

## **A Summary of the Swedish Waldorf School Evaluation Project**

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During the autumn term of 2002 a three-year research project was started to evaluate various aspects of the Waldorf schools and Waldorf teaching methods in Sweden. The study has focussed on six main questions: 1) How large a proportion of Waldorf pupils go on to higher education? 2) What knowledge targets are attained by Waldorf pupils compared with pupils from municipal schools? 3) Do Waldorf pupils get help to develop social and other general human competencies that are needed to be active citizens in a democratic society? 4) What do Waldorf schools do for pupils with learning difficulties? 5) In what way does the socio-economic background of parents contribute to increased segregation or increased understanding between different population groups? 6) Do Waldorf schools need a special “tailor-made” teacher-training programme? Each question has been dealt with in a separate working report.

The project, which is financed by the Kempe-Carlgrén Fund Foundation, is located at Karlstad University, with Professor Bo Dahlin as project leader. The project group also includes Agnes Nobel, Reader in Education at Uppsala University, and Ingrid Liljeroth, Reader in Special Education at Gothenburg University. In addition, three project assistants are engaged in collecting, compiling and analysing the material. A total of eleven Swedish Waldorf schools are participating in the project. In the choice of schools consideration was given to their geographical position (city/country and part of Sweden) and the possibility of getting a sufficiently large selection of pupils in the 12<sup>th</sup> grade (the final year of upper secondary school).

This summary presents some of the findings of the first four partial reports. It should be noted, however, that in summaries like this many nuances and details are necessarily omitted and only the large picture is presented. Thus, there is an inevitable risk in drawing hasty and too general conclusions. Any further questions or inquiries about the results can be sent to the project leader's address above.

## **Report 1: Waldorf pupils in higher education**

The first report was completed in the autumn term of 2003. It deals with former Waldorf pupils, that is, people who have spent all or most of their school years at a Waldorf school. The main aim of the study was to investigate how large a proportion of these go on to higher education, what type of education they choose, how they feel about their studies and how they succeed in them.

A questionnaire was sent out to 871 pupils who had completed the 12<sup>th</sup> grade between 1995 and 2001. The percentage of answers was fairly high, 68%. Deep interviews were also done with ten people in order to obtain a more profound picture of the pupils' answers.

### *Waldorf pupils postpone going on to higher education*

The study shows that a fairly large proportion of former Waldorf pupils, 58%, go on to university education sooner or later. How this proportion compares with municipal pupils depends on what upper secondary school programmes are compared. A problem here is that there is no municipal upper secondary school programme that completely corresponds to grades 10 – 12 in Waldorf schools. If a comparison is made with *all* the municipal school's programmes, the Waldorf school continuation frequency is on average 11% higher, if the comparison is made three years after the pupils left school. (The continuation frequency is the proportion of a certain year's school leavers who have started university education.) If the comparison is instead made with *the programmes that prepare pupils for higher education*, the Waldorf school continuation frequency is on average 15% lower, within three years after the pupils left school.

A general pattern seems to be, however, that Waldorf pupils to a greater extent postpone going on to higher education, and instead devote themselves to other things directly after leaving school, such as work, travel or folk high school courses. This is also supported by the fact that most of the 42% who were not studying at the time of the investigation intended to go on to higher education in the future.

### *A larger proportion of pupils without highly educated parents go on studying*

A question that is constantly discussed in educational sociology studies is what importance the educational level of parents has for pupils' continuation to university education. Studies show that people with highly educated parents are overrepresented among university students. Studies also show that independent schools generally have a higher proportion of highly educated parents. This is also the case with the Waldorf schools.

In our study there are no great differences in the continuation frequency percentages for pupils with highly educated parents between the Waldorf schools and the municipal schools. On the other hand, there seems to be a higher proportion of pupils *without* highly educated parents who go on to university education from Waldorf schools. A cautious interpretation of these findings is that the educational level of parents is of somewhat less importance for the continuation to university of Waldorf pupils, compared with municipal school pupils.

### *Waldorf pupils choose different types of courses*

Students with Waldorf backgrounds are found in all sorts of university courses. They become, for example, doctors, engineers, economists, lawyers, teachers or artists. An extremely small proportion choose Anthroposophic vocational training.

