

# MELS Uniform Exams & Moderation

## June 2012 Uniform Exams

- Sec 4 Science and Technology & Sec 4 Applied Science and Technology (only Theory)

Science & Tech Components	Term 1	Term 2	Term 3		School Result %	Uniform Exam %	Final Result %
			School Result 20% (real Term 3)	Final Exam 40%			
<u>Practical</u> (40%)	8%	8%	8%	16%	40%	<b>No</b>	40%
			24%*				
<u>Theory</u> (60%)	6%	6%	18%		30%	30%	60%
Total %	14%	14%	42%		70%	30%	100%

\*Final Practical Exam is included in Term 3: 20% School Result and 40% Final Exam

History Competencies	Term 1	Term 2	Term 3	School Result %	Uniform Exam %	Final Result %
<ul style="list-style-type: none"> <li>• Examines social phenomena from a historical perspective</li> <li>• Interprets social phenomena using the historical method</li> <li>• Constructs his/her consciousness of citizenship through the study of history</li> </ul> (100%)	10%	10%	30%	50%	50%	100%
Total %	10%	10%	30%	50%	50%	100%

<u>situational problem</u> (30%)	0%	0%	6%	12%	30%	<b>NO</b>	30%
			18%*				
<u>C2 Uses mathematical reasoning</u> (70%)	7%	7%	21%		35%	35%	70%
Total %	13%	13%	39%		65%	35%	100%

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\*Final C1 Exam is included in Term 3: 20% School Result and 40% Final Exam

- Sec 5 French

<b>French Competencies</b>	<b>Term 1</b>	<b>Term 2</b>	<b>Term 3</b>	<b>School Result %</b>	<b>Uniform Exam %</b>	<b>Final Result %</b>
C1 <i>Interagir</i> (40%)	4%	4%	12%	20%	20%	40%
C2 <i>Lire des textes</i> (30%)	3%	3%	9%	15%	15%	30%
C3 <i>Produire des textes</i> (30%)	3%	3%	9%	15%	15%	30%
<b>Total %</b>	<b>10%</b>	<b>10%</b>	<b>30%</b>	<b>50%</b>	<b>50%</b>	<b>100%</b>

- Sec 5 English Language Arts (Reading and Production)

<b>ELA Competencies</b>	<b>Term 1</b>	<b>Term 2</b>	<b>Term 3</b>		<b>School Result %</b>	<b>Uniform Exam %</b>	<b>Final Result %</b>
C1 <i>Uses language/talk to communicate and to learn</i> (33%)	6.6%	6.6%	<b>School Result</b> 20% (real Term 3)	<b>Final Exam</b> 40%	33%	<b>No</b>	33%
			6.6%	13.2%			
C2 <i>Reads and listens to written, spoken and media texts</i> (33%)	3.3%	3.3%	9.9%		16.5%	16.5%	33%
C3 <i>Produces texts for personal and social purposes</i> (34%)	3.4%	3.4%	10.2%		17%	17%	34%
<b>Total %</b>	<b>13.3%</b>	<b>13.3%</b>	<b>39.9%</b>		<b>66.5%</b>	<b>33.5%</b>	<b>100%</b>

From MELS document (Chapter 7)

*CERTIFICATION OF STUDIES Administrative Guide for the Certification of Studies and Management of Ministerial Examinations: General Education, Youth Sector - General Education Adult Sector Vocational Training - 2011 Edition*

For subjects involving a uniform examination, the student's final mark is generally based on the report card mark and the results on the uniform examination. For these subjects, the Ministère de l'Éducation, du Loisir et du Sport processes the marks statistically. It may **moderate** the results provided by the schools, and **convert** the results on the uniform examinations. The sole objective of both procedures is to **make evaluation more equitable for all students.**

Since 2004, **a student's final mark cannot be lower than the mark obtained on the uniform examination**, given the principles outlined in the *Policy on the Evaluation of Learning*. This is to avoid any prejudice toward students having demonstrated sufficient mastery of their learning on a uniform examination.

