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## Survey 2021 results - Secondary schools Austria

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## 1 Data collection

An online questionnaire was sent out in October 2021. The secondary schools could join the survey from October 2021 to December 2021.

## 2 Sample

94 secondary schools participated in the survey. Figure 1 shows that most schools which participated in the survey are located in Lower Austria and Vienna and that the results are not representative for Austria because very few schools from the other federal states participated in the survey. Most schools are located in areas with up to 3000 residents (20.2\%), 3001 up to 15000 residents (39.4\%) and over 1000000 residents (21.3\% see table $1)$.


Figure 1: Percentage of the participating secondary schools from different Federal states ( $n=94$ )

Table 1: Number of residents of the area where the secondary schools are located ( $n=94$ )

| Number of residents of <br> the area where the <br> secondary schools are <br> located | Number of participating secondary <br> schools and percentage (n=94) |
| :--- | :---: |
| $0-3000$ | $19(20.2 \%)$ |
| $3001-15000$ | $37(39.4 \%)$ |
| $15001-100000$ | $16(17 \%)$ |
| $100001-1000000$ | $2(2.1 \%)$ |
| more than 1000000 | $20(21.3 \%)$ |

$13.8 \%$ of the sample are all-day schools und most schools are public schools (95.7\%).
$53.2 \%$ of the schools have a sport focus (see table 2). The average student number is 481 ( $S D=346$; Minimum=45 students; Maximum=1400 students). Most schools teach children between 10 and 14 years ( $53.2 \%$ ) and 10 to 18 years (37.2\%) (see table 3 ).

Table 2: Further Characteristics of the primary schools; All-day schools; Private vs. Public schools; Schools with a focus on sports

| School | number of participating <br> secondary schools and <br> percentage (n=94) |
| :--- | :---: |
| Mittelschule (MS) | $53(56.4 \%)$ |
| Allgemeinbildende Höhere Schule (AHS) | $40(42.6 \%)$ |
| Private school | $4(4.3 \%)$ |
| Public school | $90(95.7 \%)$ |
| All-day school | $13(13.8 \%)$ |
| School with a focus on sports | $50(53.2 \%)$ |

Notes: 1 person did not provide information about the school type

Table 3: Age groups of the students; percentage ( $n=94$ )

| Age groups of the <br> children in the <br> school | Percentage <br> $(\mathrm{n}=94)$ |
| :--- | :---: |
| 10 to 14 years | 53,2 |
| 10 to 15 years | 6,4 |
| 10 to 18 years | 37,2 |
| 10 to 19 years | 2,1 |
| Missing | 1,1 |

## 3 Results

### 3.1 Sports education of the teachers

$74.5 \%$ of the schools report that their teachers have completed some sort of sports education (14.9\% no sports education; 10.6\% missing values). 34.1\% have a university degree in sport science or physical education.

### 3.2 Popularity of different sports among students based on teachers' report

Teachers report that from their point of view the most popular sports among their students are soccer, volleyball/beachvolleyball and basketball. Athletics is neither popular nor non popular among students (see table 4; 1=not popular at all, 5= very popular).

Table 4: Popularity of different sports among students ( $n=94$ )

|  | How popular are these sports <br> among you students |  |  |
| :--- | :---: | :---: | :---: |
| Sports | $M$ | $S D$ | Mdn |
| soccer | 4.51 | 0.729 | 5 |
| athletics | 3.22 | 0.778 | 3 |
| handball | 2.71 | 1.123 | 3 |
| floor exercise, apparatus | 3.01 | 1.052 | 3 |
| gymnastics | 3.09 | 0.991 | 3 |
| swimming | 3.55 | 0.98 | 4 |
| volleyball/veachvolleyball | 3.39 | 1.029 | 4 |
| basketball | 1.66 | 0.887 | 1 |
| rugby | 2.91 | 1.054 | 3 |
| table tennis | 2.46 | 1.084 | 2 |
| floorball/unihockey |  |  |  |

notes: $\mathrm{M}=$ mean, $\mathrm{SD}=$ standard deviation; Mdn= Median; $\mathrm{n}=94$; 5point rating scale; 1= not popular at all, 2= rather not popular, 3= neither popular nor non popular; 4=rather popular, $5=$ very popular

