

# **CORRELATION BETWEEN THE LEARNING OF BRIDGE WITHIN THE "BRIDGE AT SCHOOL PROGRAMME " AND SCHOLASTIC SUCCESS.**

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# **STUDY ON THE CORRELATION BETWEEN THE LEARNING OF BRIDGE WITHIN THE "BRIDGE AT SCHOOL PROGRAMME " AND SCHOLASTIC SUCCESS.**

by Prof. Rita Teresa Palma Lisi  
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When, years ago, I first began my adventure with teaching Bridge at School (BaS), a pamphlet of Elsa Cagner on the formative importance of the BaS came into my hands.

Personally, I had no difficulty in believing immediately to what prof. Cagner asserted about Bridge: a valid instrument in order to develop logical, analytic, synthetic, mnemonic and reasoning abilities of the student.

But, how to convince the skeptics about the effective influence of the bridge activity on scholastic success? For everybody, it is well known, Bridge is just a simple card game...

There was only one solution: to examine the scholastic results.

That's why, at the end of the 2000/2001 scholastic year, I took into consideration the situation of a class with 22 pupils. 14 of them had taken part in the BaS programme, while the other 8 hadn't.

I examined the scholastic results of each one, calculating the increase of success between the first and the second quarter. I could ascertain that the average increase for the participants (1,00) was higher than the increase for the non-participants (0,88).

The next year (2001/2002 s.y.), I decided to examine all the students involved in the BaS programme. At this point the problem was how to choose the sample of non-participant students: I had to consider two groups with almost the same number of elements.

So, I decided to make the statistic survey in the following way:

- Participants: I considered only the students who had constantly attended the Bas course;

- Non-participants: I considered the students of the classes with a large participation to the BaS course, leaving apart the classes with little or no participation.

Also in this way of proceeding, the average increase for the participants (0,76) was higher than the one for the non-participants (0,62).

In the following years, I used the same criteria and always obtained the same results – as you can see in the last enclosed tabulation – a better average increase for the group of the participants in the BaS programme.

Not to make the present paper dull reading, I didn't enclose all the data collected during these four years of scholastic review, but I resumed in a few tabulations the data relating to the 2001/2002 s.y.

- An example... class III B (numerical values)
- Progress - class I A (chart)
- All the classes 2003 – 2004 (numerical values)
- All the classes 2003 – 2004 (chart)
- Average difference

In the two last tabulations there are:

- The increase in participation in the years
- The BaS programme in the years

To say the truth, this analysis of mine cannot be considered a real statistical evaluation, due to the little number of students involved in this sample. That's why these results are not sufficient to demonstrate Bridge capability to improve students' skills having thus an impact on their scholastic results, but allow us to say that the BaS programme, "playing cards", didn't take students' attention off their scholastic duties and didn't direct their sense of responsibility to a dangerous way.

# EVALUATION OF THE ACTIVITY OF BRIDGE AT SCHOOL (BAS)

SCHOLASTIC YEAR 2003 – 2004

AN EXAMPLE... CLASS III B

CLASS	STUDENTS	AVERAGE I QUARTER	AVERAGE II QUARTER	Δ OF AVERAGE
III B	1	7,9	9,8	1,9
	2	5,7	6,4	0,7
	3	8,1	10,0	1,9
	4	6,5	7,4	0,9
	5	7,1	8,2	1,1

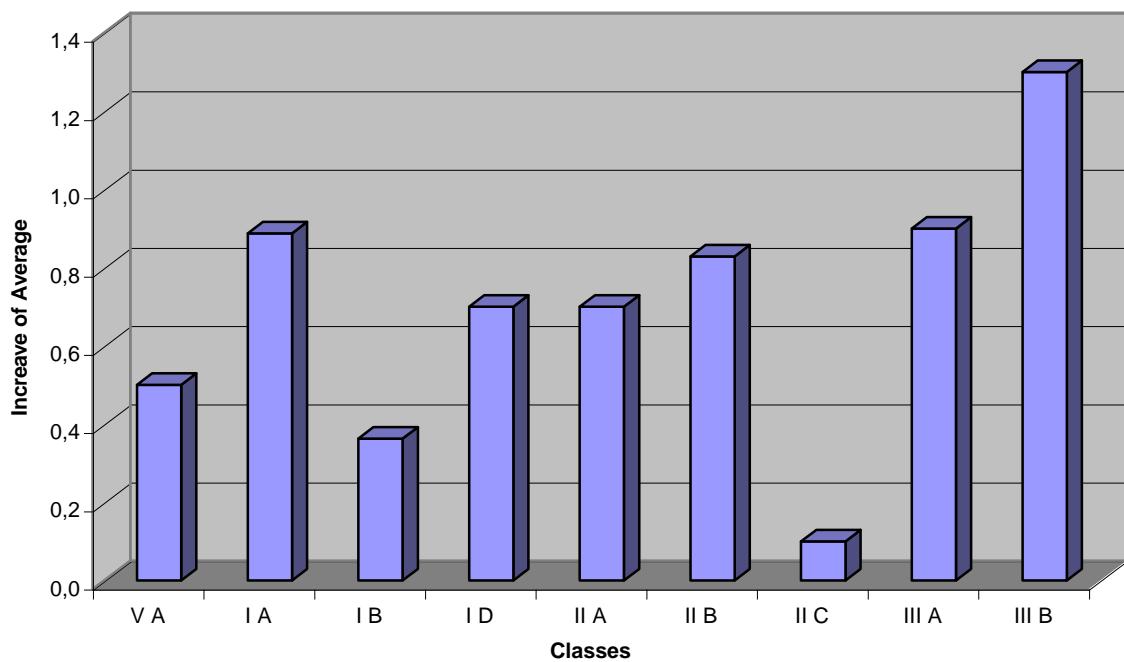
$\Delta = \text{TOTAL } \Delta \text{ OF AVERAGE} / \text{N. OF STUDENTS}$

