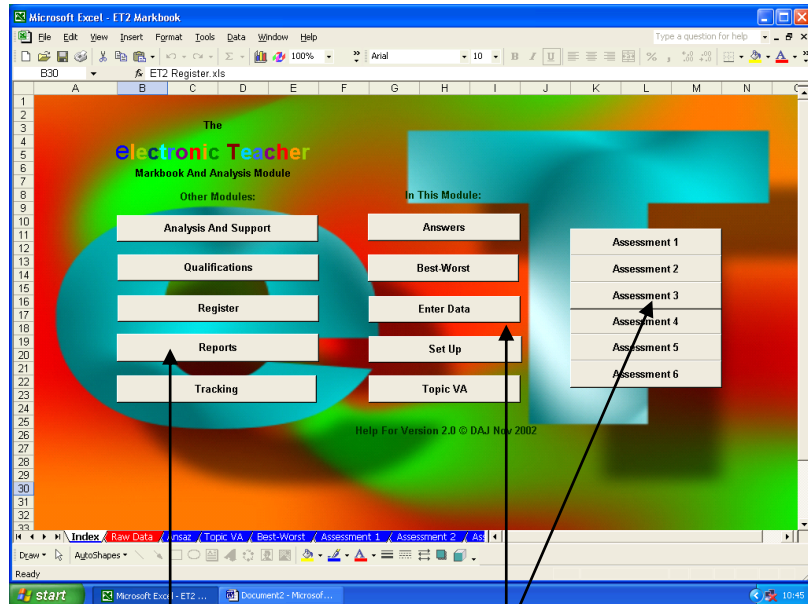


Markbook Module

Getting Started

Each module of ET opens with an 'Index' navigation sheet. The navigation buttons on the left of the sheet will take you to other modules. Those on the right will take you to sheets within the current module.

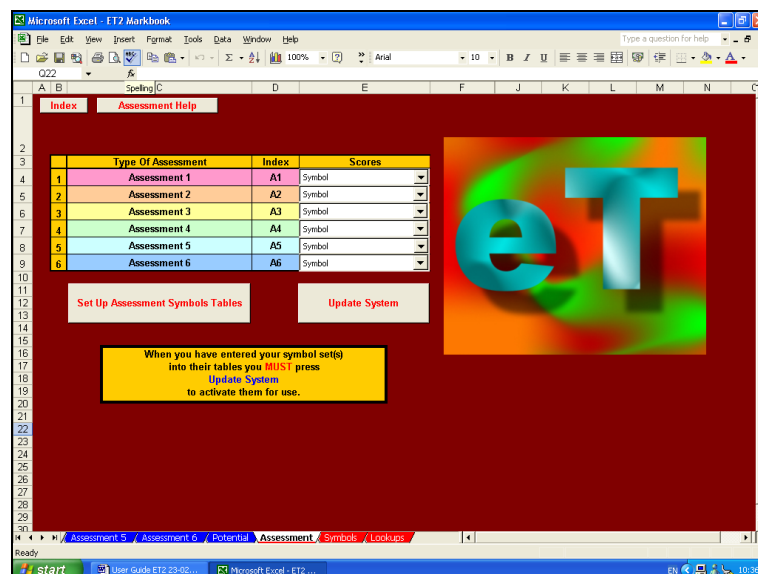


Go To Other Modules Go To Sheets Within The Current Module

Set Up

The Markbook Module is the heart of ET. This is where you define the types of assessment you wish to carry out and enter student details...these will then be automatically transferred to all the other modules...so open up the file 'ET2 Markbook.xls' and click on the 'Set Up' button.

The 'Set Up' sheet currently looks like this...



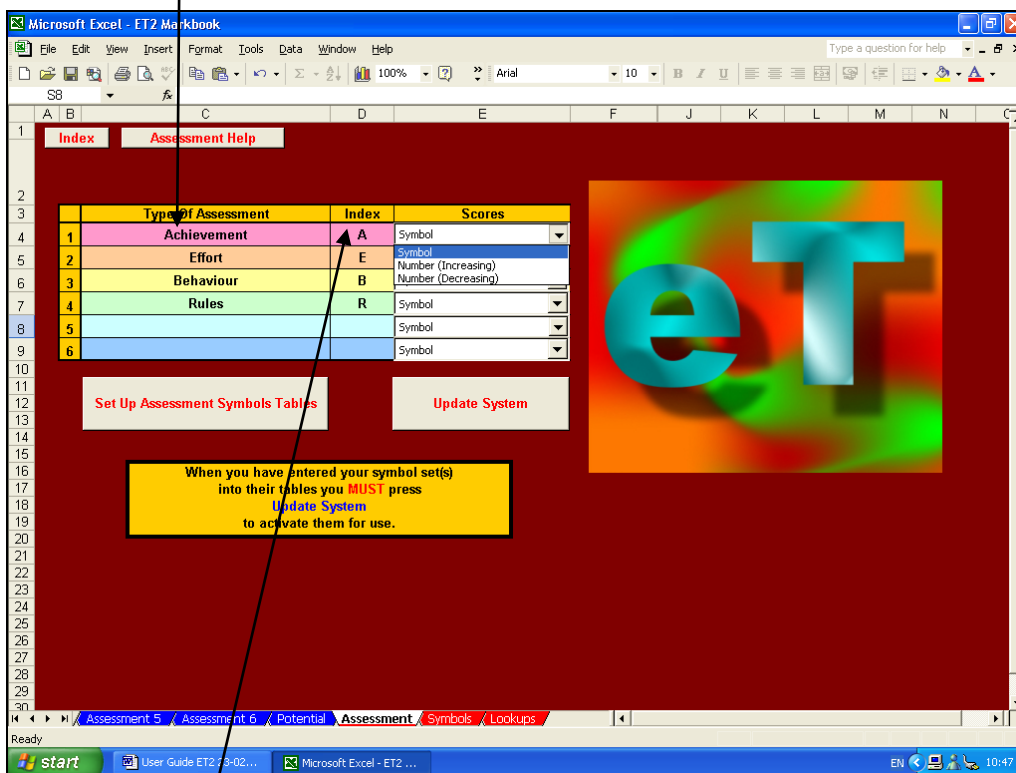
You can choose up to six different types of assessment - which types you use are entirely up to you but, generally, they will be from one of three main forms: Generic, Specific or Diverse.