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Table 5: Popularity of different sports among students; percentage

How popular are these sports among you students (teachers view) in \% ( $\mathrm{n}=94$ )

|  | not <br> popular at <br> all | rather not <br> popular | neither <br> popular nor <br> non popular | rather <br> popular | very <br> popular | missing <br> value |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| soccer | 0 | 2,1 | 7,4 | 27,7 | 62,8 | 0,0 |
| athletics | 1,1 | 16,0 | 44,7 | 36,2 | 2,1 | 0,0 |
| handball | 17,0 | 26,6 | 27,7 | 25,5 | 3,2 | 0,0 |
| floor exercise, apparatus | 5,3 | 28,7 | 35,1 | 21,3 | 9,6 | 0,0 |
| gymnastics |  |  |  |  |  |  |
| swimming | 5,3 | 22,3 | 37,2 | 28,7 | 6,4 | 0,0 |
| volleyball/beachvolleyball | 2,1 | 11,7 | 31,9 | 37,2 | 17,0 | 0,0 |
| basketball | 3,2 | 13,8 | 29,8 | 41,5 | 10,6 | 1,1 |
| rugby | 53,2 | 29,8 | 10,6 | 5,3 | 0,0 | 1,1 |
| table tennis | 11,7 | 20,2 | 37,2 | 26,6 | 4,3 | 0,0 |
| floorball/unihockey | 21,3 | 28,7 | 29,8 | 18,1 | 1,1 | 1,1 |

### 3.3 Importance of different sports in physical education lessons (teachers' point of view)?

Teachers report that further ball games are very important and athletics rather important in their physical education lessons (see table 6; 1=not important at all, 5= very important). Further important and rather important sports are soccer, volleyball/beachvolleyball and basketball.

Table 6: Importance of the sports in physical education lessons (teachers view)

|  | Importance of the sports in <br> physical education classes <br> (teachers view) |  |  |
| :--- | :---: | :---: | :---: |
| Sports | $M$ | $S D$ | $M d n$ |
| soccer | 3.32 | 1.06 | 3 |
| athletics | 3.98 | 0.88 | 4 |
| handball | 2.81 | 1.04 | 3 |
| further ball games | 4.34 | 0.77 | 5 |
| volleyball/beachvolleyball | 3.47 | 0.826 | 4 |
| basketball | 3.29 | 0.98 | 3 |
| rugby | 1.49 | 0.8 | 1 |
| floorball/unihockey | 2.34 | 1.103 | 2 |

notes: $\mathrm{M}=$ mean, $\mathrm{SD}=$ standard deviation; Mdn= Median; $\mathrm{n}=94 ; 5$ point rating scale; 1= not important at all, 2= rather non important, $3=$ neither important nor non important; 4=rather important, 5=very important

Table 7: Importance of the sports in physical education lessons; percentage

| Sports | Importance of the sports in physical education classes (teachers view) in \%; $n=94$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | not important at all | rather not important | neither important nor non important | rather important | very important | missing value |
| soccer | 4,3 | 16,0 | 39,4 | 24,5 | 16,0 | 0,0 |
| athletics | 0,0 | 1,1 | 14,9 | 58,5 | 23,4 | 2,1 |
| handball | 7,4 | 25,5 | 41,5 | 19,1 | 4,3 | 2,1 |
| further ball games | 0 | 0 | 18,1 | 29,8 | 52,1 | 0,0 |
| volleyball/beachvolleyball | 2,1 | 9,6 | 33,0 | 50,0 | 5,3 | 0,0 |
| basketball | 1,1 | 13,8 | 39,4 | 36,2 | 7,4 | 2,1 |
| rugby | 56,4 | 31,9 | 6,4 | 1,1 | 1,1 | 3,2 |
| floorball/unihockey | 20,2 | 27,7 | 34,0 | 12,8 | 1,1 | 4,3 |

### 3.4 Importance of athletics disciplines in physical education lessons (teachers' point of view)?

Teachers indicate that running-sprints, throws, jumps, running-middle and long distance, and running-relay race are the most important (rather important) athletics disciplines in their lessons (see table 8; 1 = not important at all, 5 = very important).