	Number of students	Total $\Delta$	Average $\Delta$
Participants	61	46,2	0,75
Non-participants	56	35,6	0,63

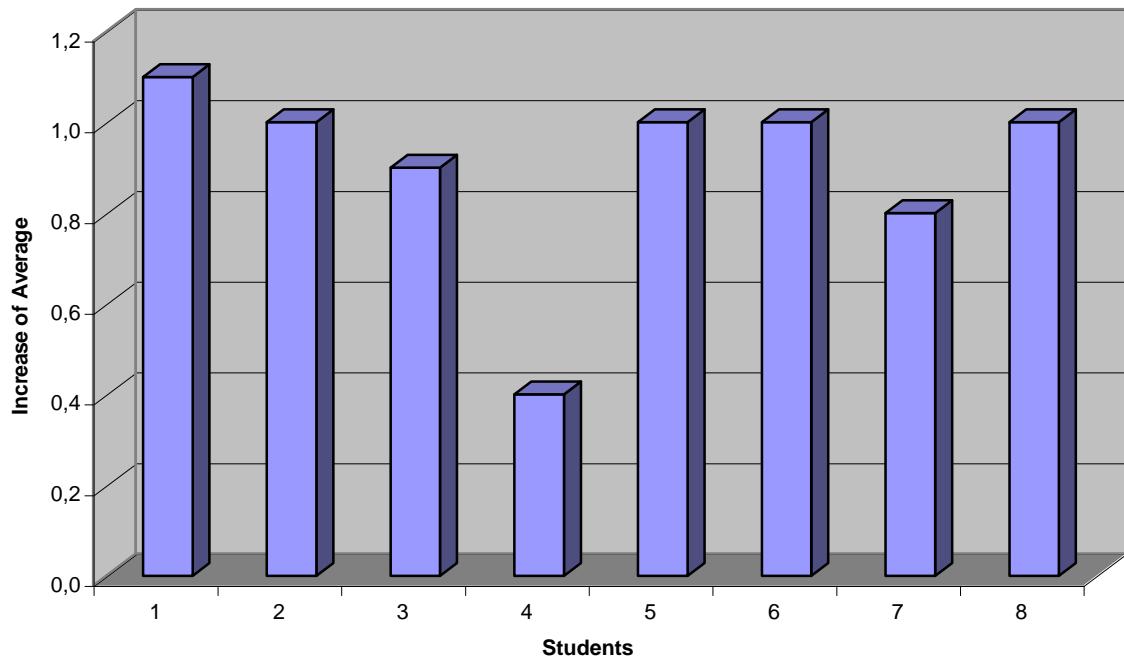
ALL THE CLASSES 2003 – 2004

Class	Total Students	Participant Students	Non-participant Students	Total $\Delta$ of Average - Participants	Total $\Delta$ of Average - non-participants	Average $\Delta$ - participants	Average $\Delta$ - non-participants
V A	2	2	-	1,0	-	0,5	-
I A	17	8	9	7,1	4,2	0,9	0,5
I B	18	8	10	2,9	5,7	0,4	0,6
I D	1	1	-	0,7	-	0,7	-
II A	17	15	2	10,5	2,9	0,7	1,4
II B	26	14	12	11,6	8,4	0,8	0,7
II C	2	2	-	0,2	-	0,1	-
III A	17	6	11	5,7	7,3	0,9	0,7
III B	17	5	12	6,5	7,1	1,3	0,6
total	117	61	56	46,2	35,6		

## ALL THE CLASSES 2003 – 2004



## PROGRESS – CLASS I A



## EVALUATION OF THE ACTIVITY OF BRIDGE AT SCHOOL (BAS) SCHOLASTIC YEAR 2003 – 2004

The present statistic survey has been conducted on the students of the Classic High School “N. Turriziani” (Frosinone), during the scholastic year 2003 – 2004 in order to evaluate the impact of the bridge activity on the scholastic results.

The statistic survey has been conducted on a sample of 117 students, of whom 61 participating and 56 not participating in the BaS programme.

