



TEACHER'S PET
KEEPING FRIENDS TOGETHER

TEACHER'S PET

Quick Start

Front Edge Software Pty Ltd

<https://www.teacherspet.net.au>



WHAT IS TEACHER'S PET

Teacher's Pet (<https://www.teacherspet.net.au>) has an innovative mathematical algorithm that helps teachers to create class lists which keeps friends together, and meanwhile cater for any number of other requirements.

The need

The development of friendships is important in the lives of school-age children. This is crucial to their mental and social development. Social skills such as communication, problem-solving, and cooperation are enhanced by having friends in their classes. Another benefit of having friends is that school becomes more enjoyable.

Apart from friendship, schools usually have an array of other requirements on their new classes, such as gender balance, academic levels, behavior, faith, sports, secondary languages, special needs, keeping certain students apart or together, etc.

The problem

How to keep friends together, and meanwhile cater for an array of other requirements, when teachers reshuffle classes for the next school year?

It is impossible for the human brain to remember the desired friends of each of the sometimes hundreds of students in the grade, let alone working out the best class combinations. Schools resort to all sorts of primitive measures such as colored paper cards or Excel cells. It is usually one of the most frustrating and time consuming tasks in a year, yet many students are still left friendless in the new class, feeling anxious to go into the next school year. Principals often receive complaints from parents.

Due to the sheer complexities and difficulties, lots of schools around the world don't even take friends into consideration. Some schools divide students into trios, and when they reshuffle the classes every year, they never break up the trios. But this is not an ideal solution, because often the trio are no longer friends.

The solution

Now, with Teacher's Pet, a single teacher is able to finish the class allocation of hundreds of students, catering for friend requests and an array of other requirements at the same time, in a few mouse clicks. Each student has at least one and on average three or four friends in the new class. This results in happier students and better learning.

We are not there to compete with or replace your existing school management or timetabling system. Instead it is a supplement. Those can do many things, we can do only one, which none of them can do.

Teacher's Pet has an intuitive user interface which allows teachers to visualize the class allocation result instantly – for example, see how many friends each student has in the new class.



The sample data files

You can download the sample data files from our [Help](#) page, then use it to go through this Quick Start. You can finish the end-to-end process to create your class lists in 30 minutes to 1 hour. After that you will have full confidence in the intelligence of our algorithm and the easy to use Teacher's Pet.

THE WHOLE CLASS-ALLOCATION PROCESS

The whole class allocation process consists of three simple steps:

Step 1: Pick the requirements
On your class lists



Step 2: Import student data



Step 3: Allocate classes

Step 1: pick the class allocation requirements

Right after you login as a teacher, you see the step-1 page:



Step 1: Configure the Class-Allocation Requirements

Task

Creating classes for the new school year

No student in this task

1. Specify the classes/groups to put students in:

Class Name	Teacher	House	No. of Students	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	Add
4A	ADRIAN SCOTT	RED		Delete
4B		RED		Delete
4C		GREEN		Delete
4D	DONNA SMITH	GREEN		Delete

SAVE CLASSES

2. Select class-allocation requirements:

- ☒ Friends together
- ☒ Even class sizes
- ☒ New students in class
- ☒ Gender mixed
- ☐ Gender separated
- ☐ Academic mixed
- ☐ Academic congregated
- ☐ Exam mixed
- ☐ Exam congregated
- ☐ English mixed
- ☐ English congregated
- ☐ Math mixed
- ☐ Math congregated
- ☐ 2nd language mixed
- ☐ 2nd language congregated
- ☒ 2nd language blocking
- ☐ Special need mixed
- ☐ Behaviour mixed
- ☐ Faith mixed
- ☐ Must include
- ☒ Must exclude





Firstly, create the classes into which you want to put the students:

Secondly, check the checkboxes of those requirements that you want to use to affect the created class lists, and leave unchecked those that you think is irrelevant to your school:

NOTE: You need to select the requirements and add the classes as shown in the figure above if you want to use the sample data that you downloaded from our [Help](#) page.

Teacher's Pet supports any complex class-allocation requirements. Just for an extreme example, a teacher wants to have all students studying French in the same class, and all students studying Japanese evenly spread among all classes, and she doesn't care how students studying Indonesian spread or converge in the classes. Obviously this class-allocation requirement is not currently in the system for selection, but all that teacher needs is to send the above requirement in a support request to us. In two hours' time we will be able add this criterion into the system, then that teacher can start to do class allocation using this new criterion.

Step 2: import student data

Once you finish **step 1**, click the **step 2** node, the **step 2** page is displayed, on which you enter data about the students:

The requirements that you have selected in **step 1** determines what data you need to enter for each student. For example, if you have selected the “**academic levels mixed**” criterion, you need to provide the academic level of each student. If you have selected the “**gender balance**” criterion, you need to provide the gender of each student.

