

**„Achievement Motives“, „Social Experience“ and
„Essential Qualities of Teachers and Educators“ –
An Empirical Study in Nine European Countries with Particular
Emphasis on Boy-specific and Girl-specific Characteristics.**

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Activities that reinforce self-awareness and acknowledge individual ability and activities that involve opportunities for exercise are commonly categorised as „boy-specific“. This is not corroborated throughout Europe, however: the burgeoning emancipation of girls and women in the former Eastern Bloc States is basically challenging these assumptions. This study attempts to analyse and describe the common and divergent factors in nine European countries with respect to „achievement motivation“, „social experience“ and the „essential qualities of teachers and educators“.

This study is divided into the following sections:

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1. Background and aims of the empirical analysis

The articles from several countries in this anthology (cf. Seebauer/Göttel; Drägestein/Schwarze; Grossmann; et al) drew attention to what are in some instances significantly poorer (reading) achievements by boys in international comparative studies such as PISA, PIRLS and so forth. The fact that lads also tend to monopolise public spaces in their leisure-time activities which do not exactly encourage them to perform well at school was apostrophised in several articles. The Polish article reviews, amongst other things, studies that revealed that the forms of socialisation for boys and lads are different from those for girls.

The poorer performance by boys in the international school performance tests gave rise to the question whether boys and girls prioritise achievement motives similarly or differently. A further aim of the empirical analysis was to decide the issue about where and in which activities boys or girls primarily gain (social) experience.

Mention should be made of a third problem that was alluded to in almost all the countries covered, namely the striking absence of male teaching staff and – as a consequence – the lack of male role models, which has/may have an un-favourable impact on the identity development of boys and lads. This is the background against which the study of 20 qualities of individuals involved in educating/teaching boys and girls is to be conducted. The qualities (e.g. frustration tolerance, stress resistance ...) are to be rated in terms of their specific relevance to boys and/or girls.

2. Description of the analytical material

The analytical material¹ was designed as a questionnaire aimed at so-called „experts“ in education and teaching: teachers in the compulsory school sector (5/6 year olds to 14/15 year olds); teachers training to work with these age groups; educators.

The relevant professional group and the number of years of service were analysed in addition to the gender of the participants.

Subtest 1: „Achievement motives“ – comprises 20 items (interest in the subject, financial reward or presents, a desire to prove something to oneself ...) designed to assess boys and girls using a five-grade scale (from „not at all“ to „very often“). The scale has a reliability coefficient of $\alpha = 0.8769$.

The specific question was: „What motivates boys or girls to achieve, in your experience?“

¹ Modelled on the questionnaires for the study “Basic scientific principles for working with boys and lads” (Vienna 2006).

Subtest 2: „Factors relevant to the acquisition of (social) experience“ comprises 6 items, all based on a polarity profile (outdoors – in the house/in the apartment; in the group – individually ...) designed to assess boys and girls on the basis of a five-grade scale.

Subtest 3: „Essential qualities for educating/teaching boys or girls“ comprises 10 items that also had to be based on a five-grade scale (from „very little“ to „very much“) with respect to boys or girls.

The scale has a reliability coefficient of $\alpha = 0.8729$ and is considered to be extremely reliable.

The questionnaires are available in the languages of the participating countries (German, English, Czech, Hungarian, Dutch, Polish, Estonian and Spanish). During the translation process, particular attention was paid to conceptual congruency.

All data have been electronically recorded and computed in SPSS data files. The presentations in this article refer to the questions formulated in point 3. Other statistical computations (e.g. differences between teachers – educators – students or groups based on seniority of service ... with respect to the scaling system for boys and girls; more differentiated statistical analyses) would be feasible on the basis of the data material, but far exceed the possibilities in this context.

3. Specific questions

The study is based on the following questions:

1. Do teachers, educators and trainee teachers feel that there are overall differences between boys and girls – in selected European countries

- with respect to their achievement motives or how/by which means can boys or girls be motivated to achieve?
- with respect to the types of activities through which boys or girls primarily gain (social) experience?
- in terms of the specific qualities someone requires to educate and/or teach boys or girls?

2. Do teachers, educators and trainee teachers from Austria and Belgium, the Czech Republic, Germany, Estonia, Spain, Hungary, Poland and Great Britain feel that boys and girls differ

- with respect to their achievement motives or how/by which means can boys or girls be motivated to achieve?

- with respect to the types of activities through which boys or girls primarily gain (social) experience?
- in terms of the specific qualities someone requires to educate and/or teach boys or girls?

Reference to statistically relevant differences in the external perception of male and female participants and to significant differences in the external perception of participants from the „old“ or „new EU States“ will be made in the final section.

4. Characterisation of the sample survey

The survey was conducted from January to April 2007 by contact persons at the institutions participating in the project. They are cluster or random samples, some of which were taken at seminars and others at schools. The samples from the respective country should comprise a roughly equal percentage of trainee teachers in higher semesters (with practical experience) and teachers in active service.

The Austria data (AT) were collected at the Pädagogische Akademie des Bundes (State Teacher Training College), now Pädagogische Hochschule Wien (University of Education) and apply to participants from virtually all the Austrian Federal States; the professional group of „teachers“ are participants from Vienna and the vicinity. The Belgian data (BE) were collected during the training and further training of teachers at the Europese Hogeschool in Brussels. The data from the Czech Republic (CZ) mainly relate to participants from the north Bohemian region in and around Ústí nad Labem. The German participants (DE) come from Munich and the surrounding area. The data from Estonia (EE) were collected in Tartu, and the Spanish data were collected in Alcalá de Henares (students) or in Madrid and its surrounding areas (teachers). The Hungarian sample survey (HU) comes from the region in southern Hungary in and around the town of Szeged and was obtained from Szeged University. The Polish participants (PL) were interviewed at Słupsk Teacher Training College. The participants from Great Britain (UK) are students in the town of Derby in central England.

The following table shows the distribution of the entire sample survey (n) according to countries (1), gender (2), professional groups (3) and groups based on seniority of service (4).

Deviations from n=464 in the individual categories are due to a lack of information.

| Characterisation of the sample survey | | | | | | | | | | |
|---------------------------------------|-----------------------|------------|--|-----------|------------|--|-----------|-----------|-----------|-----------|
| 1 | 2 | | 3 | | | 4 | | | | |
| Country /n | Gender Male Female | | Professional Group Teacher Educator Student | | | Group Based on Seniority 0 1-5 6-16 16-25 26+ | | | | |
| AT/43 | 4 | 39 | 23 | 1 | 19 | 19 | 3 | 4 | 9 | 8 |
| BE/64 | 15 | 48 | 36 | 3 | 25 | 24 | 6 | 18 | 5 | 9 |
| CZ/60 | 1 | 50 | 35 | 2 | 23 | 23 | 2 | 30 | 4 | 1 |
| DE/71 | 11 | 59 | 17 | 27 | 26 | 26 | 10 | 16 | 9 | 10 |
| EE/44 | 1 | 42 | 21 | 14 | 9 | 9 | 13 | 12 | 8 | 2 |
| ES/34 | 6 | 28 | 9 | 0 | 25 | 25 | 0 | 4 | 2 | 3 |
| HU/58 | 5 | 53 | 22 | 6 | 30 | 30 | 20 | 5 | 2 | 1 |
| PL/57 | 0 | 55 | 14 | 22 | 18 | 18 | 9 | 10 | 13 | 7 |
| UK/33 | 1 | 32 | 0 | 0 | 33 | 33 | 0 | 0 | 0 | 0 |
| n=464 | 44 | 406 | 177 | 75 | 208 | 207 | 63 | 99 | 52 | 41 |
| 464 | 450 | | 460 | | | 462 | | | | |

Table 1: Characterisation of the Sample Survey

The statistical distribution in category 2 clearly reflects the predominance of female teachers and female trainee teachers and the absence of male teaching staff (87.5 % vs. 9.48 %), as repeatedly apostrophised in several articles in this anthology.

