Having calculated the percentage change in skills that were developed during the experiment (see Chart 1), it is possible to state that the highest achievements in progress and the ability to tackle any problem in the process was developed by students who were instructed by the first method. The level of self-confidence in other students that studied according to the other methods went slightly down.
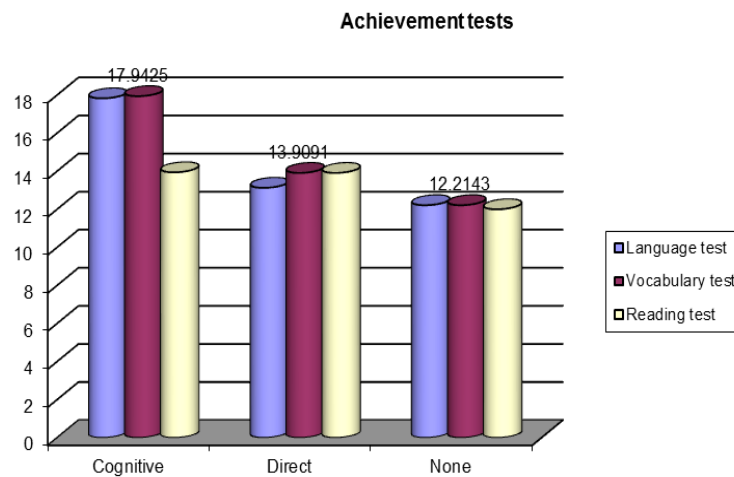
Achievement tests

Chart 1 Achievement results using different teaching methods

Research on the enhancement of autonomous foreign language learning and mastering metacognitive skills has expanded the understanding of independent studies as well as given an insight into the essence of education science while revealing metacognitive skills that encourage the use of learning methods and their interpretation in the context of a foreign language.

The results of the Synthetic Cognitive Apprenticeship method were taken as a criterion to analyse the students' capability for learning Business English while applying metacognitive skills. The first hypothesis predicting that *by employing the synthetic cognitive apprenticeship model to enrich language activity, the basis is provided for autonomous development of Business English vocabulary* was tested by analysis of variance (ANOVA) and by analysis of the analysis of the interdependence of correlation structure.

Table 1 Correlations of variables

		Vocabulary initial	Reading initial	Reading achievement	Vocabulary achievement	Language achievement
Vocabulary initial	Pearson Correlation	1.000	.228(**)	.288(**)	.216(**)	.210(**)
	Sig. (2-tailed)	.	.002	.000	.004	.005
	N	191	191	181	181	181
Reading initial	Pearson Correlation	.228(**)	1.000	.223(**)	.115	.106
	Sig. (2-tailed)	.002	.	.003	.122	.155
	N	191	191	181	181	181
Reading achievement	Pearson Correlation	.288(**)	.223(**)	1.000	.301(**)	.295(**)
	Sig. (2-tailed)	.000	.003	.	.000	.000
	N	181	181	184	184	184
Vocabulary achievement	Pearson Correlation	.216(**)	.115	.301(**)	1.000	.998(**)
	Sig. (2-tailed)	.004	.122	.000	.	.000
	N	181	181	184	184	184
Language achievement	Pearson Correlation	.210(**)	.106	.295(**)	.998(**)	1.000
	Sig. (2-tailed)	.005	.155	.000	.000	.
	N	181	181	184	184	184

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).

Table 1 shows that students' achievements in different tests did not demonstrate a very strong correlation which means that students' higher test results were not necessarily preconditioned by their initial knowledge. The research results revealed that students having rich ESP vocabulary demonstrate higher language skills. A significant correlation was found between the variables "Language achievement" and "Vocabulary achievement" ($r = 0.998$ **, $p = 0.000$) as well as "Vocabulary achievement" and "Reading achievement" ($r = 0.301$ **, $p = 0.000$). The significant correlation established between these variables leads to an assumption that expanded ESP vocabulary results in better reading comprehension and language awareness in general.

The statistical significance of autonomous studies when using enhancement of metacognitive skills and the cognitive apprenticeship method was defined by analysis of variance (ANOVA). Statistical significance of differences in the application was determined. The learning progress was assessed for each kind of language activity individually, while devoting careful attention to the expansion of vocabulary, which is very important for learning the vocabulary of a foreign language for specific purposes ($F=5.957$; $p= .003$) progress- 1($F=7.379$; $p= .001$), progress-2 ($F= 68.937$ $p= .000$). The students who were instructed by the SCAM, developed the best methods for the enhancement of their metacognitive skills and used the problem solving method most often (difference in averages of method 1 compared to method 2 is 0,665; $p= 006$; method 1 compared to method 3 is 0,482; $p= .0045$). This can be seen in Chart 2, where vocabulary learning strategies are presented according to their categories and the year students study English. It is clear that students of last years of study apply more consolidation-metacognitive and discovery-social

