

VA Report 2004:4

# How Teachers View Science

- an interview survey





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vetenskap & allmänhet

*(Public & Science)*

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## Foreword

An interest in and a commitment to knowledge and science are the necessary basis for the rapidly emerging knowledge-based society. But new knowledge will not become active without enjoying the support of ordinary people: in their wishes, thoughts, ideas and feelings. This is why dialogue between researchers and a broad public is needed. The Swedish non-profit association Vetenskap & Allmänhet (Public and Science) aims to increase active commitment to knowledge among the great majority of people.

Vetenskap & Allmänhet, or VA, shall work to achieve dialogues based on issues that people care about in their own arenas. To examine what the target participants in these dialogues think, VA commissions studies.

Teachers are a group that has a major influence on the attitudes and behaviour of children and young people. VA has engaged the Swedish company TEMO to carry out a broad survey of teachers' attitudes towards and perceptions of science and research. The questions were prepared by VA and its reference group for public opinion surveys under the leadership of Björn Fjæstad, in consultation with Arne Modig, Ph.D., of Temo. The survey was conducted during the period September 13-24, 2004 by means of 700 telephone interviews with a representative selection of teachers at Swedish upper secondary schools, compulsory 9-year comprehensive schools and pre-schools, school principals as well as teacher training students. The results of the survey are presented in this publication, VA Report 2004:4, **How Teachers View Science – an interview study**.

The survey was carried out with support from – and in consultation with – the Knowledge Foundation (KK-stiftelsen), the Swedish Teachers' Union (Läraryrket) and the Swedish Plastics & Chemicals Federation (Plast- & Kemiföretagen).

Readers are welcome to quote this survey, provided that they cite VA as the source. This and other VA studies, available mainly in Swedish, may also be downloaded from VA's web site, [www.v-a.se](http://www.v-a.se).

It is our hope that the thought-provoking results of this survey will provide guidance and ideas for many programmes aimed at strengthening the dialogue between public and science and will help create a broad commitment to knowledge.

Vetenskap & Allmänhet, VA, November 2004



Camilla Modéer  
Secretary General



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## 1. Introduction

Teachers are a group that has a major influence on the attitudes and behaviour of children and young people. This is naturally true within their primary role as teachers, i.e. how knowledge and science are involved and utilised in their teaching. But equally essential is the general approach to knowledge-seeking and science that they convey as individuals. VA believes that, with a focus on the teacher as an influential person, it is vital to study the attitudes and perceptions of teachers towards knowledge and research.

This report presents the results of a survey of how teachers, future teachers and school principals in Sweden view science, research and researchers. VA has commissioned equivalent studies among the Swedish public and among researchers themselves. The report also presents comparisons with this year's study of public attitudes (VA Report 2004:3, available in Swedish only), which was carried out concurrently with this survey.

The issues discussed are:

- Approach to different types of knowledge sources in the classes
- Attitudes towards researchers and science
- Views about the potential of science and research
- Awareness and knowledge of science – what fields are scientific?
- Use of research results in teaching
- Contacts between schools and researchers

## Method and target group

On behalf of VA, during the period September 13-24, 2004, Temo conducted 701 telephone interviews with a representative selection of teachers, school principals and teacher training students. The selection of teachers is also representative at all levels and in all fields. At all professional levels, people at both municipal and independent schools were interviewed. The selection of respondents was made jointly by Temo and VA. The Swedish Teachers' Union and the Swedish Association of Independent Schools also provided background material.

## 2. Summary of the survey results

One general conclusion of this survey could be formulated as follows: “Teachers are like most (well-educated) people” – at least when it comes to their attitude towards science and researchers. However, it is interesting to look more closely at their approach and how they handle research results in their teaching. The following is a summary of the most important results.

A large majority think it is important for students in the schools to learn to seek for knowledge and to examine their sources critically. When teachers themselves seek for new knowledge, their colleagues and the internet are the most important sources.

There are clear differences between teachers of mathematics/natural sciences/technology and teachers of humanities/social sciences, for example in terms of how often they read articles about science and technology or how often they state that they are in contact with researchers while working.

Survey respondents regard medicine as the most scientific field, which is consistent with results from the public. They also largely share a positive view of scientific and technological development with the general public. Compared to the public, however, the target group of this study has a more balanced view of the role of researchers.

A somewhat more depressing finding is that more than one out of five respondents believes that astrology is a science, which is more than among the general public.

Three quarters feel that too often, science and research are too abstract to fit into the teaching of the schools. Many believe that in teaching, it is important to include research results in their field, but as many as three out of ten believe that you can be a good teacher without following developments in your own discipline. Many also think that in teaching, it is important to utilise the results of educational research. But a full four out of ten completely or largely concur with the statement that you can be a good teacher without following educational research at all.

One out of two respondents feels that in schools, the interest in science has increased; pre-school teachers in particular perceive such increased interest. Most feel that the school administration and teachers bear the greatest responsibility for putting new knowledge to use. A full seven out of ten believe it is important for teachers to obtain their own experience of research.

Many would like very much to have more contact with researchers, but they often feel a great distance to the research community.

### 3. Gender, age and education of respondents

Of the **upper secondary school teachers** in the survey, 54 per cent are men. The upper secondary school teachers are somewhat older than the compulsory school teachers, and 83 per cent have formal teacher training, 5 per cent have postgraduate degrees, a higher figure than the other groups surveyed. Among upper secondary school teachers at independent schools, however, only 61 per cent state that they have formal teacher training. On the other hand, a substantially larger proportion of the latter group have other academic education than is the case with upper secondary school teachers at municipal schools.

Among **compulsory school teachers** (grades 1-9) interviewed for this survey, 71 per cent are women and 39 per cent are below age 40. They included 84 per cent with formal teacher training, but no one stated that he or she had postgraduate education. Among compulsory school teachers at independent schools, 79 per cent state that they have formal teacher training. 45 per cent state that they have other academic education, which indicates that this group (like upper secondary teachers at independent schools) has a more varied educational background.

Of the **pre-school teachers** surveyed, a full 95 per cent are women. They are relatively young compared to the other groups surveyed: 44 per cent are below age forty. 95 per cent of the pre-school teachers who were interviewed had formal pre-school teacher training.

Of the **school principals** surveyed, 56 per cent are women, and 66 per cent are age 50 or older. 74 per cent have formal teacher training and 39 per cent have other undergraduate education; 92 per cent have worked in the schools for more than ten years.

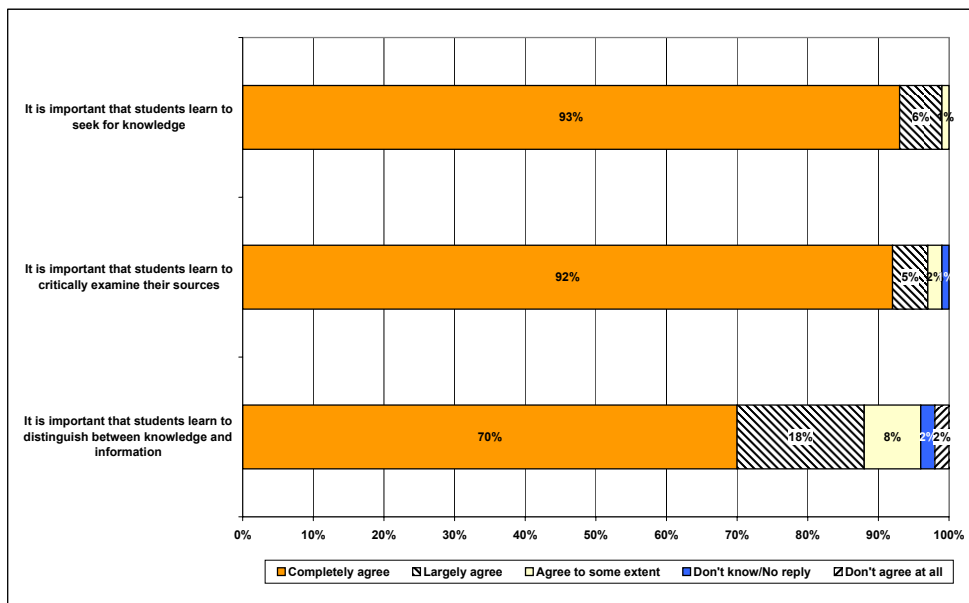
Of the **teacher training students** who were interviewed, i.e. future teachers, 81 per cent are women. In this group, 73 per cent are below age thirty and 19 per cent are age 30-39.