Also, in accordance with the rules adopted for previous sessions, **a final mark of 58 or 59 per cent** in a subject (History, French) with no components that is evaluated with a uniform examination **is raised to 60 per cent.**

In the case of a subject (Math, Science, ELA) with components that is evaluated by at least one uniform examination, **only the comprehensive final mark of 58 or 59 per cent is raised to 60 per cent.**

#### -CONVERSION OF RESULTS-

In order to avoid penalizing students under exceptional circumstances for which they are not responsible, the Ministère converts the results to reduce the failure rate. Statistically speaking, **conversion consists in establishing a pass mark that brings the failure rate to the generally observed level. (70% passing rate)**

If the unconverted raw scores for one examination session indicate a failure rate that is much higher than the average rate from previous years, a raw mark reflecting what would be considered a more "normal" failure rate is

calculated. For example, if 30 per cent of students obtained a mark lower than 57 per cent, this mark would be converted to a pass mark of 60 per cent. In other words, all students who obtained 57 per cent before conversion would have a mark of 60 per cent after conversion. All other marks would be converted upward, taking into account their original distribution. Conversion has a smaller effect on the marks of students who obtained either very high or very low marks; it has no effect on the marks of students who obtained 0 or 100 per cent.

#### -MODERATION OF SCHOOL MARKS-

For subjects involving a uniform examination, the student's final mark may take into account **both the result on the uniform examination and the marks obtained at the school itself**. The school results may vary considerably from one school to another and from one class to another. These differences may be explained by several variables. Local examinations may entail different levels of difficulty, depending on the school or classes. Other factors may come into play, such as the fact that some groups of students are heterogeneous, while others are homogeneous, containing only strong, average or weak students. In addition, some schools or school boards normalize their marks.

Owing to these factors, **two groups of students in different classes, schools or regions may have identical results on the local examinations, and it may still be impossible to determine objectively whether or not the two groups are of equal strength**. On the other hand, since the uniform examination is administered to all students enrolled in a given course, it is possible to obtain a fair indication of the relative performance of different groups of students. The Ministère can therefore use the results obtained on the uniform examinations to "moderate" the school marks, minimizing or eliminating the effect of the aforementioned local variables.

With moderation, the school marks obtained by each group of students (usually about 30 students) are compared to the marks they obtained on the uniform examination. Using a statistical calculation ([see below](#)), **the school marks of each group are adjusted to correspond to the marks obtained by this group on the uniform examination**. The calculation takes into account the two following factors: the mean and the standard deviation (the distribution of marks around the mean).

$$(\text{average of converted exam}) + \left( \frac{\text{standard deviation of converted exam}}{\text{standard deviation of class summary marks}} \right) \times (\text{student summary mark} - \text{class summary average})$$

For example, if, for one group, the average mark obtained on the uniform examination is higher than the average for school marks, the latter are raised so that the two averages become consistent. Similarly, **if, for one**

**group, the school marks are more widely distributed around the mean than the marks on the uniform examination, moderation will more greatly compress the marks around the average, so that the two standard deviations are identical.** The *converted* marks on the uniform examination are used to moderate the school marks, if, in fact, the conversion procedure was performed. **Moderation may thus adjust the school marks upward or downward.** However, this practice can never cause the failure of a student who would otherwise have obtained a pass mark at school (before moderation) and on the uniform examination.

However, if the converted uniform examination mark is higher than the final mark after moderation, only the uniform examination mark is used to calculate the comprehensive mark. If the final result is 58 or 59 per cent, it is adjusted upward to 60 per cent. The final mark equals the moderated school mark (50 per cent) and the converted mark on the uniform examination (50 per cent), if it was necessary to use conversion.

Three Examples (Evaluation is FAIR, Evaluation is EASY, Evaluation is HARD)  
 (From Rafi Khan's spreadsheets, Philemon Wright teacher)

- 1) Teacher Evaluation is FAIR = School Summary  $\approx$  Exam Mark  
 (Week Moderation)

	School Summary Mark	Exam Mark	Final Mark (if no moderation) 50%-50%	Moderated School Mark	Final Mark (with Moderation)	% Difference due to moderation
Alice Cooper	79	78	79	77	78	-0,8
Bruce Dickinson	74	72	73	73	73	-0,5
Carl Palmer	51	54	53	53	54	1,1
Frank Zappa	80	78	79	78	78	-0,9
Geddy Lee	65	65	65	65	65	0,1
Geezer Butler	54	54	54	56	55	0,9
Gene Simmons	42	46	44	45	46	1,7