Table 8: Importance of athletics disciplines in physical education lessons (teachers view)

|  | Importance of the athletics disciplines <br> in physical education classes <br> (teachers view) |  |  |
| :--- | :---: | :---: | :---: |
|  | $M$ | $S D$ | $M d n$ |
| Athletics disciplines | 4.23 | 0.86 | 4 |
| running - sprint | 2.5 | 1.065 | 2 |
| running - hurdles or obstacles | 3.79 | 1.056 | 4 |
| running- middle and long distance | 3.5 | 1.216 | 4 |
| running - relay race | 4 | 0.938 | 4 |
| jumps | 4.04 | 0.938 | 4 |
| throws | 2.14 | 1.197 | 2 |
| walking | 2.65 | 1.358 | 2 |

notes: $\mathrm{M}=$ mean, $\mathrm{SD}=$ standard deviation; Mdn= Median; n= 94; 5 point rating scale; 1= not important at all, 2= rather non important, 3= neither important nor non important; 4=rather important, 5=very important

Table 9: Importance of athletics disciplines in physical education; percentage

Importance of the athletics disciplines in physical education classes (teachers view) in \%; $n=94$

| Athletics disciplines | not important at all | rather not important | neither important nor non important | rather important | very important | missing value |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| running - sprint | 1,1 | 3,2 | 11,7 | 39,4 | 44,7 | 0,0 |
| running - hurdles or obstacles | 17,0 | 39,4 | 23,4 | 17,0 | 3,2 | 0,0 |
| running- middle and long distance | 0,0 | 9,6 | 18,1 | 45,7 | 24,5 | 2,1 |
| running - relay race | 6,4 | 11,7 | 26,6 | 30,9 | 23,4 | 1,1 |
| jumps | 0,0 | 6,4 | 16,0 | 43,6 | 33,0 | 1,1 |
| throws | 1,1 | 6,4 | 16,0 | 40,4 | 36,2 | 0,0 |
| walking | 36,2 | 29,8 | 20,2 | 6,4 | 6,4 | 1,1 |
| combined events | 25,5 | 27,7 | 13,8 | 22,3 | 10,6 | 0,0 |

### 3.5 How important are the following goals in your exercise and physical education classes?

Teachers were asked for their educational goals they follow when teaching physical education classes. All goals presented in table 7 were rated as very important/rather important except preparing children for competitions (neither important nor non important) and preparing children for tests in physical education classes (neither important nor non important) (see table 10; $1=$ not important at all, $5=$ very important).

Table 10: Importance of different educational goals in physical education classes (teachers view)

|  | Importance of the following goals <br> in physical education classes |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
|  | $M$ | $S D$ | $M d n$ |  |
| Physical education goals | 4.8 | 0.632 | 5 |  |
| Improvement of general motor skills and abilities (speed, | 4.7 | 0.701 | 5 |  |
| strength, endurance, mobility) | 4.72 | 0.662 | 5 |  |
| Promote physical activity, fitness, and health | 4.49 | 0.877 | 5 |  |
| Fun in movement | 4 | 0.962 | 4 |  |
| Promotion of social skills in children | 3.19 | 1.264 | 3 |  |
| Improvement of sport-specific movements / techniques | 2.89 | 1.231 | 3 |  |
| Preparation for competitions |  |  |  |  |
| Preparation of the children for tests in physical education, |  |  |  |  |
| which are used for grades |  |  |  |  |

notes: $\mathrm{M}=$ mean, $\mathrm{SD}=$ standard deviation; $\mathrm{Mdn=}$ Median; $\mathrm{n}=94 ; 5$ point rating scale; $1=$ not important at all, 2= rather non important, 3= neither important nor non important; 4=rather important, $5=$ very important

