Junior High Scheduling in PowerSchool

Options for scheduling courses in a Junior High environment

Overview

This presentation will cover the following key questions:

1. What resources are available to assist in using PowerScheduler to schedule students

2. What benefits are there in using PowerScheduler to schedule Junior High students

3. What is the general process of scheduling

4. Some discussion points to consider when planning for middle school scheduling (as contrasted with high school scheduling in particular)

5. What can go wrong and how to prepare for it

Resources

Resources

There are several useful resources available to assist with the planning and execution of creating student schedules using PowerScheduler:

1. Other PSUG sessions: other PSUG sessions have been or are currently occurring which provide valuable how-to information on completing specific tasks. Even if you don't attend the sessions, take a look at the documentation they provide.

2. PowerScheduler User Guide for ___: No matter what version of PowerSchool you are running or whether you are planning to do a "Load" or a "Build" there exists a PowerScheduler User Guide for you that will walk you through step by step and screen by screen the completion of most of the major tasks involved in scheduling.

3. Veterans: There are now a pool of people in Alberta who have gone through several scheduling seasons and can help you out if you face an unexpected or unusual challenge. Make some friends while you are here!

Benefits to using PowerScheduler

Benefits

Using PowerScheduler offers a number of benefits:

1. There are a number of things you need to do to set students up for the End of Year Process in PowerSchool – by using PowerScheduler, you will be handling these automatically.

2. By using PowerScheduler to build the student timetables, once the student timetables are constructed you don't need to do anything further to enter them into PowerSchool – the Commit process does that for you!

3. PowerScheduler as a tool has a number of reports available that someone using more paper or Excel-oriented processes would take hours to put together themselves.

4. At the end of the day, **scheduling students by hand is a long, long process.** Properly used, PowerSchool can speed it up considerably.

The Scheduling Process

The Scheduling Process

Conceptually, Scheduling typically goes through the following stages

1. The school decides what courses they want to offer (Course Catalog)
   - They can remove a course they decide not to offer if they wanted to guage interest in it, but it is much more difficult to add a course at the end of the process once they've already gotten student requests
2. The school goes through a process of gathering student requests (Student Course Requests) to determine what students want what classes.
   - Schools will often review the selections made by students and potentially choose not to offer less popular courses or offer extra sections of more popular courses as resources allow
3. The teacher assignments and sections are created (Teacher Timetables)
4. Students are scheduled into classes (Student Schedules)
5. Refinements /Schedule changes

The Scheduling Process – Course Catalog

During the Courses Catalog stage, the school will be determining what courses they want to offer.

Some schools will know at this stage exactly what they are going to offer.
Others may not for any number of reasons:
- Uncertainty about interest in new courses
- Uncertainty about specific teaching resources (i.e. they don't yet know if they will have a staff member capable of teaching that specific course in the new year)
- Uncertainty about student numbers

Overall, while you can't really start the process without having something in the course catalog, there is wiggle room. It is often best to list the couple of courses you are uncertain about so that you can ascertain interest, but also plan to have "alternates" or backup course requests available in case those courses do not get offered.

The Scheduling Process – Gather Course Requests

During the Gather Course Requests stage, schools will obtain requests from students and/or parents through some means. There are a variety of ways this could be done:

- Schools could use the Parent Portal to have parents and students select what courses they want
- Schools could send home paper copies of a course request sheet and gather them from students
- Schools could use an external tool to collect course requests in a digital format.   Ideally, this tool could export the requests in a form that could be imported into PowerSchool
- Schools could use some combination of the above (e.g. send home paper copies, but pull students into a lab to have them enter them in the parent portal under supervision to save data entry time and help familiarize students with resources in the portal)

We will look in more detail at the challenges and opportunities involved with gathering course requests later.

The Scheduling Process – Teacher Assignments

During the Teacher Assignments stage the school will be determining
- What classes are they going to offer
- Which teachers are teaching which classes
- When those classes will take place

Ultimately, to build the student schedule fully all three of these questions need to be answered.

