

Learning and method. Research concerning the effects of learning-style responsive versus traditional approaches on grammar achievement.

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Summary

Background

The two main subjects in this thesis are grammar learning and learning styles and the main aim was to combine these two separate areas, i.e. using learning styles in grammar education in upper secondary school and compare this with traditional teaching.

The background to the study is that more and more students leave upper secondary school without a complete certificate and more students need longer time to complete their studies at upper secondary school at the same time as our curriculum emphasises individualisation, students' personal development, freedom of choice and variation, students' participation and ability to constant learning and a not too wide research on grammar didactics in upper secondary school.

The thesis consists of five chapters: The first is an introduction and the second is a theoretical exposition and a research survey of pedagogical and grammatical issues important to the thesis. Chapter three consists of a methodological presentation of the study. In chapter four the results are presented from qualitative as well as quantitative aspects. In the last chapter conclusions are discussed from angles of results, methodology and pedagogy.

Aims and issues

The study consists of a number of aims, some more central than others. The main aim is to investigate the difference between the methodology of learning styles and traditional teaching concerning results, attitudes, retention, understanding the usefulness of grammar and opinions on working with the section.

The following seven hypotheses were generated from the aim:

H 1: There are significant improvements in test results in grammar if the students are allowed to work from their learning styles preferences compared to traditional teaching.

H 2: There are significant improvements in attitudes to grammar if the students are allowed to work from their learning styles preferences compared to traditional teaching.

H 3: The retention of the grammar section show significant differences between the students who have been working from learning styles to traditional teaching.

H 4: There are significant differences between adults and youths in the grammar survey with the basis in the individual learning styles and the test results and attitudes.

H 5: There are differences in understanding the usefulness of knowledge of grammar depending on the methodological basis.

H 6: There are arguments for the use of knowledge of grammar that are more relevant than others with the basis in different types of methodology.

H 7: The overall assessment of the grammar section differs depending on learning strategy

Learning styles

To explain learning styles we also need explanations of learning, teaching, didactics, and other models of learning which can be connected to or compared with learning styles.

Teaching can be seen from many aspects and many levels, which not should be seen excluding each other but rather as different angles of approach to the complex and complicated pedagogical process. Teaching and learning are not synonymous concepts but nonetheless essentially different. Learning is one part of the educational process. This study starts from both a phenomenological and behavioural scientific perspective.

Learning in this study means traditional education environment, i.e. schools and the starting point is the individual level. In the concept education many other dimensions fit in and can be regarded from many aspects and in many more contextual connections.

Didactics is a large field of science with many angles of approach. This work is a subject didactic study with the main focus on the didactic question how. The other main questions that didactics is about are what and why. The didactic question what for grammar is treated in the chapter about grammar didactics. The question why is illustrated from many different angles in above all the directions of the controlling documents, grammar traditions and textbooks in schools and aspects of the usefulness of grammar.

Even didactic questions can have their starting point in different approaches. The focus in this study is a cognitive perspective with emphasis on learning as processes within every individual, stressing reflection and the importance of the senses.

There are many pedagogical theories and attitudes and learning styles is one of them. This branch can be seen as a synthesis of many others, for instance learning by doing (Dewey), Montessori pedagogy and mediation pedagogy and a basis for or a combination theory to other pedagogical theories/attitudes for instance PBL, constructivism and multiple intelligences.

The starting point in learning styles is to find as effective methods as possible from the students way of learning. The focus for learning styles according to The Dunn &Dunn Learning Styles Model is, as earlier mentioned, the didactic question how; how you can learn new and difficult material. But there are ten other models for learning styles with other definitions and focus points.

The critical attitudes that have been directed to learning styles in general and The Dunn & Dunn Learning Styles Model in particular are important for the conclusions in the study and for recommendations for further studies. Existing criticism can sharpen the attention for sources of errors, they can lead to a deepened analysis of the work and the result, and generate new questions at issue regarding grammar didactics.

Since this work is based on both adults' and youths' learning, it can be seen that there are both similarities and differences between the populations. The main dividing line seems to be the adults' wider basis of experience.