In order to consider two groups not very different in numbers, the statistic survey has been conducted considering in the “participants” group only those who constantly attended BaS courses; while in the “not participants” group we choose the 6 classes, out of 9, which had the higher number of participant students.

The statistic data are reported in the following lists, obviously omitting the students’ names (substituted by numbers).

Dividing the total average increase (46,2) by the number of the participating students (61) you obtain an average increase, for every single student, equal to 0,75.

Dividing the total average increase (35,6) by the number of the non-participating students (56) you obtain an average increase equal to 0,63.

You can thus process the following table:

	Number of students	Total Δ	Average Δ
Participants	61	46,2	0,75
Non-participants	56	35,6	0,63

So we can conclude that attending BaS courses, not only didn’t interfere with the afternoon home study of the participants, but contributed to develop and strengthen their capacities, consequently improving their results in the compulsory subjects.

Prof. Teresa Palma

PARTICIPANT STUDENTS				
CLASS	STUDENTS	AVERAGE I QUARTER	AVERAGE II QUARTER	Δ OF AVERAGE
V A	1	6,7	7,4	0,7
	2	7,1	7,4	0,3
I A	1	5,2	6,3	1,1
	2	5,3	6,3	1,0
I B	3	5,3	6,2	0,9
	4	5,9	6,3	0,4
I C	5	7,4	8,4	1,0
	6	5,8	6,8	1,0
I D	7	5,7	6,5	0,8
	8	5,5	6,5	1,0
II A	1	6,2	6,8	0,6
	2	6,2	6,7	0,5
II B	3	6,3	6,7	0,4
	4	5,4	6,1	0,7
II C	5	5,1	5,1	0,0
	6	6,1	6,2	0,1
II D	7	5,7	6,1	0,4
	8	6,2	6,4	0,2
III A	1	7,3	8,0	0,7
	2	5,1	6,2	1,1
III B	3	5,8	6,4	0,6
	4	4,9	6,4	1,5
III C	5	7,1	7,7	0,6
	6	5,9	6,8	0,9
III D	7	5,7	6,2	0,5
	8	6,0	6,2	0,2
III E	9	7,7	7,9	0,2
	10	5,2	6,5	1,3
III F	11	5,9	6,2	0,3
	12	6,2	6,2	0,0

	11	5,3	6,3	1,0
	12	7,2	7,4	0,2
	13	5,2	6,2	1,0
	14	7,7	8,1	0,4
	15	5,7	6,4	0,7
II B	1	6,5	6,7	0,2
	2	7,1	8,1	1,0
	3	6,5	7,2	0,7
	4	7,3	8,2	0,9
	5	5,6	6,6	1,0
	6	6,5	7,7	1,2
	7	4,7	6,1	1,4
	8	6,8	7,5	0,7
	9	5,6	6,4	0,8
	10	7,5	8,1	0,6
	11	6,1	6,9	0,8
	12	7,3	8,1	0,8
	13	6,7	7,6	0,9
	14	7,7	8,3	0,6
II C	1	5,2	5,3	0,1
	2	6,7	6,9	0,2
III A	1	5,4	6,3	0,9
	2	7,3	7,8	0,5
	3	8,5	10,0	1,5
	4	6,5	7,2	0,7
	5	6,5	7,8	1,3
	6	5,2	6,0	0,8
III B	1	7,9	9,8	1,9
	2	5,7	6,4	0,7
	3	8,1	10,0	1,9
	4	6,5	7,4	0,9
	5	7,1	8,2	1,1

NON-PARTICIPANT STUDENTS				
CLASS	STUDENTS	AVERAGE I QUARTER	AVERAGE II QUARTER	Δ OF AVERAGE
I A	1	7,1	7,7	0,6
	2	8,6	9,1	0,5
	3	6,1	7,0	0,9
	4	6,1	6,3	0,2
	5	6,1	6,6	0,5
	6	5,8	6,5	0,7
	7	7,4	7,4	0,0
	8	5,7	6,3	0,6
	9	6,6	6,8	0,2
I B	1	5,4	6,2	0,8
	2	6,3	6,7	0,4
	3	6,9	7,6	0,7
	4	6,6	6,8	0,2
	5	6,7	7,7	1,0
	6	7,4	8,3	0,9
	7	6,7	7,5	0,8
	8	6,0	6,1	0,1
	9	7,2	8,0	0,8
	10	6,3	6,3	0,0
II A	1	5,1	6,1	1,0
	2	4,6	6,5	1,9
II B	1	7,6	7,8	0,2
	2	7,1	7,7	0,6
	3	7,5	7,9	0,4
	4	4,7	6,5	1,8
	5	5,9	6,9	1,0
	6	7,2	8,2	1,0
	7	7,1	7,6	0,5
	8	7,2	7,4	0,2
	9	8,0	8,4	0,4

