GENDER DIFFERENCES IN EDUCATIONAL OUTCOMES: A STUDY ON THE MEASURES TAKEN AND THE CURRENT SITUATION IN EUROPE

Austria
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1. General policy framework

For describing the general situation of gender issues in the education system in Austria two levels of perception have to be differentiated: the political agenda level and the general agreement in society.

The discussion about gender inequality in education is not new and has been on the political agenda since years, but not as a priority. Reason for this situation is that the gap between girls and boys is quite evident; however, other topics are seen more urgent, like violence in school or intercultural topics, or more important, like the implementation of educational standards or restructuring of the Austrian school-system.

As evidences for the necessity to initiate measures the situation on the labour market, the gender mainstreaming-policy of the EU and the PISA-results can be seen. On the labour market a strong gender segregation still exists and – as current data show once again – there is a clear gender gap concerning income with definite disadvantages for women (1). Since gender mainstreaming as EU-policy was proclaimed in 1998 the Austrian government is forced to initiate measures for gender equality in all policy areas. The results of the PISA-tests make very evident and show how deep they are.

In society the acceptance of gender issues in policy making especially in the education system must be assessed as ambivalent. On the one hand questions of gender equality are not realised as a question of main concern. Representative data available for 2006 and 2007 (IFES 2006, 2007) show that from the point of view of 2000 respondents gender issues are not seen as striking challenges of schools. 53 % think that schools cope at least well with gender quality. The average grade is 2.3 and the best comparing with other topics (like violence or challenging behaviour of students who are graded between 2.8 and 3.0).

The necessity for special activities is assessed rather low: only 13 % think that further gender equality policies are necessary in contrast to 55 % who would appreciate more activities about avoiding drugs. On the other hand all questions concerning the promotion of gender equality of girls and boys are assessed as very important although the acceptance has decreased.

<table>
<thead>
<tr>
<th></th>
<th>1999 → 2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Girls should be more encouraged in mathematics, natural science and information technologies.</td>
<td>79 % → 74 %</td>
</tr>
<tr>
<td>Girls as well as boys should be taught in textile and technical handicraft.</td>
<td>64 % → 64 %</td>
</tr>
<tr>
<td>Students should be reinforced to concern oneself with gender stereotypes and equal opportunities in school.</td>
<td>80 % → 73 %</td>
</tr>
<tr>
<td>Teachers should be more informed about gender issues in initial teacher education and in-service training.</td>
<td>81 % → 72 %</td>
</tr>
</tbody>
</table>

Note: the values presented are answers 1 (strongly agree) and 2 (agree) on a 5-point scale. Source: IFES 2007

(1) The European Commissions’ analysis of gender pay gaps revealed a gender pay gap of 25.5 % for Austria in 2008, which gives Austria the last, but one position in the EU-ranking. Compared to former years the gender pay gap increased sharply (2006: 20 %). [http://ec.europa.eu/social/main.jsp?catId=685&langId=en](http://ec.europa.eu/social/main.jsp?catId=685&langId=en)
To promote the implementation of Gender Mainstreaming an 'inter-ministerial committee' (Interministerielle Arbeitsgruppe, IMAG) was established in 2000. Main task is to support the national debate about gender issues, to raise the awareness and the sensitivity for gender equality and to support the authorised representatives at all levels of government. Measures are offering experts, in-service trainings and information on the national as well as international level. At the moment the IMAG is situated in the Federal Chancellery of the Republic of Austria.

One of the results was that all ministries were requested to install internal working-groups within their organisation to promote Gender Mainstreaming, to define main aims and to consider how to realise them. In the Federal Ministry of Education, the Arts and Culture the department 'Gender issues and Gender mainstreaming in education' is responsible for the implementation of adequate measures to reach the aim equality. It was the initiative of this department that a Gender Mainstreaming work-group for the whole ministry was established (AG Gender Mainstreaming). All departments send delegates who try to structure the activities and to decide about priorities. A work-plan consisting of ten topics was compiled, including: the integration of Gender Mainstreaming into the mission statement of the Federal Ministry, the curriculum, all in-service training concepts and research programs. The gender-ratio in all committees and boards has to be balanced. Gender has to be included in data acquisition and the forming of indicators, into all publications, materials and media. Gender sensitivity has to become part of the monitoring system and all evaluations (Cortolezis-Schlager, Aichholzer 2005). Recently a gender controlling system has been installed.

The department 'Gender issues and Gender mainstreaming in education' consists of five people (head: Dr. Doris Guggenberger). Initiatives to spread gender mainstreaming have priority. The department tries to make clear that this EU-strategy has to be installed in an integrative way in all programs and initiatives run by the Ministry. For disseminating the main ideas, programmes and initiatives the websites of the Federal Ministry are used (http://www.bmukk.gv.at/schulen/unterricht/index.xml). Action programmes were carried out: The first action plan 1997-2000 included 99 measures with a focus on promoting equality in school and adult-education. In the second one (2000-2003) the number of topics was reduced to five main concerns: (1) school quality and equal opportunities, (2) gender sensitivity and vocational orientation with a focus on girls and technology, (3) net-working and support for equality delegates, (4) equal treatment and women's/girls' advancement, (5) adult education with a focus on women and new technologies. The third action plan (2003-2006) concentrated on three areas: gender-sensitive education and instruction, gender-sensitive vocational training and career planning, Gender Mainstreaming.