Grammar didactics

Grammar and language learning are synonymous concepts. Grammar, which is a part of language, is a bridge between its expression and its contents, its form and its meaning. Even grammar can be seen from different perspectives, from different theories and on different levels. Svenska Akademiens Grammatik (SAG) starts from the descriptive grammar meaning that its ideas are so elementary that they are to be found in most other grammatical theories, and that it can be the basis of grammar development/ research within most grammar traditions.

Grammar has during many decades had its natural place in the Swedish school system but there have not been discussions about its undoubted place until the last twenty years. The usefulness with knowledge of grammar is recommended by many researchers, but the traditional argument for grammar as a base for development of writing and speaking seems very debatable today. Understanding for ourselves as human beings, arguments for the learning of foreign languages, and a base for the meta cognitive development are things to be said in favour for teaching grammar in school. Other arguments that are mentioned are that knowledge of grammar give understanding for different groups and skills that develop the personality.

Many students see education in grammar as a compulsion and a very difficult section in upper secondary school. Several researchers say that grammar education should be more effective in school. The controlling documents point out that the mission for school is to support students' awareness of the language and an important way described to do so is the base and building stones of the language. Examining textbooks that are frequently used in upper secondary school you notice a distinct grouping of grammar in mainly two sections: part of speech and syntax from a traditional scholastic grammatical tradition of education.

Scholastic grammatical researches on upper secondary level in Sweden exist to a rather small extent. There are some reports and these are foremost qualitative attempts. There is on the other hand a genuine international research about learning styles regarding both results and attitudes, children, youths and adults and many different subject fields. However, there is no comparative study in grammar education with both youths and adults and not a study on the results of learning styles in grammar in Sweden for all that.

Method

The scientific methods being used in the thesis are mainly of a quantitative nature, but there is also a qualitative approach. All result and inquiry studies that have been analysed with statistical calculations belong to the former. Deep interviews and open questions in the inquiries belong to the latter. In other words, this study is founded on triangulation between methods.

There were also other intentions with the study, for example to find out how students and also teachers see the education in grammar, how the learning affects themselves, and to let the students themselves tell what they have learnt to make the level of reflection visible. The most central was however to compare the different learning strategies to each other in the grammar section.

In this study different groups of students are compared concerning the learning strategies from a non-participant with the aim to measure results on grammar tests, but also the students'

understanding of different learning styles and the feeling of the usefulness of grammar. The quantitative approach was a sort of experiment model, where the classes were put in different situations of education, where some groups were subject to certain treatment that others were not subject to. The classes have been tested regarding previous knowledge in grammar with written tests and possible differences and after that the results have been analysed. This procedure holds for attitudes for the work with grammar as well as the final evaluation.

The aim with the qualitative angle of approach was above all to find further dimensions and deeper understanding for my research questions. From the hermeneutical theory the intention was trying to read between the lines, going to the bottom of important aspects with the work on research and revealing what was not directly said or shown in the quantitative material.

Results

Quantitative results

In the quantitative part of the study seven hypothesises were made up. Out of these the following were verified:

H 1: There are significant improvements in test results in grammar if the students are allowed to work from their learning styles preferences compared to traditional teaching with statistically significant differences at the level of 0.001.

H 2: There are significant improvements in attitudes to grammar if the students are allowed to work from their learning styles preferences compared to traditional teaching with statistically significant differences at the level of 0.002.

H 3: The retention of the grammar section show significant differences between the students who have been working from learning styles to traditional teaching with a statistically significant difference at the level of 0.0001.

H 5: There are differences in understanding the usefulness of knowledge of grammar depending on the methodological basis with statistically significant difference at the level of 0.008.

H 6: There are arguments for the use of knowledge of grammar that are more relevant than others with the basis in different types of methodology with a statistically significant difference at the level of 0.01.

The following hypothesises were falsified:

H 4: There are significant differences between adults and youths in the grammar survey with the basis in the individual learning styles and the test results and attitudes.

As to retention there are significant differences ($p \leq 0.01$) between the age groups, i.e. the older ones remembered better.

H 7: The overall assessment of the grammar section differs depending on learning strategy
The thesis proves that, with statistic difference, the overall assessment ($p \leq 0.001$) for all statements differ between the two groups, except for high demands.