*Waldorf pupils seem to have a different style of studying*

Former Waldorf pupils generally seem to have a somewhat different style of studying compared with other students. They are somewhat less instrumental and somewhat more deeply involved in their studies, i.e., their studying is based more on a personal interest in the subject than on improved job opportunities. They appear also to be less worried about exams and do not use mechanically reproductive learning methods (“learning by heart”) to the same extent.

*Waldorf pupils are happy and get on well in university environments*

On the whole students with Waldorf backgrounds are happy in university environments and find their studies stimulating and interesting. Science students find their studies somewhat more interesting and are happier than students of arts and social science subjects.

Almost all the students think that the demands of their studies are at about the right level and that they can meet them well. About a third even consider that they succeed better than their fellow students.

*Waldorf schools seem to give a good preparation for higher education*

The majority of the students think the Waldorf school has made a positive contribution to their ability to succeed in higher education. The Waldorf teaching methods are felt to have contributed to good self-confidence and a good ability to acquire, digest and critically examine information and knowledge. In particular, the regular independent tasks (workbooks) seem to give them experience and self-confidence that are assets when it comes to autonomous thinking and written work in higher education. However, this does not preclude their feeling that they may have gaps in their knowledge of certain subjects when they compare themselves with their fellow students. The main thing, however, is that they regard themselves as having developed a fruitful attitude to learning and studying.

Only a very small proportion, 6%, thought that their Waldorf school background had been disadvantageous to them in their higher education. At the same time, none of these thought they had difficulty in meeting the demands of their studies.

Thus, all in all, our findings indicate that pupils who have been to a Waldorf school for all or most of their school years, like pupils from municipal schools, both go on to higher education and choose widely differing types of courses. The level of education of their parents does not seem to influence their continuation to higher education to the same extent as in municipal schools. Waldorf pupils also wait longer before starting their university studies and instead do other things directly after leaving school. During their time at the university they find their studies both interesting and stimulating, and most of the pupils think they meet the demands of their studies well or even better than their fellow students. According to the pupils, the Waldorf school has given them good self-confidence, an ability to handle independent studies and a fruitful attitude to learning and knowledge.

## **Report 2: Waldorf schools and the segregation question**

The second partial report was completed in the spring term of 2004. It deals with the extent to which the Waldorf schools contribute to increased segregation or increased understanding between different population groups, in view of the fact that the parents may have a very specific social and cultural background. If parents of children at Waldorf schools prove to belong to a subculture of society with peculiar ideas, values and ways of life, the possibility for children with different social and cultural backgrounds to come together in a common school for all are undermined.

In order to investigate the social and cultural homogeneity of the “Waldorf parents”, a questionnaire was sent out to 851 parents. The idea was that both parents should fill in the questionnaire independently of each other. In addition to general questions about income, education and family circumstances, the questionnaire contained questions about the parents’ ideas and attitudes regarding certain social, political and life philosophy questions. The questionnaire included a selection of questions from a comprehensive investigation of the social, political and ideological opinions of Swedes, which was carried out at Uppsala University at the end of the 1990s. Thus it was possible to compare the Waldorf parents’ attitudes to certain questions with how “Swedes in general” answer the same questions. In this comparison we have taken into consideration the level of education of the respondents, as this factor proved to play an important role in their answers. There was a 60% response to our questionnaires.

### *Swedish Waldorf parents are well educated*

The investigation showed that the Waldorf parents were well educated. As many as 80% of the respondents had some form of higher education. About half had some form of post-secondary education and about a third had a university degree.

### *Swedish Waldorf parents have middle-range or high incomes*

In order to find out what societal financial group the Waldorf parents belonged to, there was a question about the family’s monthly income. Over 60% of the respondents proved to have a family monthly income of 30,000 Swedish crowns (about \$4,300) or more (before tax). 18% had an income of 50,000 Swedish crowns (about \$7,150) or more.

### *Swedish Waldorf parents have predominantly “soft” jobs*

Jobs in the educational or care sectors were predominant in the Waldorf parents’ work. However, the predominance of “soft jobs”, i.e., jobs of a social or human-care character, may have been influenced by the fact that the respondent group consisted mainly of women (the drop-out rate was higher among the men).