Besides that special programmes were enforced to promote girls in non-traditional areas, like traditionally male professions, and to implement gender mainstreaming into the quality management. In addition, the department has the right to examine new laws, activities, the curriculum and comment them. So there is a kind of control whether gender issues are included in all measures of the Ministry. To give an example: When the 'Colleges of Teacher Education' (Pädagogische Akademien) were transformed into 'University Colleges of Teacher Education' (Pädagogische Hochschulen) the department urged to implement 'working committees on equal treatment' (Arbeitskreis für Gleichbehandlungsfragen).

Pilot-projects to support the implementation of gender mainstreaming

There have been three pilot projects to support the implementation of gender mainstreaming at school level.

The first pilot project entitled 'Gender Mainstreaming and School Development' took place in 2001/02 and focussed on gender-sensitive conditions and behaviour on the class level. Six schools in four federal provinces participated in this project.

On the basis of its results the follow-up project 'Gender Mainstreaming – Cluster Schools' was designed and started in November 2003. It provided, on the one hand, for supporting measures geared to the individual school, on the other hand it encouraged inter-school networking: Five cluster schools constituted a representative cross-section of Austrian school types developed concrete strategies and measures which

(http://www.bmukk.gv.at/schulen/unterricht/index.xml)
should foster the successful implementation of the concept of gender mainstreaming in the whole school system.

In order to reach this aim, overall targets and features were defined on five levels:

1. Instruction level: Systematic and all-encompassing implementation of gender-adjusted and gender-sensitive instruction for all school pupils.

2. Personal level: All persons involved in school life are responsible for the implementation of gender mainstreaming in everyday school life.

3. Organisational and team level. Gender mainstreaming is a natural and noticeable part of school culture.

4. Cluster level: In a joint effort schools develop and test clear-cut and verifiable criteria: 'Which factors make a school a gender mainstreaming school?'

5. System level: The gender mainstreaming cluster schools are good-practice models for implementation and help transfer gender mainstreaming to the entire school area.

Following that, for the school year 2007/08 a Fund for Gender Competence Schools (GeKoS) was set up in order to raise schools’ awareness of gender issues, to enhance existing know-how concerning gender aspects and to increase participation in gender-related projects. Schools, which are active in this field, receive greater attention. In the long run they should serve as models in the sense of ‘best practice’. 24 school projects were selected and are financially supported by means of an operative school budget as well as by counselling provided by outside experts.

In order to support networking and exchange of experiences between schools, the Federal Ministry for Education, the Arts and Culture organised yearly Austrian ’Gender Days’ from 2006 on. Within these events, schools have the possibility to present their gender projects and to exchange experiences with other schools. A documentation of the presentations is published by the Federal Ministry in order to spread 'best practice'-models (3).

2. Curriculum and guidance

Since the school year 1994/95 the integral educational principle 'Education to equality between women and men' has been anchored in the curricula of different school types. It has to be seen as a temporary special measure in accordance with Article 4 of the 'United Nations Convention on the Elimination of all Forms of Discrimination Against Women' (Federal Law Gazette 443/1982) ratified by Austria in 1982.

The aim of the educational principle is to motivate all those who work in the field of education to increasingly consider gender equality matters in the content of curricula, in class, in textbooks and other education materials in use, and to intensify discussion of these topics in schools. The educational principle intends to:

- raise awareness of sex-specific socialisation through family, school, the media and the labour world;
- perceive causes and forms of the sex-specific division of labour both in the private domain an in the labour world;
- realise how teaching contents, education materials and modes of conduct of all school partners can reproduce and fix gender-role stereotypes;
- reflect on one’s own conduct, on classroom interaction, on everyday dealing on one's own sex-role concepts;
- raise awareness of daily forms of violence and sexism at school, at the work place and in the media;

(3) The documentation of Gender Days in 2008 is currently under preparation. For documentation 2007, see: www.bmukk.gv.at/medienpool/16146/gendertagedokugesamt2.pdf, for documentation 2006, see: www.bmukk.gv.at/medienpool/15513/genderdaydoku2006.pdf. All documentations are only available in German.
encourage to eliminate sex-specific prejudices and discrimination, encourage self-confidence, to compensate deficits, to promote attitudes towards the principle of partnership between boys and girls.

First, the principle was mandatory for upper secondary vocational colleges and Kindergarten teacher training colleges (1994). After that the principle was anchored successively for all school types, most recently in 2007 for the intermediate industrial, technological, arts and crafts schools.

The educational principle is not only girl-focused but intends to foster gender and gender ratio, including a view on boys and men. The integral principle is a cross-subject dealing with the topic. That means that the topic should be taken into account in all subjects and in connection with other educational principles (like political education, media education, preparation for the labour market).

When the curricula partly changed in 1999 (Lehrplan 1999) an appendix about ‘conscious co-education’ (Bewusste Koedukation) was added. Teachers and schools are advised to take into consideration that co-education is more than simultaneous education but requires a conscious and critical reflection of gender stereotypes concerning choice of topics, methods and performance. Teachers have to become aware of their personal expectations and their behaviour against girls and boys which are normally shaped by traditional pictures of femininity and masculinity. It is pointed out that it can make sense to part the students in gender-homogenous groups for some lessons, in some subjects, on special occasions.

The Federal Ministry for Education, the Arts and Culture provides relevant information material for teachers in order to facilitate the integration of the educational principle into all subjects. They include education statistics, practical tools for gender specific teaching at school, information on coeducation, violence at school, gender sensitive vocational orientation, girls and technology or biographies of women.