Generic ¹

Setting up your markbook for generic assessment might mean that you are interested in awarding scores for performance in terms of achievement and effort, as well as assessing behaviour, adherence to rules², etc.

To set up the markbook for this type of assessment, simply click in the cell containing 'Assessment 1' and replace this with the name of the first type assessment you wish to carry out. Repeat this for 'Assessment 2', etc. and remove the entries for any surplus assessments.

Here 'Achievement', 'Effort', 'Behaviour' and 'Rules' have been inserted and the last two surplus cells have been emptied.



Next, assign an index for each type of assessment. Typically, this should be a single letter, a pair of letters (for instance, if two assessment types begin with the same letter), or some other small code that will be used throughout the markbook, not least to indicate which scores should be aggregated together. Here, the letter 'A' will be used to indicate which scores are 'achievement' scores. Similarly, 'E' for 'effort' scores, 'B' for 'behaviour' scores and 'R' for 'rules' scores. Surplus indices have been removed.

Now choose what type of score you wish to use for each type of assessment. You have a choice of three main types of scoring system: Number (Increasing), Number (Decreasing) and Symbol.

Type Of Assessment	Index	Scores
1 Achievement	A	Symbol
2 Effort	E	Symbol
3 Behaviour	B	Number (Increasing)
4 Rules	R	Number (Decreasing)
5		Symbol
6		Symbol

¹ A set up generic markbook is included in the examples folder on the CD.

² Rules = wearing correct uniform, bringing right equipment, etc.

When you have entered all the required symbol sets return to the assessment set up sheet by clicking on the 'Assessment' button in the top left-hand corner.

Finally, you need to click on the 'Update System' button to allow ET to update the symbols and other set up details you have entered. Failure to do this may lead to erroneous scoring...so it is imperative not to forget this stage of the set up.

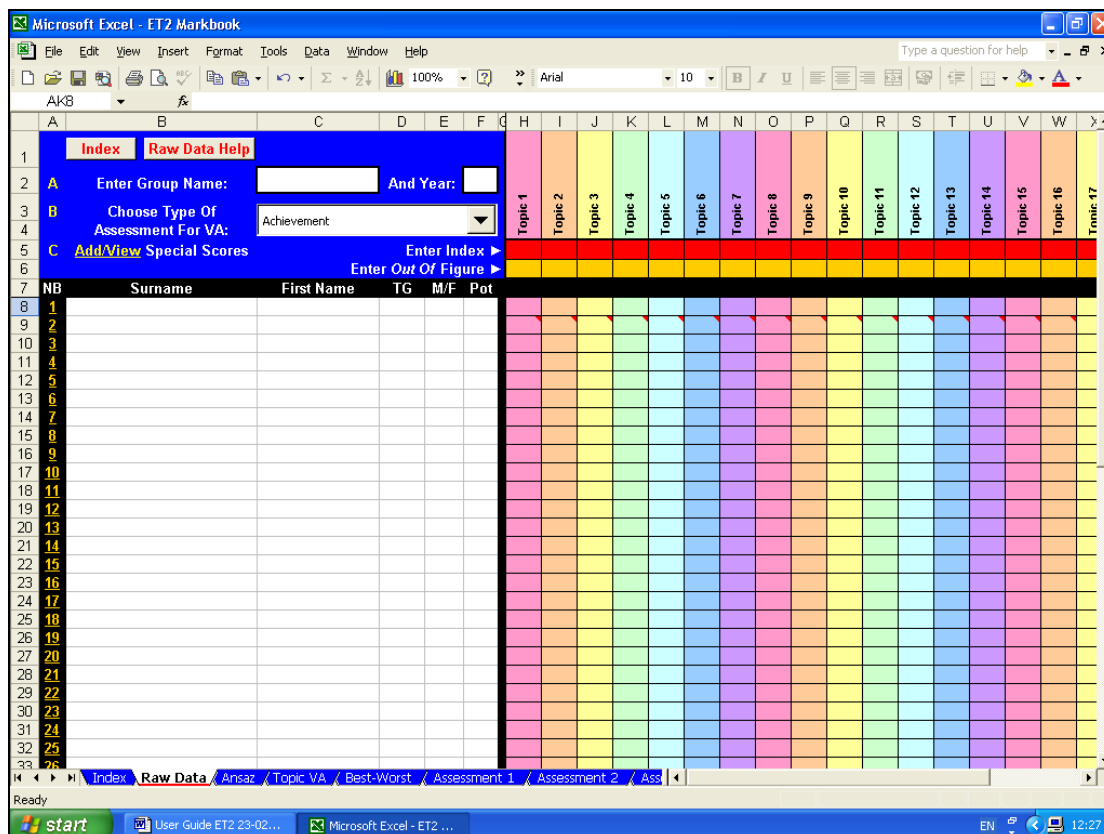


To return to the navigation sheet, click on the 'Index' button in the top left-hand corner.

Group Details

Having set up the type of assessment you wish to carry out, it is now time to enter the details of those students you wish to assess. To do this, click on the 'Enter Data' button.

The empty 'Raw Data' sheet should currently look like this...



First, enter the name of the teaching group and their year in the relevant white cells.

Then add the details of the group members. For ET to work properly, you will have insert each group member's surname, first name, tutor or teaching group ('TG'), gender ('M/F') and some numerical indicator of each student's potential ('Pot').

