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## *Action research based on fostering learner autonomy principles in English classes of the Czech secondary school(the pilot stage)*

**Irina Minakova**

*Charles University in Prague  
Secondary school of transport in Prague*

### **Abstract:**

This study focuses on the action research carried out at the secondary school of transport (Masna 18 in Prague, the Czech Republic) in the academic year 2010/ 2011. My final –year students of Air Transport Department, as the participants of the research (n=15,) and I explored new self-regulated strategies and activities to practise writing and speaking skills within a technically-oriented *AVIATION PROJECT*:

Part 1. A ten-week writing unit – December-January 2010/2011

Part 2. An eleven-week speech unit – February-March 2011

The research was conducted to explore the effectiveness of a concept of learner autonomy within secondary school English classes. Complex data collection included students' portfolios, their overall evaluation, pre-test and post- test scores, the results of the national graduation exam as well as the students' reflective notes and essays. The data was used to identify, analyze and assess how autonomous techniques and strategies affect the results of mastering language skills. The research findings show a significant improvement in students' productive skills (specifically writing and speaking). Furthermore, they indicate the sustained growth of students' metacognitive skills (strategic thinking, learning awareness, autonomy) and favourable shifts in their motivation towards learning English. Hence, the findings suggest that self-regulated or autonomous learning is beneficial for language acquisition and will lead me, therefore, to further exploration of learner autonomy concept and establishing more systematical educational practice and research in this field.

**Key words:** learner autonomy oriented strategies, autonomous learning, inquiry-based learning, learner awareness, student-centred approach, cognitive and metacognitive skills

## Introduction

Today all Czech secondary schools face a challenging situation in the light of current national and international educational reforms. The first united national graduation exam was launched in spring 2011. The overall results revealed an unfavourable reality with the poorest scores in the sector of technical education. Since English is a compulsory part of the national exam, there is an urgent need for a change in both teachers' and learners' approaches in order to improve language instruction in secondary schools. From my perspective, one of the most effective solutions is a learner autonomy concept that aims for strategic and reflective learning and supports intrinsic motivation that activates learners' potential and leads towards successful results.

*The purpose* of this article is to show a significant increase in learners' efficacy in language performance due to applying autonomous learning strategies in my English classes within the *Aviation project* assignment, and to point out the growth of the students' awareness of their cognitive and metacognitive skills, which indicates their progress in the development of autonomy as well as a positive change in their overall attitude towards learning English.

## Background and Rationale

The final-year students of the above-mentioned school had 5 English classes a week in the 2010-2011 academic year and were supposed to cover the material, predetermined by the English department, of the text-book *Headway* by John and Liz Soars at intermediate level by the end of their study at school. All English teachers at our school were assigned to work with final-year students in two directions: to develop both general language skills of the B1 – B2 levels (CEFR) and basic technical language according to the students' technical orientation, in order to prepare them for the first upcoming national graduation exam and life-long future experience.

During the previous 3 years ( I had been their teacher for the last two years) my students learnt general English in a very traditional way following the requirements of the teacher-centered approach and were given little exposure to technical English. In the face of new challenges my students and I realized that the results of the traditional teacher-centered approach were disappointing or even poor. Therefore, we decided to find a new way of learning and teaching, and after an in-class discussion with my short explicit introduction to the concept of learner autonomy, the option of autonomous learning within a project-based assignment was chosen as an experimental way of learning, to improve both general and technical language acquisition. Three out of five classes a week were devoted to the project, whereas the other two classes were taught in a traditional text-book oriented way in order to keep on-track with other parallel groups. Along with launching the *Aviation* project, I decided to carry out the action research to see whether the new strategies and techniques work in a favourable way and lead students to successful learning and making progress in English.

## Aims and methodology of study

*The major aim* of the research was to investigate the influence of learner autonomy-oriented strategies applied within a two-part project-based assignment on the students' progress in English and their overall attitude towards the subject and to learning English. The project itself provided a proper environment for action research and allowed quantitative and qualitative data to be gathered for the study, including students' portfolios, articles, worksheets, reflective notes, essays, power point presentations as well as the teacher's field notes, guiding handouts and an open-ended questionnaire. I used a mixed-method analysis to proceed with the collected data and preferred qualitative interpretation rather than quantitative because the focus of my attention was on the students' perceptions, their attitudes and general dynamics rather than their grades and scores.