5. Presentation and description of the results

5.1. What motivates boys or girls to achieve?

5.1.1. Overall results from nine European countries

The following graph illustrates the overall results from the subtest „Achievement motives of boys and girls“ in the nine countries participating in the project.

It shows that it is easier to motivate girls to achieve than boys

- if they can *make others happy*,
- to avoid *disappointing anyone*,
- if the *activity involves social contacts*,
- if they receive *approval from the teacher*,
- if they receive *praise* and
- through a *pleasant atmosphere*

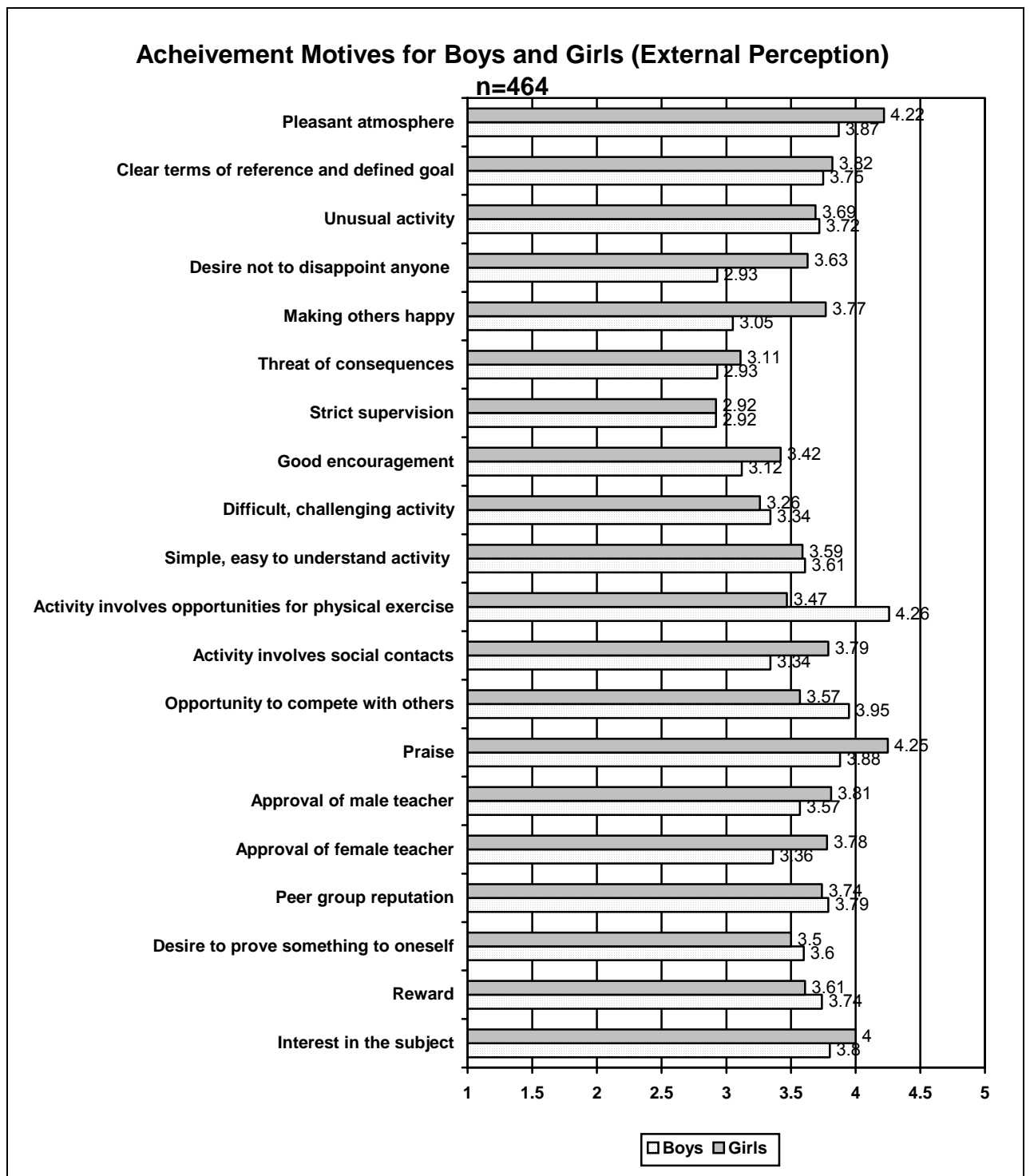
Boys on the other hand are easier to motivate to achieve than girls,

- if an *activity is linked to opportunities for physical activity*,
- if they *are able to compete against others* – and a good way behind –
- if they receive a *reward*,
- if they desire *to prove something to themselves* ...

Diagram 1 shows the mean values analysed on a five-grade scale (1=not at all 5=very often).

Activities that involve opportunities for physical exercise are the primary achievement motives for boys; for girls on the other hand, it is the aspect of making others happy that is the primary achievement motive (cf. graph).

The following diagram summarises results that were obtained in countries in which the principle of *gender mainstreaming* is established and practised to varying degrees (cf. the articles from the nine countries in this volume).



Graph 1: Achievement Motives

| | | | | | | | | | | |
|--|-------|----|----|----|----|----|----|----|----|----|
| | Girls | | | x* | | | | x* | | |
| 8. Opportunity to compete with others... | Boys | | | x | x | | | | | |
| | Girls | | | | | | | | | |
| 9. Activity involves social contacts... | Boys | | | | | | | | | |
| | Girls | x | | | x* | | | | x | |
| 10. Activity involves opportunity for physical exercise... | Boys | x | x* | x* | x | x* | x* | x* | x | x* |
| | Girls | | | | | | | | | |
| 11. Simpler, easy to understand activity... | Boys | | | | | | | | | |
| | Girls | | | | | | | | | |
| 12. Difficult, challenging activity... | Boys | | | | | x* | | | | |
| | Girls | | | | | | | | | |
| 13. Good encouragement... | Boys | | | | | | | | | |
| | Girls | | | x* | | | | | | |
| 14. Strict supervision... | Boys | | | | | | | | | |
| | Girls | | | | | | | | | |
| 15. Threat of consequences... | Boys | | | | | | | | | |
| | Girls | | | | | | | | | |
| 16. Making others happy... | Boys | | | | | | | | | |
| | Girls | x* | x* | x* | x* | x | | x* | x* | |
| 17. Desire not to disappoint anyone... | Boys | | | | | | | | | |
| | Girls | x* | | x* | x* | x* | | x | x* | x* |
| 18. Unusual activity... | Boys | | | | | | | | | |
| | Girls | | | | | | | | | |
| 19. Clear terms of reference and defined aim... | Boys | | | | | | | | | |
| | Girls | | | | | | | | | |
| 20. Pleasant atmosphere... | Boys | | | | | | | | | |
| | Girls | | | x* | | | | | | |

Table 2: Achievement Motives

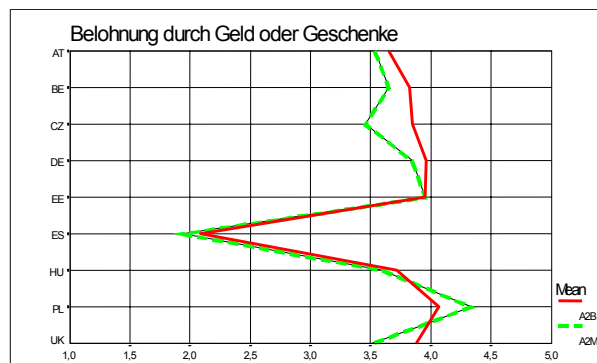
The existence of a different external perception is apparent in individual countries with respect to girl and boy-specific motivation factors (cf. Graph 1) than would be expected on the basis of the overall results.

Reference will subsequently be made to selected achievement motives. The horizontal axis depicts the intensity of the specificity with respect to the countries covered (see

vertical axis). The continuous (red) line depicts the results for boys; the broken (green) line those for girls.