The requests collected from students populate reports in PowerSchool that help administrators make decisions about which courses to offer. In cases where a choice exists about which course to decide to offer, it helps to know information like which courses are highly popular with students and which ones were not popular.

The Scheduling Process – Student Schedules

During the Student Schedules stage, the school will typically do a "Load".

During a Load the following happens:
1. The system processes the requests submitted by each student and attempts to satisfy as many of the requests as it can, based upon the actual timetable of courses set up in PowerSchool.
2. The system can be configured to pull "Alternates" in cases where it cannot satisfy 100% of a students core requests.
3. A number of reports are populated which allow schools to review the schedules and identify issues.
   a. Sometimes schools may identify a common issue that could be resolved simply by switching a couple of classes.
   b. Sometimes schools may decide that they need to make significant changes after schedules are generated.
   In both cases, it is easy to simply re-run the Load process using new Parameters.

The Scheduling Process – Refinements

The Schedule Refinement stage is going to vary wildly from school to school. In general, during this stage, schools have shared the upcoming year schedules with students and are working to process any course changes.

Often, the school staff involved in handling new students that register for the upcoming year may not be the same staff as the ones who built the schedule to begin with. It is important that the school put some kind of plan in place to handle these requests as well as any course requests changes that students (and parents) make.

The Scheduling Process – Commit

Schedules built in PowerScheduler will need to be committed at some point prior to the End of Year Process.

The Commit process is the process by which the student schedules are locked into the live side of PowerSchool. Once this process is done, changes should be made in PowerSchool directly instead of in PowerScheduler.

Discussion Points

Discussion Point 1: Request Capturing

As mentioned previously, there are a number of ways that requests could be captured, each with their own advantages and disadvantages.

There is one common weakness, however which will affect any effort to capture and process student course requests via PowerSchool: **The parent portal/student portal does not allow parents to indicate a "favorite" course.**

A typical course request screen will collect a number of "primary" requests. Those courses can be set at the course level as either "Academic" or "Elective", and academic courses will have priority, however there is no way for a student to indicate their "highest priority" course.

Inability to select a "favorite" class has a big impact when some middle schools may have students selecting 6-8 option courses out of a list of 20 – it's very likely that some of their requests won't be met and there is no way to capture that favorite. It requires a shift in thinking.

Discussion Point 1: Request Capturing

Use the Parent Portal
One possibility in school environments where the parent portal adoption rate is high is to simply activate the ability for parents to log in to the portal and complete course requests.

The obvious challenge involved in this is establishing the degree of parent portal adoption required for this to work.

Capture paper forms and have students enter them
Something commonly done at high schools is to capture paper forms, then have students enter the requests via the student portal in a lab setting.
Typically, the biggest challenge encountered in this approach is the fact that the students are younger than high school students and far more prone to accidental (or deliberate) error.

Discussion Point 1: Request Capturing

Use an External Tool
I am currently not familiar with any external tools that cater to this grade range, however something could potentially be constructed even using a Google Form. More sophisticated software like My Blueprints and Career Cruiser do exist, but they are typically targeted for high school students.

Using an external tool does require the participation of your PowerSchool administrator to manage the import of student course marks.

Enter them in the Office
At this age range, simply collecting the paper forms and entering them via the student screens may be the most effective way to get course requests entered in to the system. It has the disadvantage of tying up a resource for data entry for a few hours, but has several advantages:
1) Having the paper forms on file is often useful when determining which alternate classes to pursue
2) The data is often far cleaner when entered by a responsible adult

Discussion Point 2: Why Bother?

The inability to set a favorite course (students can ultimately only pick their "X" favorite courses, where X is the number of primary course requests they are prompted to enter) is often a sticking point in this grade range, and the question comes up "If I can't do that, why should I use PowerSchool?"

The answer is threefold:

1) In general, when using the "Load feature" it is easier to rapidly ensure that as many students as possible get **as many of the courses they picked as possible**. The system emphasizes getting as many of those primary picks as possible, instead of ensuring that the student gets one exact class that they really want. Often when you go to manually override a student's schedule to give them that favorite course they may end up with less courses overall that they had on their "primary" list and more of their "alternates" as a result.