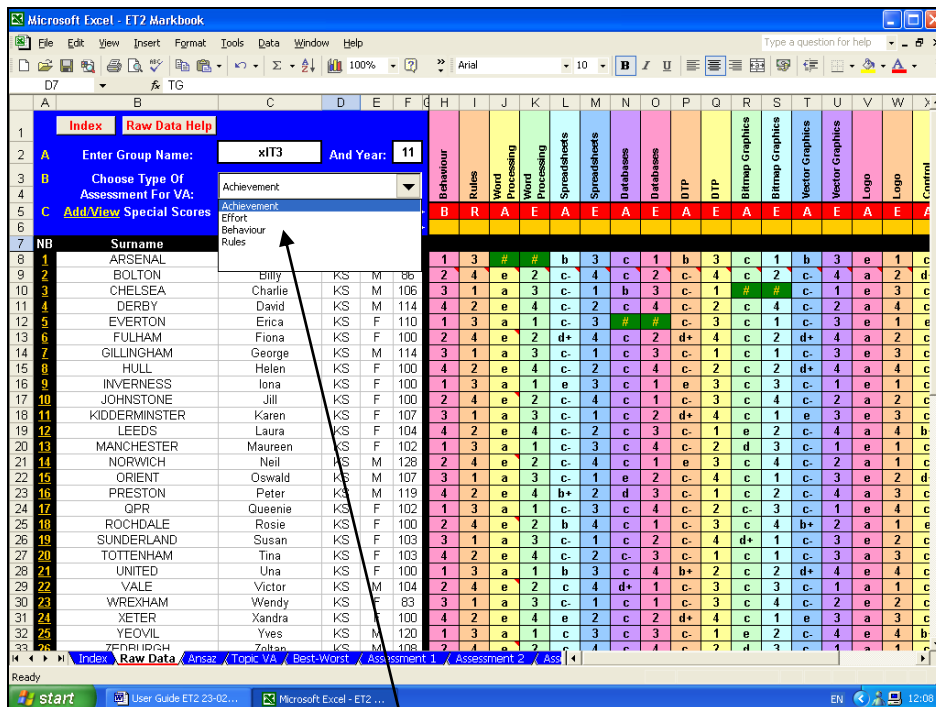
This 'Pot' indicator is needed to allow ET to perform its 'value-added' analysis.⁶

For most students in primary and secondary phases, this is most likely to be the student's most recent Cognitive Ability Test (CAT) score.

For 6th form students, you may wish to use an index such as an Advanced Level Information System (ALIS) score.

In fact, any objective numerical indicator of a student's potential will work here...from an IQ score to any numerical equivalent of an anticipated GCSE, A-level, degree or other pass rate.

However, it is imperative that all members of the group have 'Pot' indicators, so where objective CAT scores, etc. may be missing, a considered estimate should be put in its place.



To select which assessment type will be used to calculate 'value-added' scores, simply click on the drop-down menu and choose the type required from the list. Here, 'achievement has been selected.

⁶ ET calculates 'value-added' scores very simply by comparing individual performance with group average performance, individual 'Pot' score with group average 'Pot' score and then comparing the two results:

$$(\text{individual performance} \div \text{group average performance}) \div (\text{individual 'Pot' score} \div \text{group average 'Pot' score})$$

The theory being that a student with, say, a high CAT score should be expected to perform better relative to one with an average CAT score. If their performance relative to the group average performance matches their potential relative to the group's average potential, the above formula should give a score of 1 (100%).

If their performance exceeds their potential, the formula will give a score of over 100%, if their performance falls short of their potential, it will give a score of under 100%.

Student details can be typed in from scratch, however, it is anticipated that, in most cases, the relevant details can be extracted from a school or college information system ⁷ and then be copied and pasted into ET as appropriate.

ET's markbook is now ready for day-to-day use.

Each time a new assessment is carried out the following details should be added to ET's 'Raw Data' sheet:

1. The name of the current topic or assessment type should be inserted in the top cell of each column;
2. The assessment index should be inserted in the appropriate red cell to tell ET what type of assessment this is;
3. If the assessment scores are numerical, the relevant 'out of score' should be inserted in the appropriate yellow cell
4. Finally, individual student scores should be inserted in the relevant rows.

Here, 'Behaviour', 'Rules', 'Word Processing' achievement, 'Word Processing' effort, 'Spreadsheet' achievement, etc. have been added, together with their appropriate indices... 'B', 'R', 'A' and 'E'... on the red row.

As none of the assessment scores in this example are numerical⁸, no 'out of scores' have been inserted in the yellow row.

Index		Raw Data Help															
A	Enter Group Name:	<input type="text" value="xIT3"/>	And Year:	<input type="text" value="11"/>													
B	Choose Type Of Assessment For VA:	<input type="text" value="Achievement"/>															
C	Add/View Special Scores																
					Enter Index												
					Enter Out Of Figure												
NB	Surname	First Name	TG	M/F	Pot	B	R	A	E	A	E	A	E	A	E		
1	ARSENAL	Alexis	KS	F	80	1	3	#	#	b	3	c	1	b	3	c	1
2	BOLTON	Billy	KS	M	86	2	4	e	2	c-	4	c	2	4	c	2	
3	CHELSEA	Charlie	KS	M	106	3	1	1	3	c-	1	b	3	c-	2	#	#
4	DERBY	David	KS	M	114	4	2	e	4	c-	2	c	4	c-	2	c	4
5	EVERTON	Erica	KS	F	110	1	3	a	1	c-	3	#	#	c	3	c	1
6	FULHAM	Fiona	KS	F	100	2	4	e	2	d+	4	c	2	d+	4	c	2
7	GILINGHAM	George	KS	M	114	3	1	a	3	c	1	c	3	c	1	c	1

Relevant topic scores can now be added for each individual student. A '#' symbol should be inserted if work is 'not submitted' for whatever reason.⁹

Specific¹⁰

Setting up your markbook for specific assessment might mean that you are interested in awarding scores for performance in terms of well-defined strands or topics. For instance, a secondary technology course may wish to assess student performance in terms of their ability at analysis, design, implementation, testing, evaluation and user documentation.

To set up the markbook for this type of assessment, as before, simply open the 'Set Up' sheet and click in the cell containing 'Assessment 1' and replace this with the name of the first type assessment you wish to carry out. Repeat this for 'Assessment 2', etc.

Appropriate indices should also be inserted and appropriate scoring systems should be selected.