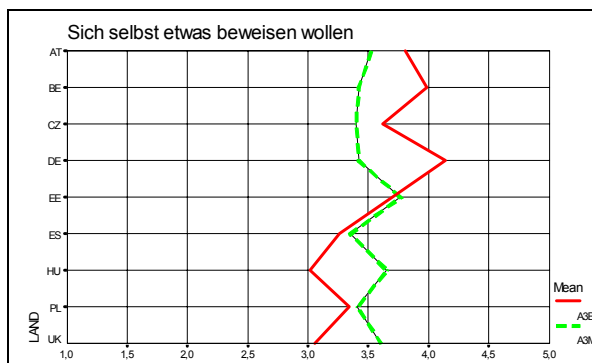
Graph 2: Financial reward or presents (see „Belohnung durch Geld oder Geschenke“)

Although a *financial reward or presents* seems to motivate boys more than girls overall, this statement merely applies to individual countries to an above-average degree. None or negligible differences are apparent in Estonia, Spain and Hungary, whereas in Poland it is easier to motivate girls to achieve with a *financial reward or presents*. This achievement motive is of little relevance to girls and boys in Spain.



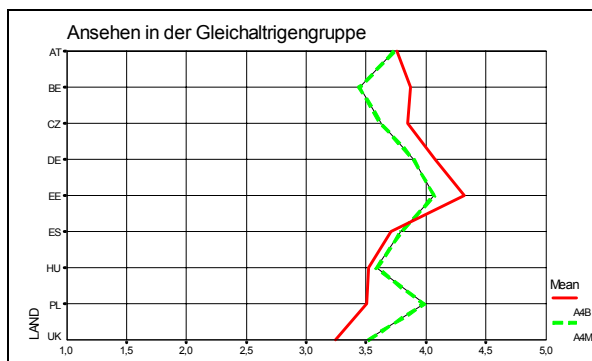
Graph 3: Desire to prove something to oneself (see „sich selbst etwas beweisen wollen“)

A *Desire to prove something to oneself* appears to be a boy-specific achievement motive in Austria, Belgium, in the Czech Republic and in Germany, whereas in Estonia, Spain, Hungary, Poland and in Great Britain this achievement factor is clearly attributed to girls.



Graph 4: Peer group reputation (see „Ansehen in der Gleichaltrigengruppe“)

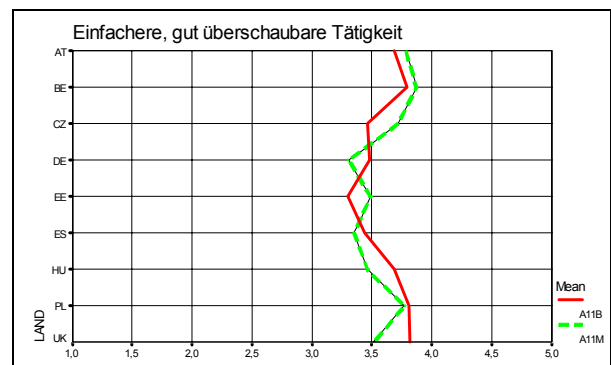
Although *Peer group reputation* as an achievement motive does not show any appreciable differences in the overall interpretation between the values analysed for girls or boys, significant differences between individual countries are apparent in the adjacent graph. In Belgium, the Czech Republic, Germany and Estonia *Peer group*



reputation appears to be a boy-specific factor, whereas in Spain, Poland and Great Britain, it is projected on girls to a greater degree.

Graph 5: Simple, easy to understand activity (see „Einfache, gut überschaubare Tätigkeit“)

With respect to the degree of difficulty and structure of a task – *simpler, easy to understand activity* – Germany, Spain, Hungary, Poland and Great Britain also showed a discrepant result compared to the other countries.

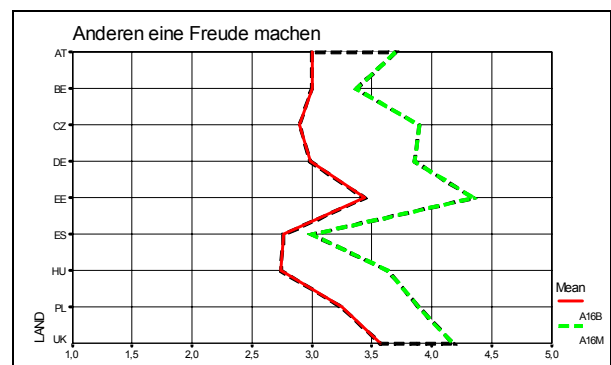
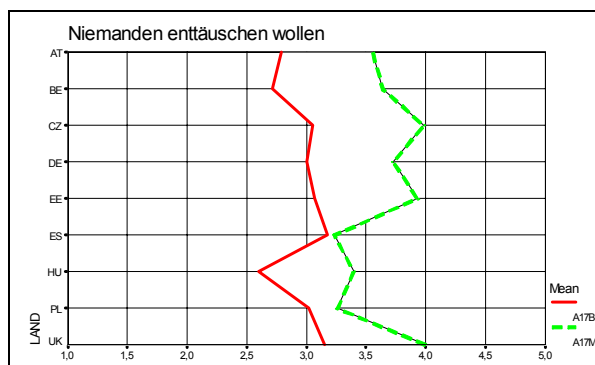


The following achievement motives appear to be „typically girl-specific“ across all borders – even if they are specified differently in some cases:

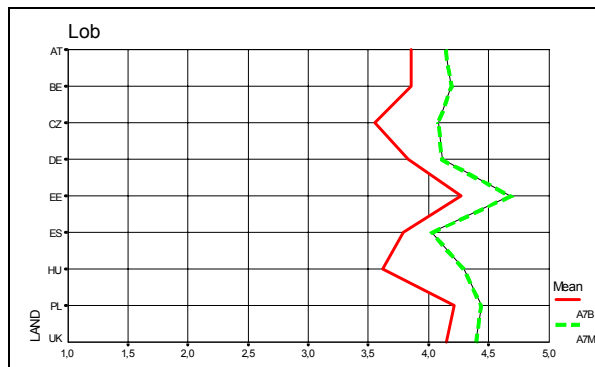
Desire not to disappoint anyone, wanting to make others happy, praise, activities that involve social contacts, pleasant atmosphere, approval of the female teacher, approval of the male teacher, good encouragement – and with reservation – *threat of consequences*.

Graph 6: Desire not to disappoint anyone (see „Niemanden enttäuschen wollen“)

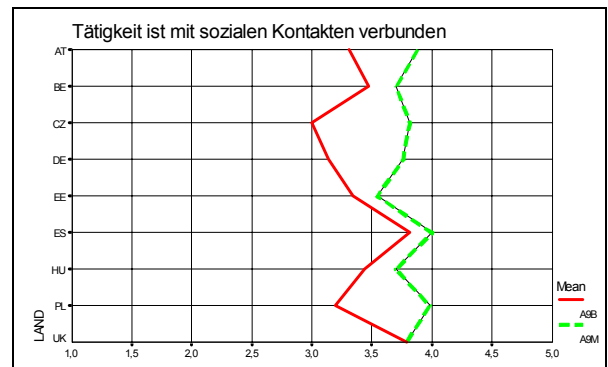
Graph 7: Making others happy (see „Anderen eine Freude machen“)



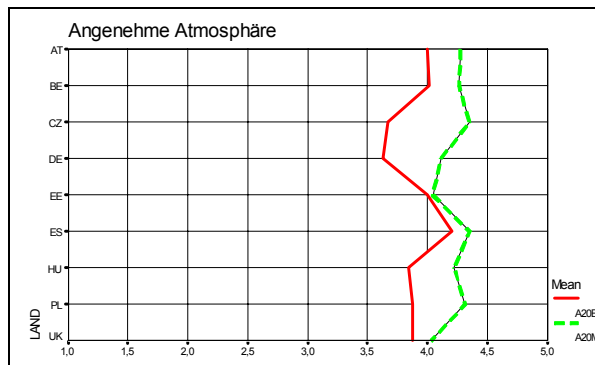
Graph 8: Praise (see „Lob“)