### 4. Sources of knowledge at school

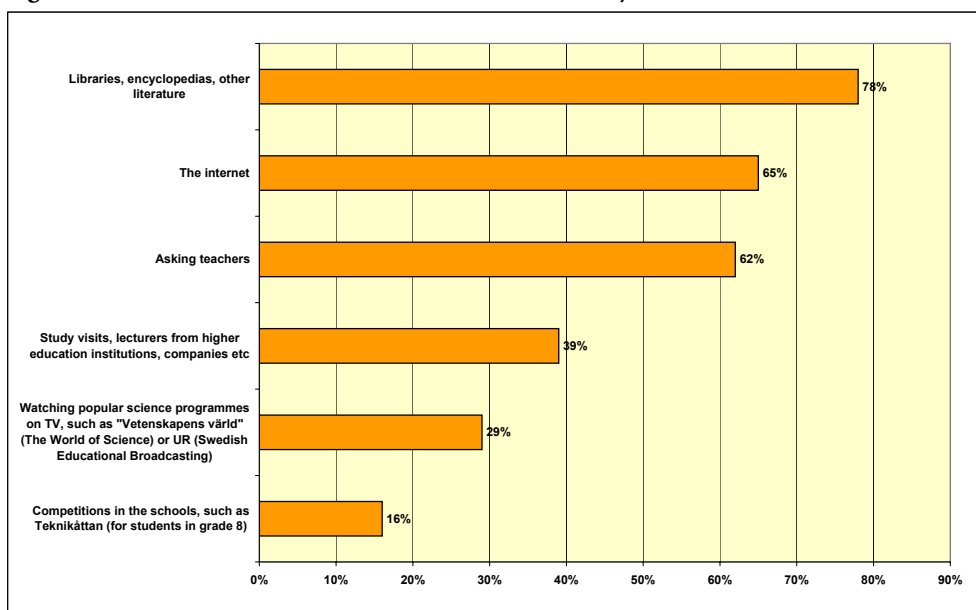
A very large majority of respondents concur with the statement that it is important for students in schools to learn to seek knowledge and critically examine their sources. See Figure 1. However, perhaps in a somewhat contradictory manner, substantially fewer feel it is important for students to learn to distinguish between information and knowledge.

How, then, do students in Swedish schools seek knowledge and information? The teachers state that their students most often use libraries, followed by the internet, as sources. In their experience, students often use their teachers as sources (Figure 2).

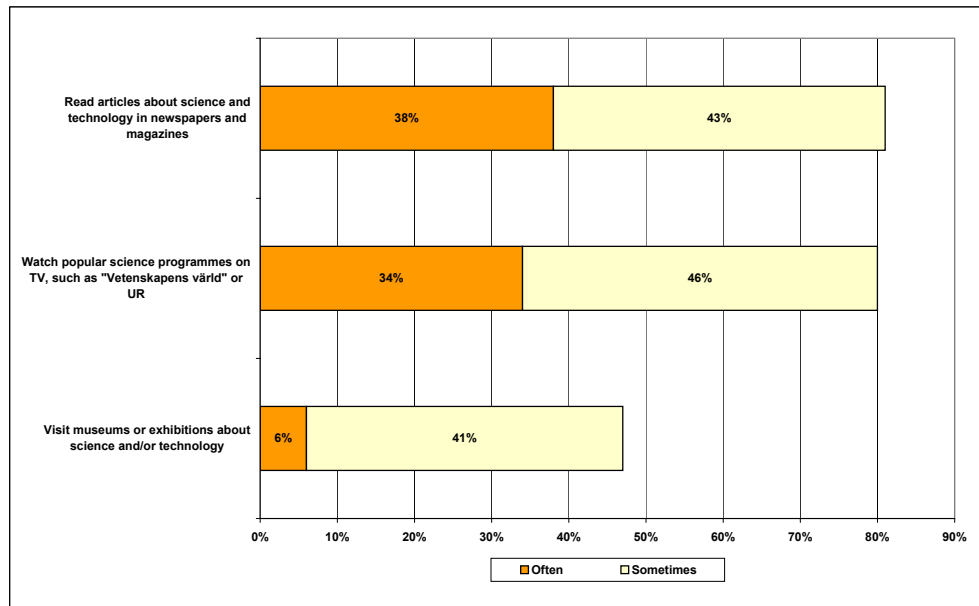
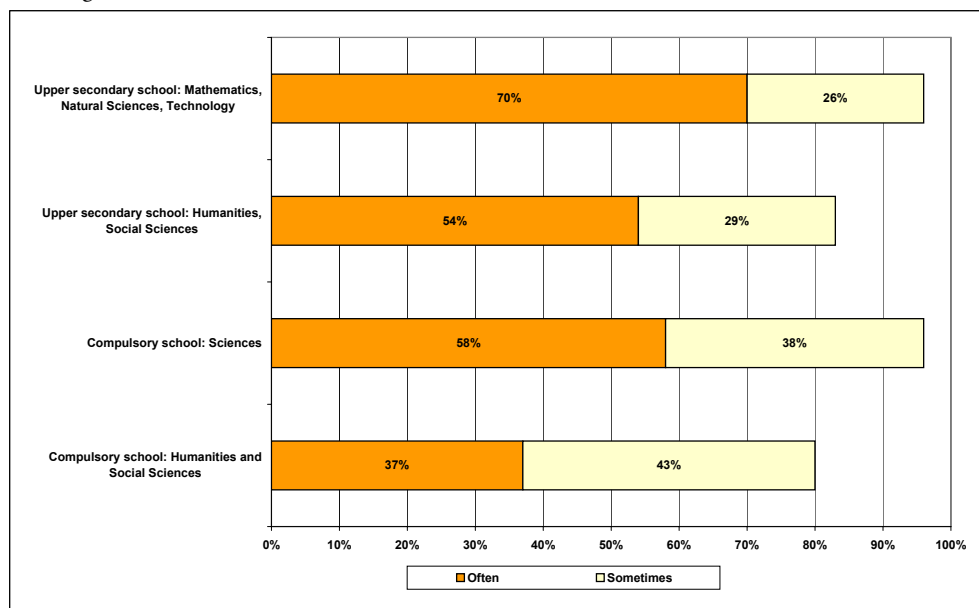
**Figure 1.** “I will now read some statements out loud. Can you say whether you completely agree, largely agree....?”



**Figure 2.** “What sources, other than educational materials, do your students use the most often?”

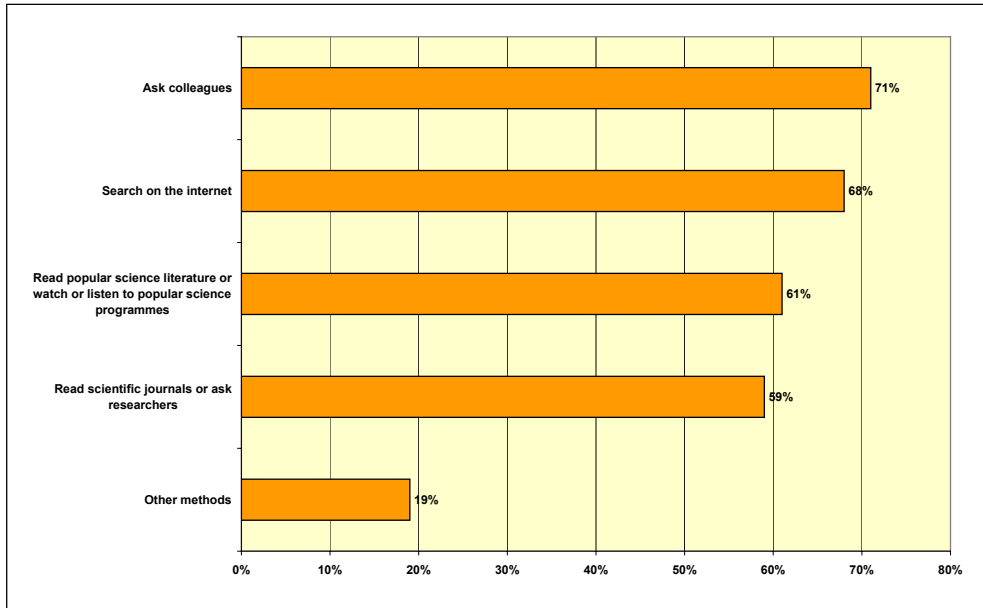


When teachers themselves need new knowledge – what do they do? A large proportion of respondents, about 80 per cent, state that at least sometimes, they read scientific articles and watch popular science programmes on TV; see below. Nearly half at least sometimes visit museums or exhibitions about science and technology. Nearly four out of ten people interviewed state that they often read articles about science and technology in newspapers and magazines. There is a rather large difference between teachers of mathematics/natural sciences/technology and those in the humanities and social sciences. Among upper secondary school teachers of mathematics, natural science and technology, seven out of ten often read such articles, and a full 96 per cent at least sometimes do so. Of compulsory school science teachers, equally many (96 per cent) at least sometimes read articles about science and technology, and six out of ten state that they often do so. The percentages are clearly lower among teachers of humanities and social sciences.