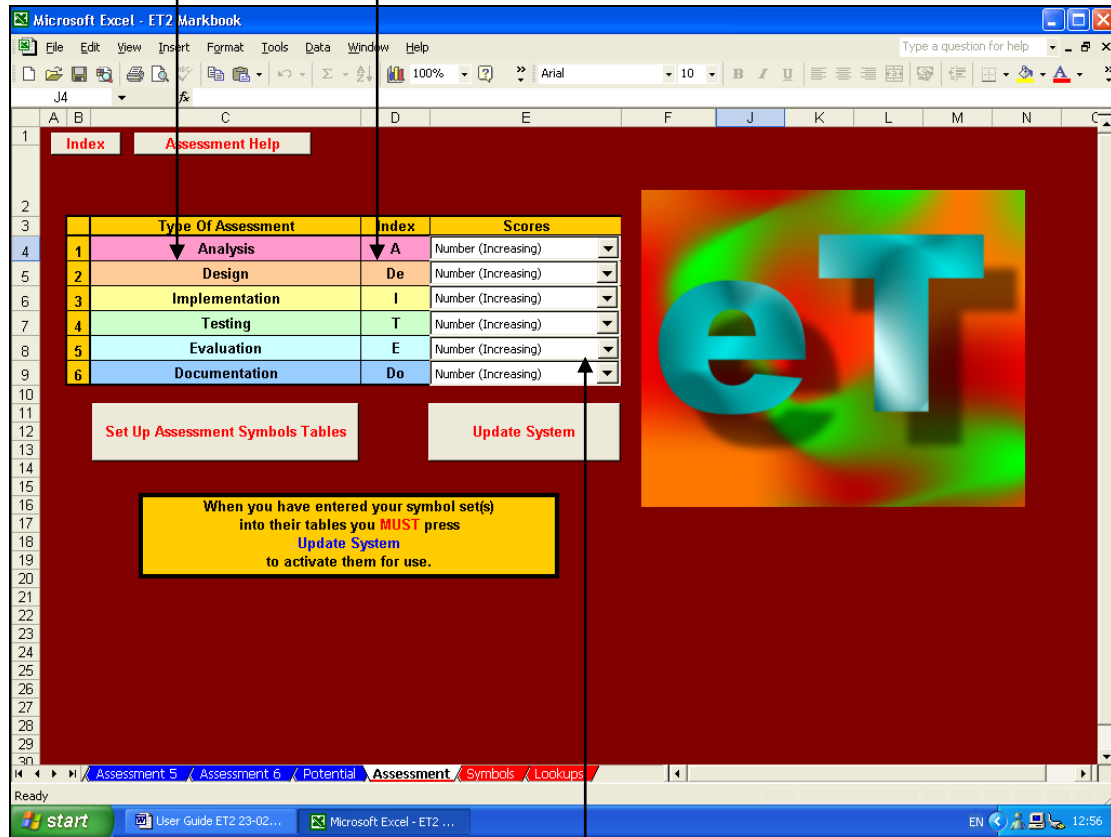
⁷ Such as Capita's Schools Information Management System (SIMS)

⁸ As this example uses 'static numbers', the numbers in it are treated merely as symbols and, therefore, do not require an 'out of score'.

⁹ Be that, a student has not completed the work, a student was not present when the work was set, or whatever.

¹⁰ A set up specific markbook is included in the examples folder on the CD.

Here assessment titles of 'Analysis', 'Design', 'Implementation', 'Testing', 'Evaluation' and 'Documentation' have been inserted as have appropriate indices of 'A', 'De', 'I', 'T', 'E' and 'Do'.



Increasing numbers have been chosen throughout as the scoring system and, as such, no symbol sets need to be defined.

Group and individual student details can now be added as above and a type of assessment can be designated for calculating value-added analysis. Here, implementation has been chosen for this task.

Again, topic titles and assessment titles should be inserted in the top cell of each column, assessment indices inserted in the red row, and 'out of scores' should be inserted, where appropriate in the yellow row. Here, 'Table Lamp', table lamp 'Analysis', table lamp 'Design', etc. have been added, together with their appropriate indices... 'A', 'De', 'I' and 'E', etc....on the red row.

As the assessment scores in this example are numerical, relevant 'out of scores' have also been inserted in the yellow row.

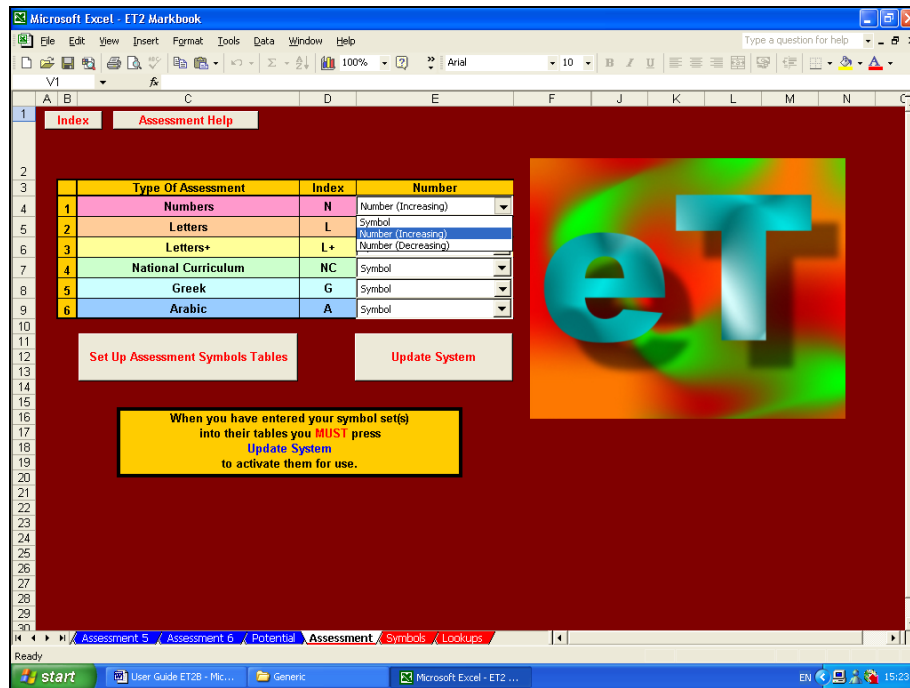
Index		Raw Data Help															
A		Table Lamp															
B		Analysis	Design	Implementation	Testing	Evaluation	Documentation	Book Rack	Analysis	Design	Implementation	Testing	valuation	documentation	Inlet Box	analysis	
C		A	De	I	T	E	Do	A	De	Remember: If The Score Is A Number Add An Out Of Figure On The Yellow Line							
		10	15	25	10	10	10	10	15								
NB	Surname	First Name	TG	M/F	Pot												
1	ARSENAL	Alexis	KS	F	80	9	#	5	7	4	7	6	6	11	6	6	6
2	BOLTON	Billy	KS	M	86	8	5	4	4	3	4	6	6	6	6	6	6
3	CHELSEA	Charlie	KS	M	106	8	6	6	6	7	7	9	11	14	5	7	6
4	DERBY	David	KS	M	114	6	4	4	3	4	6	8	13	11	7	6	6

Relevant topic scores can now be added for each individual student and, as before, a '#' symbol should be inserted if work is 'not submitted'.