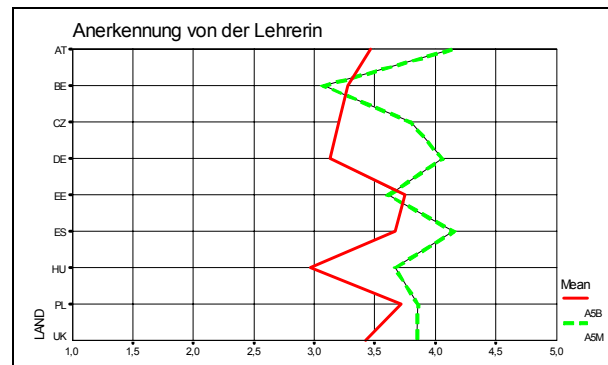
Graph 9: Activity involves social contacts (see „Tätigkeit ist mit sozialen Kontakten verbunden“)



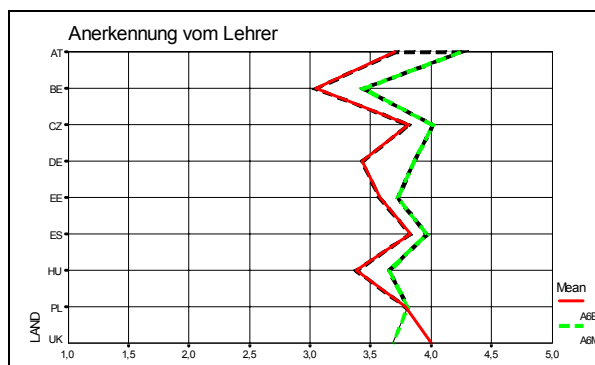
Graph 10: Pleasant atmosphere (see „Angenehme Atmosphäre“)



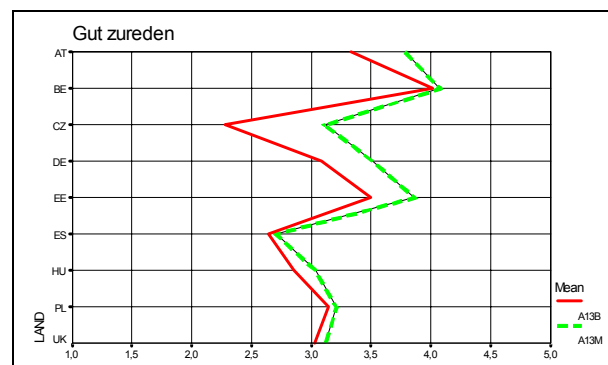
Graph 11: Approval of the female teacher (see „Anerkennung von der Lehrerin“)



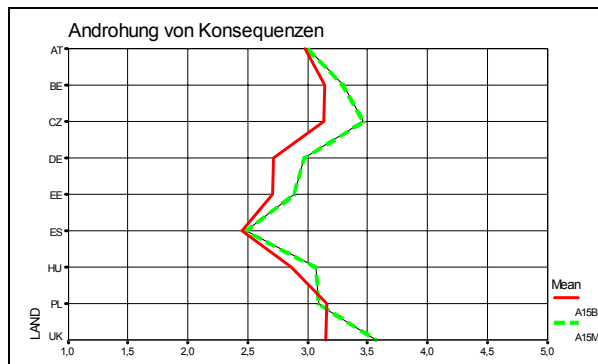
Graph 12: Approval of the male teacher (see „Anerkennung vom Lehrer“)



Graph 13: Good encouragement (see „Gut zureden“)

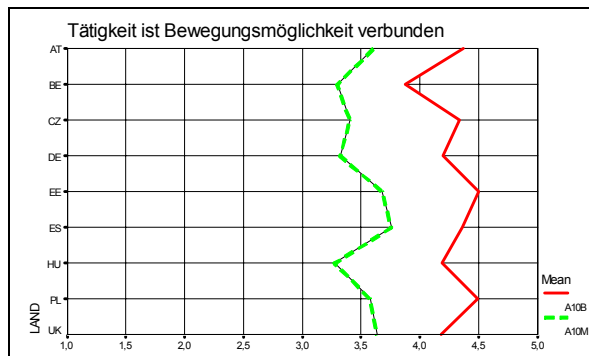


Graph 14: Threat of consequences (see „Androhung von Konsequenzen“)

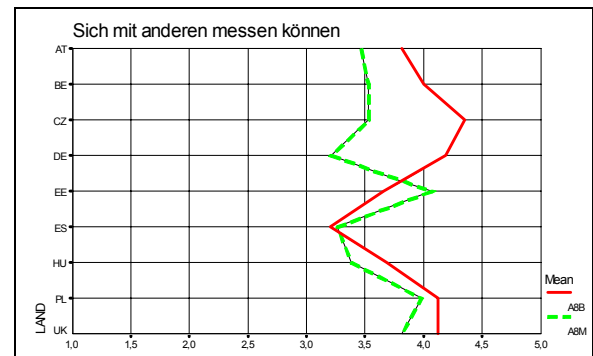


Ultimately, only the *activity that involves opportunities for physical exercise* proved to be a „typical boy-specific achievement motive“ – based on the analysis of individual countries; - and - with some reservation – also activities that offer an *opportunity to compete with others* (mainly: Austria, Belgium, Czech Republic, Germany). Country-specific characteristics were also apparent with respect to the degree of difficulty and challenging nature (*difficult, challenging activity*).

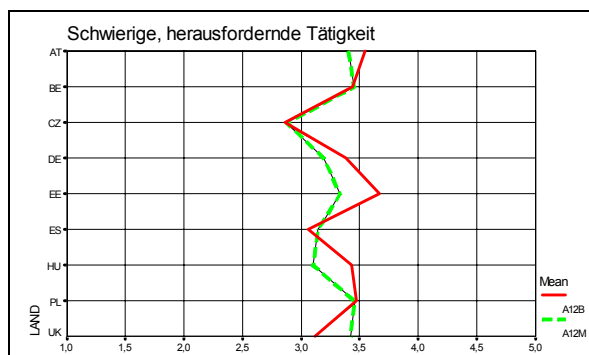
Graph 15: Activity involves opportunity for physical exercise (see „Tätigkeit ist mit Bewegungsmöglichkeiten verbunden“)



Graph 16: Opportunity to compete with others (see „Sich mit anderen messen können“)



Graph 17: Difficult, challenging activity (see „Schwierige, herausfordernde Tätigkeit“)



