## A study conducted for a coaching job by Agata Kowal of Krakow:

1) Questionnaire on the results on the test after the 6th grade and the middle school exam

- The number of respondents
about 100 people Conclusion:
According to the survey, the young bridge players are very good students who get above-average results in external exams.

2) Comparison of middle school exam results of students from non-bridge and bridge classes at Middle School No. 2 in Krakow

- The number of respondents - one yearbook of about 180 people (a very small sample, but this was the only yearbook after the exam) Conclusion:

Graduates of the bridge class passed the middle school exam apparently better than their counterparts from other classes. The difference is greatest in the math portion of the exam.

The exam results were also compared on narrowed groups in non-bridge classes - so that the level of "Entrances", or the test after Class VI, was the same in all classes. Still, the results of the bridge class were the best, although the differences have clearly decreased (especially compared to the math class).

|  |  | Gener <br> al class | Gener <br> al class | Nature class a* | Math class on* | Humanities <br> class <br> on* | Bridge <br> class |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| All students | Number of students | 32 | 31 | 31 | 31 | 33 | 24 |
|  | The average score on the test after 6th grade | 85\% | 75,3\% | 85,8\% | 86,7\% | 79,8\% | 90,2\% |
| Results aft er removing students wi th the lowest results on the test | Number of students | 22 | 19 | 24 | 26 | 18 | 24 |
|  | The average score on the test after 6th grade | 90,1\% | 85\% | 90,2\% | 90,2\% | 90\% | 90,2\% |
|  | The average score on the middle school exam | 85\% | 82\% | 85,8\% | 86\% | 84,8\% | 87\% |

3) solving logic tasks in groups of 5 people

- number of subjects: 2 first classes (math and bridge), 3 each of second and third classes (math, bridge, general) approximately 220 persons.

Conclusions:
First-grade students who have just started learning bridge achieved a score slightly lower than that of their math classmates. The score of both first graders is on the same level as that of their older classmates in the general classes. Students in the second and third bridge classes achieved a score 7 points better than that of the math classes and 23 points better than that of the general classes. The difference was also seen in the method of solving tasks. Most bridge groups first discussed the tasks together, jointly sought methods of solution, and then divided the tasks according to the competencies of the group members. Groups in other classes divided tasks randomly, there were students who did not know the content of the tasks except for one,

A study of the ability to solve logic tasks confirms that bridge has a very good effect on the intellectual development of young people. The ability to solve logic tasks at the beginning of education is similar in all classes. After one and two years of study - significantly higher in bridge classes than in other classes, even in mathematics. Observations of students while working in groups show that bridge players are better able to divide tasks and cooperate well with each other. When solving tasks, they demonstrated purposeful action, something that their colleagues in other classes often lacked. Unfamiliarity with the scheme of solving a given task did not discourage them, on the contrary: it forced them to creatively search for a method. Meanwhile, in non-bridge classes, work often
chaotic. The sportsmanship aspect is probably also important for the outcome. While in the other classes students gave up and gave up before time, bridge class students, accustomed to competition, tried to solve the most difficult tasks until the end.