	10	7,4	8,3	0,9
	11	7,5	7,8	0,3
	12	6,1	6,9	0,8
III A	1	5,4	6,0	0,6
	2	4,9	5,0	0,1
	3	5,4	6,0	0,6
	4	6,3	6,6	0,3
	5	6,8	9,0	2,2
	6	4,6	5,2	0,6
	7	6,2	7,0	0,8
	8	6,3	6,8	0,5
	9	4,2	4,6	0,4
	10	6,5	6,8	0,3
	11	5,1	6,0	0,9
III B	1	6,6	6,8	0,2
	2	5,5	6,0	0,5
	3	7,4	7,5	0,1
	4	6,8	7,4	0,6
	5	5,8	6,0	0,2
	6	8,4	10,0	1,6
	7	6,7	6,7	0,0
	8	5,9	6,0	0,1
	9	8,4	9,0	0,6
	10	7,2	8,0	0,8
	11	6,8	7,5	0,7
	12	8,3	10,0	1,7

From the above data, we can obtain the following resuming table:

Class	Total Students	Participant Students	Non-participant Students	Total Δ of Average - Participants	Total Δ of Average - non-participants	Average Δ - participants	Average Δ - non-participants
V A	2	2	-	1,0	-	0,5	-
I A	17	8	9	7,1	4,2	0,9	0,5
I B	18	8	10	2,9	5,7	0,4	0,6
I D	1	1	-	0,7	-	0,7	-
II A	17	15	2	10,5	2,9	0,7	1,4
II B	26	14	12	11,6	8,4	0,8	0,7
II C	2	2	-	0,2	-	0,1	-
III A	17	6	11	5,7	7,3	0,9	0,7
III B	17	5	12	6,5	7,1	1,3	0,6
total	117	61	56	46,2	35,6		

## EVALUATION OF THE ACTIVITY OF BRIDGE AT SCHOOL (BAS)

### SCHOLASTIC YEAR 2002 – 2003

The present statistic survey has been conducted on the students of the Classic High School “N. Turriziani” (Frosinone), during the scholastic year 2002 – 2003 in order to evaluate the impact of the bridge activity on the scholastic results.

The statistic survey has been conducted on a sample of 116 students, of whom 61 participating and 55 not participating in the BaS programme.

In order to consider two groups not very different in numbers, the statistic survey has been conducted considering in the “participants” group only those who constantly attended BaS courses; while in the “not participants” group we choose the 5 classes, out of 10, which had the higher number of participant students.

The statistic data are reported in the following lists, obviously omitting the students’ names (substituted by numbers).

PARTICIPANT STUDENTS				
CLASS	STUDENTS	AVERAGE I QUARTER	AVERAGE II QUARTER	Δ OF AVERAGE
IV A	1	6,8	7,4	0,6
	2	6,0	6,6	0,6
V A	1	6,2	6,7	0,5
V B	1	6,3	6,6	0,3
	2	6,7	6,6	-0,1
	3	6,0	6,6	0,6
V D	1	8,0	8,8	0,8
	2	8,0	9,0	1,0
I A	1	5,5	6,2	0,7
	2	6,0	6,5	0,5
	3	7,1	7,7	0,6
	4	5,4	6,4	1,0
	5	5,7	6,5	0,8
	6	5,1	6,4	1,3
	7	7,6	8,0	0,4
	8	6,2	6,8	0,6

	9	5,2	6,4	1,2
	10	5,2	6,3	1,1
	11	7,2	7,7	0,5
	12	5,5	6,3	0,8
	13	7,8	8,7	0,9
	14	5,6	6,5	0,9
I B	1	6,0	6,9	0,9
	2	7,6	8,2	0,6
	3	7,3	8,1	0,8
	4	6,1	6,5	0,4
	5	6,0	7,1	1,1
	6	7,0	7,3	0,3
	7	5,5	6,7	1,2
	8	7,0	8,0	1,0
	9	6,8	7,8	1,0
	10	7,1	8,3	1,2
	11	7,2	8,1	0,9
	12	6,0	6,3	0,3
	13	7,1	8,1	1,0
	14	7,4	8,0	0,6
I C	1	6,0	6,1	0,1
	2	7,0	6,8	-0,2
II A	1	7,0	7,3	0,3
	2	5,2	6,3	1,1
	3	5,0	5,7	0,7
	4	6,1	6,8	0,7
	5	7,1	7,6	0,5
	6	8,5	8,5	0,0
	7	6,1	6,8	0,7
	8	6,7	6,9	0,2
	9	6,0	6,7	0,7
	10	5,8	6,2	0,4
II B	1	7,1	7,9	0,8

III B	1	5,5	5,5	0,0
	2	7,9	8,4	0,5

NON-PARTICIPANT STUDENTS				
CLASS	STUDENTS	AVERAGE I QUARTER	AVERAGE II QUARTER	Δ OF AVERAGE
I A	1	5,5	6,1	0,6
I B	1	7,0	7,3	0,3
	2	6,8	7,3	0,5
	3	6,6	7,3	0,7
	4	6,3	6,5	0,2
	5	6,3	6,3	0,0
	6	5,5	6,4	0,9
	7	6,8	6,8	0,0
	8	5,4	6,1	0,7
	9	7,6	8,1	0,5
	10	6,8	7,6	0,8
	11	6,1	6,7	0,6
	12	7,4	8,0	0,6
	13	6,1	6,8	0,7
II A	1	5,8	6,2	0,4
	2	6,3	6,5	0,2
	3	5,0	6,2	1,2
	4	6,2	6,4	0,2
	5	4,6	5,9	1,3
	6	6,7	7,1	0,4
	7	5,7	6,5	0,8
II B	1	7,6	8,5	0,9
	2	6,8	6,8	0,0
	3	6,9	7,3	0,4
	4	6,0	6,4	0,4
	5	6,5	7,5	1,0