*The two research questions* were derived from the main purpose of the study as follows:

- 1 What learner autonomy-oriented strategies influence students' progress in English in a favorable way.
- 2 What changes in students' perception of language acquisition those strategies bring.

All activities were carried out in the target language to create an authentic environment and to foster students' productive skills. The final results reflected an increase in both language skills improvement and positive attitudes towards learning English.

## Aviation Project. Description

### **Part one. Writing unit**

#### *Aim:*

to master writing skills, resulting in a technical article of each student on the chosen by them topic in accordance with students' interests.

#### *Procedure:*

##### *Pre-writing sessions*

This session included several discussions on goal-setting matters, the overall plan of the project implementation and assessing areas. All choices and decisions were made by the students and myself together. The next step was focused on students' vocabulary research based on seeking the most appropriate sources for reading and note-taking. All further pre-writing activities were devoted to formulating the thesis statement by the students; first on an individual basis, then through peer-dialogues and group discussions. The teacher's role was to facilitate, to guide and help organize the above-mentioned activities. In order to support students' strategic thinking two guiding handouts were designed and used during the classes: a study plan and a monitoring report.

##### *Main writing sessions*

Alongside further searches of web and reading published sources, the students learnt and worked out vocabulary lists. They also started their work on the logical structure of the article, collecting examples and other supporting evidence to argue and interpret their thesis. This session involved both in-class and homework activities to master drafting and paragraphing in particular. With my help and guiding handouts designed for the use of peer-editing strategies, the students wrote their final drafts and got my feed-back in the form of advice and comments. We used the Moodle tool to save the articles in order to share students' end-products with all of the class participants.

##### *Post-writing sessions*

Finally, my students responded to the short open-ended questionnaire in their log-books, to reflect on the project outcomes in general and to assess their own results in terms both of their progress in language skills development and their overall attitudes towards learning English.

We also had an in-class discussion to share suggestions on the further inquiry-based work during the second part of the project focused on speaking skills.

## **Part two. Speech unit**

### *Aim:*

To master speaking and presentation skills using technical language through in-class discussions, peer-reviews, peer-interviews and rehearsals that resulted in the delivery of a speech by each student.

### *Procedure:*

#### *Preliminary sessions*

These sessions were focused on sharing individual and collaborative knowledge from the students, developed through their research on the chosen topic. Another technique used at this stage was students' questionnaire for peer-interviews, to share and discuss the main point of the speech and to work out the extended outline for speech-delivery. Most students preferred to write their speech, relying on skills gained in the first part of the project.

#### *Main sessions*

These were devoted to practising presentation skills, cohesive devices and rehearsing speeches in small groups with reflective discussions afterwards. The teacher's comments and recommendations were part of group discussions. Since most students decided to use a PowerPoint presentation as a visual aid, the further guiding comments came into consideration as part of the teacher-support. The week of speech deliveries was also the time for self and peer-assessment. The evaluation handout used by students was designed by a teacher and students together within one of the previous classes.

#### *Post-speech sessions*

These sessions consisted of both students' reflections in their log-books and overall in-class discussions. At this stage learner autonomy issues were reinforced and positively supported by most voices. The after-speech discussion went on in the target language, which demonstrated a real break-through and a new level of language use.

## Theoretical framework

The concept of learner autonomy is one of the major shifts in EFL at the turn of the 21<sup>st</sup> century. However, its roots are not as recent as one might think. The origin of the concept goes back to the ideas of the great American philosopher and educator John Dewey (1989 ) as well as the Russian psychologist L. Vygotsky (1978) whose theories I have chosen as foundation for my research. The main reason for this choice is the fact that both theorists promoted the constructivist perspectives and active learning in which individuals construct their knowledge from their own experience. Learning through doing or experiencing reality (Dewey 1989) includes the challenge of coming out of learners' comfort zones as well as entering their ZPD (Vygotsky 1978), which finally helps them construct their own knowledge.

This research also utilizes the self-determination theory (Deci, Ryan 1985 ) which refers to learners' perception of educational approaches and techniques that should be meaningful and significant to teachers and their practices. These ideas are developed in a theory of motivation with the relevance to learning and teaching English (Ushioda 2007 ). They served me as an initial background for the research, supporting my focus on the students' reflections, and also during the project.