In addition, the Federal Ministry for Education, the Arts and Culture publishes once a year a newsletter ‘school and equality’ (Sch.U.G. stands for Schulbildung und Gleichstellung). It provides information about gender-specific topics in the field of education, about relevant studies, information materials, publications, events, new laws and regulations. The Sch.U.G. is sent to all headmasters’ offices, provincial education authorities, school supervisors as well as to teacher training institutions. The Sch.U.G. is available on the website of the Federal Ministry, too.

In 2007 the web-portal ‘Gender + Education’ (Gender + Bildung: http://www.gender.schule.at) was set up to disseminate information and to make people increasingly aware of gender aspects in education.

To sum up: Gender equality is regarded as one important overarching principle on the political level and is included as a guiding principle in all measures taken by Federal and local school authorities. However, research on the implementation of these principles at school level shows severe lacks in relevant know-how as well as sensibility for the relevance of the topic (4).

Sex education and personal gender relations

Sex education is double anchored in the curriculum: as topic in biology as well as educational principle.

Initially, in 1974 an edict was formulated to consider sex education in school education (5). 16 years later the integral educational principle ‘sex education in schools’ was announced (1990). Sex education is seen as integral part of the whole education and should help children and young people to find their personal identity. Sexuality must be experienced as important, natural and positive aspect of life. Sex education requires a high sensitivity of teachers. It is emphasised that aims, methods and kind of instruction have to be adjusted to the age of the pupils. Further-on the text says that relevant topics have to be connected with existing subjects as well as with other educational principles. There is no special hint to combine sex issues with gender issues. However, it must be mentioned that the educational principle 'Education to equality between

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4 An overview is given by Paseka, Wroblewski (2009).

women and men’ was not formulated before 1994/95. In fact it is the responsibility of teachers to be aware of and refer to the correlation of sex and gender.

**Guidance**

On account of the increasing variety of educational offers in the post-secondary and tertiary sectors as well as of the dynamic development of new occupations and changes in vocational profiles, decisions on possible educational and vocational careers are getting more and more difficult for graduates from all school types (levels).

In order to enable girls and boys to reach well reflected decisions schools provide support in teaching as questions concerning planning educational and vocational careers as well as future life in general are implemented in the curricula of various subjects. Furthermore information and counselling is provided by student’s counsellors and educational career advisers, which are installed in every school. In addition to that specific initiatives have been implemented since years to encourage girls to go for a non-traditional vocation.

Such initiatives address girls at different school levels with slightly varying goals. The all-Austrian project ‘MUT! – Mädchen und Technik’ (6) (Courage! – Girls and technology) aims at increasing the share of women in non-traditional occupations and focuses on gender-sensitive vocational orientation. MUT addresses mainly girls in lower secondary schools who decide on the school type they will attend from 14 years on or who are thinking about starting an apprenticeship. Another all-Austrian project is ‘FIT – Frauen in die Technik’ (FIT – Females into technology) (7). FIT features general as well as deepening information about study possibilities at six university cities that offer engineering or natural sciences. Target group are female students aged 16 to 19 at upper secondary schools who are interested in general information about study possibilities or who are already thinking about starting to study engineering or natural sciences (see also chapter Error! Reference source not found.).

In addition to such information provided via schools or in cooperation with schools, girls aged 11 to 16 have the possibility to get insight into non-traditional professions by participating in ‘Girls Days’ (Töchtertage). Girls days are organised in all nine Austrian provinces in cooperation of regional school authorities, municipalities and economic chamber.

Currently, there is no similar specific guidance for boys to choose educational fields that prepare them for traditionally female professions.

**School books**

Evaluations of school books from a gender perspective (e.g. Preinsperger, Weisskircher 1997; Hasenhüttl 2001) make evident that there exists an under-representation of women and girls in school books and that stereotyped pictures on gender are presented. However, there is a lack of systematic and representative data about school books or materials used in school. Neither subject-based nor school-type-based comparative tests exist. In a summary of such evaluations done from 1970 till 1990 for German speaking areas Hunze concludes that there is a tendency to more gender equality and non-stereotyped representation in school books. Nevertheless a continuous consideration of gender equality cannot be assessed (Hunze 2003).

In Austria a so-called approbation commission decides about the approval and adequacy of school books. As support for the decision-making processes and as help for authors and teachers a guide line for the equal representation of women and men in educational texts and materials for teaching was developed (Leitfaden zur Darstellung von Frauen und Männern in Unterrichtsmitteln) in 1999, republished in 2004 (8). The intention is to give helpful suggestions and criteria for a critical review of materials used in schools in the area of language as well as of qualitative and quantitative aspects.

(6) www.mut.co.at (only in German)
(7) www.bmukk.gv.at/fit (only in German)
(8) Leitfaden zur Darstellung von Frauen und Männern in Unterrichtsmitteln: http://www.bmukk.gv.at/schulen/unterricht/index.xml (only in German)
3. Attainment

Gender gap in achievement

With PISA a fundamental change in educational research in Austria occurred. It was for the first time possible to compare school achievement all over Austria and for all school types at least for 15-year olds. Till that educational research had to stick to official school statistic that provides information on participation and successful completion of grades but not on achievements because there existed no tradition of standardised tests. PISA data also allowed a more in-depth analysis of gender gaps. Hence, the discussion about gender gaps in school achievement was intensified after the presentation of the results of PISA 2000.