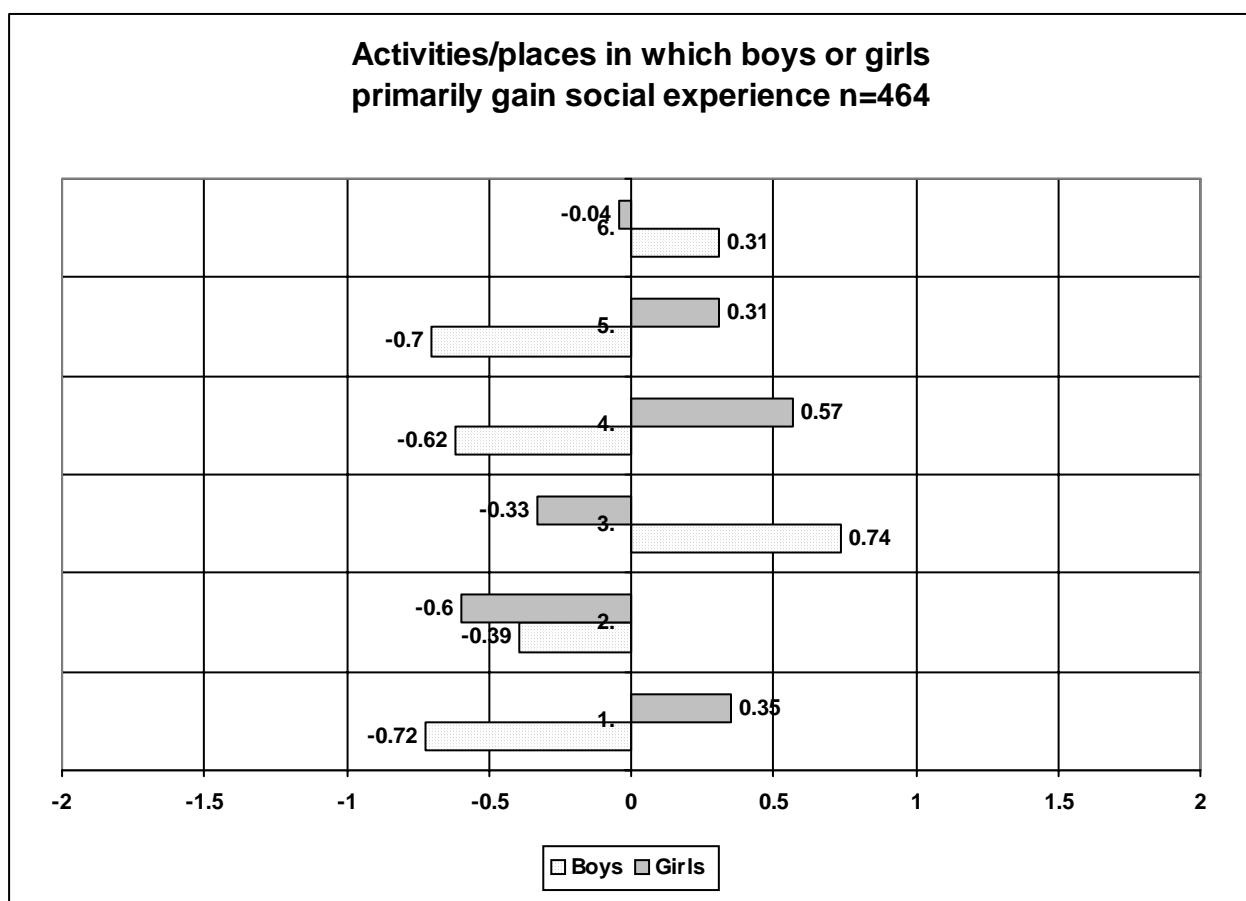
5.2. In which activities/in which places do boys or girls primarily gain (social) experience?

5.2.1. Results of the Europe-wide sample survey

Graph 18 shows the overall results from the subtest „Activities and/or places in which boys or girls primarily gain (social) experience“.

The bars to the left and right of the zero axis refer to the following activities/places:

| | | |
|-----------------------------------|--------|-------------------------------|
| Games, sports with a lot of rules | ← 6. → | Games, sports with few rules |
| Competition-oriented games | ← 5. → | Non-competitive games |
| High-risk activity | ← 4. → | Low-risk activity |
| In conversation (talking) | ← 3. → | In playing (doing) |
| In the group | ← 2. → | Individually |
| Outdoors | ← 1. → | In the house/in the apartment |



Graph 18: Gaining experience

- Boys accordingly are more likely to gain experience *when playing by doing, outdoors, in competition-oriented games* and in *high-risk activities*, whereas
- girls are more likely to gain (social) experience *individually, in low-risk activities, in the house/in the apartment and in playing non-competitive games*

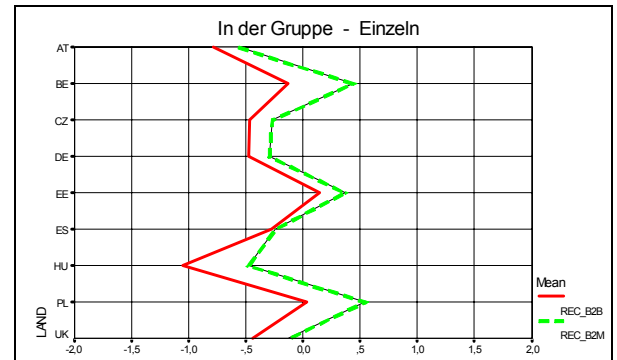
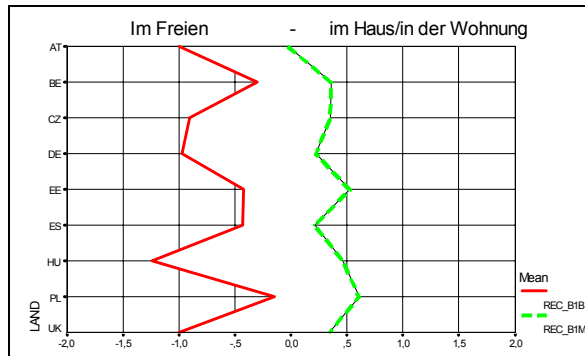
The differences in the results for boys and girls are supported statistically ($p < 0.0005$) in items 1-6 cited above.

5.2.2. Country-based results

The following graphs depict the results for girls and boys based on individual countries:

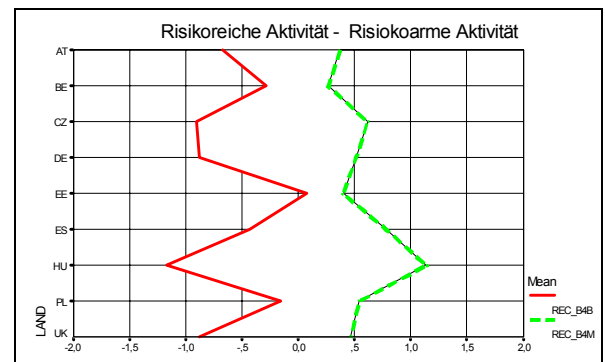
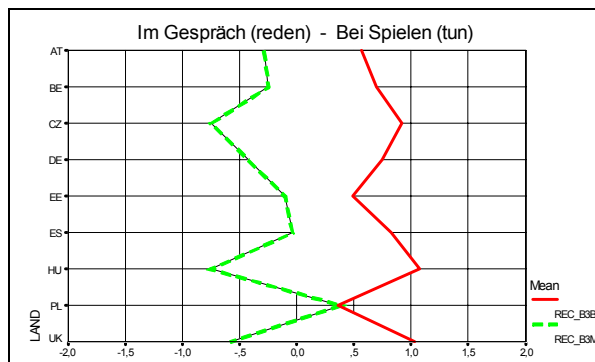
Graph 19: Outdoors - in the house (see „Im Freien – im Haus...“)

Graph 20: In the group – individually (see „In der Gruppe – Einzel“)



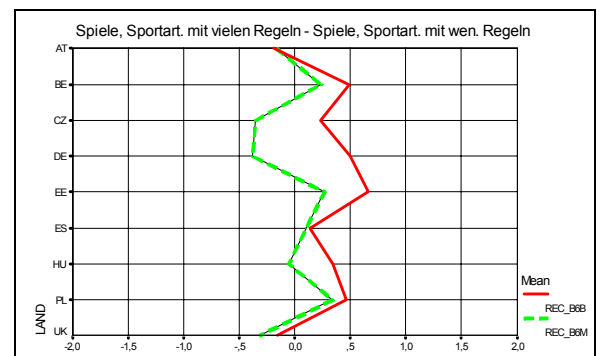
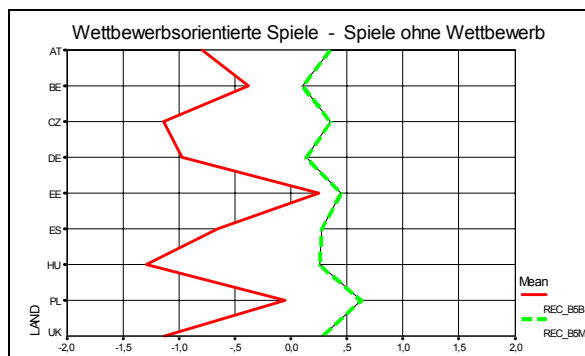
Graph 21: In talking – in doing (see „Im Gespräch – Bei Spielen“)

Graph 22: High-risk vs. low-risk activity (see „Risikoreiche Aktivität – risikoarme Aktivität“)



Graph 23: Competition-oriented games – non-competitive games (see „Wettbewerbsorientierte Spiele – Spiele...“)

Graph 24: Games with many/few rules (see „Spiele/ Sportart mit vielen Regeln...“)



The Hungarian participants enunciated the biggest differences between the „poles“ indicated for boys and girls. Boys in Hungary gain their experience more frequently *when playing (doing)* than girls (difference of 2.46 points), in *high-risk activities* (difference of 2.31 points); and *outdoors* (difference of 1.71 points).