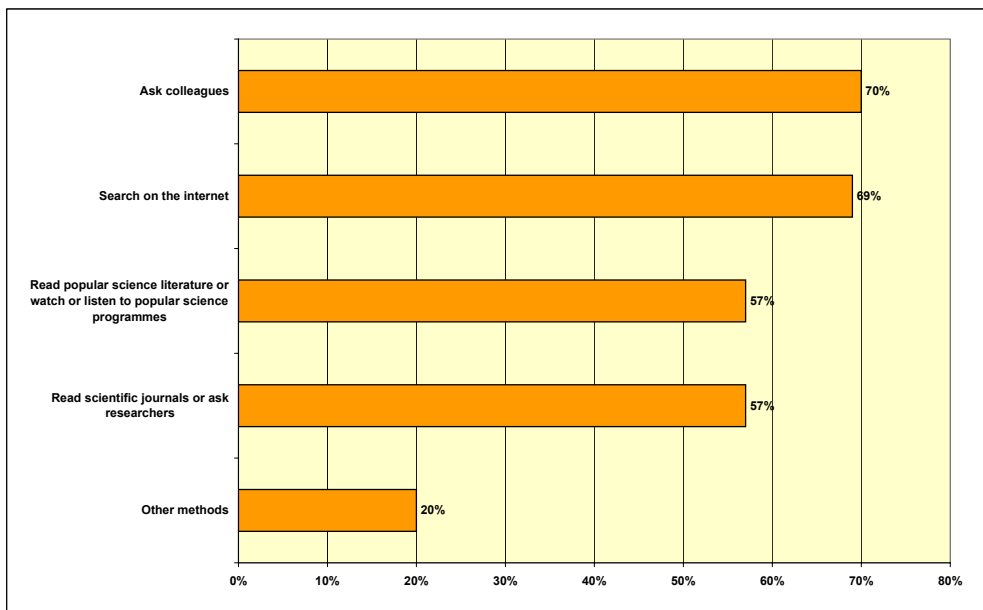
**Figure 3.** "How often do you personally...?"**Figure 4.** "How often do you personally read articles about science and technology in newspapers and magazines?"

When respondents were asked to state what they do in order to seek knowledge in a specific discipline, asking their colleagues ends up at the top, ahead of seeking knowledge on the internet. Reading articles or asking researchers only occupies fourth place. As a kind of control question, the respondents were asked to say what they believe their colleagues do, since this sometimes yields "more honest" answers, but the results differ insignificantly from the direct question (Figure 6).

**Figure 5.** “What do you do when you need new knowledge in a given discipline for your work?”



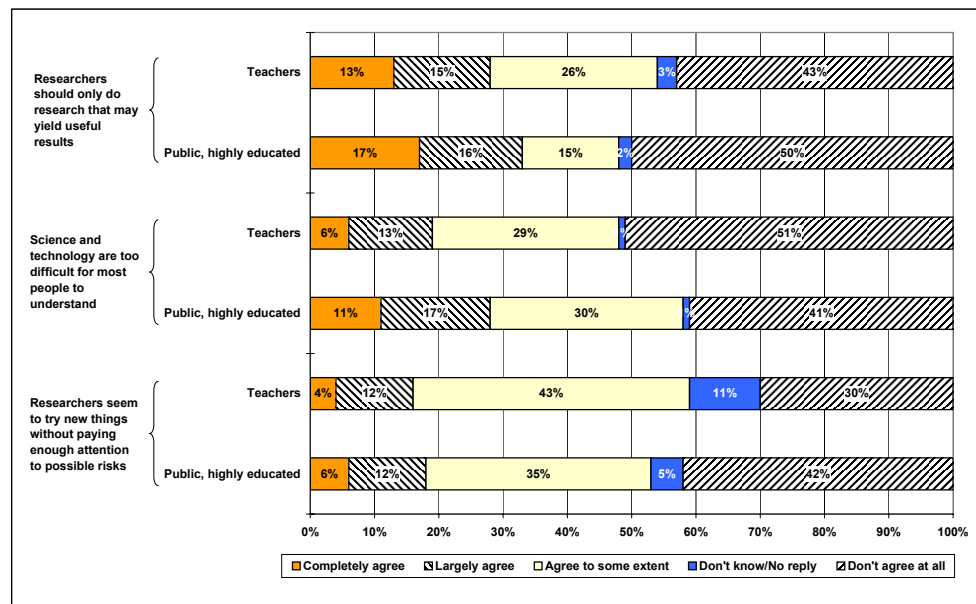
**Figure 6.** “What do you believe your colleagues do when they need new knowledge in a given discipline?”



## 5. Attitudes towards science and researchers

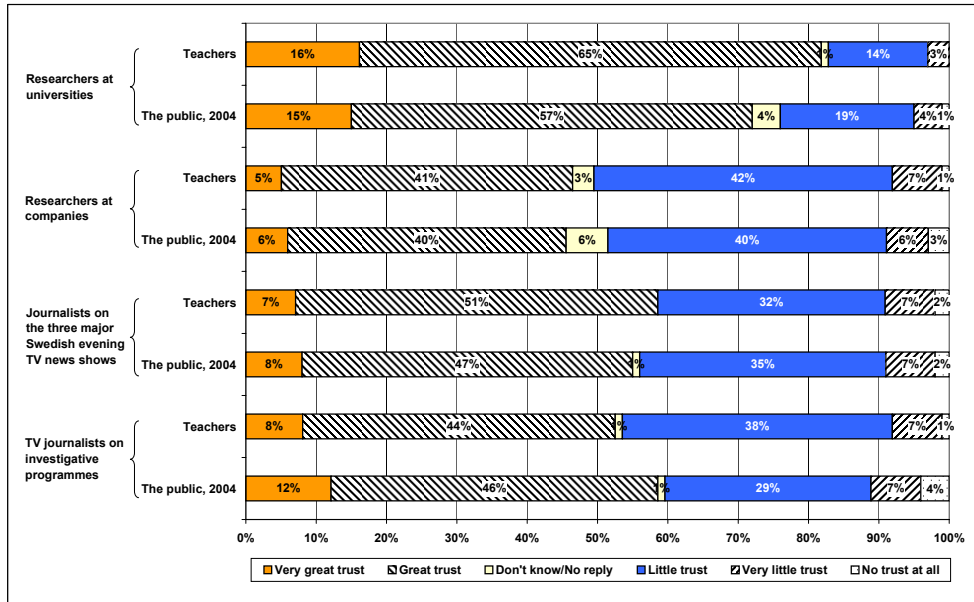
How do teachers, future teachers and school principals actually view researchers and research? Do they trust researchers and the work they are doing? To find this out, respondents were asked to say whether they agree with a number of statements about researchers and science. See Figure 7. It turns out that, compared to the general public, the respondents in this survey agree to a clearly lesser extent with these rather critical statements. Above all, they do not believe to nearly the same degree that science and technology are too difficult for most people to understand. More than half of the respondents in this survey say that they do not agree at all with this statement. Of the general public, four out of ten completely or largely agreed with the statement, and of the “highly educated” category of the public, nearly three out of ten.

**Figure 7.** Statements about researchers and science. “Can you say whether you completely agree, largely agree...?”



The respondents in this survey trust researchers at universities only to a somewhat higher degree than the rest of the public does. As for how much they trust researchers at companies, there is essentially no difference between teachers and the public. However, teachers trust TV journalists on investigative news programmes to a lesser extent than the public does.

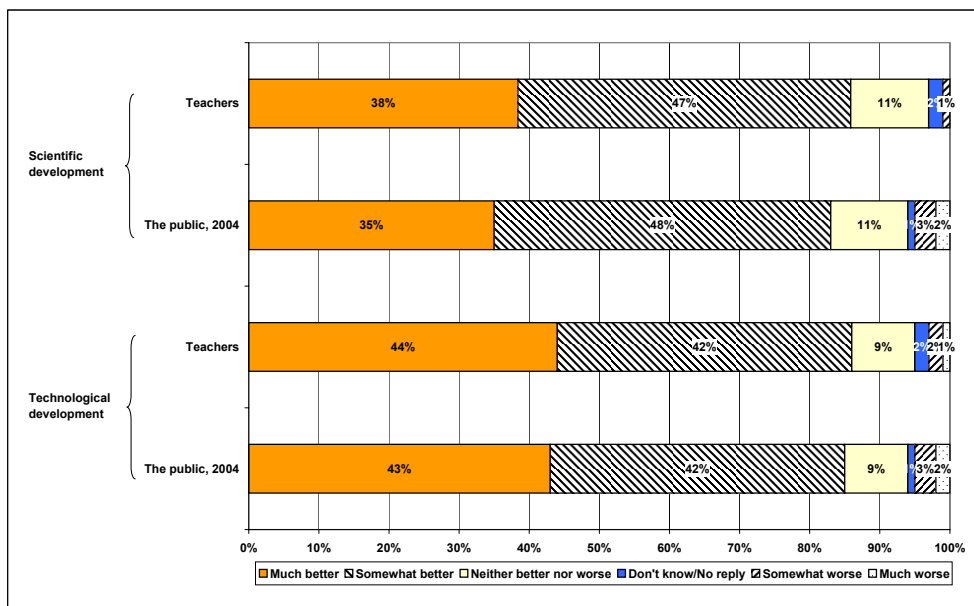
Figure 8. "How well do you trust... ..?"