Table 11: Importance of different educational goals in physical education classes; percentage

> Importance of the following goals in physical education classes; in \%; $$
n=94
$$

|  | not <br> important <br> at all | rather not <br> important | neither <br> important <br> nor non <br> important | rather <br> important | very <br> important | missing <br> value |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Improvement of general motor <br> skills and abilities (speed, <br> strength, endurance, mobility) | 0,0 | 0,0 | 1,1 | 12,8 | 85,1 | 1,1 |
| Promote physical activity, | 0,0 | 0,0 | 3,2 | 18,1 | 77,7 | 1,1 |
| fitness, and health | 0,0 | 0,0 | 1,1 | 20,2 | 77,7 | 1,1 |
| Fun in movement | 1,1 | 1,1 | 5,3 | 27,7 | 63,8 | 1,1 |
| Promotion of social skills in <br> children | 5,3 | 19,1 | 40,4 | 34,0 | 1,1 |  |
| Improvement of sport-specific <br> movements / techniques | 9,6 | 16,0 | 36,2 | 17,0 | 20,2 | 1,1 |
| Preparation for competitions <br> Preparation of the children for <br> tests in physical education, <br> which are used for grades | 13,8 | 18,1 | 33,0 | 24,5 | 8,5 | 2,1 |

### 3.6 Which statements apply to children with special needs (children with disabilities, etc.)?

85.1\% of the schools reported that children with special needs are not excluded from physical education lessons and that teachers should find ways to include them into physical education lessons ( $80.9 \%$ ). Further $50 \%$ of the schools reported that there are also separate physical activity programs for children with special needs outside the school (medical centres etc.) available (see figure 2).


Figure 2: Physical education and students with special educational needs ( $n=94$ )

### 3.7 Teachers interests in further education

$94.7 \%$ report that they are interested in further education dealing with physical activity and sports in general. $84 \%$ are also interested in further education in athletics (see figure 3 ). Participants would prefer further education in the areas of athletics (20 mentions), gymnastics ( 15 mentions), ball games in general ( 10 mentions), games (11mentions), swimming ( 10 mentions). These areas have the highest mentions when asking them in which area they would like to have further education. Regarding further education in athletics the highest mentions received following areas: throws ( 24 mentions) jumps ( 17 mentions), technique training (11 mentions), running (11 mentions), sprint (10 mentions), didactic issues (10 mentions).

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Figure 3: Teachers interest in further education in sports in general and athletics ( $n=94$ )

### 3.8 How often do you use the following sources of information to acquire new skills for teaching athletics?

Most teachers use the internet as a source of information to acquire new skills in teaching athletics (very often: $30.9 \%$; often: $38.3 \%$; occasionally: $20.2 \%$ ). $41.5 \%$ also join trainings, conferences, and courses occasionally. $35.1 \%$ use books and $28.7 \%$ use magazines occasionally to acquire new skills. A website with a huge number of videos in teaching physical education (ClipCoach) is used by $28.7 \%$ occasionally. The brochure of the Austrian Athletics federation is also used by $28.7 \%$ of the teachers occasionally (see figure 4).


Figure 4: Sources of information used by teachers to acquire new skills in teaching athletics ( $n=94$ schools)

### 3.9 Is there a way to combine physical education with other subjects?

56.4 \% report that a combination of physical education with other subjects (biology, physics, math, nutrition etc.) is possible.