The discussion about gender gaps in achievement focus on two aspects: boys reach significant lower scores in reading compared to girls and girls show lower achievements in mathematics and science. In this context the gender specific choice of school type is discussed, too. In the discussion about differences in achievement between native students and students with migration backgound gender is not a prominent topic (cf. BMUKK 2009).

The gender gap in reading achievements is higher among 15-year old students (PISA) compared to pupils in primary school (PIRLS 2006). In PIRLS girls score about 10 points higher than boys, whereas the gender gap in PISA amounts to 45 Points in 2006.

### Table 1: Reading competences by sex

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Girls</th>
<th>Boys</th>
<th>Gap</th>
</tr>
</thead>
<tbody>
<tr>
<td>PIRLS 2006</td>
<td>538</td>
<td>543</td>
<td>533</td>
<td>+ 9.8</td>
</tr>
<tr>
<td>PISA 2000</td>
<td>507</td>
<td>520</td>
<td>495</td>
<td>+ 25.6</td>
</tr>
<tr>
<td>PISA 2003</td>
<td>491</td>
<td>514</td>
<td>467</td>
<td>+ 47.2</td>
</tr>
<tr>
<td>PISA 2006</td>
<td>490</td>
<td>513</td>
<td>468</td>
<td>+ 45.0</td>
</tr>
</tbody>
</table>

Sources: Suchan et al. (2007); Schreiner (2007); Haider, Reiter (2004); Haider, Reiter (2001).

In Mathematics and science the gender gap is the other way around. In mid 1990s gender gaps in mathematics were discussed after the first TIMSS survey in 1995. Also in PISA 2003 (where the focus lied on mathematics) it was evident that girls reach on average lower scores than boys, are less interested in the subject and have a lower instrumental motivation (they don’t think maths is important for their future life). Girls are also less confident in their own competences and are the majority among those who admit to fear mathematics lessons. The overall situation and the gender gaps are similar in science (PISA 2006). The gender gaps are significant bigger in Physics compared to biology. The results of PISA for 15-year olds are in line with TIMSS results that cover pupils at grade 4.

### Table 2: Science competences by sex

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Girls</th>
<th>Boys</th>
<th>Gap</th>
</tr>
</thead>
<tbody>
<tr>
<td>PISA 2000 (maths)</td>
<td>515</td>
<td>503</td>
<td>530</td>
<td>-27.0</td>
</tr>
<tr>
<td>PISA 2000 (science)</td>
<td>519</td>
<td>514</td>
<td>526</td>
<td>-11.8</td>
</tr>
<tr>
<td>PISA 2003 (maths)</td>
<td>506</td>
<td>502</td>
<td>509</td>
<td>-7.6</td>
</tr>
<tr>
<td>PISA 2003 (science)</td>
<td>491</td>
<td>492</td>
<td>490</td>
<td>2.6</td>
</tr>
<tr>
<td>PISA 2006 (maths)</td>
<td>505</td>
<td>494</td>
<td>517</td>
<td>-23.0</td>
</tr>
<tr>
<td>PISA 2006 (science)</td>
<td>511</td>
<td>507</td>
<td>515</td>
<td>-8.0</td>
</tr>
<tr>
<td>TIMSS 2007 (maths)</td>
<td>505</td>
<td>498</td>
<td>512</td>
<td>-14.0</td>
</tr>
<tr>
<td>TIMSS 2007 (science)</td>
<td>526</td>
<td>519</td>
<td>532</td>
<td>-13.0</td>
</tr>
</tbody>
</table>

Sources: Suchan et al. (2008), Schreiner (2007); Haider, Reiter (2004); Haider, Reiter (2001).
Measures to reduce gender gap in achievement

The discussion about PISA results intensified the discussion concerning all-day schooling as well as comprehensive schools. The same goes for the introduction of a compulsory pre-school year, which would help prepare children – especially those from lower social strata – for school.

One of the first reactions to the ‘PISA shock’ in 2000 was the implementation of a new campaign called Lesefit (Fit to Read), as the results of PISA had shown that about one fifth of all students only had rather poor reading skills and were thus lacking the basic requirements for successfully participating in life-long learning. The main goal of Lesefit was to detect weak reading skills among third-grade students and, if necessary, to offer well-directed assistance. To recognise reading disabilities early on, every primary school is given reading tests for all its students in third grade. Another objective of Lesefit is to make reading more attractive already at a primary level. In order to do so, several sub-projects for both parents and pupils are being implemented, such as Harry Potter Reading Shows, or the campaign Eltern setzen Lesenzeichen (Parents Leave Their (Book)Mark on Reading) (9). Many of these projects are carried out in cooperation with the Buchklub (Austrian Book Club for Young People), a non-profit organisation maintaining a network of 6 000 volunteers in all Austrian schools (10). In 2004 the initiative Lesen fördern (Promote of reading) was implemented by the Federal Ministry to increase students motivation to read, especially among weak performers. This initiative contained also the development of innovative educational concepts as well as specific teacher training (continuous education for teachers). Since 2005 a guideline for teachers has been available focussing on pupils in primary school, pupils with another first language than German and so-called late starters in reading. In 2007 the Federal Ministry published a brochure that contained specific teaching materials for teachers in pre-vocational schools (BMUKK 2007a). Furthermore a scientific study was launched in order to analyse reasons for gender gaps in reading competences. On that basis gender-specific concepts for promotion of students were developed. This study was published by the Federal Ministry of Education, the Arts and Culture (BMUKK 2007b).