## 6. The potential of science and research

How much confidence in the potential of science is there amongst teachers, future teachers and school principals? In the figure below, we can see that to a minor extent, teachers have greater confidence in scientific development above all, but that they differ very little from the general public. About 85 per cent believe that scientific and technological development has made life better in the past 10-20 years.

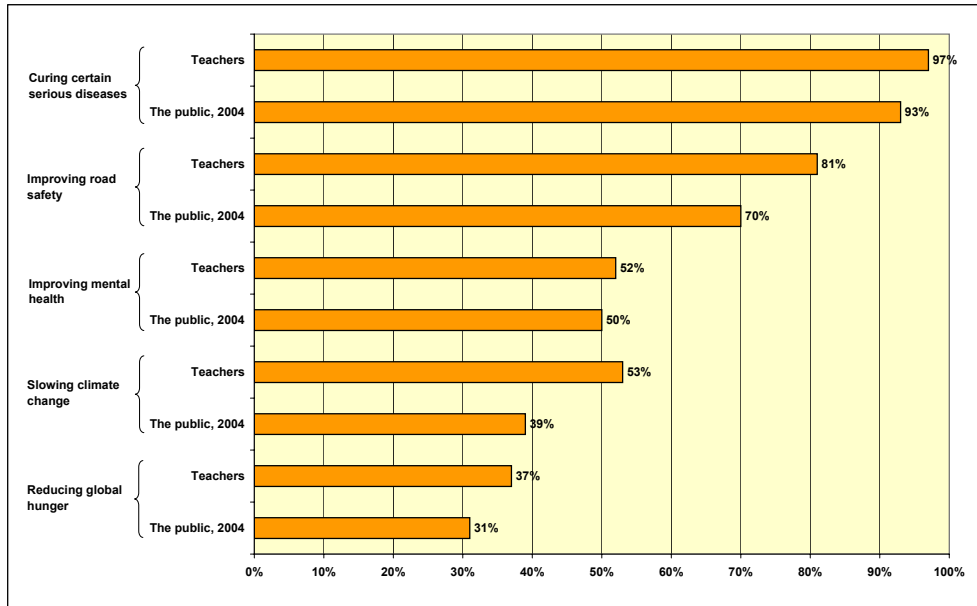
Figure 9. "Do you feel that ... development over the past 10-20 years have made life better or worse for us ordinary people?"





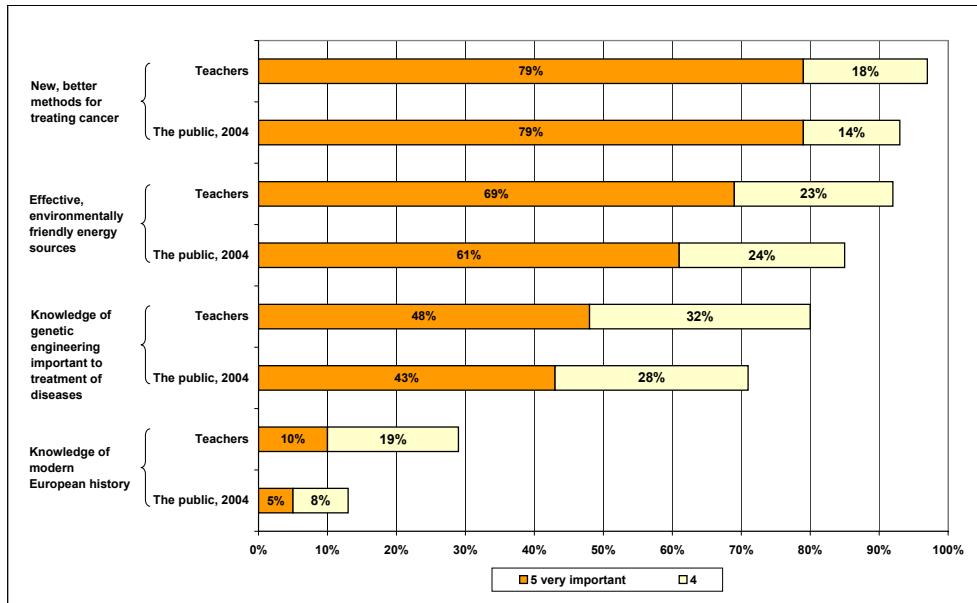
When respondents were asked to say whether they believe that research will be able to solve some of the problems the world faces, however, teachers answer “Yes” to a greater extent than the public. See Figure 10. Above all, we see a big difference in their belief that research can help solve environmental problems (climate change). The pattern is the same in both samples: medical issues end up at the top.

**Figure 10.** “Do you believe that research has a good chance to help solve the following problems within ten years?”

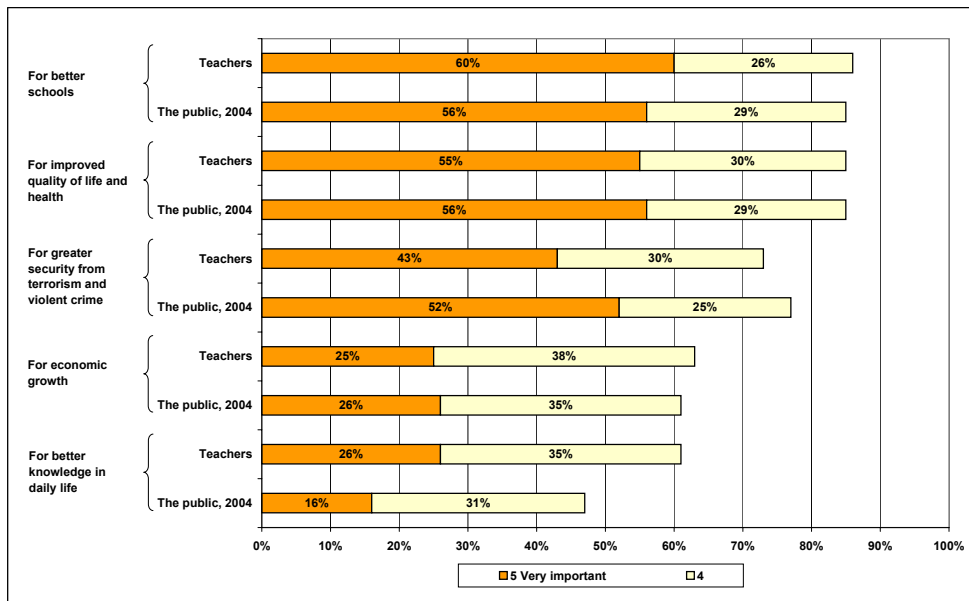


Consistently with this, most respondents in this survey – exactly like the general public – reply that cancer research is the most important kind of research for government funding. See Figure 11. Teachers are generally more positive towards research in all the disciplines mentioned, but the big difference between teachers and the public is found in their attitude towards history as a discipline. More than twice as many teachers feel that research in history is important.

**Figure 11.** “How important is it for Sweden to fund research in ...?”



**Figure 12.** “How important do you feel it is to have research and new knowledge for the following purposes?”



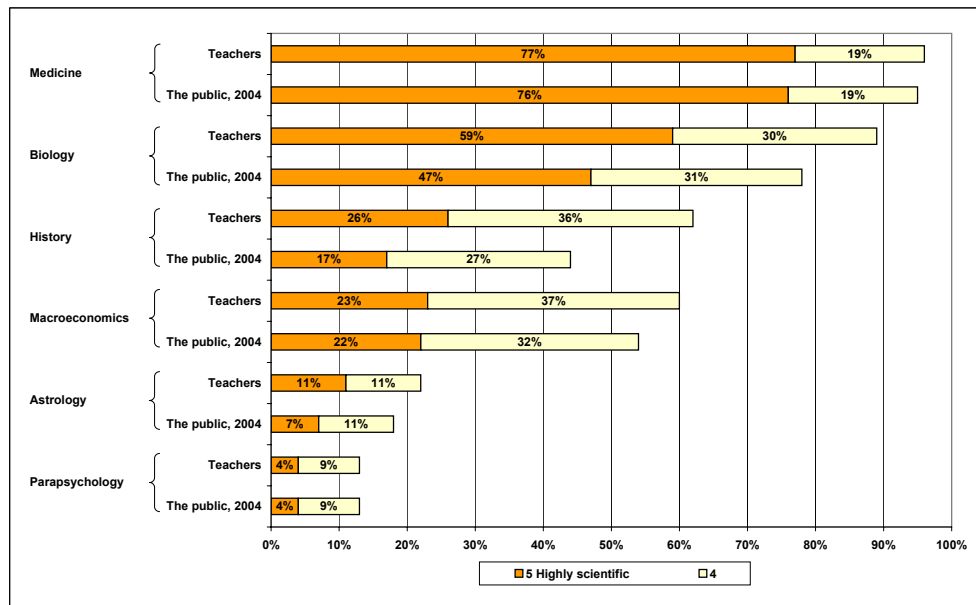
Perhaps surprisingly, not so many more teachers than the public reply that research is important for better schools. See Figure 12. In other respects, too, the replies of teachers and the public differ rather little, in terms of how important they feel it is to conduct research in various fields. Schools, health and security are the fields in which people feel that research is the most important. However, to a substantially greater extent, teachers feel that research is important for better knowledge in daily life.