The participants from Great-Britain highlighted differences between boys and girls of 1.34 and more scale points in four areas: boys are more likely to gain their experience *outdoors, when playing by doing, in more high-risk activities and in games that are more competition-oriented.*

Boys in the Czech Republic are more likely to socialise *when playing by doing*, in high-risk activities and competition-oriented games (always 1.35 and more difference in scale points to the data on girls).

Boys in Germany are more likely to socialise through *high-risk activities, outdoors and in competition-oriented games* (always 1.11 and more difference in scale points to the data on girls).

If the assessments by the Austrian participants are accepted, then boys in Austria seek out *competition-oriented games and high-risk activities* more frequently (1.14 or 1.04 difference in points on the scale).

The Spanish and Belgian participants demonstrated smaller differences in the values analysed for boys or girls, and the Estonian and Polish participants in particular in the area of competition-orientation where boys – in contrast to the other countries covered – show *negligible competition-orientation*. The same applies with respect to Estonia and Poland in the areas of *high-risk activity vs. low-risk activity*.

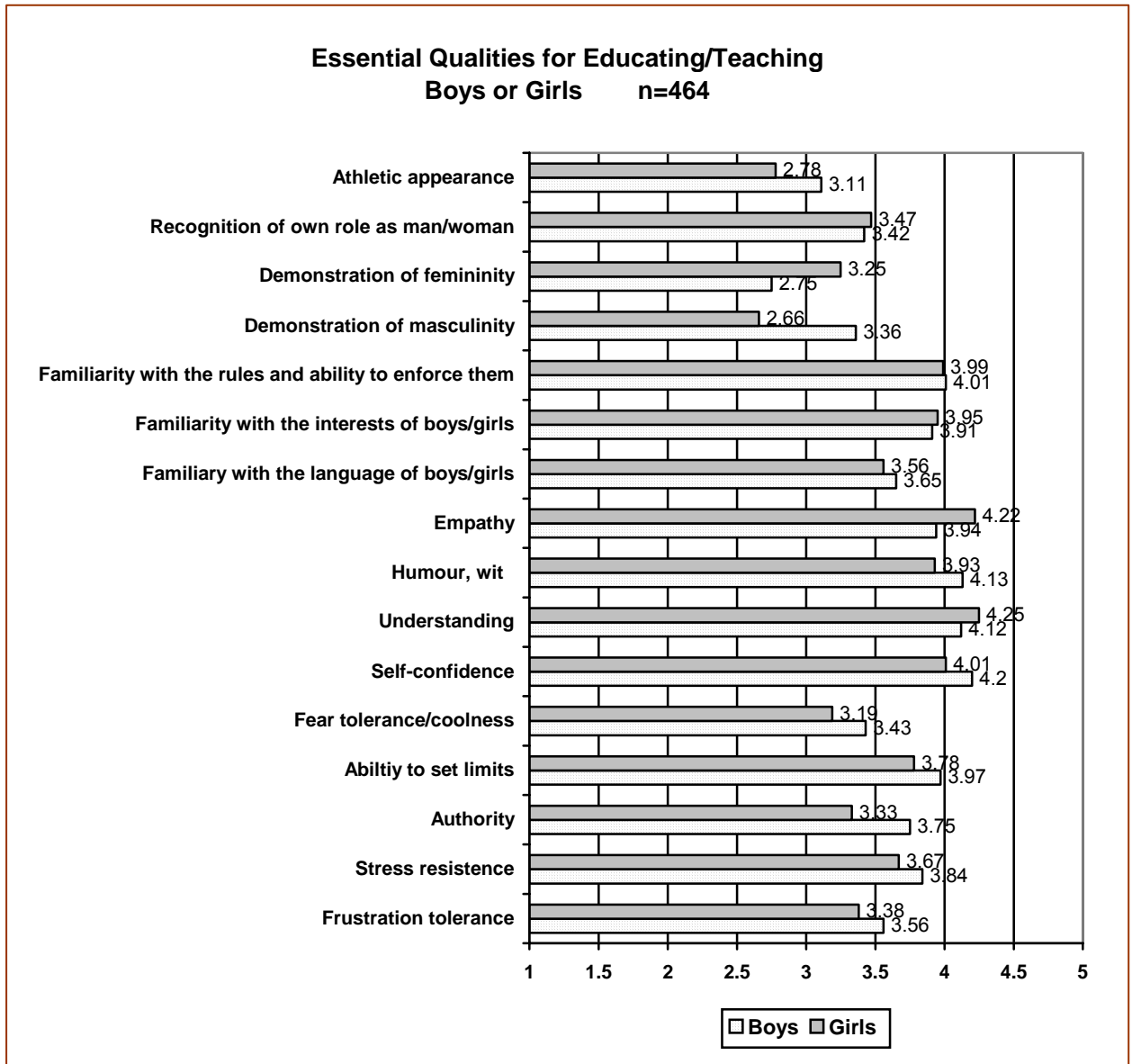
5.3. What qualities are required to educate and/or teach boys or girls?

5.3.1. Results of the Europe-wide sample

The following graph depicts the overall results from the subtest „Essential qualities for educating/teaching boys or girls“ in the nine countries participating in the project.

Qualities of educators and/or teachers that were weighted more towards girls are accordingly *demonstration of femininity, empathy, understanding and recognition of their own role as man/woman.*

The qualities of educators and/teachers whose importance was more apparent for boys should be mentioned: *demonstration of masculinity, authority, athletic appearance, fear tolerance/coolness, self-confidence, ability to set limits, frustration tolerance, stress resistance...*



Graph 25: Essential Qualities of Educators

5.3.2. Country-based results

Differences (statistically supported in some cases) in the statements on boys or girls with respect to the „essential qualities for educating/teaching boys or girls“ became apparent in the country-specific analysis in the „*demonstration of femininity*“ and „*empathy*“ factors with respect to girls and with respect to boys in the „*authority*“ and „*demonstration of masculinity factors*“.

Analysis of the results on the basis of individual countries leads to the relativization of some results.

The following table summarises the results. An „x“ in the respective box refers to differences between boys and girls of 0.5 and more scale points and are always in a field higher up the scale. An adjunct asterisk (*) refers to a statistically relevant difference (significant for min. 95 % level in X²-Test).

| Essential Qualities for Educating/Teaching Boys or Girls | Gender | AT | BE | CZ | DE | EE | ES | HU | PL | UK |
|--|--------|----|----|----|----|----|----|----|----|----|
| | | | | | | | | | | |
| 1. Frustration tolerance... | Boys | | | | | | | x* | | |
| | Girls | | | | | | | | | |
| 2. Stress resistance... | Boys | | | | | | | x* | | |
| | Girls | | | | | | | | | |
| 3. Authority... | Boys | x* | | x* | x* | | | x* | | |
| | Girls | | | | | | | | | |
| 4. Ability to set limits... | Boys | | | | | | | | | |
| | Girls | | | | | | | | | |
| 5. Fear tolerance, coolness... | Boys | | | | | | | | | |
| | Girls | | | | | | | | | |
| 6. Firm (confident) manner... | Boys | | | | | | | | | |
| | Girls | | | | | | | | | |
| 7. Understanding... | Boys | | | | | | | | | |
| | Girls | | | | | | | | | |
| 8. Humour, wit... | Boys | | | | | | | | | |
| | Girls | | | | | | | | | |
| 9. Empathy... | Boys | | | | | | | | | |
| | Girls | | | x* | | | | | x* | |
| 10. Familiarity with language of boys/girls... | Boys | | | | | | | | | |
| | Girls | | | | | | | | | |
| 11. Familiarity with areas that interest boys/girls... | Boys | | | | | | | | | |
| | Girls | | | | | | | | | |
| 12. Knowledge of and ability to enforce rules... | Boys | | | | | | | | | |
| | Girls | | | | | | | | | |
| 13. Demonstration of masculinity... | Boys | | | | x* | | | | | x* |
| | Girls | | | | | | | | | |
| 14. Demonstration of femininity... | Boys | | | | | | | | | |
| | Girls | | | x | x* | x* | | | x* | |
| 15. Recognition of own role as man/woman... | Boys | | | | | | | | | |
| | Girls | | | | | | | | | |
| 16. Athletic appearance... | Boys | | | | | x* | | | | |
| | Girls | | | | | | | | | |