A consequence of the altogether unsatisfactory results in TIMSS was the project IMST (Innovations in Mathematics, Science and Technology Teaching), which was started in 1998 and is now in the third project stage. IMST aims at improving teaching in these subjects. Within the scope of IMST in-service training events are organised for teachers; in addition, the project supports the establishment of regional networks for the respective subject didactics and promotes school projects in the field of science. Furthermore, at the universities of Vienna and Klagenfurt 'Austrian Educational Competence Centres' were established in the respective disciplines (as well as, additionally, in German). As an IMST spin-off the three-semester special university course (Universitätslehrgang) 'Subject-related Educational Management' was developed, with the first 120 students graduating in the summer of 2008; additional courses have already been started. Within IMST a Gender-Network was established for improving teaching in mathematics and the natural sciences, for expanding learning perspectives and action ranges for girls and boys, as well as for narrowing the gender gap. It offers counselling and information on new developments, as well as initial and further training, in gender issues (11).

Statistics

Besides international tests like PISA, PIRLS or TIMSS no national tests are available by now. In June 2008 an amendment of the School Education Act passed that provides the ground for the introduction of educational standards in the school year 2008/09. The first comprehensive (all over Austria) examination will take place in 2012/13. Educational standards lay down the lasting competences students and students are

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(9) The campaign Eltern setzen Lesenzeichen (‘Parents Leave Their (Book)Mark on Reading’) is meant to encourage parents to read with their children. After they have finished reading they sit down together and make a bookmark that matches the theme of the book. At the end of the school year, many of these bookmarks are collected and assembled to form the world’s largest bookmark.

(10) The Buchklub (Austrian Book Club for Young People) makes suggestions for suitable reading material and closely cooperates with the Federal Ministry for Education, publishers, bookstores, and the media. About 400.000 children and young adults aged 3 to 18 are currently members of the Buchklub.

(11) http://imst.uni-klu.ac.at/english.php
supposed to have acquired in key areas upon completing a given grade. Standards are focused on the core areas of a subject and on the description of the expected learning outcome, defining basic subject and cross-subject competences, which are momentous for continued schooling or vocational training. Standards are defined for 4th grade and 8th grade, particularly for reading competences (4th grade), basics of mathematics (4th grade, 8th grade) and modern language competence (8th grade).

By now only information on the successful completion of a grade is available. In all school types girls more often complete grade successfully (12). The gender gap increases in higher grades. In schools at ISCED level 2 the gender gap amounts to 1 percent point, whereas in upper secondary academic or technical/vocational schools the gender gap amounts to 4 or 5 percentage points.

Table 3: Share of students who successfully completed grade (2006/07)

<table>
<thead>
<tr>
<th>School Type</th>
<th>Total</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>General secondary school (ISCED 2)</td>
<td>98 %</td>
<td>98 %</td>
<td>97 %</td>
</tr>
<tr>
<td>Academic secondary school (ISCED 2)</td>
<td>96 %</td>
<td>96 %</td>
<td>95 %</td>
</tr>
<tr>
<td>Academic secondary school (ISCED 3)</td>
<td>90 %</td>
<td>92 %</td>
<td>88 %</td>
</tr>
<tr>
<td>Medium level secondary technical and vocational school (ISCED 3)</td>
<td>88 %</td>
<td>90 %</td>
<td>86 %</td>
</tr>
<tr>
<td>Upper level secondary technical and vocational school (ISCED 3/4)</td>
<td>91 %</td>
<td>93 %</td>
<td>88 %</td>
</tr>
</tbody>
</table>

Sources: Statistics Austria, own calculations.

4. School climate and environment

In the school year 1993/94 the Federal Ministry for Education and Arts first commissioned a comprehensive study on the emotional state of school children at grades 4 to 12. In 2005/06 a second survey was commissioned that explicitly was designed to permit comparisons (the questionnaire remained unchanged). The results of the comparison were used to illustrate changes in the educational system. The follow-up survey focussed additionally on gender gaps within types of school and grades. Furthermore differences between general and academic secondary schools were analysed in more detail (cf. Eder 2007).

The ‘emotional state’ in its broadest sense is defined as the sum of moods, sensations and emotions of a person in regard to her/himself and to her/his environment. In the school context it can be interpreted as the affective judgemental self-perception of personal, school related attributes and their relationship to elements of the school environment pertinent to his/her spheres of life. The most important spheres of life to pupils are school, family and peer group. A distinction was made between three attribute levels:

- current attributes, such as well-being, satisfaction, school phobia, pressure
- lasting attributes, such as self-esteem, self-concept of performance, social self-concept
- individual situation at school: social integration among schoolmates, acceptance by teachers, coping with requirements, time demands of school and the characteristics of the classroom as workplace.

The survey showed that girls enjoy more often going to school than boys. The gender gap is especially high at lower grades. Furthermore girls are more satisfied with school than boys till grade 9. From grade 10 the gender gap in school satisfaction diminishes.

Girls also show higher degrees of school phobia, especially from grade 7 on. That means, girls are more often affected or they are more often willing to commit their fears. Girls also mention more frequently school stress or psychosomatic diseases (headache, stomach ache, fatigue, sleep disturbance, loss of appetite). Girls are especially affected after the transition from primary school in lower secondary school and the share

(12) Students without successful completion of grade may be allowed to progress to the next grade with a mark ‘insufficient’ in one or two subjects. Hence not all students without successful completion of grade have to repeat grade.
of girls concerned increases during lower secondary school sharply. During lower secondary school the perception of girl’s and boy’s self esteem or self-concept of performance grows apart. Boy’s perception remains stable or increases slightly while girl’s self-esteem and self-concept of performance declines. On the other hand, girls feel better integrated in class and mention less frequently involvement in conflicts.