Finally, what lead me to explore learner autonomy instruction was the latest European EFL documents and CEFR-related materials (CEFR, ELP ) along with practices and projects conducted by prominent scientists and practitioners in the field (Benson 2001, Dam 1995, Little 2003, Ushioda 2007 )

## Research procedures

The statistical data used in the research included the students' results of the pre-test of the standardized format (Reading, Listening, Use of English) predetermined by the national graduation exam requirements, writing composition conducted in the classroom and assessed in accordance with a standardized norms, post-test of the same format as pre-test and the students' scores for the graduation exam, graded by the independent qualified professionals assigned by the Ministry of Education of the Czech Republic.

The following table (T.1) and graphs (Figure 1 and Figure 2) show the significant improvement of the students' results in English. In order to gain the most valid and reliable scores, the results of only 11 participants of the project (out of 15) were taken into consideration and analyzed. The reason for that was the fact that the students had the chance to

choose either English or Maths for the graduation exam. Hence, three of them selected Math and one of the students did not participate in most project activities due to poor health. We found it important to compare the students' overall performance in English throughout their four-year studies and also included the data regarding their previous results in English classes. The use of a teacher-centered approach of the first two years of study did not bring much change as Table 1 shows. In contrast, the last two years which were focused on learner autonomy development brought significant positive change:

T. 1

	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Pre- test</b>	<b>Aviation project</b>	<b>Post -test</b>	<b>Grad. Exam WR</b>	<b>Grad. Exam Speak.</b>	<b>Grad. Exam Test</b>
<b>Range</b>									
Excellent	–	–	–	–		1 st.	5 st.	2 st.	2 st.
Above average	1 st.	1 st.	2 st.	2 st.		4 st.	1 st	2 st.	6 st.
Average	4 st.	3 st.	5 st.	5 st.		4 st.	5 st.	6 st.	3 st.
Below average	4 st.	4 st.	3 st.	4 st.		2 st.	–	1 st.	–
Poor	2 st.	3 st.	1 st.	–		–	–	–	–

It is clear that the third year was a turning-point for my students. That was the time when the learner autonomy principles were gradually set up and finally changed the profile of the students' performance in a positive way. *The Aviation project* turned out to be a break-through activity that significantly increased the number of more successful students and enhanced their self-esteem in terms of their use of English.

Along with quantitative data an open-ended questionnaire was administered, in order to find out students' views on the project, on the new strategies and techniques that were applied, and on the probable changes they see in ways of learning English, along with their overall attitude towards the subject. Students were supposed to write their reflections in their log-books, so that after collecting this assignment I could identify the most frequently-mentioned answers and put them into a graph in order to identify both the frequency of learning factors and the types of factors and views which were found to be beneficial and influential for overall improvement in English (Figures 1, 2 )