### 3.10 Organization of and participation in competitions and sport tests

Results show that $89.4 \%$ of the schools organize in-school competitions or sporting events. $93.6 \%$ of schools participate in local competitions and $90.4 \%$ in regional competitions. $67 \%$ of schools participate in national competitions and 45.7\% organize sport tests in school (see figure 5). $28.6 \%$ mentioned that these are admission tests, $19 \%$ use "Klug and Fit" tests. Further some schools use diverse motoric tests and tests for the grades. The high number of
schools with a sport focus (53\%; not representative sample for all secondary schools in Austria) must be considered when interpreting the results.


Figure 5: Organization and Participation in competitions and sport tests ( $n=94$ schools)

### 3.11 School-sports club cooperations

$50 \%$ of the schools cooperate with other sport clubs (one day activities, preparation for competitions, training sessions, diverse projects like "Jugend gesund bewegen", sharing of infrastructure, presentation of their sports) but only $19.1 \%$ have a cooperation with an athletics club (running event, knowledge sharing for conducting training sessions, project "Jugend gesund bewegen", Training sessions in the school, competitions) (see figure 6). Figure 7 shows that the frequency of school cooperations with athletics clubs and federations is very low.

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Figure 6: School cooperations with sports clubs and athletic clubs ( $n=94$ schools)


Figure 7: Frequency of school-parent cooperations ( $n=94$ )

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### 3.12 Parental Support

Figure 8 show that there is less parental support in organizing competitions, coaching and event assistance.


Figure 8: Frequency of school-parent cooperations ( $n=94$ )

### 3.13 Invitation of elite athletes to the school

$30.9 \%$ of the schools invite elite athletes to the school to foster motivation of the children (contact through: personal contacts, clubs, Athletic Girls project, former student, educational organisation of the federal state).

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### 3.14 Access to athletics infrastructure

Most schools (61.7\%) don't have access to athletics facilities with a 400m track or special athletics halls with tartan track (93.6\%). 71.3\% of the schools have individual athletics facilities on the school ground and 13.8\% near the school (<1km). Most schools (96.8\%) have access to halls or gyms (see figure 9). Most children (96.8\%) have access to locker rooms with showers and $36.2 \%$ report that they have access to locker rooms without showers.


Figure 9: Access to athletics facilities ( $n=94$ )

### 3.15 Availability of athletics equipment

Most schools have hurdles (34\% in sufficient quantities; $30.9 \%$ but not enough of it), vortex arrows (31.9\% in sufficient quantities; 30.9\% but not enough of it), bullets, discs, javelins ( $37.2 \%$ in sufficient quantities; $40.4 \%$ but not enough of it), starting blocks ( $61.7 \%$ in sufficient quantities; $20.2 \%$ but not enough of it), long jump equipment ( $78.7 \%$ in sufficient quantities), high jump equipment ( $66 \%$ in sufficient quantities), medicine balls ( $83 \%$ in sufficient quantities), stop watches ( $71.3 \%$ in sufficient quantities) and measuring tapes ( $84 \%$ in sufficient quantities). Most schools do not have electronic timing equipment (87.2\%) (see figure 10).


Figure 10: Availability of athletics equipment ( $n=94$ )

### 3.16 Athletics equipment in schools is funded by...

$79.8 \%$ of the secondary schools report that their equipment is funded by city, state or federal governments. $27.7 \%$ of the schools have a special school budget for equipment. Most schools don't get financial support from private individuals (80.9\%) or companies (78.7\%) (see figure 10).


Figure 11: Athletics equipment in schools is funded by... ( $n=94$ )

### 3.17 Accessibility of sport infrastructure in the schools for different groups of persons outside physical education lessons?

$40.4 \%$ of the schools report that the sport infrastructure of the schools is also accessible outside physical education classes for children of the school. Most schools (71.3\%) report that there is no access for children of other schools. $80.9 \%$ of the schools report that their infrastructure is for rent for external groups and $58.5 \%$ report that the infrastructure is for rent for events (see figure 12).

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Figure 12: Accessibiliyt of sport infrastructure of the school ( $n=94$ schools)

## 4 Appendix

### 4.1 Figures

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