The comparison of the situation in 1994 and 2005 shows hardly any significant changes. The overall satisfaction with school increased slightly. Furthermore the gender gap of self esteem in academic secondary schools decreased to some extent.

**Policies to improve school climate**

In recent years the topic of violence at school or preventive measures has been increasingly discussed. A survey among parents of school children (IFES 2006) reveals a high degree of awareness: One third of parents think, that school deals quite well with conflicts and violence among children at school. On the other hand, one out of four parents perceive severe problems and need for action. Among teachers, the share of those who experience problems is even higher (28%).

One of the first measures in that context was ‘Agreed Codes of Conduct’ (*Verhaltensvereinbarung*) implemented in 2001. Representatives of parents, teachers and students have the opportunity to jointly agree on codes of conduct, which will complement school rules. Hence, school have more leeway for action and stakeholders have more say. Such decentralisation also empowers schools to settle conflicts effectively at an early stage. Parents, teachers and students have the possibility to agree on rules for daily life at school in joint school committees. The Federal Ministry for Education, the Arts and Culture provides information on the topic via a brochure that can be downloaded from the web site (13).

In 2008, one of the Ministry’s priorities was to address the issue of school violence under the heading ‘Joining Forces against Violence’ (*Gemeinsam gegen Gewalt*). Together with experts, the Ministry developed practical and effective preventive tools for students, parents and teachers. The initiative contains specific teacher training for violence prevention and conflict management. In January 2008 train the trainer programmes for teachers started at the University Colleges of Teacher Education. Furthermore, existing violence prevention programmes were upgraded and new programmes established, like ‘No Fists’ (*Faustlos*) for primary schools and Vienna’s social competence training programme (*Wiener soziales Kompetenztraining – WiSK*) for lower secondary schools. Both programmes aim at reducing aggressive behaviour of pupils in school. Peer mediation at Austrian schools already has a long tradition. Within the current initiative the number of students trained as peer mediators in cases of conflicts between same-age students has increased. Peer mediation is not supposed to replace other accompanying measures of violence prevention but to supplement them. Additionally, the number of school psychologists, who may be called in whenever critical situations occur, is planned to be increased by 20 % (from 150 to 180). In order to draw more public attention to the topic of violence at school and to create awareness, the ‘Fairness Award 2008’ was awarded to innovative school projects and to individuals who consistently encourage a sense of partnership, fairness and respect in schools. And last but not least communication about the topic and public relation was intensified. For instance a website was installed and the label of the campaign ‘White Feather’ (a symbol for solidarity) was promoted intensively.

The initiatives described above are formulated in a gender neutral way. There are no measures explicitly designed for girls or boys although boys are implicitly addressed more than girls. Furthermore, the fact that girls and boys participate in differing degrees in such measures is hardly considered. For instance, girls are more often trained as peer mediators although boys are more often involved in conflicts. Some innovative school projects try to find new ways to deal with such gender gaps (Wroblewski, Paseka 2009).

Besides that, there are no measures explicitly addressing parents.

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(13) [http://www.bmukk.gv.at/medienpool/16169/verhaltensvereinbarungen_2.pdf](http://www.bmukk.gv.at/medienpool/16169/verhaltensvereinbarungen_2.pdf)
5. Teachers

In general, the phenomenon of feminization of the teaching profession is a matter of fact in the Austrian education system. Looking at data about sex of teachers in different school types the following trends become evident. Teaching staff at primary schools or special schools is female dominated (80 % female teachers). In vocational schools the gender segregation among teachers depends on the vocation field. Female teachers are the norm in vocational schools with focus on professions in social fields or on economic professions. However, even in such highly dominated fields, women are underrepresented in school management positions compared to their share among teachers.

Comparison with former analysis shows an increasing representation of women in all fields. Despite that, the pattern remains stable (Paseka 1997: 210). It is very unlikely that significant changes will occur in near future because the current student population in teacher education at universities and University Colleges of Teacher Education is female dominated. In winter term 2007/08 about 80 % of beginners in initial teacher training courses are women. There are by now no initiatives to encourage more men to become teachers.

However, there does not exist a broad consensus whether an increasing number of male teachers would be helpful or not (IFES 2006). 75 % of 2000 respondents think there is no negative effect when boys are educated and instructed mainly by women. This item was not as much rejected by teachers in the sample (62 % dislike). 43 % in general would approve when there would be more male kindergarten teachers, but 71 % of the teachers would do. There is a clear dislike of a quota regulation in favour of men, in the population in general as well as in the group of teachers asked (65 % refusal).