## 7. Scientific fields

As a yardstick of awareness and knowledge about science and what it actually is, the survey asks respondents what areas they regard as scientific. Respondents were asked to rank the scientific content of a number of disciplines between one and five, where one means “not at all scientific” and five means “highly scientific”. See Figure 13. The field they regard as the most scientific is medicine, and in this respect teachers, school principals and teacher training students do not differ from the general public. However, to a greater extent than the public, the respondents in this survey regard biology, history and macroeconomics as scientific disciplines.

As for the “pseudo-sciences” of astrology and parapsychology, this is a question that is also used in other countries as a yardstick of knowledge about science. Somewhat discouragingly, it turns out that to a greater extent than the general public, the target group in this survey ranks astrology as highly scientific. More than one out of five replies that astrology is clearly scientific (with a ranking of four or five). At the same time as the question is asked, respondents are given a definition of the discipline, in order to avoid any misunderstanding and mix-ups with other fields, such as astronomy.

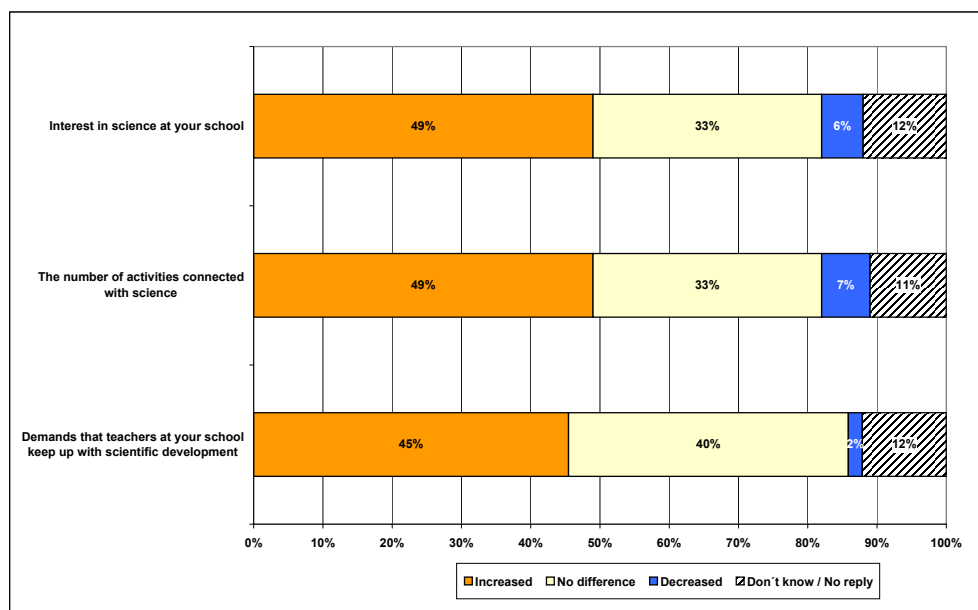
**Figure 13.** “To what extent do you regard the following fields as scientific?”



## 8. Using research results in teaching

How important is it for new research to get into teaching, and how should we achieve this? These questions are covered in the following section. First, let us note that one out of two respondents believes that interest in science has increased in the schools during the past five to ten years, and that the number of activities with a scientific connection has increased. Almost as many (45 per cent) feel that there are also growing demands to keep up with scientific development. Only 2 per cent believe these demands have decreased.

**Figure 14.** “The next question is about development in the past five to ten years. Do you feel that the following have increased or decreased during the past five to ten years, or that there is no difference?”

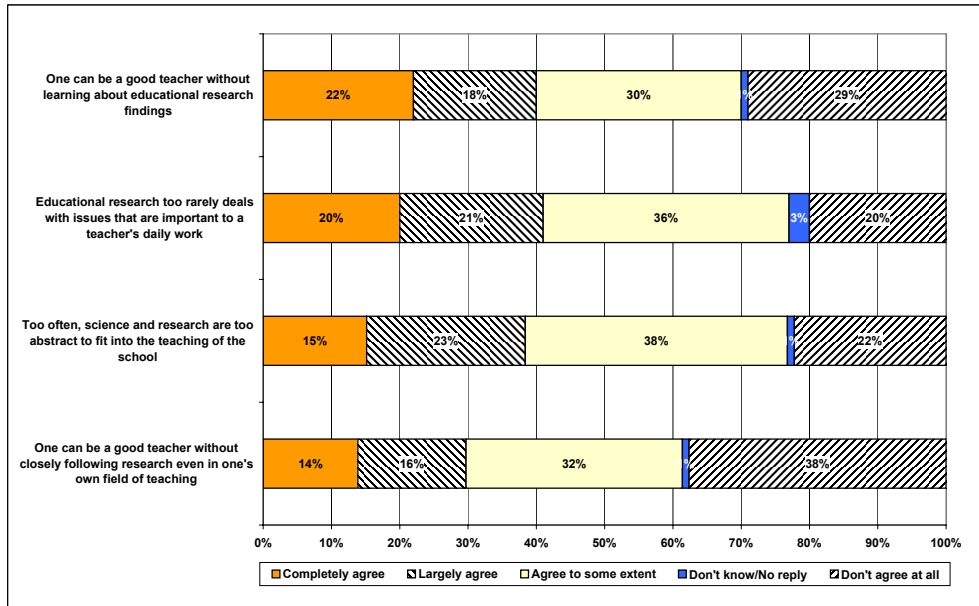


However, respondents do not really seem to agree that these demands are justified. A full three out of ten completely or largely agree with the statement “One can be a good teacher without closely following research even in one’s own discipline”.

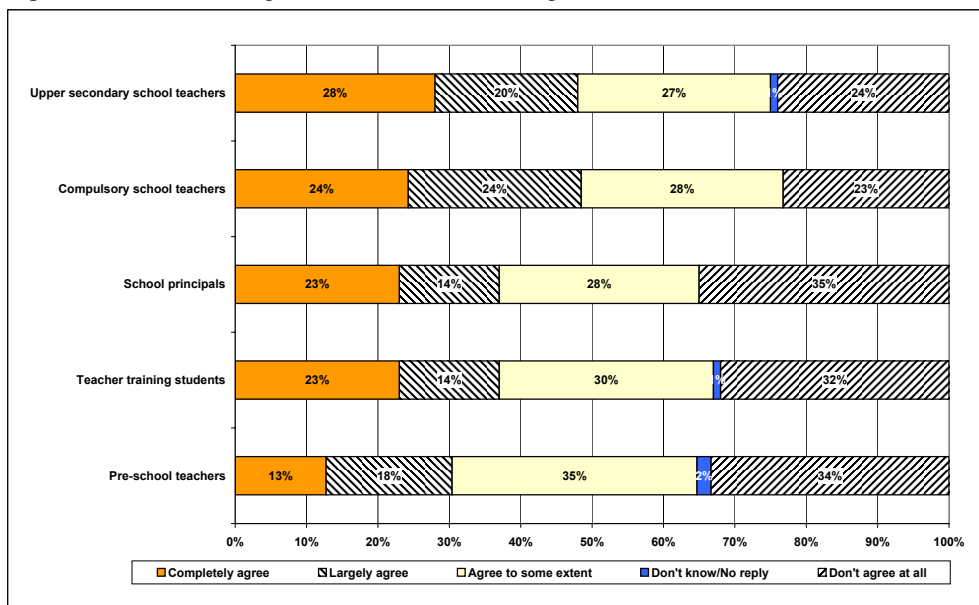
Four out of ten completely or partly agree with the statement that “one can be a good teacher without learning about educational research results”. It is mainly upper secondary and compulsory school teachers who think one can manage without educational research. See Figure 16. Half of them completely or largely agree, while only three out of ten pre-school teachers agree to an equally great extent.

To some extent, as many as three out of four concur that too often, science and research are too abstract to fit into the teaching in the schools.