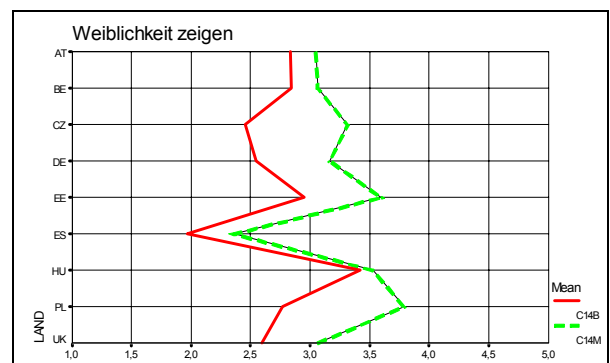
Table 4: Essential Qualities of Educators

The following graphs depict the differences between the scales for boys or girls. As the graphs show, there is considerable variation in some factors in individual countries.

Graph 26: Demonstration of femininity (see „Weiblichkeit zeigen“)

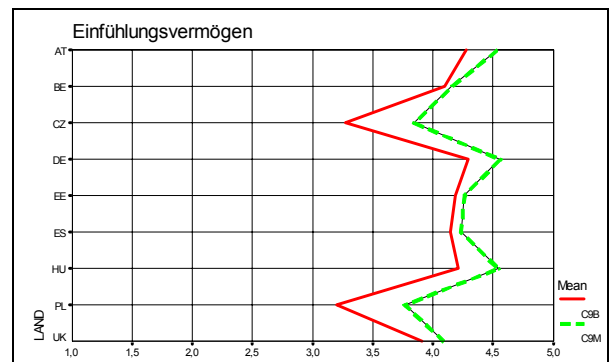
In Germany, Estonia and Poland, the differences with respect to *demonstration of femininity* according to the X²-Test are statistically supported ($p < 0.05$).

In Spain, little importance is generally attached to the *demonstration of femininity* factor, whereas this factor is rated far higher in Estonia and Hungary.



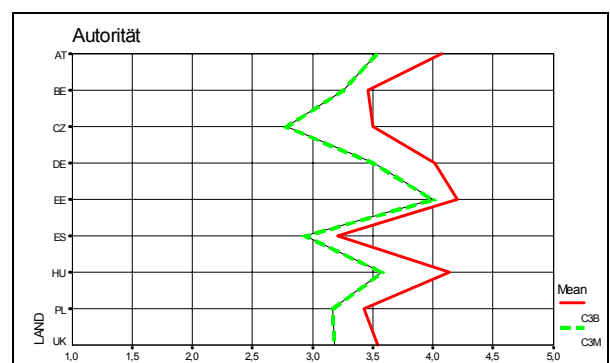
Graph 27: Empathy (see „Einfühlungsvermögen“)

Empathy as an essential quality of educators is assessed higher than average in all countries. Distinctions appear in the extent of the differences between the ratings for boys or girls, however. In the Czech Republic and Poland, the differences are statistically relevant ($p < 0.05$).



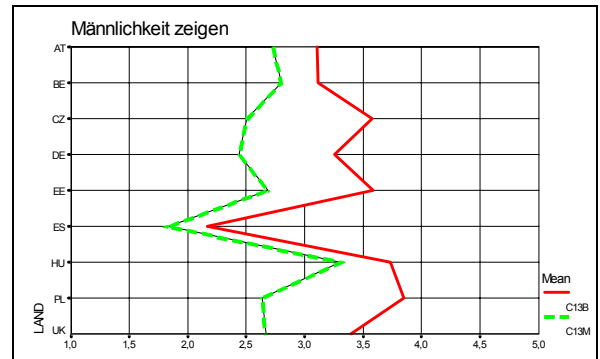
Graph 28: Authority (see „Autorität“)

Demonstrating/having *authority* is rated much higher with respect to educating/teaching boys than girls. The differences in the following countries are statistically supported: Austria, Czech Republic, Germany and Hungary.



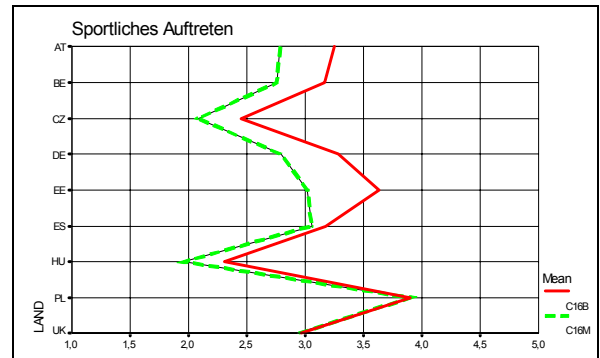
Graph 29: Demonstration of masculinity (see „Männlichkeit zeigen“)

Demonstration of masculinity as an essential quality for educating/teaching boys or girls is rated more highly for boys in all countries, albeit in different specificities and with a different rating margin for girls.



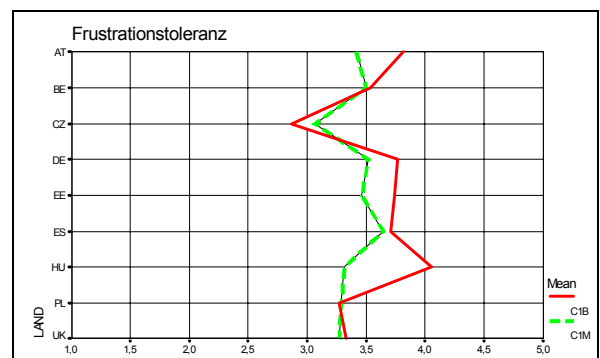
Graph 30: Athletic appearance (see „Sportliches Auftreten“)

Athletic appearance in its importance for educating/teaching boys is rated highly by the Estonian and Polish participants in particular – with a significant difference ($p < 0.05$ in the χ^2 -Test) to girls in Estonia. The Hungarian and Czech participants tend to attach little importance to *athletic appearance*.



Graph 31: Frustration tolerance (see „Frustrationstoleranz“)

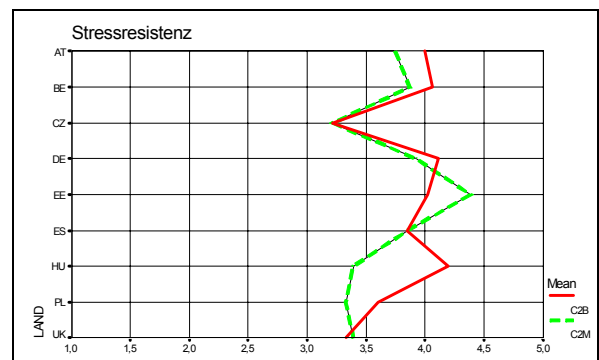
Frustration tolerance – as a quality to which greater importance is attached for educating/teaching boys – is specified differently in the countries studied. The Hungarian, Austrian and German participants attached the greatest importance to the quality of *frustration tolerance*. The Czech participants reverse the assessment with respect to girls.



Graph 31: Stress resistance (see „Stressresistenz“)

The participants produce a comparable rating for the *stress resistance* quality. The Hungarian participants again give this quality the highest rating, followed by the German and Austrian participants.

The Estonian sample survey considers *stress resistance* to be an important quality for educating/teaching girls.



