

Auszug aus einem Beitrag für die ISSEP 2019 in Zypern

<http://cyprusconferences.org/issep2019/>

1 Facts, Figures and Remarks about the Austrian Participation

1.1 The Last Three Years

In the year 2018, the Bebras Challenge in Austria took place for the 12th time in succession, with celebrating the 10th anniversary in 2016 and the first participation in 2007, together with Latvia and Slovakia as the 8th country, after Estonia, Germany, The Netherlands, and Poland joined the forerunner Lithuania in 2006 [6].

Within 14 years, the Bebras challenge developed rapidly, currently encompassing 54 member countries from all continents. The last Bebras challenge attracted about 2.7 millions of pupils all over the world. Table 1 shows the top ten list of these countries and its specific development of participation within the last three years, considering its population in total and the estimated number of pupils. In this list Austria ranks in 10th place. It is striking that there was a big increase from 2016 to 2017 whereas the growth from 2017 to 2018 is moderate. About 3 out of 100 Austrian pupils have participated in the past year 2018, which indicates that there is still much room for expansion. Even the leader Slovenia attracts not more than about 11% of all the potential pupils.

Table 1. Top Ten List with the Rank of Austria Among the Participating Countries

	Country	Development of Number of Contestants				Year 2018	Inhabitants	Pupils est.	Perc.
		Year 2016	Inc.	Year 2017	Inc.				
1.	Slovenia	29.083	3%	29.993	12%	33.590	2.078.246	300.000	11,2%
2.	Belarus	70.753	58%	111.554	35%	150.237	9.452.514	1.350.000	11,1%
3.	Lithuania	33.006	26%	41.708	6%	44.136	2.780.446	350.000	12,6%
4.	Slovakia	62.981	18%	74.216	5%	77.928	5.455.014	750.000	10,4%
5.	France	474.901	26%	598.869	14%	682.053	65.060.120	9.300.000	7,3%
6.	Czechia	71.792	4%	74.518	7%	79.988	10.677.443	1.500.000	5,3%
7.	Serbia	35.554	20%	42.539	18%	50.168	8.787.495	1.250.000	4,0%
8.	Taiwan	60.744	84%	111.560	6%	118.332	23.750.168	3.400.000	3,5%
9.	Germany	290.802	17%	341.241	9%	373.406	83.320.732	11.000.000	3,4%
10.	Austria	21.191	46%	31.034	5%	32.675	8.923.245	1.200.000	2,7%

Table 2 shows clearly the very inhomogeneous distribution among different types of schools, age-groups and grades. The Austrian High Schools (Academic Secondary Schools), hosting about 200.000 out of about 1.200.000 Austrian pupils, cover disproportionately many 2/3 of all participants. Almost 50% of them have taken part in the Bebras challenge within the last years, with the actual number of 132 out of about 330 schools of that type.

Table 2. Distribution of participation regarding school types.

	Contestants			Schools		
	Year 2016	Year 2017	Year 2018	Year 2016	Year 2017	Year 2018
High School(s), Grades 1-8	15.429	20.402	21.397	124	137	132
Vocational School(s), Grades 9-13	2.076	1.823	2.067	20	18	16
Lower General School(s), Grades 5-8	3.053	5.565	6.391	61	98	95
Primary School(s), Grades 1-4	613	1.026	1.033	24	38	46
Other Schools, Grades 9-11	23	2.202	1.789	2	35	23
	21194	31018	32677	231	326	312

About 2/3 of all participants are covered by pupils aged between 13 and 16 years. In Austria the categories are named Meteor and Junior. As table 3 shows, primary schools are still playing a marginal role (not even 1 of 300 pupils took part in 2018), and so do senior students in grade 11 to 13. The data showed that some primary schools offered the Bebras challenge even at grade 2 with 8-years old pupils.

Table 3. Distribution of participation regarding Bebras levels.

	Year 2016	Year 2017	Year 2018
Little Beaver (Grades 2/3/4)	636	1163	1146
Benjamin (Grades 5/6)	5311	8948	8785
Meteor (Grades 7/8)	6401	9465	10129
Junior (Grades 9/10)	7101	9056	10333
Senior (11/12/13)	1745	2386	2284
	21194	31018	32677

Regarding the development of the overall performance over the last three years, there are comparatively little deviations without significant statistical outliers. The numbers in Table 4 indicate (but do not prove) a good annual task selection with a stable level of difficulties. The column labelled with “n.a.” represents the not answered questions which has significantly decreased in the year 2018 except the category Senior. **Table 4.** Distribution of participation regarding wrong and correct answers.

	Year 2016			Year 2017			Year 2018		
	wrong	n.a.	correct	wrong	n.a.	correct	wrong	n.a.	correct
Benjamin (Grades 5/6)	43%	9%	48%	40%	16%	44%	47%	6%	46%
Meteor (Grades 7/8)	44%	15%	42%	37%	16%	47%	44%	9%	48%
Junior (Grades 9/10)	48%	17%	36%	35%	10%	55%	36%	9%	55%
Senior (11/12/13)	39%	17%	44%	35%	12%	53%	34%	18%	49%