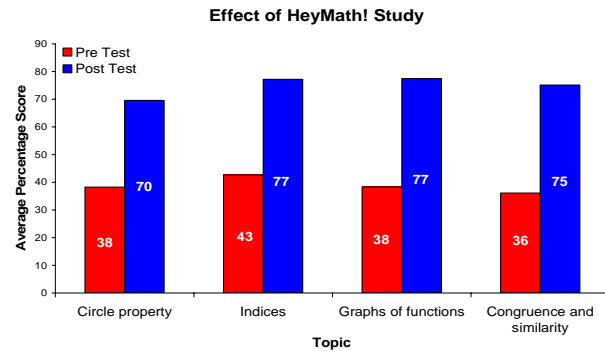


Bowen Secondary School was started in 1982 in the growing new town of Ang Mo Kio in Singapore, with a mission to provide holistic and value-added education for all students. The Grade 10 (Secondary 4) Math teachers at the school were however *very concerned that some of their students were at risk of failing their high school exit exams* and decided to use HeyMath! to supplement their intervention. This is their story.

The approach

1. Math teachers identified four main topics as areas of weakness: *Circle Properties, Graphs of Functions, Indices and Congruence and Similarity*
2. All students were given pre-tests on the above topics that were submitted online
3. The pass mark was set at 60%. Those who failed the tests were put through a sequenced program of study using HeyMath! lessons to revise specific topics, identified as each student's focus area for remediation
4. A post-test was given to students a week later to monitor their progress; this was also submitted online
5. The results are displayed in the adjoining graph

The results



Analysis of granular data for: *Graphs of Functions*

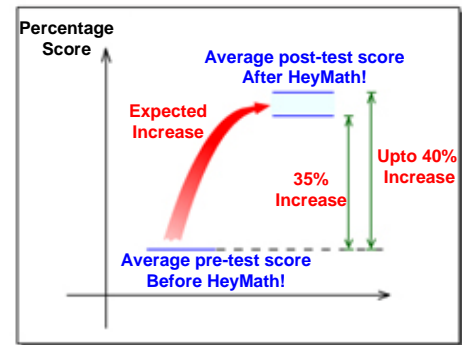
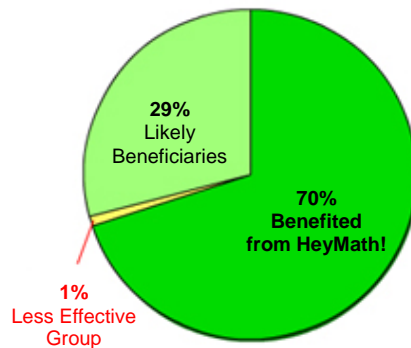
Executive summary

- ✓ **% of at-risk students fell from 66% to 13%**
- ✓ **Average scores increased for every class in the post-test**
- ✓ **In some cases, the improvement in average score exceeded 100%**
- ✓ **The HeyMath! Intervention Program raised the scores of students who took the post-test above the class average level**

	<u>4A1</u>	<u>4E1</u>	<u>4E2</u>	<u>4E3</u>	<u>4E4</u>	<u>4E5</u>
No. of students for pre-test	42	43	42	42	45	31
- Passed	10	23	17	13	10	1
- Failed	31	18	23	28	32	30
- Did not appear	1	2	2	1	3	0
- Average Score	46.4	55.4	54.7	51.2	45.3	36.9
- Variance of scores	419.0	374.7	471.7	393.4	265.1	284.4
No. of students for post-test	26	18	23	27	19	30
- Passed	20	17	22	20	18	27
- Failed	6	1	1	7	1	3
- Did not appear	5	0	0	1	13	0
- Average score in post-test	73.0	84.7	83.0	67.7	80	74.1
- Average score in pre-test	39.0	39.4	40.6	40	36.8	35.6
- Variance of the post-test scores	356.1	345.5	224.4	258.3	394.4	222.5
Real improvement	34%	45%	42%	27%	43%	38%

The data was further analyzed using statistical models and resulted in the following conclusions:

- ✓ **At least 70% of all students benefited from the HeyMath! Intervention Program**
- ✓ **Students saw an average improvement in their scores of 35% to 40% in all topics**
- ✓ **HeyMath! raises test scores for at-risk students**



Here's what the curriculum leader at the school had to say:

HeyMath! is willing to listen to us, make changes to their e-learning program, so as to customize it to teacher and student needs. If you have any ideas, call them - and they are more than willing to turn your dreams into reality...which is what they have done for us in this research study

HeyMath! meets curriculum criteria set by:

- ✓ Singapore-Cambridge General Certificate of Education (GCE - O)
- ✓ California Learning Resources Network (CLRN)
- ✓ Massachusetts Department of Education for Javits Gifted and Talented Education Grants
- ✓ British Educational Communications and Technology Agency (Becta), U.K. for Curriculum Online
- ✓ Central Board of Secondary Education (CBSE), India | Indian School Certificate Examinations (ICSE)