Qualitative results

According to the mini survey, the teachers of Swedish think that the grammar section is rather important to students. There are however different opinions to how grammar should be classified and to how education should be performed.: as an individual element or integrated in above al, writing practice. The study also pointed out that many teachers of Swedish think that knowledge of grammar brings concept formations in languages, which mainly is important in the process of learning a foreign language. Many teachers emphasise the lack of time and the importance of prioritising within the course.

The methodological approaches described here, mainly lie within what in this thesis is called traditional education. According to the mini survey, grammar research is not at the top of the agenda of in- service training for teachers of Swedish.

The qualitative research points in the same direction as the quantitative when it comes to the methodology of individual learning styles compared to traditional teaching. The majority of the survey answers and descriptions given in the interviews point towards positive attitudes to an adjusted methodology compared to traditional education. With individual learning styles emphasis is put on variation, the possibility of success for more students and the fact that the way of working is regarded as more fun.

In general the differences between youths and adults in the survey and in the interviews point towards the adults' awareness of prior experiences in school, i.e. that learning styles was something new to them, and the importance of building on their experiences and explanations from the teacher.

The use of grammar was described in different extent depending on statements made. Above all, the students had tried to explain themselves regarding the foreign language argument and the use for writing. Students seem to find some grammar arguments more relevant than others. Furthermore it is shown that the classic argument for grammar existence, namely improvement in writing, still lies deep in the values of the persons involved in school.

The teachers' attitudes were of great importance to the completion of the study, not to influence the study in either direction. The common factor for all of them is an interest for didactic development and the success of their students. The interviews show a broad support for the intention of the study: to reach as good results as possible with the education independently of strategy and without attempts to stress any particular learning styles method. However, the teachers point to some complications with the methodological approach: namely that the methodology of learning styles demands other kinds of preparations, that the role for the teacher becomes different and that the classroom can become more confusing and that this can be disturbing to some students compared to traditional education. The teachers working traditionally during some of the sections pointed out that their knowledge of the subject was more focused upon and because of that they had to prepare themselves more thoroughly and emphasis was put on the importance of keeping the students in a good mood

during the grammar lessons. During the interviews with students no reactions appeared to whether the teachers acted differently depending on learning strategy or not.

Discussion

This work has shown big differences in result, attitudes, retention and understanding of knowledge of grammar. I am of course aware that it has not been possible to completely eliminate sources of error, but they should not be of such kind or importance that they in any important respect alter the results of the statistical study. Using a wide base with many different angles of approach, many aspects on learning have been examined.

The effects of the methodology of learning styles can be explained from different perspectives: positive results create motivation for the section and happiness to go on working, the multi sensory character of the methodology, the students who earlier have experienced difficulties with grammar now have new ways of learning new and difficult material. The methodology of learning styles has given them new tools in the learning process and possibly understanding for their personal way of learning which has given a higher level of awareness, flexible and group constellations.

A question you can ask yourself is if the positive results both concerning the result and the attitudes would be an effect of the learning being individualized or if the methodology of learning styles with the starting point in preferences for senses has repercussions on several other factors for the individual learning style. The correlation between cause and effect is not evident. The students who were working according to their learning style estimated all grammar arguments significantly higher than the students who worked with the section via traditional teaching.

Perhaps the correlation between methodology and usefulness is so simple that if the students succeed within this area, they experience that grammar can be useful from many aspects? The study does however not show if the former group has looked critically upon the grammar arguments.

I consider the effects being dependent on the teachers' personalities as less likely, because of the big selection and the uniting of several groups. It seems as if the traditional teaching of grammar has lead to even more activity and personal engagement from the teacher. The study also shows that the methodology of learning styles works just as well for both populations.

Pedagogical implications because of this thesis are that adjusted methodology can be the first step to a change of grammar education and a base to discuss suitable methodological strategies. An interesting continuation would be to use the methods and the aspect of individualization from learning styles and develop the contents of the grammar section. It seems important to evaluate the balance between product and process within the area from a student's perspective. The grammar section should also be discussed from different programmes in upper secondary school. There are differences between educational and vocational programmes. If knowledge of grammar is important to us human beings, this special treatment of different types of programmes is questionable. The consequences will be that those who already have a developed language and will go on to further education get even more, while the individuals who have a less developed language and really should need to increase their abilities, get less. This creates even more class-distinctions between the students regarding language and education.