### *Swedish Waldorf parents have predominantly red-green political sympathies*

The Waldorf parents’ political sympathies were mainly with the Environment Party (about 40%) and the Left Party (about 30%). Sympathies with the Left Party were most common in the lower income groups and among the highly educated parents, while sympathies with the Environment Party were most common among parents who had middle-range incomes and did not have a university education. However, the internal drop-out rate on this question was fairly high (13%).

*Swedish Waldorf parents are mostly native Swedes*

Almost 90% of the respondents said Swedish was their native language. Among the parents whose native language was a foreign language, the predominant languages were intra-European languages, such as German, Finnish, Danish and Norwegian.

*Swedish Waldorf parents say they have chosen the school on the basis of knowledge of Waldorf teaching methods*

The most common reason for parents' sending their children to a Waldorf school was the Waldorf teaching methods. Over 70% of the Waldorf parents gave this reason. Yet only a very small proportion of the parents had been to Waldorf schools themselves.

*Swedish Waldorf parents generally have a spiritual or religious outlook on life*

The majority of the Waldorf parents had some form of spiritual or religious outlook on life and repudiated atheism and materialism. About 40% answered that they embraced a Christian philosophy of life and 40% an Anthroposophic philosophy of life. The view that man does not only consist of body and matter, and that man's nature is basically good and unselfish, was also more common among Waldorf parents than Swedes in general (with similar levels of education).

*Swedish Waldorf parents base their social attitudes on humanitarianism and solidarity with the weak*

The Waldorf parents tended to have a view of society characterized by brotherly feeling, humanitarianism and solidarity with the weak to a considerably greater extent than Swedes in general. There were fewer who thought that dealing more toughly with criminals or the death penalty was needed in society today, or that a life in need is due to the laziness or apathy of the individual. The Waldorf parents also repudiated competition and egotistic individualism to a greater extent. For example, they considered to a considerably lesser extent than Swedes in general that free competition or clever and industrious people getting a better life than others were suitable ways to a better society.

*Swedish Waldorf parents seems to be a relatively homogenous group*

On the whole the findings indicate that the Waldorf parents in Sweden are generally a relatively homogeneous group, even though there might be differences in certain respects when we compared the groups of parents at different Waldorf schools. Socially the Waldorf parents are well educated, have middle-range incomes, have Swedish as their native language and have jobs of a social or human-care character. Their political sympathies lie mainly in the red-green field. The majority embrace some form of spiritual or religious outlook on life and repudiate atheism and materialism. They seem to have a view of society characterized by brotherly love and solidarity with the weak, and they repudiate competition and egotistic individualism. Their views on matters of life philosophy and social questions also seem to be less dependent on their level of education than is the case with Swedes in general. Finally, we can note that most of the parents have chosen schools for their children on the basis of their knowledge of Waldorf teaching methods and that only a very small proportion (7%) have been to Waldorf schools themselves.

*Conclusion*

The aim of the investigation was to find out the extent to which the Waldorf schools contribute to increased segregation or increased understanding between different population groups through the parents' social and cultural background. The idea was that if parents of children at Waldorf schools prove to belong to a subculture of society with peculiar attitudes

and values, there is a certain risk that they form an enclave that isolates itself from the rest of society. If by segregation in Swedish schools one means that children from families with different social and cultural backgrounds are prevented from meeting and getting to know each other, it can be asserted that the Waldorf schools contribute to a certain social and cultural segregation. However, in this respect the situation with regard to the Waldorf schools is not wholly comparable to that of other independent schools in Sweden whose parent groups are characterized by social and cultural homogeneity. This, in our opinion, is due to the special character of the Waldorf teaching methods, which not only aim at general human solidarity and openness to unfamiliar cultures but also succeed in realizing these objectives. Another question is how the homogeneity of the Waldorf parents is to be evaluated. A distinction must be made between the negative evaluation that the term segregation implies and its actual, empirical meaning. In our opinion, the term segregation is actually misleading and is used to depict independent schools in a bad light.

