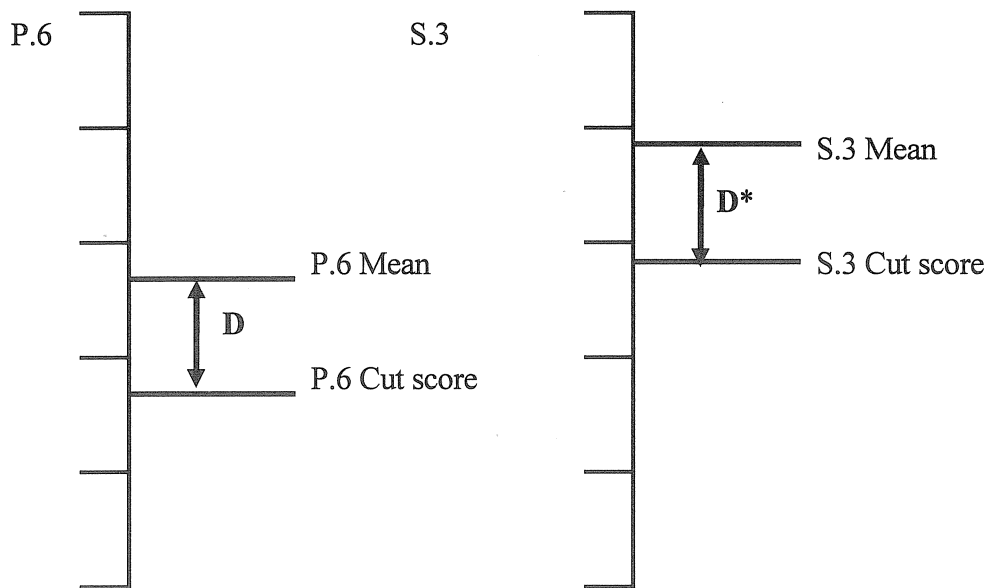


## 4. STANDARD SETTING

Since standards were already in place for P.3 and P.6, the 2006 standards setting process focused on setting standards for S.3. The process employed was the same as that used in setting the P.6 standards in 2005.

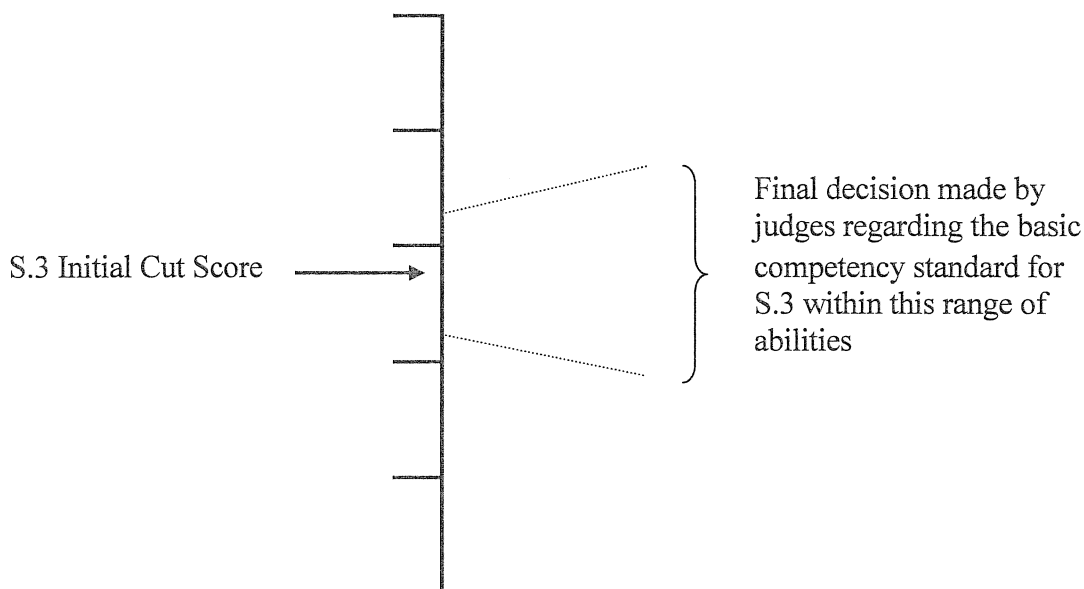
The logic behind the process was to set standards such that the difference ( $D$ ) in ability between the average student and the students at the cut score was approximately the same for both P.6 and S.3, but with adjustment for the increased spread in the abilities of students at S.3. This can be illustrated diagrammatically as follows:



Thus, in the first step, the scores of P.6 and S.3 students were equated and placed on an equal interval scale of abilities. The mean and standard deviation of scores for both the P.6 and S.3 students were calculated, as was the ability of the P.6 student at the cut score for determining basic competency. The difference in ability between the mean score and the cut score at P.6 ( $D$ ) was then stretched to reflect the spread of scores at S.3 ( $D^*$ ). The initial cut score for S.3 was then taken to be the mean score at S.3 minus  $D^*$ .

Having established an initial cut score using this method, assessment items were identified whose difficulties placed them on either side of this cut score. These items were presented to a panel of expert judges in rank order from the easiest to the hardest. In view of a wider ability range of students in the secondary sector, each panel of judges consisted of 20 experienced teachers together with two Curriculum Development Officers of the CDI and two Managers (former Subject Officers) of the HKEAA.

The judges were asked to consider from an educational (as opposed to a psychometric) standpoint, where the final cut should be made. This second step is represented diagrammatically as follows:



In a final step, any outliers were removed and the mean of the panel of judges excluding these outliers was taken as the final cut score.

In this way, the professional judgments of the expert panels were used to fine tune the location of the S.3 cut scores as determined using psychometric methods and preserving the relativities established through the process used in 2004 and 2005 to set the P.3 and P.6 standards.

The final result in Territory-wide percentages of students achieving Basic Competency is summarised in Table 4.1.

**Table 4.1 Territory-wide Percentages of Students Achieving Basic Competency**

Subject and Level		Percent Achieving Basic Competency		
		2004	2005	2006
Chinese Language (Listening, Reading and Writing)	P.3	82.7	84.7	85.2
	P.6	--	75.8	76.5
	S.3	--	--	75.6
English Language (Listening, Reading and Writing)	P.3	75.9	78.8	79.4
	P.6	--	70.5	71.3
	S.3	--	--	68.6
Mathematics	P.3	84.9	86.8	86.9
	P.6	--	83.0	83.8
	S.3	--	--	78.4

At both the P.3 and P.6 levels, there was a slight improvement in the percent achieving basic competency in 2006 relative to performance levels in 2004 and 2005. This improvement was observed in all three subjects, with the smallest improvement being in the subject with the highest proportions of students achieving basic competency (i.e. Mathematics) and the largest improvement in the subject with the lowest proportions of students meeting the standards (i.e. English). This follows the pattern observed at the P.3 level in 2005.

At the S.3 level, somewhat smaller proportions of students were found to have achieved basic competency than at the P.3 and P.6 levels. Once again this is a predictable result and reflects the universally observed tendency for a growing achievement gap between high and low performing students over successive years of schooling. A greater proportion of students at the S.3 level failed to achieve basic competency in Chinese Language and English Language than in Mathematics. This indicates that a higher proportion of students are progressing with mathematics competencies when proceeding to the next key stage than they do with language competencies.