**Figure 15.** “I will now read some statements out loud. Can you say whether you completely agree, largely agree...?”

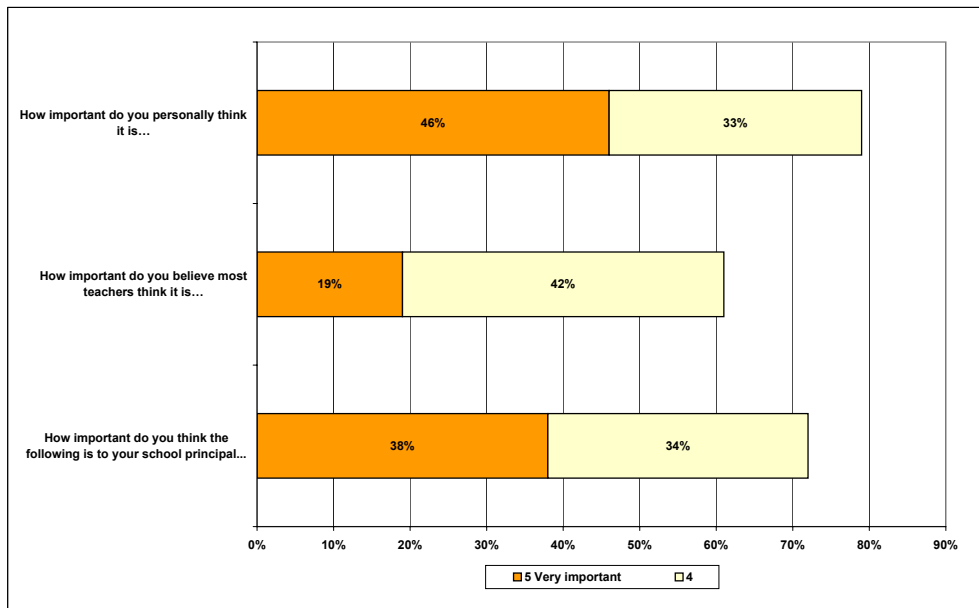


**Figure 16.** “One can be a good teacher without learning about educational research results.”

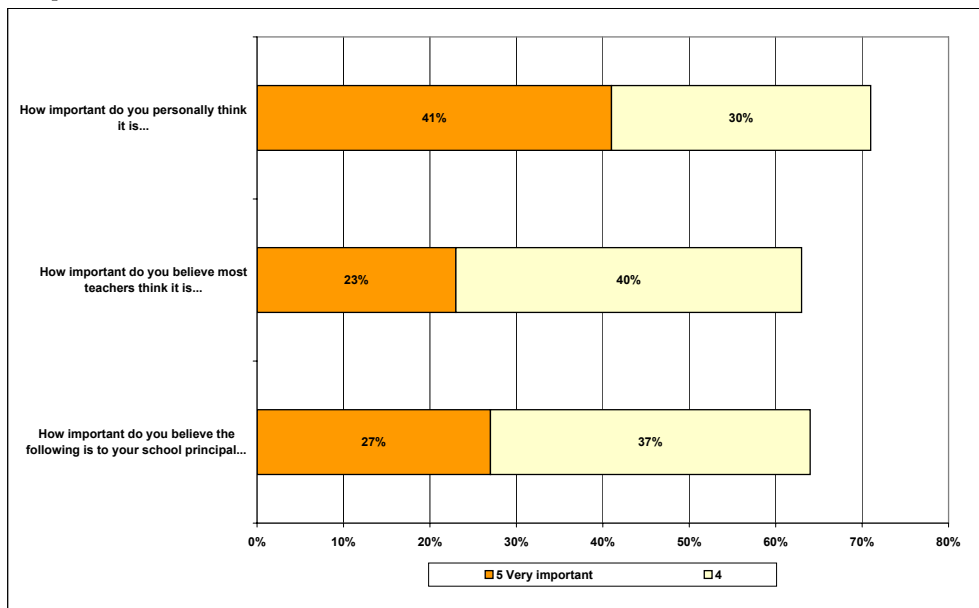


Eight out of ten reply that in their teaching, it is important to take advantage of educational research results. See Figure 17. This is perhaps somewhat contradictory, taking into account the above results. Seven out of ten respondents say that in their teaching, it is important to include research results in their discipline, i.e. three out of ten do not believe it is so important. See Figure 18. When respondents are asked the control question “How important do you believe most teachers think it is?” the picture changes somewhat. In both questions, only six out of ten believe that most others think it is important, and the proportion who believe that most other teachers think it is very important falls drastically. About seven out of ten believe that school principals think it is important to take advantage of, and to include, research results in teaching.

**Figure 17.** “How important ... in teaching to take advantage of educational research results?”

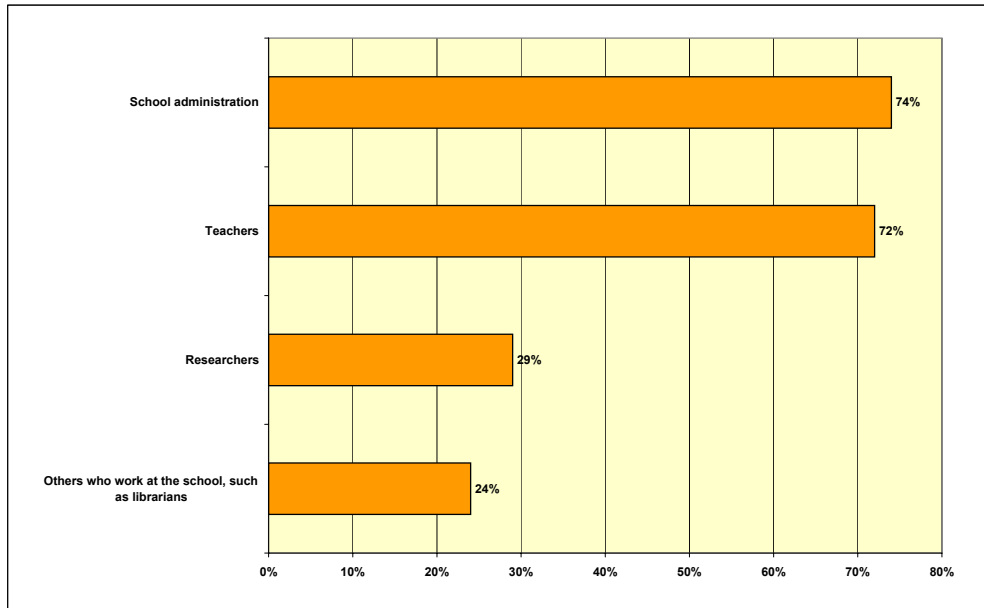


**Figure 18.** “How important... in teaching to include research results in your discipline or disciplines?”



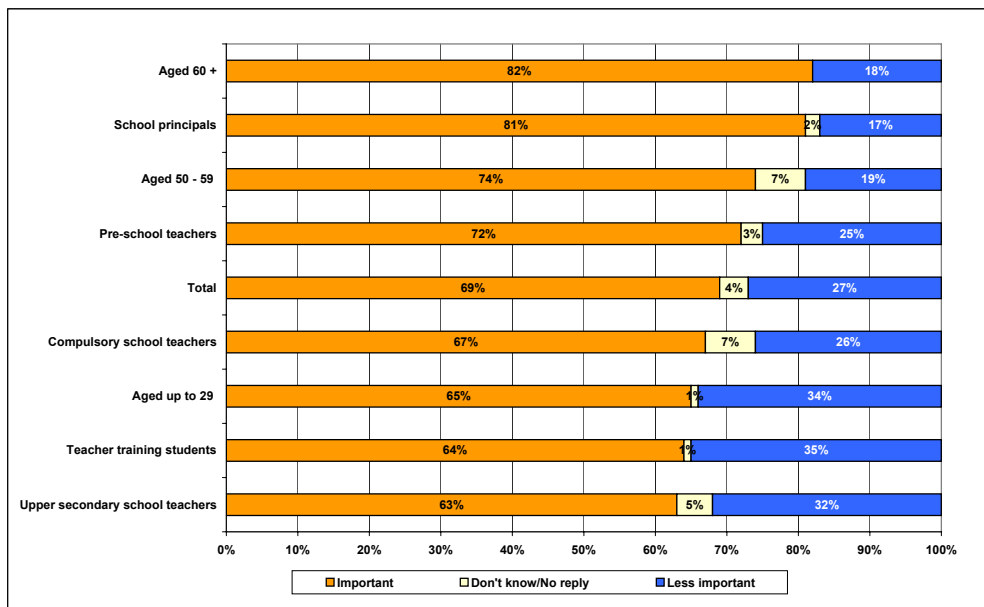
Who, then, has the responsibility for ensuring that new knowledge is put to use in the schools? A large majority think that school administration and teachers have. Fewer than 30 per cent think it is the job of researchers to ensure that research is included in school work.

**Figure 19.** “Which of the following do you feel have the greatest responsibility for ensuring that new knowledge is put to use in the teaching in the schools?”