### **Report 3: Waldorf schools and civic moral competency**

The third partial report was completed in the autumn of 2004. It deals with the extent to which Waldorf pupils develop the values and social competencies that are required in order to be active citizens in a democratic and multicultural society. As this question is of a very comprehensive and complex nature, only certain aspects of the problems have been focussed on within the framework of the project. The aspects chosen have mainly been determined by the comparison material and measuring instruments available from previous empirical studies with similar questions.

#### ***The first comparative study – the pupils’ civic moral competency***

To compare the Waldorf pupils’ ability to take a stand on complex social and moral issues with that of pupils from the municipal school, a questionnaire was used from a project that was part of the National Agency for Education’s national evaluation in 1998. This dealt with the “civic moral aspect” of the teaching of social studies, and aimed to investigate the pupils’ ability to 1) *identify* and *explain* current social and moral problems, 2) *suggest solutions* to these problems and 3) *motivate* their suggested solutions. To investigate these abilities, which in the study were defined as “civic moral competency”, a response-based evaluation model was used which focussed on the pupils’ own more or less creative solutions to the problems presented. The evaluation instrument was designed as a questionnaire and consisted of two questions dealing with current social and moral problems. For each question there was a picture connected with the problem concerned. The picture was intentionally ambiguous in order to give the pupils scope to make their own interpretations of what the problems actually were, and to ask themselves questions about them.

The first question, “the Våxjö Question”, was connected with the current societal problem of hostility towards immigrants. The picture was published in a Swedish evening paper and shows a demonstration by Nazi youth in Våxjö, where an elderly woman physically attacked a demonstrating “skinhead” by hitting him over the head with an umbrella. The caption says: “She chased away the neo-Nazis”. The question was intended to focus attention on two moral problems: 1) democracy’s dilemma and 2) whether there is any “justified” violence.

The other question, “the Foetus question”, was connected with a problem that has become increasingly topical in today’s society in consequence of the development of biotechnology. The picture showed a foetus in the womb. It could be seen as “an innocent foetus in its mother’s tummy”, i.e., it was not neutral as regards values. The caption read: “A group of researchers at Huddinge Hospital outside Stockholm applied for permission in the spring of 1997 to carry out medical experiments on living foetuses that are in their mothers’ wombs. However, this would only be done with foetuses that were later going to be aborted.” The question was intended to focus attention on two moral problems: 1) Where do we draw the line for experiments and research “for the benefit of mankind”? and 2) the advantages and risks of biotechnology.

In addition to the two evaluation questions, the questionnaire also contained a number of supplementary questions with graded answers. The purpose of these was to obtain data on how the pupils reacted to the evaluation questions, how great an effort they put into answering them and to what extent their school teaching had touched upon the problems in question. There were also a number of questions about the pupils’ ideas on ethics and morals, and a self-evaluation test (Rosenberg).

The questionnaire was sent out during the spring term 2003 to the teachers of social studies in the 9<sup>th</sup> and 12<sup>th</sup> grades of the 11 participating Waldorf schools. The teachers were asked to administer the collection of the questionnaires themselves. The response rate was 77%, representing 325 pupils. The comparison group from the National Agency for Education's evaluation in 1998 consisted of 407 pupils from the 9<sup>th</sup> grade and year III of upper secondary school from a total of 19 municipal schools. As regards gender distribution there was no great difference between the two response groups. On the other hand, the groups differed with regard to social background, and this has been taken into consideration when comparing them.

*More Waldorf pupils thought their social studies teaching was interesting and good*

The comparison showed that the Waldorf pupils in the 12<sup>th</sup> grade thought that the school's social studies teaching was interesting and good to a greater extent than the municipal school pupils in the same grade. Furthermore, more Waldorf pupils in this grade thought they were good at social studies, compared with the municipal pupils.

*More Waldorf pupils felt responsibility for social and moral issues*

The Waldorf pupils in both grades also felt responsibility for social and moral issues to a greater extent than the municipal school pupils. More Waldorf pupils thought they had a responsibility for the moral development of society in the future and felt that as adults they would have a responsibility to do something about the situations referred to in the evaluation questions.