Table 4: Share of women among pupils/students, teachers and school managers by school type (2006/07)

<table>
<thead>
<tr>
<th>School Type</th>
<th>Pupils/Students</th>
<th>Teachers</th>
<th>School management</th>
</tr>
</thead>
<tbody>
<tr>
<td>General schools</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary school</td>
<td>49 %</td>
<td>89 %</td>
<td>68 %</td>
</tr>
<tr>
<td>General secondary school</td>
<td>47 %</td>
<td>66 %</td>
<td>26 %</td>
</tr>
<tr>
<td>Special school</td>
<td>36 %</td>
<td>84 %</td>
<td>62 %</td>
</tr>
<tr>
<td>Pre-vocational school</td>
<td>37 %</td>
<td>47 %</td>
<td>22 %</td>
</tr>
<tr>
<td>Academic secondary school</td>
<td>54 %</td>
<td>57 %</td>
<td>24 %</td>
</tr>
<tr>
<td>Vocational schools</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Part-time compulsory vocational school</td>
<td>34 %</td>
<td>30 %</td>
<td>9 %</td>
</tr>
<tr>
<td>Technical and vocational schools (total)</td>
<td>53 %</td>
<td>45 %</td>
<td>21 %</td>
</tr>
<tr>
<td>Technical</td>
<td>14 %</td>
<td>16 %</td>
<td>8 %</td>
</tr>
<tr>
<td>Commercial</td>
<td>60 %</td>
<td>58 %</td>
<td>19 %</td>
</tr>
<tr>
<td>Tourism</td>
<td>65 %</td>
<td>46 %</td>
<td>19 %</td>
</tr>
<tr>
<td>Social work</td>
<td>93 %</td>
<td>79 %</td>
<td>50 %</td>
</tr>
<tr>
<td>Economic</td>
<td>91 %</td>
<td>77 %</td>
<td>49 %</td>
</tr>
<tr>
<td>Agricultural</td>
<td>42 %</td>
<td>50 %</td>
<td>10 %</td>
</tr>
<tr>
<td>Training colleges for kindergarten teacher</td>
<td>77 %</td>
<td>78 %</td>
<td>46 %</td>
</tr>
<tr>
<td>Total (all schools)</td>
<td>48 %</td>
<td>65 %</td>
<td>50 %</td>
</tr>
</tbody>
</table>

Source: Statistics Austria
When discussing gender issues in teacher education, one has to differentiate between continuous education for teachers, teacher training at universities and teacher training at university colleges of teacher education. In each of these three sectors gender issues are implemented differently.

**In-service training and information for teachers**

There are several brochures and materials available for teachers to provide gender-sensitive teaching that have been developed to implement the educational principle 'education based on equality between women and men' (see section 2).

In addition, separate information and a counselling package on gender mainstreaming was developed for staff members at in-service teacher training colleges. In 2002/03 most of these colleges made extensive use of these facilities. However, the number of courses offered focusing on gender issues cannot be assessed because of a lack of data. Anyway, even if courses are available they are chosen voluntarily.

**Teacher education at universities**

Following the implementation of gender mainstreaming in university law (University law 2002, Federal Act on the Organisation of University Colleges of Teacher Education 2005) gender has to be included in curricula for initial teacher education. Unfortunately there is no systematic overview available, how gender is considered in curricula. In 2007/08 gender is not integrated systematically in all fields of study. At all universities courses with a gender focus are available. However, in most cases they are not compulsory. Most courses with a gender focus are optional (elective courses). As a consequence it depends on students’ motivation and individual interest how intense the examination of gender topics is.

**Teacher education at University Colleges of Teacher Education**

From 2001 to 2003 two pilot projects took place: 'Gender Mainstreaming at Akademien' at the teacher training colleges, technical and vocational teacher training colleges, and training colleges for religious education teachers and 'Gender Mainstreaming at in-service teacher training colleges (Pädagogische Institute). Its targets include the incorporation of gender mainstreaming in curricula, courses and research projects, a balanced gender ratio in advisory or decision-taking bodies, as well as information and a greater degree of awareness on the subject. For the purpose of achieving these targets and raising the level of awareness concerning gender mainstreaming, various seminars were organised for gender officials.

As a result and according to the difficulties to implement gender mainstreaming the restructuration of teacher education was used to anchor gender issues obligatory in the curricula. Furthermore 'Working Committees on Equal Treatment' have to be installed. An internal evaluation makes evident that gender topics still are not treated as an integral part of teacher education.

**6. Single sex education**

In 1975 co-education in Austria became legal. Today in the vast majority of schools co-education is a matter of fact. The number of students attending single-sex-schools has decreased rapidly. Mono-education in general is still offered in some private schools, but there is no data available. Even in those subjects in which girls and boys were parted in former times, co-education was established and the subjects became compulsory for both sexes: textile and technical handicraft in primary schools, geometrical drawing and home economics in general secondary schools. However, in many academic secondary schools girls and boys have the choice whether they prefer to attend textile or technical handicraft. There is some information that in these cases the students chose very traditionally. Hence, some schools decided to make these subjects compulsory for girls as well as for boys. It is a pity to say that there are statistics available, which models are chosen and how many students are involved. Only in sports girls and boys are still parted from grade 5 upwards and they have teachers with the same sex. But even then the teachers can decide whether they instruct the students together or alone.

To sum up the situation: Single-sex education has become an exception in Austrian schools. However, schools can decide to offer single-sex-education in general and/or in some subjects.
A vast majority of society approves this development (IFES 2006): 77 % plead for co-education, in detail: 78 % of the teachers, 86 % of parents and even 92 % of students.

7. Higher education

The Austrian higher education sector consists of three main pillars: universities (including universities of arts, medicine and technology), universities of advanced sciences (Fachhochschulen) and university colleges of teacher education. Each sector has its own legal basis and consequently gender equality is differently anchored in the respective legal framework and has a different tradition in these three sectors.