6. Summary and discussion of the results

Achievement motives for boys and girls:

The results of the overall analysis of the data (n=464) only permit a rough assessment for the time being of the „achievement motives“ for boys and girls that in any event corroborate with the trends that are familiar from the literature.

According to statements by teachers, educators and trainee teachers, boys are more likely to be motivated to achieve through activities/measures if

- such activities/measures reinforce their sense of self („*prove something to oneself*“, „*compete with others*“) and
- their ability is acknowledged („*able to compete with others*“); above all though if
- their urge/need for physical exercise is satisfied („*activities that involve opportunities for physical exercise*“).

Didactic measures (e.g. „games without losers“) and forms of assessing achievement that have strongly suppressed the competitive elements removed the incentive for the boys in particular to compete and important reference points at the same time as well („yardsticks“).

The „*desire to prove something to oneself*“ and „*peer group reputation*“ achievement motives must not be regarded as obviously „boy-specific“ in all the countries studied, however. They deserve special attention against the backdrop of political/social changes and restructuring in some of the former Communist countries (Estonia, Hungary, Poland) with respect to girls. An external perception is attributed to girls in those countries with respect to achievement motives that would clearly be designated „boy-specific“ on the basis of the literature and in the German, Austrian and Czech results as well. This result

could be interpreted in terms of a transformation that is currently taking place in the understanding of the role of girls and women in these countries.

Apart from this, the results of the Czech sample survey which are more comparable with the Austrian and German data would require scrutiny.

The external perception of the achievement motives depicted by the participants – across all borders – with respect to girls, is reflected externally to a very great degree (*making others happy, desire not to disappoint anyone, approval from the female teacher, praise*). Girls are, moreover, motivated by activities that *involve social contacts*; a *pleasant atmosphere* also appears to motivate girls more than boys.

In the course of the data analysis it became apparent that female participants rate the following categories of achievement motives far higher than male participants (U test, at least 95 % significance level). This applies to the following achievement motives for boys: *approval of the male teacher, praise, difficult, challenging activity*, and for girls: *interest in the subject, approval of the female teacher, praise, opportunity to compete with others, making others happy, unusual activity, clear terms of reference and defined goal, pleasant atmosphere*.

The higher overall rating and the larger number of achievement motives for girls specified by the female participants gives rise to the suspicion that female teaching and education staff pay more attention to girls and/or that different forms and processes of identification take effect between female teaching and education staff to those that take place between female teaching and education staff and boys.

The partially discrepant attributions of external perceptions that have been identified with respect to the „old“ and „new EU State“ were subjected to the U test with respect to their specificity („very little“ to „very much“). The „old EU States“ and the „new EU States“ were consequently combined in a single category respectively.

The following table shows those items that were rated more highly in the States referred to above with respect to boys or girls (at min. 95% level):

| | „Old EU States“ (AT, BE, DE, ES, UK) | „New EU States“ (CZ, EE, HU, PL) |
|------|---|---|
| Boys | <ul style="list-style-type: none"> • Clear terms of reference • Good encouragement • Interest in the subject • Desire to prove something to oneself | <ul style="list-style-type: none"> • Activity involves social contacts • Financial reward or presents |

| | | |
|-------|--|---|
| Girls | <ul style="list-style-type: none"> • Good encouragement | <ul style="list-style-type: none"> • Making others happy • Financial reward or presents • Praise • Opportunity to compete with others |
|-------|--|---|

Future measures that take the achievement motives of boys and girls into consideration are not generally planned for implementation throughout Europe but against the background of national social developments and specific regional characteristics instead. Handed-down styles of teaching between teachers and pupils and the degree of implementation of *gender mainstreaming* achieved in each case deserve a mention, nevertheless.

Social experience, socialisation factors:

Boys are more likely to gain their social experience when *playing by doing, outdoors, in competition-oriented games* and in *high-risk activities*, whereas girls tend to gain (social) experience *individually, in low-risk activities, in the house/in the apartment and in non-competitive games...*

The greatest differences between boys and girls were evident in the *competition and risk orientation* and in the „*in conversation*“ vs. „*playing by doing*“ item.

Boys from Hungary, the Czech Republic and Germany consequently proved to be very competition and risk-oriented, whereas a far lower degree of competition and risk orientation were attributed to Estonian, Polish and Belgian boys.

The high degree of competition and risk orientation goes hand in hand with the monopolisation of public space, and with the acquisition of (social) experience, in particular outdoors.

Climatic conditions (cold, rainfall vs. heat), as well as the various forms of school organisation (all-day school vs. classes mostly in the mornings only) may constitute moderating influential factors.

Essential qualities for educating/teaching boys and girls:

The „*demonstration of femininity*“ and „*empathy*“ factors proved to be important qualities for educating/teaching girls overall, whereas great importance was attached to the „*authority*“ and „*demonstration of masculinity*“ factors for boys.

„Empathy“ as an important quality of teachers and educators was generally rated highly – with respect to girls as well as boys. The participants from Poland and the Czech Republic rate these qualities much lower than all other participants – a leftover from the Communist era; they formed a clear contrast with the German, Hungarian and Austrian results that were high up the scale.

„Authority“ in dealing with boys is referred to as an important quality by the Austrian, German, Estonian and Hungarian participants in particular, but the Estonian participants also gave „authority“ a high rating for educating/teaching girls.

The „*demonstration of masculinity*“ factor deserves special attention; it was mainly rated highly by the Polish, Hungarian, Estonian and Czech participants with respect to boys.

„*Demonstration of masculinity*“ remains a desideratum however, if the percentage of men among the participants is taken into consideration (a total of 9.48 %). And if out of the 208 trainee teachers included in this study, there are only 15% of male students compared with 85% of female students, there will be very little change in the foreseeable future in the feminisation of the teaching profession cited several times in individual articles.

In the course of the data analysis, it became apparent that female participants rate the following „essential qualities of teachers or educators“ considerably higher than male participants (U test, at least 95 % of the significance level). This applies to the following qualities for boys: *firm, confident manner* and *familiarity with the rules and ability to enforce them*; for girls: *ability to set limits*.

The „essential qualities of teachers or educators“ that were identifiable with respect to the „old“ and „new States“ and that had discrepancies in their ratings in some instances, were also subjected to the U test in terms of their specificity („very little“ to „very much“). The „old EU States“ and the „new EU States“ were accordingly always combined in a single category.

The following table shows those items which were rated significantly higher (at least at the 95% level) in the States referred to with respect to boys or girls:

| | „Old EU States“ (AT, BE, DE, ES, UK) | „New EU States“ (CZ, EE, HU, PL) |
|------|--|---|
| Boys | <ul style="list-style-type: none"> • Stress resistance • Fear tolerance/coolness • Empathy • Understanding • Familiarity with the rules and | <ul style="list-style-type: none"> • Demonstration of masculinity • Familiarity with the language of boys • Consideration of own role as man/woman |

| | | |
|-------|--|--|
| | ability to enforce them <ul style="list-style-type: none"> • Ability to set limits | <ul style="list-style-type: none"> • Express femininity |
| Girls | <ul style="list-style-type: none"> • Stress resistance • Frustration tolerance • Firm (confident) manner • Fear tolerance/coolness • Empathy • Familiarity with the rules and ability to enforce them • Ability to set limits | <ul style="list-style-type: none"> • Demonstration of masculinity • Consideration of own role as man/woman • Express femininity |

It is apparent once again that this study has encompassed two „blocs of States“. Teaching and education requires diverse qualities/behaviour patterns of the participants in the teaching and education process – irrespective of whether the teachers and educators are working in the „old EU States“ or in the „new EU States“.

Divergent educational concepts (individual vs. collective) that developed and crystallised after the Second World War in the „West“ on the one hand, and in the States of the former „Eastern Bloc“ on the other hand, demographic factors as a result of migration, as well as the varying degree – frequently addressed – of implementation of gender-equitable concepts may be cited as the reasons for the different ratings achieved for the respective qualities.