2) While you lose the "favorite" indicators, it is useful to mass collect the requests and be able to see what courses are on people's "primary" list. The reports are valuable when you are attempting to determine what programming to offer.

Discussion Point 2: Why Bother?

3) Scheduling individual students by hand is long, hard work (unless you are working strictly with cohorts, of course). If you are trying to juggle a situation where 300 students have selected their top 6 option classes from a potential list of 20, it can take an enormous amount of time for an administrator to hand schedule them into all of their classes.

Discussion Point 3: How to Bridge the Gap

There are a few different ways to bridge the gap between the paper sheets often used now (where parents are picking specific courses and indicating their order of preference) and the course request management in PowerSchool.

One thing to do is to steer people away from the idea that they are picking their "favorite" course and towards the idea that they are selecting "these are the X courses I most want". The mental shift can take a few years

Another thing to do is to build in additional post-process review. If, for example, you are working from paper sheets where a student can indicate a clear favorite course, you can take a bit of extra time to enter those favorites on a spreadsheet. After the student schedules are generated it would be relatively easy to export the schedules into Excel and do a quick comparison to identify students who did not get their "favorite" course.

Note: it is often only the "favorite" that is the true sticking point. Once you start talking about student second or third favorite courses it becomes far easier to defend to parents that the schedule simply didn't work out for them to take both that second favorite and that first favorite.

Discussion Point 4: Load-Only vs Build

In PowerSchool there are two potential main phases:

Build

During the Build phase, PowerScheduler is fed information including student requests, teacher assignments and a number of constraints and it performs a Build, where it generates a Master Schedule.

Load

During the Load phase, PowerScheduler takes the student requests and attempts to schedule them into classes based upon the priorities defined in the system as well as a number of constraints entered.

The choice of Load-Only vs Build is actually a choice of how you will create your schedule - whether by doing it manually/externally or by having PowerSchool create them.

Discussion Point 5: When to Hand Out Schedules

At the high school level, schools would often hand schedules out before the end of the previous year, to give maximum ability for parents and students to see the status of them and request changes.

However, at the junior high level there is not often the same infrastructure built around handling course request changes. The extensive resources that high schools dedicate to allowing students to plan out their high school careers are simply not available to middle schools, so middle schools need to be more careful about when and how they release this information.

It is also important to keep in mind the parent portal settings and what becomes visible when. Often, the information will become visible on the parent portal at the end of the year or after the end of year process is run.

Scheduling Season Begins

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January/February/March	1. Before anything can be done for the future year, the PowerSchool Administrator needs to create the future year. The start and end dates for the future year be finalized by the district 2. Initial discussions about what courses are intended to be offered in the future year should be held ● Licensing for new courses should be procured and put into place ● Courses missing from the catalog should be added
March/April	1. Scenarios should be created in each school (even schools who don't use PowerScheduler if they are feeder schools for schools who do) 2. Course Request screens should be created for each grade level (or external tools like Career Cruiser should be configured) 3. Next Year information for students should be populated and verified 4. Pre-registered students should be entered into PowerSchool 5. PowerSchool accounts should be created for students 6. Students should log in and complete course requests

Scheduling Season Begins

April/May	1. Student requests reports are reviewed 2. Changes to student requests are made 3. Course-section offerings are planned 4. Teacher assignments are planned
May/June	1. Schedules are created (either built using PowerScheduler, copied from a previous year and modified, or created outside PowerScheduler and entered manually) 2. Student cohorts are determined (when applicable)
June/July/ August	1. Students are enrolled into classes for the upcoming year, either manually or through a Load 2. Schedules are committed to live side 3. End of year process is completed by District PowerSchool Administrator

What Can Go Wrong and How to Plan for it

What Can Go Wrong and How to Plan for it

An ideal scheduling season requires that things are done on time, so that things which are depending on them can be done on time. Delays in one area can affect other areas and can lead to problems or delays in the overall schedule.