*More Waldorf pupils felt that the evaluation questions were important, interesting and easy to understand*

The Waldorf pupils also differed from the municipal pupils in their opinions of the two evaluation questions. Most of the pupils in both types of school thought the questions were on the whole quite difficult to answer. This is probably due to the complexity of the issues that the questions were about. However, the Waldorf pupils felt to a greater extent that the questions were important, interesting and easy to understand compared with the municipal pupils.

*The Waldorf pupils' involvement in social and moral issues seems to increase with age*

A comparison between the two grades showed that the proportion of Waldorf pupils who thought the questions were important, interesting and easy to understand increased markedly between grades 9 and 12. Amongst the municipal school pupils the differences between the grades were, on the other hand, very marginal. The attitude to social studies also became considerably more positive amongst the Waldorf pupils, while it became if anything more negative amongst the municipal school pupils. Furthermore, involvement in moral issues seemed to increase with age with the Waldorf pupils, while it was fairly constant amongst the municipal school pupils. It thus seems that the Waldorf pupils experience a positive development with regard to their interest in social and moral issues to a greater extent.

*The Waldorf pupils tended to refer somewhat more to love and moral courage*

The comparison between the pupils' answers to the two evaluation questions showed that the Waldorf pupils tended to refer to moral qualities such as love, sympathy, solidarity and moral courage to a somewhat greater extent than the municipal pupils. They also seem to be characterized by greater thoughtfulness, greater confidence in man's innate goodness and less confidence that more police or more severe laws can solve moral problems on a societal level. Instead the Waldorf pupils stress individual responsibility.



*The Waldorf pupils to a greater extent suggested solutions that involved stopping or limiting Nazi and racist ideologies*

As Nazism and racism are a current social phenomenon, an investigation was made of the extent to which the pupils repudiated these ideologies. This showed that the majority of the pupils in both types of school repudiated Nazism and racism. However, the proportion of pupils who suggested anti-Nazi and anti-racist solutions, i.e., solutions that involved counteracting or stopping Nazism and racism, was considerably greater amongst the Waldorf pupils.

*More Waldorf pupils had a positive self-image*

Research on moral development has shown that persevering and committed moral conduct is often closely associated with a positive self-image. In order to investigate whether there was a similar connection between self-confidence and civic moral competency, as this was defined in the study, Rosenberg's self-evaluation test was included in the questionnaire. The self-evaluation test showed that the Waldorf pupils were generally higher in their self-evaluation, i.e., had a more positive self-image, than the municipal school pupils.

*A greater number of blank, ironic and destructive answers from the Waldorf pupils*

The occurrence of blank, ironic or destructive answers, however, was considerably higher amongst the Waldorf pupils. By destructive answers is meant answers that deliberately avoid answering the questions and are thus unusable for the purposes of the study. There were also more critical comments on the questions in the questionnaire and on the study as a whole in the Waldorf pupils' answers. Behind these answers there may be a certain distrust of, or rebellious attitude to, established social or political institutions.

***The second comparative study – attitudes and views regarding school, teachers and parents***

To obtain a better picture of the extent to which Waldorf pupils develop the values and social competencies required in order to be active citizens in a democratic and multicultural society, parts of the National Agency for Education's 2003 evaluation, which was directed to the 9<sup>th</sup> grade, were used. This evaluation, which was in the form of a questionnaire with graded answers, focussed primarily on the pupils' attitudes, and cannot therefore be said to measure their ability to form an opinion on social and moral issues to the same extent as the 1998 evaluation instrument. The comparison is therefore to be seen as a complement to the previous study. From the National Agency for Education's questionnaire a selection was made of questions that concerned the pupils' social and moral experience and attitudes. Questions were also included about the pupils' attitudes to and opinions of school, teachers and parents.

The questionnaire was sent out to nine of the participating Waldorf schools during the spring term of 2003. The number of respondents was 196 pupils. The National Agency for Education sent out a total of 6788 questionnaires to the municipal schools and the number of respondents was 5941 pupils. There were no great differences between the two response groups with regard to gender distribution or the distribution between city and country. On the other hand, the groups differed with regard to the pupils' social backgrounds, and this has been corrected for when comparing them.