	6	8,1	8,7	0,6
	7	6,9	7,4	0,5
	8	5,8	6,4	0,6
	9	7,4	7,9	0,5
	10	8,0	8,8	0,8
	11	6,8	7,6	0,8
	12	5,9	6,4	0,5
	13	7,2	7,9	0,7
	14	7,6	7,8	0,2
	15	6,9	7,5	0,6
	16	8,2	8,8	0,6
III B	1	7,1	7,6	0,5
	2	6,4	6,7	0,3
	3	6,4	6,6	0,2
	4	6,8	7,2	0,4
	5	7,1	7,9	0,8
	6	7,0	7,8	0,8
	7	6,9	7,5	0,6
	8	5,7	6,6	0,9
	9	6,2	6,9	0,7
	10	7,2	7,6	0,4
	11	6,8	7,1	0,3
	12	6,9	7,2	0,3
	13	6,8	7,4	0,6
	14	7,1	7,6	0,5
	15	7,6	8,4	0,8
	16	7,2	7,5	0,3
	17	5,2	6,0	0,8
	18	7,5	7,7	0,2

From the above data, we can obtain the following resuming table:

Class	Total Students	Participant Students	Total Δ of Average - Participants	Non-participant Students	Total Δ of Average - non-participants	Average Δ - participants	Average Δ - non-participants
IV A	2	2	1,2	-	-	0,6	-
V A	1	1	0,5	-	-	0,5	-
V B	3	3	0,8	-	-	0,3	-
V D	2	2	1,8	-	-	0,9	-
I A	15	14	11,3	1	0,6	0,8	0,6
I B	27	14	11,3	13	6,5	0,8	0,5
I C	2	2	-0,1	-	-	-0,05	-
II A	17	10	5,3	7	4,5	0,5	0,6
II B	17	1	0,8	16	9,1	0,8	0,6
III B	20	2	0,5	18	9,4	0,25	0,5
total	106	51	33,4	55	30,1		

Dividing the total average increase (33,4) by the number of the participating students (51) you obtain an average increase, for every single student, equal to 0,65.

Dividing the total average increase (30,1) by the number of the non-participating students (55) you obtain an average increase equal to 0,54.

You can thus process the following table:

	Number of students	Total Δ	Average Δ
Participants	51	33,4	0,65
Non-participants	55	30,1	0,54

So we can conclude that attending BaS courses, not only didn't interfere with the afternoon home study of the participants, but contributed to develop and strengthen their capacities, consequently improving their results in the compulsory subjects.

Prof. Teresa Palma

## EVALUATION OF THE ACTIVITY OF BRIDGE AT SCHOOL (BAS)

### SCHOLASTIC YEAR 2001 – 2002

The present statistic survey has been conducted on the students of the Classic High School “N. Turriziani” (Frosinone), during the scholastic year 2001 – 2002 in order to evaluate the impact of the bridge activity on the scholastic results.

The statistic survey has been conducted on a sample of 134 students, of whom 56 participating and 78 not participating in the BaS programme.

In order to consider two groups not very different in numbers, the statistic survey has been conducted considering in the “participants” group only those who constantly attended BaS courses; while in the “not participants” group we choose the 6 classes, out of 12, which had the higher number of participant students.

The statistic data are reported in the following lists, obviously omitting the students’ names (substituted by numbers).

PARTICIPANT STUDENTS				
CLASS	STUDENTS	AVERAGE I QUARTER	AVERAGE II QUARTER	Δ OF AVERAGE
IV B	1	4,91	6,50	1,59
	2	6,00	6,75	0,75
	3	6,58	6,75	0,17
IV D	1	7,84	8,62	0,78
	2	6,53	7,62	1,09
	3	8,00	8,62	0,62
	4	7,46	8,00	0,54
V B	1	6,41	7,37	0,96
V C	1	5,83	6,00	0,17
I A	1	6,58	7,55	0,97
	2	5,65	6,55	0,90
	3	4,91	6,20	1,29
	4	4,75	6,11	1,36
	5	6,30	7,00	0,70
	6	4,58	5,22	0,64
	7	8,33	9,00	0,67