However, things can and will go wrong. Planning ahead will allow a school to adjust for these.
Below are some of the common issues which we will plan contingencies for:
1. Problems when collecting Course Requests
2. Incorrect options presented on Course Request Screens or in external tools
3. Delays in hiring teachers for upcoming years - uncertainties in course offerings
4. Uncertainties in numbers - some sections may be teetering on the edge of being offered
5. New Courses decided after the fact and not captured in request screens
6. Unexpected Resource Conflicts

Course Request Screens

Course Request Screens are used to provide students with a list of courses, and assist them with selecting courses for the future years.
They require:
- Scenarios to be set up in both feeder and future schools
- Student Next Year/Next School/etc. information populated for students
- Course Request Screens to be set up for students
- Student PowerSchool accounts to be created (to allow students to self-request courses online)

Schools can minimize problems arising from course request screens by doing dry runs with individuals at different grades. Choose specific students to enter example course requests for, then walk through the process to submit the results.

Course Request Screens

Despite best efforts, it's possible that course request screens be configured incorrectly (either missing a course, or allowing request of an incorrect course, etc.).

Typical solutions to this are:
1. Using the "Mass Add" or "Mass Remove" request options to adjust requests after the fact
2. Using the "Update Selections" tool to mass-edit existing requests (to adjust for an incorrectly chosen course number for example)
3. Re-processing requests for a specific individual through a counselor, secretary or principal

There do exist ways to adjust course requests after the fact. The important thing is to build enough checks and balances into your scheduling process to allow you to identify that there was an issue, and to ensure that staff are available who are trained in how to make these adjustments.

Dealing with Uncertainty in Courses or Teachers

A huge challenge for schools attempting to have Schedules By Summer! is the uncertainties they face regarding teacher numbers, teacher skill sets or student numbers for a given course. They may have had full intention of offering a course when they gathered student requests, but find themselves having to make changes in mid-June based on revised enrollment projections or staff changes.

There are tools in place that can allow you to more easily plan for and accommodate these types of changes.

1. Gather "Alternate" course requests when configuring your Course Requests Screens
2. Create generic Teachers (e.g. Teacher X, Teacher Y, Teacher Z) to allow you to schedule courses in absence of having specific teacher names.
3. If manually scheduling students into sections **avoid placing students into specific sections until the very last minute** as it is impossible through the UI to mass-drop students from a section in PowerScheduler.
4. Take advantage of the use of reports to find students with common requests and mass select them.
5. Again, the use and familiarity with mass functions will greatly streamline last minute changes.

Unexpected Resource Conflicts

Surely no school would accidentally commit to a certain number of Foods classes without realizing that there weren't enough blocks in the schedule to allow everyone to use the Foods room, right? Actually, it's all too easy for something like this to occur. Resource conflicts can often go unnoticed until they suddenly become a problem. These types of issues are even more common in "hand generated" schedules where often decisions are primarily made based on the teacher availability and only as an afterthought do other resources get checked.

The best way to protect and avoid this is the use of the Rooms and Facilities options in PowerScheduler. By properly setting up the rooms and by making those resources a part of the process from the beginning, a school can leverage reports that will identify conflicts or can ensure that their Build Process doesn't accidentally introduce such conflicts.

The Room Schedule/Room Utilization reports are very valuable for this.

Dealing with the Unexpected in General

Despite the best efforts at predicting problems, unexpected things will always come up. For that reason it is important to put in place the following checks and balances:

1. Ensure staff is available who is familiar and comfortable with how to use mass functions
2. Become familiar with the reports that are available.
3. If there is a report that you really wish you had that would help catch specific issues you often come across, look into whether that report can be created by a customization (or possibly already is available in other districts).
4. **Get lots of eyes to review schedules**. Once they are "finished", show them to as many eyes as possible to see if anyone catches something.
5. Be prepared to change things in the first few days of school. There is always something.