*The Waldorf teachers were felt to attach greater importance to human dignity, equality and the environment in their teaching*

The comparison showed that the Waldorf pupils felt to a greater extent than the municipal school pupils that their teachers laid stress in their teaching on everybody's equal human dignity, equality between the sexes, environmental conservation and the repudiation of bullying. The pupils also felt to a greater extent that the teachers attached importance to cooperation and that the teachers thought that those who have most difficulty should get most help.

*Fewer Waldorf pupils felt that they are bullied*

The Waldorf pupils also felt to a lesser extent than the municipal pupils that they were bullied or unfairly treated. They also felt to a greater extent that teachers or other adults quickly intervened if a pupil was bullied.

*The Waldorf pupils had more tolerant attitudes to deviant groups in society*

The Waldorf pupils in general had more open and tolerant attitudes towards homosexual pupils and pupils with learning difficulties, compared with the municipal school pupils. They also had more open and tolerant attitudes to both immigrants and religious and political extremist groups. Only with regard to their attitudes to criminals and Nazis/racists/skinheads was the relationship between the two response groups the opposite, i.e., the Waldorf pupils showed a less tolerant attitude than the municipal school pupils.

*Less difference between the attitudes of boys and girls in the Waldorf schools*

Even though the girls generally had more open and tolerant attitudes than the boys in both the response groups, the differences between the sexes in this respect was considerably less amongst the Waldorf pupils.

### ***Conclusions***

The aim of the two questionnaire studies was to investigate the extent to which Waldorf pupils develop the values and social competencies required in order to be active citizens in a democratic and multicultural society. The findings of the first comparative study indicate that the Waldorf pupils, if followed until the last year of upper secondary school, attain the Swedish school curriculum's goal of democratic education to a greater extent than the municipal pupils. This conclusion is further supported by the findings of the second comparative study, which showed that the Waldorf pupils in the 9<sup>th</sup> grade thought to a greater extent that their teachers placed emphasis on the school's democratic value base. Moreover, the Waldorf pupils themselves had more open and tolerant attitudes towards "deviant" groups in society – with the exception of criminals, Nazis and racists, who, on the contrary, they repudiated more actively.

According to the curriculum, one of the main tasks of Swedish schools is to promote the development of the pupils into people with a sense of responsibility, who take an active part in developing the life of society. Our findings indicate that the Waldorf schools to a great extent seem to produce active, responsible, democratic and humane citizens. This is in all probability a consequence of both the special teaching methods of the Waldorf schools and the Waldorf pupils' specific social and cultural backgrounds in the form of their parents' values and social commitment. Which of these two factors plays the greatest role is naturally impossible to say, but the teaching methods are certainly of no little importance.

#### **Report 4: Knowledge of Swedish, English and Mathematics, and attitudes to the teaching**

The fourth partial report deals with the knowledge goals attained by the Waldorf pupils in comparison with the municipal school pupils. The study focuses on a comparison between the results of the Waldorf pupils and the municipal pupils in the national Swedish, English and Mathematics tests in the 9<sup>th</sup> grade. To get a broader perspective on these results we have also included 1) the pupils' general opinion of school, 2) the pupils' opinion of the teaching of the three subjects and 3) the Waldorf teachers' views on how the national tests fit in with the Waldorf schools' way of working with these subjects.

The first two questions were investigated by having the pupils in nine of the eleven participating Waldorf schools answer parts of the questionnaires that were included in the National Agency for Education's national evaluation in 2003 (NU03). The selection of questions, in the form of a questionnaire, was sent out during the spring term of 2003 to the class teachers, who were asked to administer the collection of the questionnaires themselves. The number of Waldorf pupils who answered was 196. The comparison group from the National Agency for Education's evaluation consisted of 5941 pupils from the 9<sup>th</sup> grade of the municipal school. With regard to the gender distribution and the proportion of country/city schools, there were no great differences between the two response groups. On the other hand, the groups differed with regard to the pupils' social backgrounds, and this has been corrected for when comparing them. The third question was investigated by means of taped interviews with a total of 22 Waldorf teachers (7–8 in each subject) at the nine Waldorf schools participating in the study.