Diverse¹¹

ET can cope with a wide variety of assessment types and/or scoring systems and these can live happily together within any particular markbook.

Following the techniques detailed above, here is a markbook set up to accept numbers, letter grades, letter grades with + and – signs, national curriculum grades...even Greek, Arabic and exclamations!

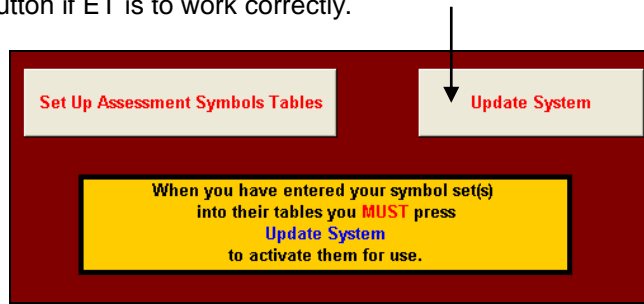


This is how the assessment symbols tables have been set up...again, highest grade at the top of the column, then the next highest grade, then the next, then the next...

Symbol	Assessment 3	Symbol	Assessment 4	Symbol	Assessment 5	Symbol	Assessment 6	Symbol
L	Letters+	L+	National Curriculum	NC	Greek	G	Arabic	A
a*	Top Grade	a+	Top Grade	10	Top Grade	α	Top Grade	ز
a	Next Grade	a	Next Grade	9c	Next Grade	β	Next Grade	من
b	"	a-	"	9b	"	γ	"	ن
c	"	b+	"	9a	"	δ	"	هن
d	"	b	"	8c	"	ε	"	هن
e	"	b-	"	8b	"	ζ	"	ط
f	"	c+	"	8a	"	η	"	ط
g	"	c	"	7c	"	θ	"	ع
u	"	c-	"	7b	"	ι	"	ع
	"	d+	"	7a	"	κ	"	wow
	"	d	"	6c	"	λ	"	ooh
	"	d-	"	6b	"	μ	"	mmm
	"	e+	"	6a	"	ν	"	err
	"	e	"	5c	"	ξ	"	zzz
	"	e-	"	5b	"	ο	"	
	"	f+	"	5a	"	π	"	
	"	f	"	4c	"	ρ	"	
	"	f-	"	4b	"	ς	"	
	"	g+	"	4a	"	σ	"	
	"	g	"	3c	"	τ	"	
	"	g-	"	3b	"	υ	"	
	"	u	"	3a	"	φ	"	
	"		"	2c	"	χ	"	
	"		"	2b	"	ψ	"	
	"		"	2a	"	ω	"	
	"		"	1c	"		"	
	"		"	1b	"		"	
	"		"	1a	"		"	

¹¹ A set up diverse markbook is included in the examples folder on the CD.

Remember that after the assessment symbol tables have been set up, you must press the 'Update System' button if ET is to work correctly.



After this, simply add group, student and topic details as above, together with assessment indices, 'out of scores' (where appropriate) and individual scores.

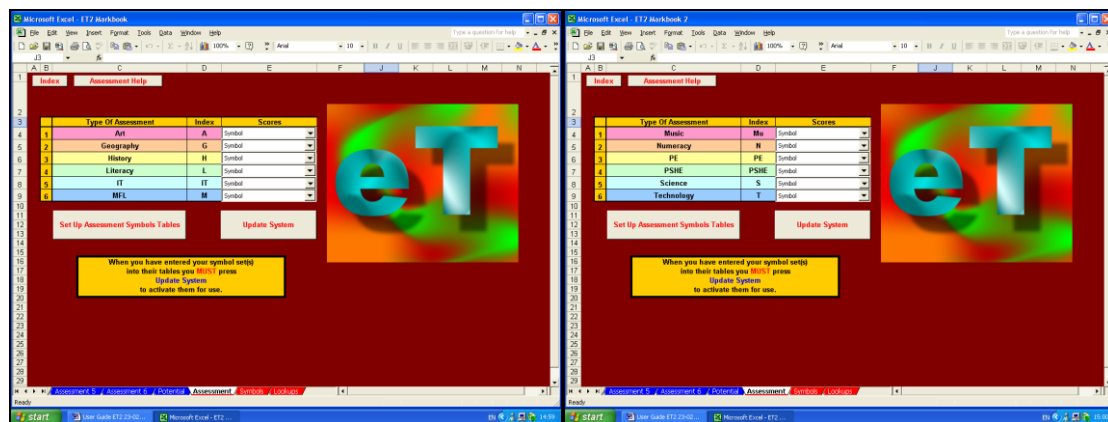
Index		Raw Data Help																			
A Enter Group Name:		11xIT3		And Year:		11															
B Choose Type Of Assessment For VA:		Numbers																			
C Add/View Special Scores		Enter Index		Enter Out Of Figure																	
NB	Surname	First Name	TG	M/F	Pot	Homer	The Odyssey	Egypt	Palestine	Shelley	Keats	Oxbow Lakes	Sedimentary Rocks	Long Division	Citizenship	Moral Issues	WW I	WW II	Fractions		
1	ARSENAL	Alexis	KS	F	80	y	α	ع	ز	b	#	#	#	14	#	5a	#	#	#		44
2	BOLTON	Billy	KS	M	86	y	π	ع	ا	b	a	c	16	4a	5c	c	b				41
3	CHELSEA	Charlie	KS	M	106	α	y	ع	ظ	b	a	c	16	4a	4c	c	c				41
4	DERBY	David	KS	M	114	β	π	ع	من	a	b	a	c	16	4b	4b	c	#			45
5	EVERTON	Erica	KS	F	110	y	α	ع	a	b	a	c	16	5b	5a	c	#				45
6	FULHAM	Fiona	KS	F	100	π	β	ظ	ع	b	c	a	c	15	4b	4b	d+	c			40
7	GILLINGHAM	George	KS	M	114	β	π	ع	من	a	b	a	c	16	4b	4b	c	#			45
8	HULL	Helen	KS	F	100	β	π	ع	من	#	b	a	c	15.4	4b	4b	c				41
9	INVERNESS	Iona	KS	F	100	y	β	ز	ع	d	d	c	d	6	3b	3b	e	d			30
10	JOHNSTONE	Jill	KS	F	100	π	β	ع	من	b	b	a	c	15.4	3c	3c	c	c			40
11	KIDDERMINSTER	Karen	KS	F	107	α	y	ع	من	b	b	a	c	16	4a	4c	c	c			41
12	LEEDS	Laura	KS	F	104	β	π	ز	ع	b	b	a	c	16	4a	4a	c	c			41
13	MANCHESTER	Maureen	KS	F	102	y	α	wow	mmm	b	b	a	c	15.7	4a	4b	c	c			41
14	NORWICH	Neil	KS	M	128	π	β	wow	zzz	b	b	a	c	15	3a	4a	c	c			42
15	ORIENT	Oswald	KS	M	107	α	y	mmm	zzz	a	b	a	c	16.5	4b	4a	c	b			42