There is hardly another sector where the gender ratio has changed as fundamentally as at the universities: Until the 1960s the typical student came from the upper class, was male, and was advised by male assistants and professors. Since the 1970s, the universities have slowly but steadily become ‘feminised’. The 1970s were characterised by an immense expansion of the Austrian universities in terms of both space and personnel. In this context, more access for women was not an explicit political goal. Nonetheless the expansion of the participation in the tertiary sector system led to an enormous increase of female participation at the universities. The rate of women increased, for example, among the first year students from 30 % in the academic year 1970/71 to 53 % in the academic year 2007/08 (14).

In summarising, the long-term development of the universities can absolutely be regarded as a success story where the attainment of equal opportunities for women and men is concerned. Yet, a closer look reveals that – although for some years now more women than men have been starting university study programmes – subtle exclusion mechanisms have lasting effects. Gender is still a crucial variable in education and, in consequence, for job opportunities leading to continuous employment in the university sector. Leading positions remain male-dominated, and the rate of female employees becomes lower the higher up you move on the career ladder. For instance, 16 % of university professors are female although women represent 40 % of university assistants (winter term 2008).

In order to break this so-called ‘glass ceiling’, the responsible Ministry started in 1990 to take a variety of measures, pursuing different strategies for the enhancement of equal opportunities. This set of measures contains for example, scholarships for women, financial support for publications, child care facilities at universities, coordination offices for Women and Gender Studies, legal measures like the Working Committee on Equal Treatment at the Universities or the Decree for Affirmative Action Plan in the Sphere of the Federal Ministry, and programmatic measures like the White Paper for Affirmative Action in Science. Those single measures have been introduced at several points in time (during the 1990s) and are extremely heterogeneous in terms of contents, goals, target groups, intensity, and governance. These measures have been evaluated on behalf of the Federal Ministry of Science and Research in 2003/04 (cf. Wroblewski et al. 2007). In addition to the existing policy mix a new program to increase the number of female professors at universities was launched in 2005 (‘excellentia’). The aim of the program is to double the share of female professors from 13 % (2003) to 26 % in 2010. Universities get a bonus of 33.000€ for each additional female professors (new appointments that increase the absolute number as well as the share of women).

Since the middle of the 1990s, the gender mainstreaming approach has been strongly advocated at the level of the European Union. In line with this international development, the Austrian Federal Ministry for Education, Science and Culture started in the year 2000 to amend its promotion of women and equality policy with this strategy. Following that, gender equality is one of the guiding principles for universities implemented in the University Act 2002 (§2 Guiding Principles and Chapter Gender equality – §§ 41 to 50). According to §3 the universities have to fulfil the task of ‘gender equality and the advancement of women’ within there sphere of action.

The Federal Act on the Organisation of University Colleges of Teacher Education (University Law 2005) got into force in 2007. With this law gender equality is also implemented as a guiding principle and with institutions (like the Working Committee on Equal Treatment) similarly to universities. In the Act on the

universities for applied sciences (Fachhochschul-Studiengesetz) gender equality is not mentioned. It only contains a general anti-discrimination regulation.

Despite the successful development of women’s participation in higher education and the institutionalisation of the gender mainstreaming principle, there still exist vertical segregation as described above and horizontal segregation. The concentration of women in business, economic and general educational secondary schools seems crucial for the choice of study courses (winter term 2007, cf. BMWF 2008): At universities, female students predominate in teacher training (72 %), in humanities (67 %), in social and economic sciences (55 %), and in veterinarian/human medicine (60 %). At universities of applied sciences the situation is similar: women make up to 83 % of students in health sciences and 72 % in social sciences (for data on students in teacher training see chapter 5).

The gender-specific preference of school and study disciplines is addressed by measures since the early 1990s. In the long run, the concentration of women on specific professional areas is seen as one of the most important factors that entail continued unequal treatment. In order to foster the access of girls to non-traditional professional fields and to reduce segregation in education (i.e. to also raise interest among boys for typically female jobs), measures influencing the choice of studies take place already at the school level. The most important programme in that context is FIT (Frauen in Technik; women in engineering) (15). The programme offers information to girls in upper secondary school in the year before the get their A-levels (Matura) about possibilities to study engineering or natural sciences and the job prospects associated (see also section 3).

FIT is coordinated by the Federal Ministry for Education, Arts and Culture and implemented in six university towns in Austria. The programme started in 1993 in Graz (Styria) and was implemented step-by-step at all Austrian universities and universities of applied sciences that offer the possibility to study engineering or natural sciences. Female students in engineering or natural sciences visit schools and present study possibilities in engineering and natural sciences to interested female students. Interested female students also have the possibility to participate in 'information days' at universities and to attend 'trial lectures', workshops or penal discussions etc. The aim of FIT is to inform female students about study possibilities and to encourage interested girls to go for a non-traditional field of study. In 2007/08, 203 schools were visited (about 5 800 girls were reached) and about 1 400 girls attended the 'information days' at universities (cf. Wroblewski et al. 2008).

References
BMUKK, Federal Ministry for Education, the Arts and Culture (2009), OECD Thematic Review on Migrant Education, Country Report Austria, Vienna.

(15) FIT is part of the initiative fFORTE launched in 2002. fFORTE is an initiative for the advancement and encouragement of women in science, engineering and technology that combines and coordinates the projects and programmes of three Austrian Federal Ministries (Ministry for Education, Arts and Culture, the Ministry of Science and Research and the Ministry for Economics and Labour). The central aim of the initiative is to promote girls and women on all educational levels, and to contribute to the career enhancement of female scientists.