The comparison between the results of the national subject tests in the 9<sup>th</sup> grade is based on data from Statistics Sweden (SCB) as the tests became compulsory for all schools in Sweden, including the independent ones, from the spring term of 2003, and the results are registered by SCB. In all, test results were collected from over 1000 municipal schools in 276 municipalities, representing 93 248 pupils. Among the 27 Waldorf schools that included the 9<sup>th</sup> grade in the 2003–2004 school year, 26 schools from 22 municipalities gave in test results, representing 509 pupils. After excluding the municipal pupils who studied Swedish as a second language, those who went to schools that were not situated in one of the 22 municipalities where test results were reported from a Waldorf school, and pupils – both at Waldorf schools and municipal schools – for whom there was no data on their parents' highest level of education, the comparison groups finally consisted of 21 208 municipal pupils and 493 Waldorf pupils.

With regard to the pupils' sex, their ethnic background, and the proportion of country/city schools, there were no great differences between the two response groups. On the other hand, the groups differed with regard to the pupils' social background. On account of this, we divided the pupils in each population into two subgroups, where Group 1 consisted of pupils with at least one parent with post-secondary education and Group 2 of pupils with no parent with post-secondary education.

Below are presented first the results of the comparison between the Waldorf schools and the municipal schools with regard to the National Agency for Education's national evaluation (NU03), and then the comparison of the results of the national subject tests and the Waldorf teachers' views on these tests.

*The Waldorf pupils were generally happier at school*

The comparison shows that the Waldorf pupils are happy with their teachers and with their schoolwork to a greater extent than the municipal school pupils. They also like the physical environment of their school better and are more particular about what they eat. They do not skip their breakfast at home so often and eat sweets and hamburgers to a lesser extent if they skip their school lunch.

*The Waldorf pupils had a more positive picture of their schoolwork*

The Waldorf pupils agreed that what they had learnt at school was useful for the future to a greater extent than the municipal school pupils. They felt to a higher degree that the pace of their studies and the demands of school corresponded with what they could manage. They also thought, to a greater extent than municipal pupils, that weak pupils got the support they needed and that the teachers did their best to make sure they acquired the basic skills of reading, writing and arithmetic.

On the other hand, the Waldorf pupils felt to a lesser extent than the municipal school pupils that what they had learnt corresponded with their own interests. However, this does not seem to have had much effect on what they thought of the actual teaching. A greater proportion of the Waldorf pupils felt that they had been allowed to think and work in their own way, and that they had been allowed to share their knowledge and experience with others.

*The Waldorf pupils to a lesser extent only worked with their school subjects in order to pass the tests*

In general, both the Waldorf pupils and the municipal pupils thought it was interesting and important to work with Swedish, English and Mathematics. However, the municipal pupils thought to a greater extent that they only worked with these subjects in order to pass the tests. For Swedish and English their motivation was also connected to a greater extent with their usefulness for future studies, compared with the Waldorf pupils.

*The working environment in the lessons was generally perceived as quieter and pleasanter in the Waldorf schools*

In general there seemed to be a quieter and more concentrated working environment in the lessons in the Waldorf schools, particularly in the Mathematics lessons. The Waldorf pupils also thought there was a pleasant and positive atmosphere in the Swedish and Mathematics lessons to a somewhat greater extent than the municipal school pupils.

*The Waldorf pupils had a more positive attitude to Mathematics*

The Waldorf pupils seemed to have more positive attitudes to Mathematics than the municipal school pupils. They thought to a greater extent that they did not give up when they were given a difficult mathematical problem and that they will find the mathematics they learn useful. Neither did they think that Mathematics is difficult to as great an extent as the municipal pupils. The Waldorf pupils also seem to have had discussions with each other and worked on projects to a greater extent in their mathematics lessons.

*The Waldorf pupils found Swedish a less difficult subject*

The Waldorf pupils also tended to a lesser extent to find Swedish a difficult subject and did not feel as high a degree of resistance to writing as the municipal school pupils.

However, the Waldorf pupils felt to a lesser extent than the municipal school pupils that Swedish was integrated with other subjects at school. They also thought to a lesser extent that they read Swedish literature at school.