strategies. This can be interpreted as a fact that during the process of acquisition of a new word students do not ignore cooperation with groupmates, they apply (use) mental processes which directly enhance language acquisition , e.g., they practice writing, create a glossary, practice in the native and English languages both in writing and speaking, etc.
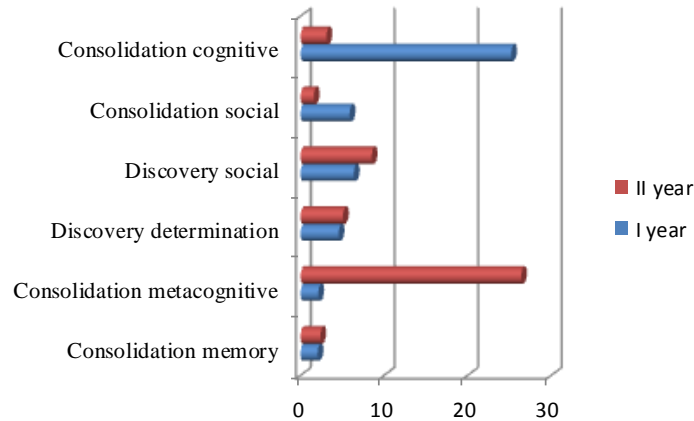

Chart 2 Shift of metacognitive skills while learning Business English vocabulary

Chi-Quadrate criterion of polynomial distributions was applied to define the statistical validity of differences in teaching methods' application in the experimental and control subgroups. The data received suggest that values of Chi-Quadrate for the group of students that used different learning methods show statistically significant differences. Consequently, mark distributions are different as well, except for the reading (placement) and progress tests. Chi-Quadrate criterion of polynomial distributions defined a statistically significant difference of the results of students' tests in the experimental and control groups respectively: progress-1(x= 14.53; p= .001), progress-2(x= 74.181; p= .000). The first hypothesis: employing the synthetic cognitive apprenticeship model to enrich language activity, the basis is provided for autonomous development of Business English vocabulary is proved on the basis of statistically valid correlation relations, as well as on defining a validity coefficient.

To verify statistically the validity of the second hypothesis predicting that having acquired metacognitive skills, students usually show better results, the correlation relation between students' cognitive skills and learning results was defined. With respect to the progress achieved by using the method of the analysis of variance (ANOVA), significant differences in teaching and learning methods were defined. With most of values being sig<0,05, it may be stated that, when applying different methods, averages of the progress test marks are not equal. In other words, a teaching method and the level of progress achieved are interrelated. Students who were instructed by the SCAM achieved much better results of language and vocabulary expansion during the final test. The results obtained from all the tests are statistically significant and reliable because á =0,731, which is quite a high indicator. To verify the statistical significance of the data, T-TEST statistical correlation analysis of pair-models was conducted. The criterion defined a very high level of validity p=0,0000 (statistics F= 297,864) confirming that the results obtained are statistically significant. The statistical significance of differences in usage was defined in different groups (F= 3,742, p=.026). The higher is the level of students' metacognitive

skills, the easier they are able to overcome difficulties encountered during the test. Thus, we can state that the second hypothesis predicting that *Having acquired metacognitive skills, students usually show better results,* is confirmed. Statistically valid relations are found between the following dimensions: the Synthetic Cognitive Apprenticeship model, which promotes the development of metacognitive skills, progress results, and all the tests performed.

6. CONCLUSION

Having analysed the research results the following conclusions can be drawn: 1) the implementation of Synthetic Cognitive Apprenticeship Model helps to develop students' metacognitive skills; 2) the acquisition of metacognitive skills fosters students' self- regulation and they become more autonomous in their studies; 3) the application of Synthetic Cognitive Apprenticeship Model helps students to learn Business English vocabulary, students demonstrate better achievement results.

The results of the study indicated that the development of metacognitive skills affected the increase of the application of consolidation-metacognitive and discovery-social strategies. At the beginning of the experiment students were more willing to use consolidation- cognitive and cognitive- social learning strategies while at the end of the experiment they were more able to discover the learning skills on a more metacognitive level than on the cognitive one. These changes led to the autonomous enhancement of ESP vocabulary.

The progress in different language skills was measured using correlational statistics. The significant correlation established between the variables led to the assumption that that expanded Business English vocabulary results in better reading comprehension and language awareness. Statistical significance of differences in the application of SCAM was determined. The students who were instructed by the SCAM, developed the best methods for the enhancement of their metacognitive skills and used the problem solving method most often (difference in averages of method 1 compared to method 2 is 0,665; p= 006; method 1 compared to method 3 is 0,482; p= .0045).

The shift in teacher's role was also revealed throughout the implementation of the SCAM method. As students' metacognitive skills develop, the teacher's role shifts from primary to secondary. The major role in the learning process is overtaken by the students, the teacher becomes a consultant.

The novelty of this study lies in the design of the Synthetic Cognitive Apprenticeship Model and the application of this model in teaching Business English vocabulary. It becomes clear that teachers have to implement various teaching techniques to help students to develop their thinking skills, to develop their language skills in order to become autonomous language learners.

It is highly recommended to promote SCAM method in teaching English for Specific Purposes. This method proved to be a powerful tool to help students to self-regulate their ESP studies.

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