	School Summary Mark	Exam Mark	Final Mark (if no moderation) 50%-50%	Moderated School Mark	Final Mark (with Moderation)	% Difference due to moderation
Alice Cooper	62	41	52	45	43	-8,4
Bruce Dickinson	72	52	62	51	52	-10,3
Carl Palmer	65	47	56	47	47	-9,0
Frank Zappa	73	54	64	52	54	-9,5
Geddy Lee	84	62	73	59	62	-11,0
Geezer Butler	63	46	55	46	46	-8,6
Gene Simmons	75	49	62	53	51	-10,9
Ian Gillan	95	67	81	65	67	-14,0
James Hetfield	76	55	66	54	55	-10,5
Ozzy Osbourne	56	42	49	42	42	-7,2
Perry Farrell	35	35	35	29	35	0,0
Peter Gabriel	94	64	79	65	64	-14,6
Phil Collins	71	52	62	51	52	-9,5
Robert Fripp	87	60	74	60	60	-13,3
Ronnie James Dio	68	42	55	49	45	-9,5
Average	71,7	51,2	61,5	51,2	51,7	-9,7
St. Dev	15,3	9,3				
Pass Rate	87	27	60	20	27	

2) Exam

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3) Teacher Evaluation is HARD = School Summary **Less than** Exam Mark (Positive Moderation)

	School Summary Mark	Exam Mark	Final Mark (if no moderation) 50%-50%	Moderated School Mark	Final Mark (with Moderation)	% Difference due to moderation
Alice Cooper	67	73	70	72	72	2,4
Bruce Dickinson	74	79	77	79	79	2,3
Carl Palmer	54	60	57	59	60	2,7
Frank Zappa	79	84	82	83	84	2,1
Geddy Lee	56	61	59	61	61	2,7
Geezer Butler	54	59	57	59	59	2,7
Gene Simmons	37	41	39	43	42	3,1
Ian Gillan	83	79	81	87	83	2,1
James Hetfield	85	90	88	89	90	2,0
Ozzy Osbourne	91	95	93	95	95	1,9
Perry Farrell	55	62	59	60	62	3,5
Peter Gabriel	64	70	67	69	70	3,0
Phil Collins	55	62	59	60	62	3,5
Robert Fripp	63	69	66	68	69	2,5
Ronnie James Dio	81	87	84	85	87	3,0
Average	66,5	71,4	69,0	71,4	71,6	2,6
St. Dev	15,2	14,5				
Pass Rate	60	87	60	80	93	

### Conclusion

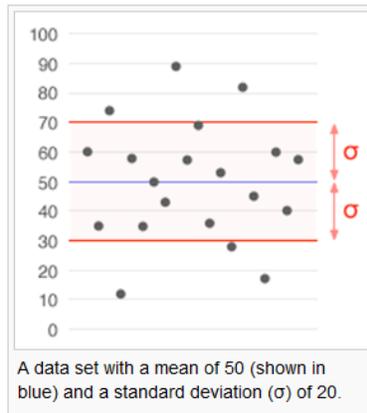
If your students' Summary school marks are too high compared to their Uniform Exam results, then Moderation will bring the students' final results down...

**Be fair with your evaluations.**

## Appendix

### Standard Deviation (Wikipedia)

Standard deviation is a widely used measure of variability or diversity used in statistics and probability theory. It shows how much variation or "dispersion" there is from the average (mean, or expected value). A low standard deviation indicates that the data points tend to be very close to the mean, whereas high standard deviation indicates that the data points are spread out over a large range of values.



Example:

The average height for States is about 70", with a standard deviation of at most men (about 68%, within 3" of the mean) assuming a normal distribution (67"-73") — one standard deviation. Most all men (about 95%) have a height within 6" of the mean (64"-76") — two standard deviations. If the standard deviation were zero, then all men would be exactly 70" tall. If the standard deviation were 20", then men would have much more variable heights, with a typical range of about 50"-90". Three standard deviations account for 99.7% of the sample population being studied, assuming the distribution is normal (bell-shaped).

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