*The Waldorf pupils were less sure of their ability to cope with concrete tasks*

Despite the Waldorf pupils' predominantly positive perception of the teaching in these subjects, they felt less sure of their ability to cope with various concrete tasks or problem situations connected with the subjects, such as writing a letter to the editor of a newspaper, reading a timetable or booking a hotel room in English.

*Only small differences between the Waldorf pupils and the municipal school pupils in their Swedish, English and Mathematics marks*

In the national Swedish test we found no differences in the proportion of pupils who did not reach the subject's targets. On the other hand, the pupils at the Waldorf schools who did not have a parent with university education (Group 2) more often attained higher marks than the corresponding group in the municipal school. In the Waldorf schools the parents' level of education seems to have less importance for their children's Swedish marks than it does in the municipal schools. Here, however, an uncertainty in the results is created by a higher drop-out rate amongst the Waldorf pupils in Group 2. The comparison also shows that the gender differences in the Swedish test results were not as great in the Waldorf schools as in the municipal schools. Here the drop-out rate was only marginally greater in the Waldorf schools, which makes this result fairly reliable.

In the parts of the test in English that dealt with *oral* and *written* proficiency respectively, there was no difference in the proportion of pupils who did not reach the subject's targets. However, in the part of the test that dealt with *receptive* ability, the proportion of Waldorf pupils who did not reach the targets was somewhat higher. However, in the English tests too, the parents' level of education seems to have less importance for their children's marks in the Waldorf schools than it does in the municipal schools. But here again, a higher drop-out rate amongst the Waldorf pupils in Group 2 creates some uncertainty in the findings.

In the Mathematics test the proportion of Waldorf pupils who did not reach the targets was also somewhat greater compared with the municipal school pupils. On the other hand, there was a somewhat greater proportion of Waldorf pupils in Group 2 who attained the highest mark, compared with the same group of pupils in the municipal school. In addition, the drop-out rate was here somewhat higher amongst the municipal pupils. Within the different marks the differences between Group 1 (i.e., pupils who have at least one parent with university education) and Group 2 (i.e., pupils without a parent with university education) were also smaller amongst the Waldorf pupils.

*Amongst the Waldorf teachers there were both positive and negative attitudes to the national subject tests*

The interviews with the Waldorf teachers gave concrete examples of their views on teaching and child development. It is not possible to say that in general they thought the tests were "good" or "bad". Some of them stressed the difference in the views of knowledge and the subjects that lie behind the tests, compared with the basic outlook of the Waldorf teaching methods. They thought they disturb the Waldorf teaching process or that the Waldorf teaching methods are adapted to them and thus undermined. Others thought it positive that the Waldorf pupils too get a comparable measure of their knowledge and/or that the tests measure what everyone should know, irrespective of type of school. However, a frequently recurring theme

was that many pupils feel nervous or stressed when they take the tests, mostly because they are not used to that type of assessment.

### *Conclusion*

Our findings show that the Waldorf pupils on the whole have a positive opinion of their schooling and their schools' teaching of the three basic subjects to a greater extent than the municipal school pupils. The comparisons between the Waldorf pupils and the municipal school pupils also indicated that Waldorf pupils to a somewhat greater extent do not reach the targets for the three subjects. However, in our opinion, there is no reason to be particularly worried about this. Most of the Waldorf teachers felt that the pupils were unaccustomed to this type of assessment, and that the pupils themselves had less self-confidence about what they could manage in the different subjects. It must also be taken into account that the Waldorf school curriculum is designed on a 12-year basis. Some subject knowledge that has been dealt with by the 9<sup>th</sup> grade in the municipal schools is saved until later grades in the Waldorf schools. Finally, as our first report showed, nearly 60% of former Waldorf pupils go on to higher education and almost all of these feel that they manage well in their studies.

Further conclusions are that in Swedish the Waldorf teaching methods seem to contribute to levelling out the differences between girls and boys. With reservation for the uncertainty created by the differences in drop-out rate, the findings also indicate that the Waldorf teaching methods can contribute to a certain levelling out of differences in social background, i.e., that the educational level of the parents does not have the same effect on the pupils' marks as in the municipal school.

## Reports

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