	8	6,00	6,77	0,77
	9	6,50	7,11	0,61
	10	6,41	6,66	0,25
	11	6,75	7,00	0,25
	12	5,16	6,11	0,95
	13	5,75	6,33	0,58
I B	1	5,92	7,30	1,38
	2	6,35	7,60	1,25
	3	5,92	6,50	0,58
	4	6,35	7,40	1,05
II A	1	7,46	8,10	0,64
	2	7,69	8,70	1,01
	3	5,80	6,50	0,70
	4	5,84	6,50	0,66
	5	7,23	8,10	0,87
	6	6,15	7,00	0,85
II B	1	6,46	6,90	0,44
	2	5,53	6,60	1,07
	3	7,00	7,80	0,80
	4	7,15	7,80	0,65
	5	5,61	6,20	0,59
	6	7,00	7,80	0,80
	7	6,38	7,30	0,92
	8	7,15	8,20	1,05
	9	6,30	6,90	0,60
	10	7,23	8,20	0,97
	11	6,77	7,70	0,93
	12	5,53	6,20	0,67
II C	1	6,50	6,90	0,40
	2	7,43	8,09	0,66
II E	1	5,13	6,18	1,05
III A	1	5,07	5,70	0,63
	2	4,76	5,10	0,34

	3	6,00	6,70	0,70
	4	6,69	7,30	0,61
III B	1	6,30	7,00	0,70
	2	7,06	7,34	0,28
	3	5,46	6,00	0,54
	4	8,46	9,20	0,74
	5	7,00	8,00	1,00

NON-PARTICIPANT STUDENTS				
CLASS	STUDENTS	AVERAGE I QUARTER	AVERAGE II QUARTER	Δ OF AVERAGE
I A	1	7,50	8,22	0,72
	2	6,50	6,77	0,27
	3	5,11	6,00	0,89
	4	4,00	5,00	1,00
I B	1	6,50	7,50	1,00
	2	6,07	6,50	0,43
	3	5,42	5,34	-0,08
	4	6,14	6,80	0,66
	5	5,57	6,30	0,73
	6	6,00	6,50	0,50
	7	6,57	7,30	0,73
	8	7,42	8,40	0,98
	9	6,14	6,80	0,66
	10	6,28	6,90	0,62
	11	7,57	8,30	0,73
	12	5,21	6,30	1,09
	13	6,00	7,00	1,00
	14	6,64	7,70	1,06
	15	6,28	7,10	0,82
	16	7,64	8,40	0,76

II A	1	4,76	5,60	0,84
	2	7,43	8,23	0,80
	3	6,23	7,10	0,87
	4	5,46	6,70	1,24
	5	5,07	6,10	1,03
	6	7,30	7,70	0,40
	7	5,46	6,10	0,64
	8	7,00	7,40	0,40
	9	7,00	7,40	0,40
	10	6,00	6,60	0,60
	11	6,92	7,40	0,48
	12	5,30	6,10	0,80
II B	1	5,00	6,10	1,10
	2	6,23	7,00	0,77
	3	6,00	6,90	0,90
	4	6,53	7,00	0,47
	5	6,00	6,50	0,50
	6	6,84	7,30	0,46
	7	6,76	7,50	0,74
	8	6,53	7,50	0,97
III A	1	5,61	6,10	0,49
	2	6,76	6,80	0,04
	3	5,66	6,18	0,52
	4	8,06	8,63	0,57
	5	5,80	6,18	0,38
	6	5,66	5,36	-0,30
	7	8,38	8,80	0,42
	8	5,26	5,45	0,19
	9	5,84	6,70	0,86
	10	5,84	6,20	0,36
	11	7,86	8,27	0,41
	12	6,38	6,70	0,32
	13	6,38	7,00	0,62

	14	7,46	8,10	0,64
	15	5,46	6,20	0,74
	16	7,30	7,80	0,50
	17	7,61	8,00	0,39
	18	6,40	6,90	0,50
	19	5,20	5,27	0,07
	20	6,66	7,36	0,70
	21	6,76	7,40	0,64
III B	1	7,00	7,70	0,70
	2	7,00	7,30	0,30
	3	5,61	6,50	0,89
	4	6,46	6,90	0,44
	5	6,61	7,40	0,79
	6	6,23	7,30	1,07
	7	6,38	6,60	0,22
	8	6,69	7,20	0,51
	9	6,30	6,90	0,60
	10	6,46	7,10	0,64
	11	5,92	6,44	0,52
	12	6,20	6,72	0,52
	13	7,23	8,10	0,87
	14	6,20	7,18	0,98
	15	8,00	8,45	0,45
	16	7,00	7,81	0,81
	17	6,93	7,41	0,48

From the above data, we can obtain the following resuming table:

Class	Total Students	Participant Students	Non-participant Students	Total Δ of Average - Participants	Total Δ of Average - non-participants	Average Δ - participants	Average Δ - non-participants
IV B	3	3	-	2,51	-	0,84	-
IV D	4	4	-	3,03	-	0,76	-
V B	1	1	-	0,96	-	0,96	-
V C	1	1	-	0,17	-	0,17	-
I A	17	13	4	9,93	2,88	0,76	-
I B	20	4	16	4,26	11,69	1,07	-
II A	18	6	12	4,73	8,50	0,79	0,71
II B	20	12	8	9,49	5,91	0,79	0,74
II C	2	2	-	1,06	-	0,53	-
II E	1	1	-	1,05	-	1,05	-
III A	25	4	21	2,28	9,06	0,57	0,43
III B	22	5	17	3,46	10,79	0,69	0,63
total	134	56	78	42,93	48,83		

Dividing the total average increase (42,93) by the number of the participating students (56) you obtain an average increase, for every single student, equal to 0,76.