Primary¹²

ET caters for one particularly diverse assessment situation – UK primary phase.

The national curriculum at primary level effective consists of four core subjects (Literacy, Numeracy, Science and IT) and eight foundation subjects (Art, Geography, History, MFL, Music, PE, PSHE and Technology).

ET's primary modules split this workload into two easily manageable sections.



¹² Both blank and set up primary markbooks are included on the CD.

These have already been set up to identify national curriculum subjects as assessment types (Art, Geography, History, etc.); have been given appropriate assessment indices ('A', 'G', 'H', etc.); and appropriate symbol tables to accept national curriculum grades (1a, 1b, 1c, 2a, etc.) If you wish to use ET's primary modules, all that remains is for you enter group and individual student details and choose the type of assessment to be designated for calculating value-added analysis. Here, this is Mrs Smith's Year 5 group and literacy has been chosen as the assessment to be used for value-added calculations.¹³

Again, topic titles should be inserted in the top cell of each column, assessment indices inserted in the red row. Here, 'Portrait', 'Seaside Study', etc. have been added, together with their appropriate indices... 'A', 'G', etc.

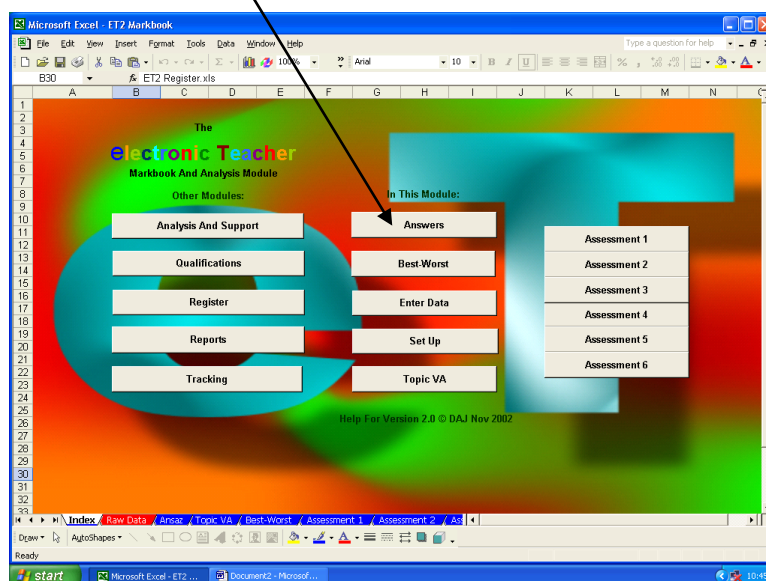
Index		Raw Data Help		Mrs Smith		And Year: 5		Portrait	Seaside Study	Kings & Queens	Logo	Spelling Bee	Ma Famille	Ma Maison	DTP	Traffic Survey	The Romans		
A	B	Enter Group Name:		Mrs Smith		And Year: 5		A	G	H	IT	L	M	M	IT	G	H		
C	Add/View Special Scores		Choose Type Of Assessment For VA:		Literacy														
NB	Surname	Art		Geography		History													
1	ARSENAL	IT		MFL				3a	3b	4a	1b	3c	3b	3c	5c	4a	3c		
2	BOLTON	Billy		KS		M		2a	3a	1c	5c	2a	3b	3b	1b	3a	2b		
3	CHELSEA	Charlie		KS		M		2c	3a	1c	1b	2a	3b	3b	5c	3a	2b		
4	DERBY	David		KS		M		1c	1c	1b	5c	1b	1c	1b	1b	1c	1c		
5	EVERTON	Erica		KS		F		2a	3a	1c	1b	2a	3b	3b	5c	3a	2b		

That should be it...finished! Your markbook, whatever its precise type and contents, should now be set up.

If nothing else, ET has already provided an easily manageable, high quality, electronic method of recording your assessment of students and it might well be worth using ET solely for this purpose. However, ET does much more than this...and here is where ET more than repays your efforts to date and starts to earn its corn....

Formative And Performance Analysis

Click on the 'Index' button in the top left-hand corner and return to ET's main navigation sheet. Now click on the 'Answers' button.



¹³ Note that this can be changed at any time if identifying value-added on a subject-by-subject basis is required.

Answers

For the purposes of this demonstration, let's look at the 'Answers' sheet for the general, diverse markbook¹⁴...it will show examples that apply to all the other types of markbook assessment.

First, note that ET has transferred all the group and individual student details needed for this sheet from the raw data sheet. It has also transferred all topic titles, assessment indices, individual symbol scores and 'not submitted' ('#') marks.

Where numerical scores have been used in the raw data sheet, these have been automatically converted to percentage scores.

