Devising a timetable for your school exams

This paper is about a way of devising the most efficient exam timetable for your internal school examinations, for end of term exams, 'Mock' exams or 'Prelims'.

Lower down the school the number of sessions required for all the subject exams may be obvious, but where there are optional subjects it is less clear.

For example, in this year 10:

Student Assignments for Pattern: Year 10								
	Block 1		Block 2		Block 3		Block 4	
1	Gra	16	П	24	Π	23	PE	17
2	Art	24	Te	19	Fo	20	Art	14
3	Gg	18	Dr	15	Fo	20	Hi	15
4	Sp	20	Fr	22	Mu	19	Gg	13
5	De	23	Fr	21	CD	19	Fr	18
6							П	24
	= 101		= 101		= 101		= 101	

There are 4 blocks, but those 4 blocks would not be a good structure for the exam timetable.

Reason: Geography (and other subjects like Art, French, etc) appears into different blocks.

Normally you'd want the Geography students to have their exam all at the same time, so there can be no collusion with some students getting advance notice of the questions.

This paper discusses how to get the best structure (with a single geography exam, etc) very quickly (in a couple of minutes).

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Devising the simplest structure for the Exam Timetable

In the options pattern shown on page 1, repeated here, there are 4 blocks so at least 4 exam sessions would be needed.

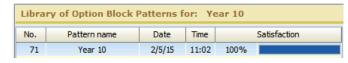
But 4 of the subjects are in more than one column: Geography, Art, French, IT. (Food Technology also has two groups but can be treated as one because they are both in the same column.)

So we can guess that the number of exam sessions might be

4 + 4 = 8 sessions (assuming for the moment that each subject needs only one exam paper).

To find out if 8 are needed, or more, and the best pattern for them, do as follows:

In *Options* go to the **Design a Pattern** Screen, and select the options data for this population of students.

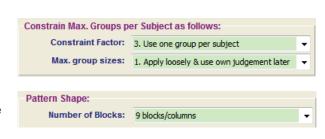


2. Click on Auto-Create and then on Customize ...

3. Set the values as shown here.

One Group per subject:

Set the Number of blocks equal to your best guess (or your best guess +1). In this example we'll use 9, just in case that many are needed:

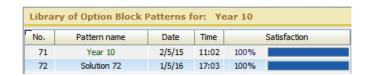




In seconds it gives one or more **100%** solutions, needing only 8 blocks. See the next page for a discussion of this.

Click OK and Yes to store the 100% solution(s) in the Library.

4. To view the proposed pattern, select the solution eg. number 72 here:



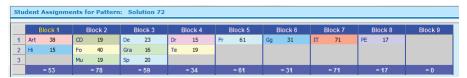


The result is discussed on the next page.

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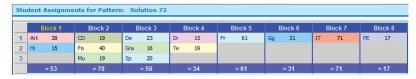
In this example, we guessed (to be on the safe side) that 9 sessions might be needed. But in fact it can actually fit into just 8 exam sessions:



= 8 sessions needed

The numbers at the bottom show how the students are taking exams in each session. (There are 101 students in total in this Year 10.)

In this school the Maths, English and three Sciences are not in the option blocks, but are setted core blocks, so the full requirement for exam sessions is:



Maths Eng Phys Chem Biol = 13 sessions

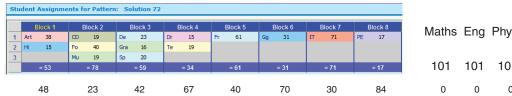
101 101 101 101 101

If your students are allowed to go home on 'study leave' when they don't have an exam then the pattern above shows how sessions will need a supervisor /invigilator.

The student : staff ratio needed for such invigilating depends on:

- your school policy on invigilation, and
- the size of rooms available for the exams (eg. one large hall or several small rooms) and
- whether any of the exams are practical exams needing specialist rooms.

If your students are not allowed 'study leave' and need to be supervised when they are not taking an exam (and revising), then more groups will need covering by staff. In this school, with 101 students in this Year 10, the number of students needing supervising for revision are shown in the bottom row below:



Maths Eng Phys Chem Biol

101 101 101 101 101

0 0 0 0 0

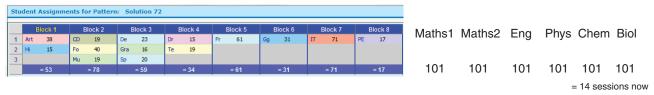
From these numbers, bearing in mind the bullet points above, you can decide how many staff and rooms are needed in total (for exam sessions and revision sessions) for each of the 13 sessions.

(Methods of devising a timetable for this, using *TimeTabler* or *StaffCover*, will be discussed in a later paper).

= 13 sessions

Question: How can I adapt this method if some subjects need 2 or more exam sessions because they set 2 or more exam papers.

If it's a core subject then it's simple. Eg. if Maths has 2 papers:



But supposing **History** in this example needs 2 exam sessions? To find the new best pattern needs a bit more work. Follow these steps:

1. In *Options*, on the **Populations Screen**, select this year 10 population:

And then click on Create a Clone to clone it. Make sure that you choose 'Yes - clone students and choices'.

The Clone allows you to change data in the Clone (below) while keeping the original population intact and undamaged.

On the same screen, change the number of Choices so it is 1 greater (for the extra History). ie. = 5 in this example. Then Close and Save.



Choices



- 2. On the **Subjects Screen**, click on New and add an extra subject, in this case called **Hist-2** (for the extra History exam).
- 4. On the Students & Choices Screen click on the Other Checks button, and then select

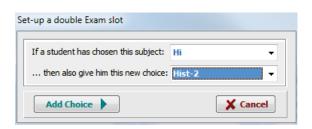
 Set-up a double Exam slot and then Continue.

Select the correct subjects in the drop-down lists, as shown here:

Click Add Choice . For every student who was entered for Hi the program adds an extra subject Hist-2 (in this example).

You can check this by clicking on <a>Choices: Then Close and Save.

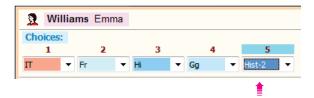
Note: The program will show a lot of error messages ...because at Step 1 you said students should have 5 choices and (apart from the History students) they have only 4. Ignore these error messages.



Population name

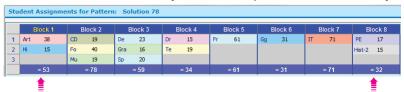
Year 10

+Year 10 (current)



Repeat for any other subjects needing 2 (or more) exam sessions.

5. Then repeat the steps on Page 2. Ignore warning messages again. In a few seconds it shows you the new pattern with 2 History exams:



In this particular case the extra History (Hist-2) has been able to go alongside PE because noone in this particular population is studying both History and PE. You could have worked that out by studying the Clash Table.