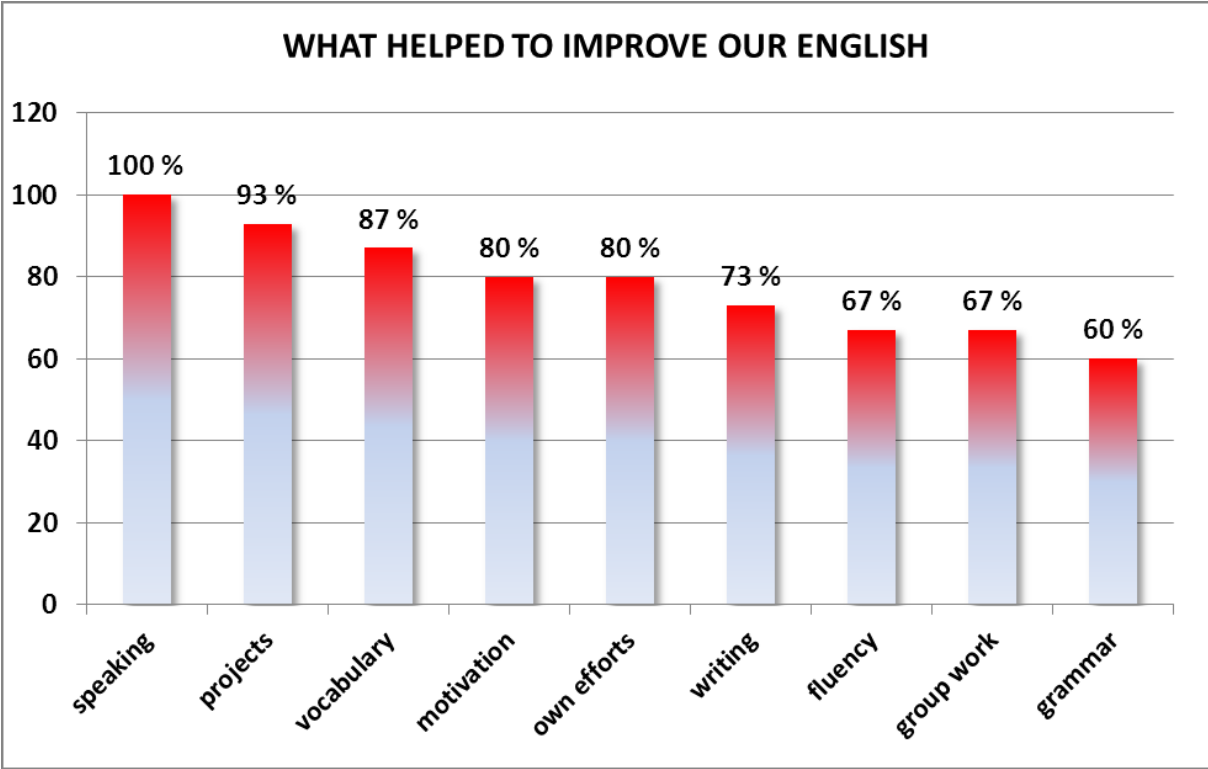


Figure 1: Spontaneous students' reflections

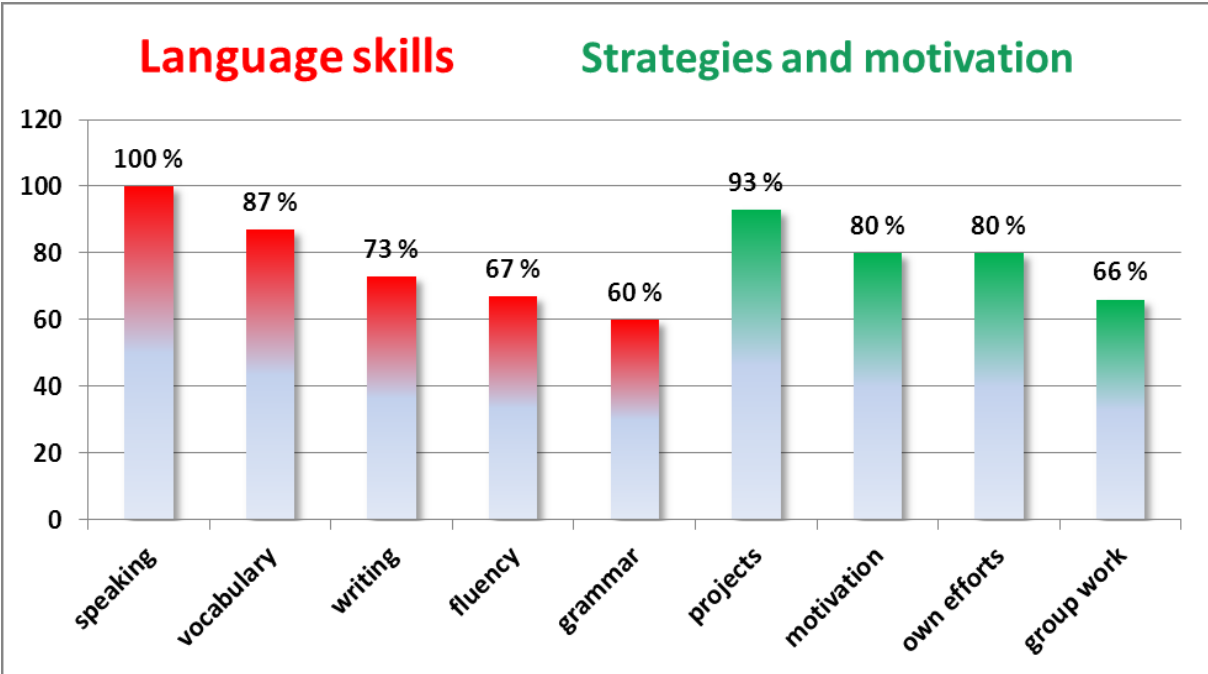


Figure 2: Grouping of students' reflections

## Data Analysis

Data analysis was processed in accordance with the major principles of content analysis and included the identification of variables related to my research questions, grouping and categorizing them.