This is why including an 'out of score' on the yellow row of the raw data sheet is so important...without it an individual number score of, say, 10 is meaningless – 10 'out of' 10 (100%) is impressive, 10 'out of' 100 (10%) not quite so...ET needs it to work out the answer!

ET automatically calculates the group average score for each topic, regardless of whether numbers (increasing or decreasing) or symbols have been used, and this is shown in the black row at the top of each column. This should give an indication of how well this particular topic was received.

For instance, if the average score is very low, it may be worthwhile considering how this topic might better be delivered in future or what additional resources could be employed at present. If the scores are very high, it may be worthwhile considering using more challenging material.

ET also automatically calculates the individual averages for all the assessment types that have been set up. Here, individual number ('N'), letter ('L'), letter+ ('L+'), national curriculum ('NC'), Greek ('G') and Arabic ('A') averages have been calculated and are shown in the black area to the right of the individual student details. The group averages are once more shown on the black row at the top of these columns.

Where letter or letter+ scores have been used, ET automatically highlights C-D borderline average scores in green. This can be used, in the context of GCSE groups for instance, to easily identify students who might significantly benefit from additional attention.

Index		Overall Answers And Value Added:		eT										The Odyssey										Egypt										Palestine										Shelley										Keats										Oxbow Lakes										Sedimentary Rocks										Long Division																																							
Year:		11		No. Of Topics										70																																																																																																													
Group:		xIT3		Group Average Potential:										104.0																																																																																																													
Value Added Index:		N																																																																																																																									
Surname	First Name	TG	MF	N	L	L+	NC	G	A	VA	NS																																																																																																																
ARSENAL	Alexis	KS	F	78%	b	c+	4b	ζ	ظ	101%	4	4	ζ	ظ	ظ	b	b	a-	c	77%																																																																																																							
BOLTON	Billy	KS	M	77%	b	c	5a	β	من	128%	3	0	α	ع	ج	b	#	#	#	70%																																																																																																							
CHELSEA	Charlie	KS	M	79%	b	b-	4a	ι	من	122%	0	0	π	ع	ع	a	b	a	c	80%																																																																																																							
DERBY	David	KS	M	82%	b	c+	4b	β	من	99%	0	0	γ	ع	ظ	b	b	a-	c	80%																																																																																																							
EVERTON	Erica	KS	F	82%	c	c+	4b	ι	من	96%	5	5	π	ع	س	c	c	a	c+	80%																																																																																																							
FULHAM	Fiona	KS	F	82%	a	c+	5b	β	من	100%	5	5	α	ع	س	a ⁺	b	a	c	80%																																																																																																							
GILLINGHAM	George	KS	M	82%	b	c+	4b	ι	من	102%	0	0	β	ظ	ع	b	c	b+	c	75%																																																																																																							
GILLINGHAM	George	KS	M	82%	b	c+	4b	ι	من	96%	5	5	π	ع	س	a	b	a	c	80%																																																																																																							
HULL	Helen	KS	F	79%	b	c	4b	ι	من	105%	6	6	π	ز	ع	#	d	b	a	c	77%																																																																																																						
INVERNESS	Iona	KS	F	57%	d	d-	3b	β	من	76%	0	0	β	ز	ع	d	d	c	d	30%																																																																																																							
JOHNSTONE	Jill	KS	F	78%	b	c	3c	ι	من	104%	0	0	β	ع	س	b	b	a	c	77%																																																																																																							
KIDDERMINSTER	Karen	KS	F	79%	b	c+	4b	β	من	98%	0	0	γ	ع	س	a	b	a	c	80%																																																																																																							
LEEDS	Laura	KS	F	77%	b	c+	4a	ι	من	99%	0	0	π	ز	ع	b	b	a	c	80%																																																																																																							
MANCHESTER	Maureen	KS	F	79%	b	c+	4a	β	من	103%	0	0	α	wow	mmm	b	b	a	c	78%																																																																																																							
NORWICH	Neil	KS	M	78%	b	c+	3b	ι	من	82%	0	0	β	wow	zzz	b	b	a	c	75%																																																																																																							
ORIENT	Oswald	KS	M	81%	a	c+	4b	β	من	91%	0	0	γ	mmm	zzz	a	b	a-	c	82%																																																																																																							

In addition to this, ET calculates the average individual value-added (VA) scores. If a student is performing exactly in-line with expectations they should have a VA score of 100%. VA scores within 10% of this are shown in yellow. Students who are performing more than 10% above expectations are shown in blue, those more than 10% below expectations in red.

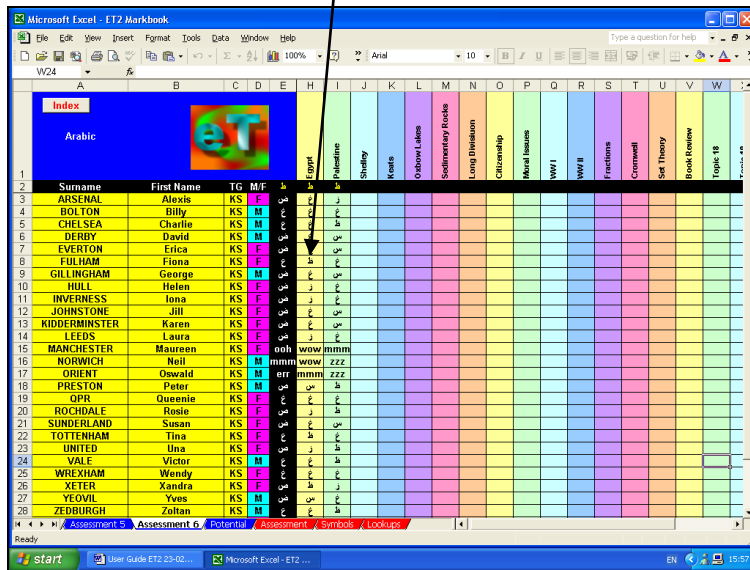
¹⁴ This is included on the CD.

Again, ET enables the easy identification of students with exceptional performances, allowing praise or additional attention to be focussed appropriately and effectively

Finally, ET adds up the number of pieces of work that were 'not submitted' and where this comes to five or more, these totals are also shown in red...once again, easily highlighting a significant problem so it can be addressed.