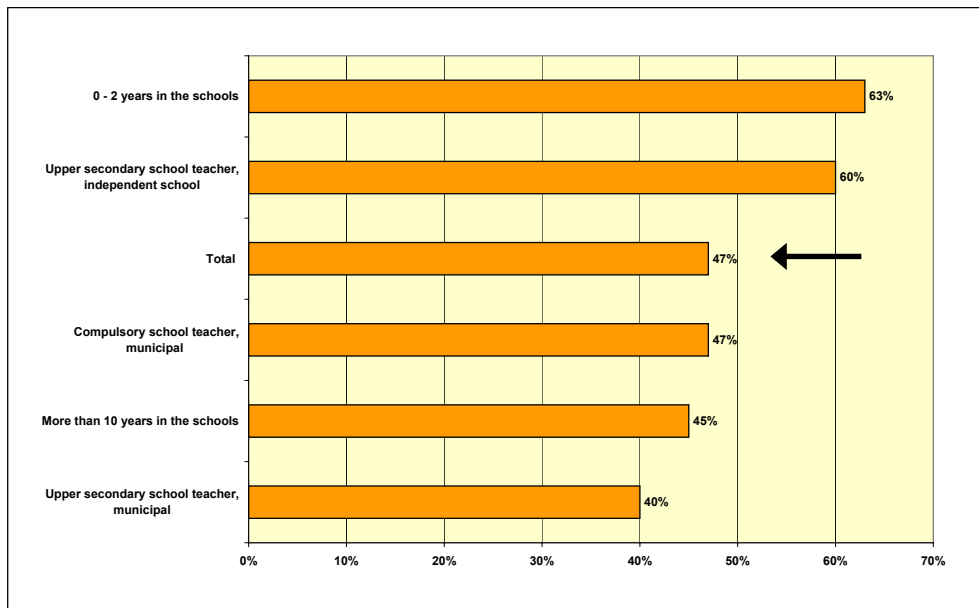


A large proportion of respondents, seven out of ten, think it is important for teachers to gain personal experience of research. Here older teachers and school principals regard this as important to the greatest extent. See Figure 20. But a full six out of ten younger teachers say that they would personally consider postgraduate studies. See Figure 21.

**Figure 20.** “People may have different opinions about the importance of having research experience of their own. Do you personally think it is important or less important for teachers to gain their own experience of research?”



**Figure 21.** “Would you personally consider beginning postgraduate studies, or would you not consider it?”





## How can research be better incorporated into teaching?

The survey asked two open questions about how research results might be better utilised in the work of the schools.

1. “Is there something that you would like to see more research about, so that you could benefit from it in your work as a teacher?” Some common replies:

- Children with special needs, attention deficits and similar conditions
- Methodology related to children with special needs
- Teaching methods, practical teaching methods
- About motivation, how to deal with children who “don’t want to learn”
- Children and stress
- Size of children’s groups
- More research about pre-schools, pre-school children and development/learning in younger children
- The relationship between family and school, collaboration
- Learning and physical activity, about images as learning tools
- Gender perspectives
- How children learn, the learning process, “psychology of learning”
- About how one can teach mathematics

2. “Is there anything that you think researchers could do to make it easier for research results to be used by the schools?” Some recurring replies:

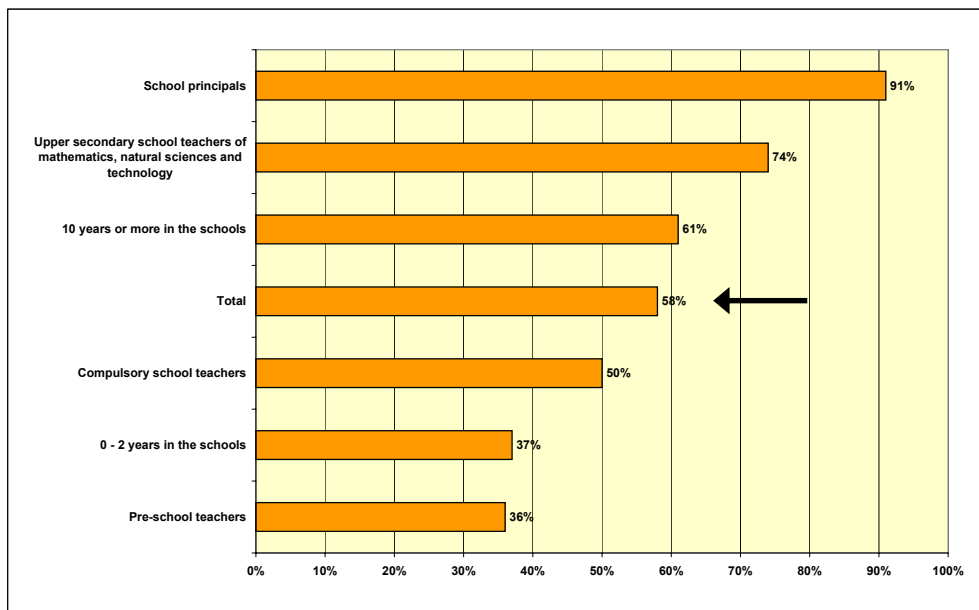
- Get out more and visit schools; researchers should travel around and talk to people about their research, explaining things in easier language
- Use simpler language, summarise research results for younger people and non-academics
- Present research in an easy way, so it stimulates people to read
- Send out some sort of newsletter to teachers in different disciplines, informational material compiled for teachers
- Invite people to lectures and seminars, publish more in professional journals such as those aimed at teachers
- Establish personal channels to the schools, perhaps have a mentoring relationship with schools
- Research results must be popularised. This is especially true of educational research; technological research is more often available at a simpler level
- Use the internet to disseminate new knowledge; make new reports easily available on the internet
- New ways of publishing –newspapers, popular science magazines, professional journals

## 9. Contacts with researchers

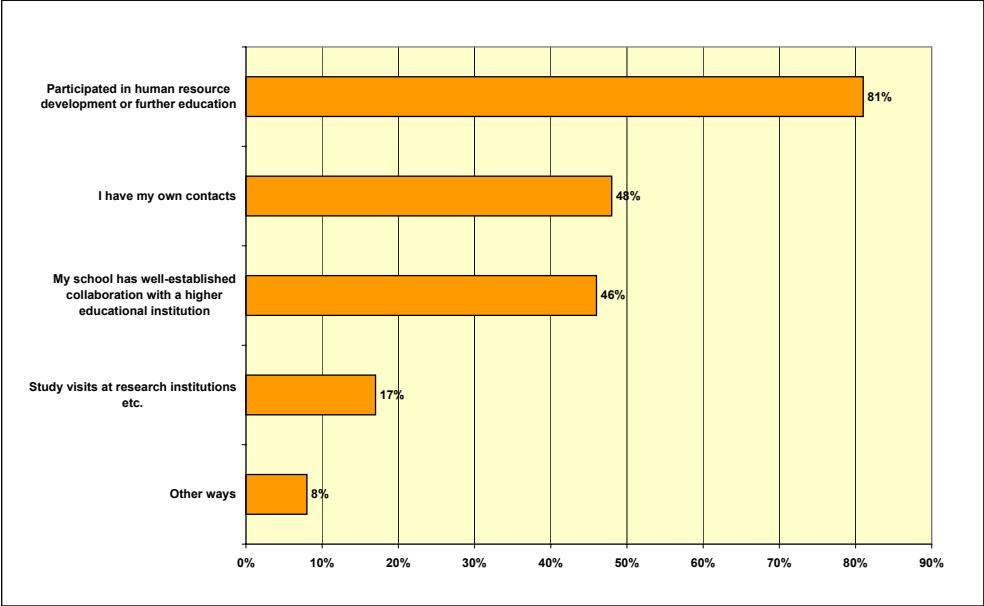
How common is it for teachers to have contacts with researchers, and if they do, in what way do they have contact? In the figure below, we can see that school principals are the ones who state that they usually have contact with researchers as part of their job. A full 91 per cent of this group state that they have had such contact in the past year. See Figure 22. Upper secondary school teachers in mathematics, natural science and technology also have relatively frequent contact with researchers, while upper secondary school teachers in the humanities and social sciences have it less often.

Every second compulsory school teacher and more than one third of pre-school teachers have had contact with a researcher. A large majority of those who have had such a contact state that the reason was that they participated in some form of human resource development or further education programme. Nearly half of those who had such a contact state that they have their own contacts among researchers. It is mainly school principals and upper secondary school teachers who have such contacts of their own. Nearly half of the respondents feel that their schools have well-established collaboration with a university-level institution. Very few have made study visits to a research institution.

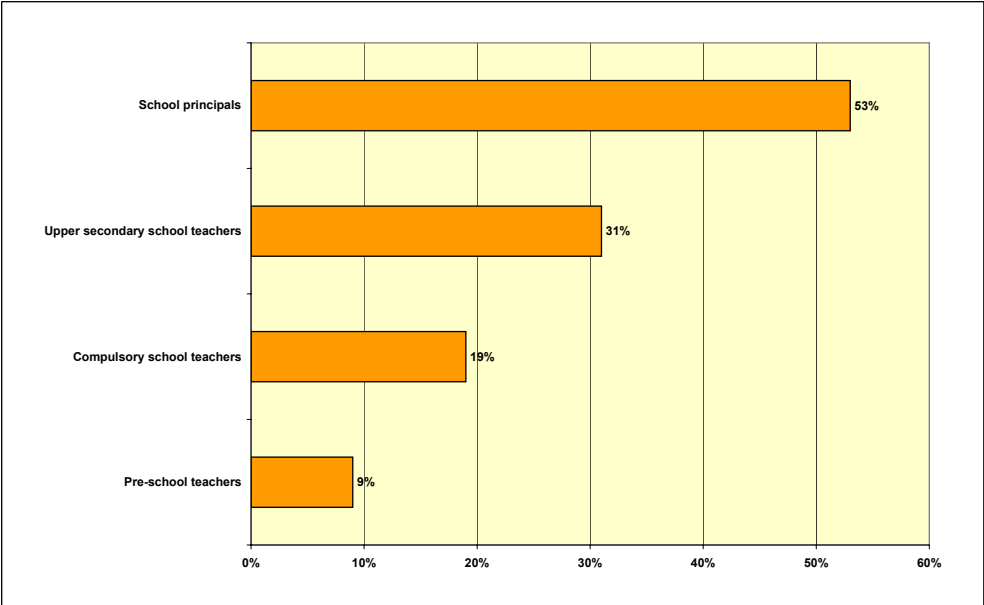
**Figure 22.** “During the past year, have you had contact with one or more researchers as part of your work as a teacher, pre-school teacher or school principal?”