**RQ1.** The dynamic of the students' language performance (students' scores) was interpreted through comparing the five categories on the scale of excellent/average/above average/below average/poor, with the use of percentages rather than grades in order to exclude subjective factors, and was based on quantitative analysis. The dynamic of students' perception and self-determination was investigated both quantitatively and qualitatively. The first type was used to analyze the RQ1 data and measured the frequency of students' responses mentioned (Figure 1). The percentage indicates that speaking-skills as a factor for language improvement was mentioned by all students. Although the writing unit was a great success, 73% of students also indicated speaking skills as a factor of improvement of their overall performance. There is still slight evidence of students' insecurity in terms of writing. What we find interesting is the fact that students pointed out language elements such as vocabulary and grammar as factors in their confidence and language awareness. Their appreciation of setting up the project-based assignments (93%) and cooperative learning (67%) are also worth mentioning because those reflections reveal students' growth in terms of strategic thinking, which is a sign of their autonomous approach.

**RQ2.** The qualitative analysis was used to process the same data in accordance with the grouping with relevance to RQ2. Since I discovered two categories among students' responses, where comparisons were not possible, one of the cognitive character and one of the metacognitive and emotional character, I divided them into two categories (Figure 2) indicating five language-oriented factors and four non-language factors. The first group is that of the cognitive character and shows students' focus on mastering their language skills and elements, which correlates with their metacognitive awareness of their own language improvement. The second group of factors indicated by the students involves two sub-categories:

1. Strategic thinking activated by inquiry –based assignments (93% - projects, 66% - group work)
2. Overall approach towards learning English (80% -increased motivation as well as 80% increase in personal effort).

Although motivation and personal effort could be considered aspects of the same category, I decided to analyze them as two complementary categories because the latter emphasizes the intrinsic character of motivation which increases the autonomous factor of learning.

## Findings and discussion

The data analysis and its findings show that the improvement in English performance of the selected group of learners increased and resulted in a greater number of above-average and average students, which indicates the favorable influence of the learner autonomy-oriented project and supports the hypothesis related to the first research question (RQ1).

The findings based on the analysis of the students' reflective essays and notes demonstrate not only students' awareness of the development of language skills, but also indicate a great deal of their awareness of autonomy in such expressions as 'our own effort' (80%) and a significant increase in their overall attitude towards learning English through pointing out 'motivation' as the most affected area in the learning process (80%).

An important reason for having students write reflections rather than use a questionnaire is the fact that they could express themselves spontaneously and openly. All the categories taken from their post-project reflections were written by the students themselves and showed how strategic thinking, inquiry-based assignments, collaborative work and other autonomous techniques not only activated their learning capacities but also became a part of their learner awareness. Consequently, they lead the students to both language improvement and the increasing of their intrinsic motivation. However, some of the activities, especially those designed for planning, monitoring and self-assessment were not mentioned in students' reflections at all, even though they were successfully conducted by most participants. This finding reveals the need for further considerations in terms of development of more effective techniques for *goal setting - planning - monitoring - assessing* sessions instead of the handouts and worksheets designed for this project.

## Conclusion

This research has been conducted to explore the effectiveness of autonomous techniques and strategies in learning English through the inquiry-based project within my classes and indicates the appropriateness of autonomous learning in the secondary school environment. It has shown the students' preference to become active autonomous learners rather than remain passive ones.

*Students indicated their positive attitude towards project-based and inquiry-based strategies and favourably changed their attitude towards learning English.* A reward for my students and myself was the fact that their group came second in the national graduation exam. The findings lead me to a conclusion that it is necessary to implement autonomous principles on a gradual systematic basis throughout the four years of study. Therefore, follow-up research will focus on: student-needs analysis, a diagnosis of learner autonomy among first-year students and of their autonomous development over the next two years in order to investigate the dynamics of their learning capacities and the influence of learner autonomy projects.

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