If you wish to look at each assessment type individually, return to the main navigation sheet and click on the relevant button... 'Assessment 1' to 'Assessment 6'.

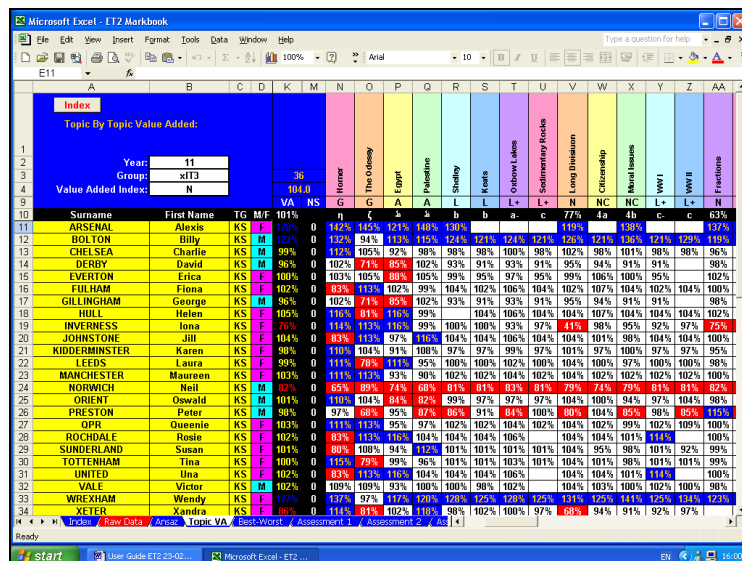
If, in this example, there is a need to look at, say, the Arabic marks, click on 'Assessment 6' and you will be taken to a sheet which only shows details of those topics marked in Arabic.



Topic-By-Topic Value-Added

ET's ability to calculate overall VA scores for each individual student is an extremely valuable tool but, to allow for more formative assessment to take place, it may be still more valuable to calculate value-added on a topic-by-topic basis.

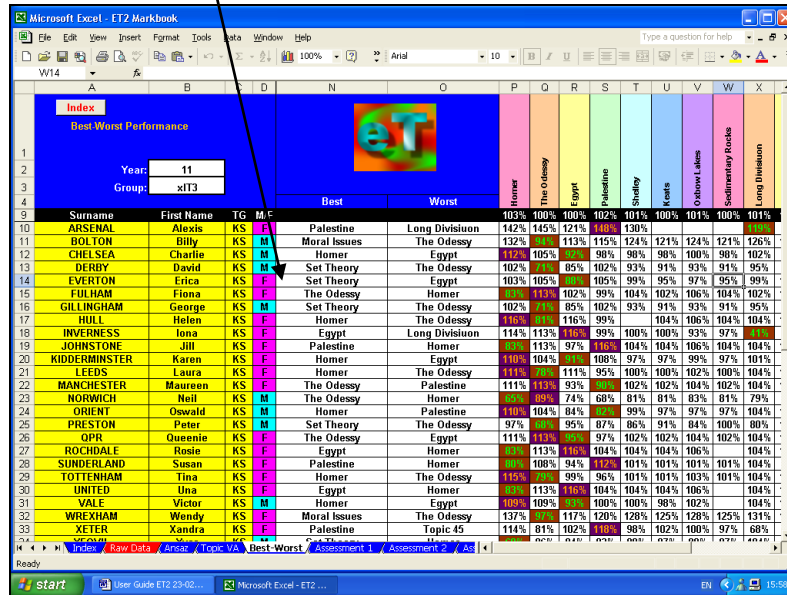
ET does this, again, highlighting scores of more than 110% in blue and less than 90% in red...allowing exceptional performances to be identified and then praised or remedied immediately.



Best-Worst

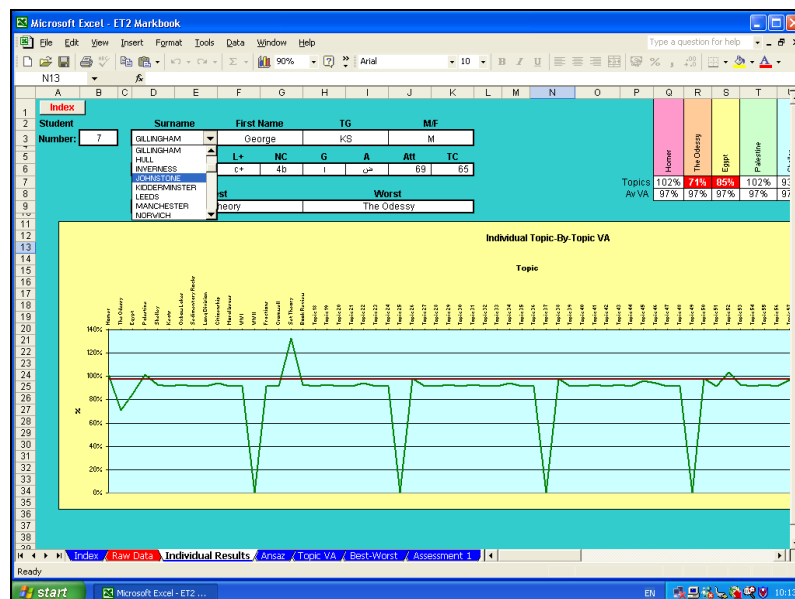
ET's 'Best-Worst' sheet uses the topic-by-topic VA scores to identify the title of the topics which resulted in the best and worst performances.

Provided informative titles are used to identify topics¹⁵, these can help in providing a formative assessment of performance.



Individual Results

The 'Individual Results' sheet displays the average results for each assessment type, together with 'Best-Worst' and other data. It also displays VA scores for all topics both in tabular and graphic forms. To select any given student, click on the drop-down menu button and choose the appropriate surname. Alternatively, type in the student's group number...this can be found in the 'NB' column of the 'Raw Data' sheet.



¹⁵ Clearly, if, for instance, ET is used with a maths group, it is not going to be informative to identify a best topic as 'Chapter 7, Exercise 2, Questions 1-9'...however, it may be informative to identify the best topic as 'Solving Equations'.