**Figure 23.** “In which of the following ways have you had such a contact?” (Percentages of those who have had a contact)



**Figure 24.** Percentage of each category having their own contacts with researchers.



Why don't more respondents have contact with researchers in their teaching work? The survey asked them what they believe are the main reasons why teachers do not have contact with researchers. A number of causes and explanations recur in the open replies that respondents provided. Lack of time and an already heavy burden of work are the most common explanation. Beyond this, recurring replies deal with distance to research, and in that case not only or primarily the geographic distance, but respondents refer to a kind of mental distance.

Examples of replies:

- Difficult to know whom to contact, what approach to use
- Research may feel remote, "difficult to understand their language", "there is a distance between research and everyday reality"
- There are no natural contacts between teachers and researchers, "often many years since one has personally attended university"
- That people live far away from the nearest institution of higher education, "250 km to the nearest university"
- Lack of interest by teachers. They do not wish to change old routines, there is resistance to trying new things
- "Have no personal contacts, don't know where to start"
- "Rare for researchers to be invited to human resource development programmes"

## 10. Differences between the various groups surveyed

The following section summarises some points where one of the groups surveyed differs from the others.

### Upper secondary school teachers

More often than the other groups surveyed, upper secondary school teachers state that they search the internet when they need new knowledge (75 per cent). They also reply more often that their students use the internet as an instructional source (92 per cent), and less often that their students use libraries, encyclopedias etc (67 per cent).

Upper secondary school teachers of mathematics, natural sciences and technology read scientific journals or ask researchers more often (81 per cent) than the other groups interviewed. They also had contacts with researchers during the past year more often than the other groups.

Upper secondary school teachers more often trust researchers at universities, at the same time as they *less often* trust TV journalists on investigative programmes. They more often read articles about science and technology in newspapers and magazines, and they more often watch popular science programmes.

Upper secondary school teachers *less often* agree with the statement “researchers should only do research that may yield useful results” and they are more positive than others towards scientific development.

In spite of this, upper secondary school teachers state more often than other groups in the survey that interest in science and in activities connected with science in the schools has *decreased* or has been *unchanged* over the past five to ten year period.

### Compulsory school teachers

Compulsory school teachers read scientific journals less often (46 per cent) than the other groups surveyed. Teachers in grades 1-5 of the compulsory schools ask their colleagues more often than others when they need new knowledge in their work.

Those who teach science (in Swedish, “nature oriented” or “NO” subjects) more often read popular science literature or watch or listen to popular science programmes (74 per cent) than the other groups.

If we can believe the teachers, students in the compulsory schools more often use sources other than educational materials to obtain knowledge. Compulsory school teachers state more often than others that their students use libraries (87 per cent), search the internet (78 per cent), ask teachers (70 per cent), watch popular science programmes (38 per cent) and participate in school competitions (29 per cent). The internet is used more often in

compulsory school grades 6-9 than in grades 1-5.

Compulsory school teachers state more often than the other groups that it is important to fund research on efficient and environmentally friendly energy sources. “NO” teachers think this is especially important.

Compulsory school teachers at independent schools state more often than other groups who were interviewed that they have *very great* trust in researchers at companies (21 per cent). NO teachers more rarely trust TV news journalists, while social science teachers *more often* than others trust TV journalists on investigative programmes.

Compulsory school teachers, *more often* than the other groups surveyed, consider parapsychology highly scientific. Two out of ten compulsory school teachers share this view.

More often than other groups, compulsory school teachers think that one can be a good teacher without following educational research. They also answer “no” more often to the question of whether they have been in contact with researchers over the past year.

## **Pre-school teachers**

*Less often* than the other groups surveyed, pre-school teachers read popular science literature or watch/listen to popular science programmes. Pre-school teachers also search less often on the internet when they need new knowledge in their work.

Less often than the other groups interviewed, pre-school teachers state that the children take advantage of other sources than textbooks, such as the internet, competitions, popular science programmes on TV or study visits.

Nearly all pre-school teachers agree with the statement that it is important for students to learn how to search for knowledge. At the same time, pre-school teachers agree somewhat *less often* than the others groups interviewed with the statement that it is important for students to learn to critically examine their sources.

Their attitudes towards researchers differ somewhat from those of the other groups in the survey. For example, more than four out of ten pre-school teachers completely or largely agree with the statement that researchers should only do research that may yield useful results, compared to fewer than three out of ten of all respondents.

Pre-school teachers state *more often* that it is very important for the government to fund research in genetic engineering of importance to the treatment of diseases. Pre-school teachers meanwhile, more often than other groups, think that it is less important to fund research on modern European history.

Two out of ten pre-school teachers regard astrology as highly scientific, compared with an average of eleven per cent in the entire target group.

Pre-school teachers trust researchers at both universities and at companies *less* than other groups in the survey. Meanwhile pre-school teachers reply more often than others that it is

very important to do research in all the areas mentioned in the survey.

More often than the other groups interviewed, pre-school teachers feel that interest in science has increased in their schools.

## **School principals**

School principals read scientific and popular science literature more often than the other groups surveyed.

School principals *more often* agree that it is important for students in the schools to learn to distinguish between knowledge and information and for them to learn to examine their sources critically.

School principals *less often* agree with critical statements about researchers and science than the other groups surveyed. They are also more positive towards both scientific and technological development than other groups.

School principals more often have *great* trust in researchers both at universities and at companies. However, they more often have little trust in TV journalists.

School principals more often regard astrology and parapsychology as not scientific at all.

*More often* than the other categories surveyed, school principals think it is important to include research results and utilise educational research results in teaching. This also agrees with what teachers believe that their principals think about these issues. See Figures 17 and 18. Consistently with this, they less often think that one can be a good teacher without closely following research in one's field.

*More often* than the other groups surveyed, school principals have been in contact with researchers as part of their work, and they more often have their own contacts. In addition, significantly more often than the other groups of respondents, they have the perception that their school has a well-established collaboration with an institution of higher education.

*More often* than the other groups, school principals think that the interest in science and the number of activities connected to science have increased in the schools. More school principals than others surveyed also think that it is important for teachers to gain their own research experience.

## **Teacher training students**

*Less often* than the other groups surveyed, teacher training students think that scientific development has made life better. They also more often state (20 per cent) that they have little trust in researchers at universities. At the same time, they more often have *great* trust in TV journalists on investigative programmes.

Teacher training students more rarely visit museums and more rarely read articles about

science and technology in newspapers and magazines than other groups surveyed.

One depressing conclusion is that among teacher training students, there is lower awareness about what science is than among the other interview groups. For example, teacher training students *less often* regard macroeconomics as scientific. They also state *more often* than the other groups that astrology is a scientific subject. A full 30 per cent of future teachers make that assessment.

Teacher training students, more rarely than the other groups surveyed, think it is important for the government to fund research on modern European history.

However, teacher training students *more often* than the other groups interviewed in the survey think teachers have the greatest responsibility for ensuring that new knowledge is used in the work of the schools.





**Vetenskap & Allmänhet or VA (Public and Science)** is a Swedish non-profit association aimed at promoting dialogue, openness and understanding between the public and scientific researchers. VA wishes to inspire a discourse on research and to create new forums in unexpected arenas on issues of concern to people. Everyone should be able to meet researchers to exchange ideas and better understand the research results, the task of achieving them and the role of science in society.

**The goals of the association are to**

- increase contacts and exchange of ideas between the public and scientific researchers
- increase public knowledge of research methods and results
- develop sensitivity and understanding among researchers for the public's questions and concerns about research
- build regional, national and international networks for encounters and exchanges of experience

**The work of the association focuses on three areas:**

- **Building knowledge** about the interface between the public and research, by means of public opinion surveys and studies about what the public, young people and particular groups feel about research and how researchers view their dialogue with the public
- **Promoting discourse** between researchers and the public: playing a catalytic role or organising events using unconventional mechanisms, arenas and themes
- **Conveying experience** about methods, mechanisms and themes for discourse and dissemination of the knowledge gained from studies

Vetenskap & Allmänhet was established in 2002. During its first two years, it conducted a number of studies and surveys, tested unusual mechanisms of discourse and different methods for conveying experience, especially via the internet. These studies, available mainly in Swedish, may also be downloaded from VA's web site, [www.v-a.se](http://www.v-a.se).