Dividing the total average increase (48,83) by the number of the non-participating students (78) you obtain an average increase equal to 0,62.

You can thus process the following table:

	Number of students	Total Δ	Average Δ
Participants	56	42,93	0,76
Non-participants	78	48,83	0,62

So we can conclude that attending BaS courses, not only didn't interfere with the afternoon home study of the participants, but contributed to develop and strengthen their capacities, consequently improving their results in the compulsory subjects.

Prof. Teresa Palma

**EVALUATION OF THE ACTIVITY OF BRIDGE AT SCHOOL (BAS)  
DURING 2000-2001 SCHOLASTIC YEAR**

As an example, we attach herewith a statistic on the influence of bridge activity on scholastic results, conducted on the students of class I D of the High School “F.lli Maccari” in Frosinone, referred to 2000-2001 scholastic year.

It was possible to conduct this statistic thanks to the high number of students of the same class participating to the BaS programme.

For privacy reasons the names will be changed into capital letters.

The class had 22 students of whom:

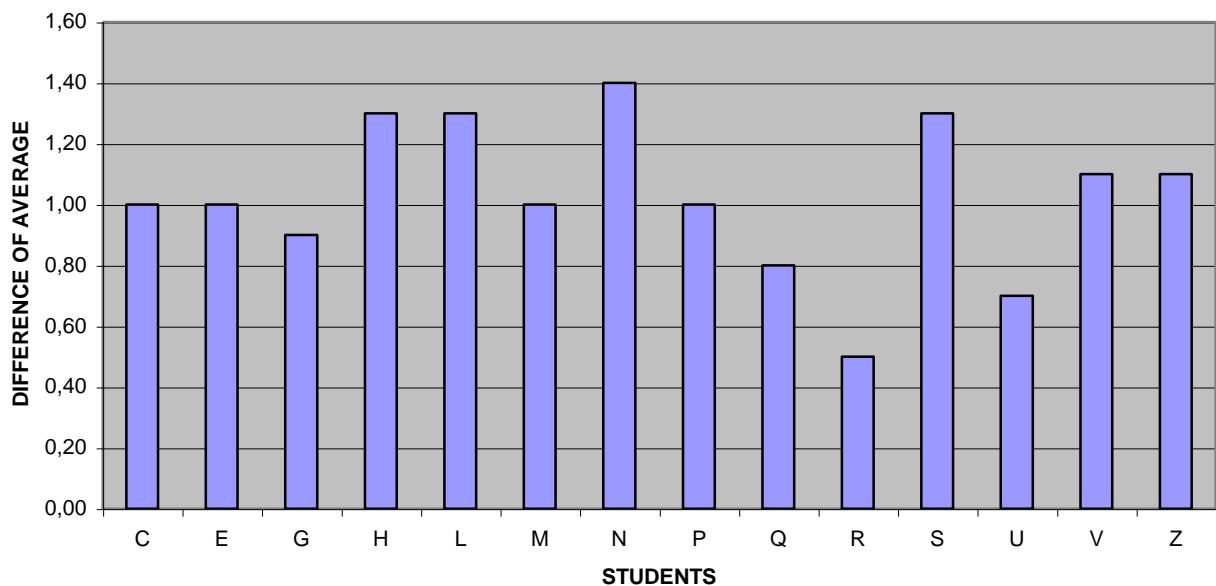
- 14 participating in the BaS programme (C, E, G, H, L, M, N, P, Q, R, S, U, V, Z)
- 8 not participating (A, B, D, F, I, O, T, W)

The statistic was made taking into consideration the average of the marks obtained in the first quarter and the final average at the end of the scholastic year.

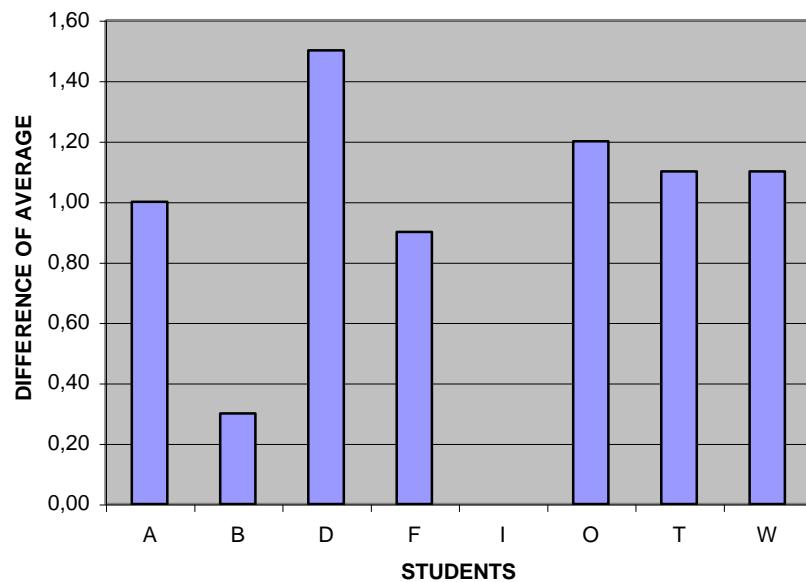
STUDENTS	AVERAGE I QUARTER	FINAL AVERAGE	Δ OF AVERAGE
A	6,30	7,30	1,00
B	4,70	5,00	0,30
C	7,00	8,00	1,00
D	4,70	6,20	1,50
E	6,20	7,20	1,00
F	6,30	7,20	0,90
G	6,60	7,50	0,90
H	5,80	7,10	1,30
I	6,60	6,60	0,00
L	5,00	6,30	1,30
M	6,60	7,60	1,00
N	4,90	6,30	1,40
O	6,20	7,40	1,20
P	5,40	6,40	1,00
Q	6,30	7,10	0,80
R	4,50	5,00	0,50

S	6,30	7,60	1,30
T	5,60	6,70	1,10
U	5,60	6,30	0,70
V	6,00	7,10	1,10
W	6,30	7,40	1,10
Z	5,20	6,30	1,10

### PARTICIPATING STUDENTS



### NON PARTICIPATING STUDENTS



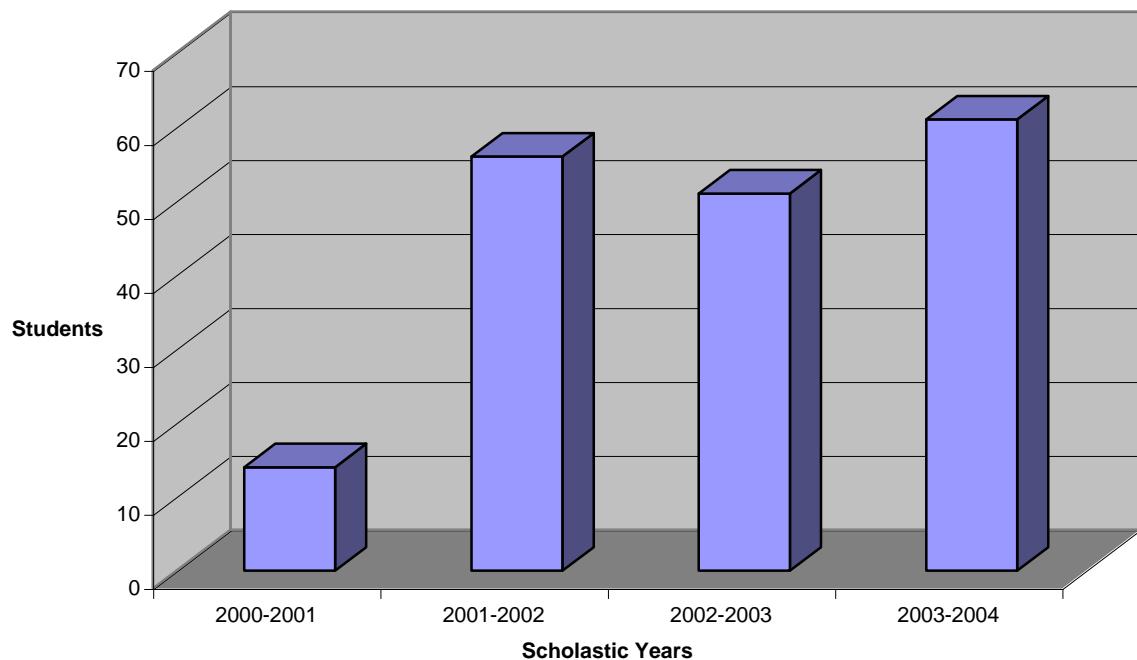
	Participants	Non Participants
Total $\Delta$	14,10	7,10
Average $\Delta$	1,00	0,88

So we can conclude that attending BaS courses, not only didn't interfere with the afternoon home study of the participants, but contributed to develop and strengthen their capacities, consequently improving their results in the compulsory subjects.

Prof. Teresa Palma

# BRIDGE AT SCHOOL (BAS) IN THE YEARS

## INCREASE IN PARTICIPATION IN THE YEARS



## BRIDGE AT SCHOOL IN THE YEARS

Scholastic year	Involved Classes	Participating Students	Non-participating Students	Average Δ of marks - part. Students	Average Δ of marks - Non-part. Students	Difference between the average Δ of marks
2000-2001	1	14	8	1,00	0,88	0,12
2001-2002	12	56	78	0,76	0,62	0,14
2002-2003	10	51	55	0,65	0,54	0,11
2003-2004	9	61	56	0,76	0,63	0,13