You can enter each student's data manually on the user interface. When you do this, the system will only ask you to enter the data that are needed for your selected requirements:



Step 2: Data Input

Task  Creating classes for the new school year ▾

STUDENTS STUDENT DETAILS EXCLUSIONS & INCLUSIONS STUDENTS ATTACHED TO TEACHERS PICK MY FRIENDS UPLOAD DATA

Note: the combination of the student's first name, middle name and last name must be unique in your school.

First name:
Middle name:
Last name:
Email:
Student ID:
Current Class: [Add or delete items in this drop-down](#)
Academic Level: [Add or delete items in this drop-down](#)
Gender: [Add or delete items in this drop-down](#)
Secondary Language: [Add or delete items in this drop-down](#)

Desired Friends

Each student gets to specify a number of friends to be in his/her class.

Add a friend by name, then hit enter (or click outside the textbox):

Friends already added:

JOAQUIN ELKIN
TYREE BRECHT
MELISSIA MCGLOTHLEN
DANIEL FRISK
EDYTH AGUAYO



NEW

SAVE

SAVE >

CREATE PIN

"PICK MY FRIENDS" EMAIL

SHOW PIN

As you can see in the above figure, since you did not select the “behavior” and “faith” requirement on **step 1**, the system doesn't ask you to enter data about student behavior or faith. If you go back to **step 1** and tick the behavior checkbox, then come back to this **step 2** page, you will see here an extra dropdown box called “Behavior”.

What items are in the dropdown boxes for you to select is determined by you, and the engine doesn't care. Could be anything. For example, year 1 teachers may have “A”, “B”, “C” and “D” in the “academic level” dropdown box, while year 3 teachers may want to use “1”, “2” and “3”. If you intend to manually enter student data, you need to click the “Add or delete items in this drop-down” link (see the figure above) to add or delete the items in each dropdown box. If you intend to import student data by uploading a CSV file, then you don't need to manually add those items, since they will be picked up from the data in the CSV file.



A much quicker way to enter student data

Compared with entering student data manually, a much quicker way is to import a student data CSV file. When you prepare this CSV file, you don't need to guess what columns are needed. On the **step 2** page, you can click the “**UPLOAD DATA**” tab page:

1 — 2 — 3

Step 2: Data Input

Task Creating classes for the new school year ▼

STUDENTS STUDENT DETAILS EXCLUSIONS & INCLUSIONS STUDENTS ATTACHED TO TEACHERS PICK MY FRIENDS **UPLOAD DATA**

No file chosen

UPLOAD FILES **REMOVE SELECTED FILES** **SHOW ME THE CSV FILE FORMAT** **DOWNLOAD SAMPLE DATA FILES**

Then, click the “**SHOW ME THE CSV FILE FORMAT**” or “**DOWNLOAD SAMPLE DATA FILES**” buttons. The first button will display on the screen a sample CSV file which contains some sample data, while the second will download that sample CSV file onto your PC. What columns are in the sample CSV file is determined by what requirements you ticked in **step 1**.



The sample file displayed or downloaded will look like the following:

First Name	Last Name	Current Class	Email	Student ID	Academic Level	Desired Friends	Gender
ARDELLA	ALBERTSON	A	ardella.a@test.com	1353	1	ELLIOT HELFRICH,CHONG FLOURNOY,ADRIANA MCKITTRICK,WAI TILLISON,DARLINE NICHOLAS	M
BRAIN	BAZEMORE	B	brain.b@test.com	1372	2	JARRETT DEPAOLI,HASSAN BALKE,TAMEKIA TIMMINS,DONELLA LAZARD,OPHELIA LETOURNEAU	F

Again, since you have not selected the **“behavior”** and **“faith”** requirement on **step 1**, the sample CSV file doesn't contain columns for behavior or faith.

With this sample CSV file, all you need to do is to export the student data from your existing school management system into a CSV file, remove unneeded columns, rename some columns if necessary, then upload it into the system in a few mouse clicks.

You don't have to have all the needed columns in the CSV file. If your school management system doesn't contain data for some of the columns – typically it wouldn't have contained the data in the **“desired friends”** column, you can still upload this CSV file, then manually enter the missing data on the screen shown in **Error! Reference source not found..**

The **“pick-my-friends”** module allows the students to pick their own friends on Teacher's Pet portal, as long as they have their own emails and have access to the Internet. Just go to the **“PICK MY FRIENDS”** tab page on the **step 2** page:



Step 2: Data Input

Task Creating classes for the new school year ▾

STUDENTS **STUDENT DETAILS** **EXCLUSIONS & INCLUSIONS** **STUDENTS ATTACHED TO TEACHERS** **PICK MY FRIENDS** **UPLOAD DATA**

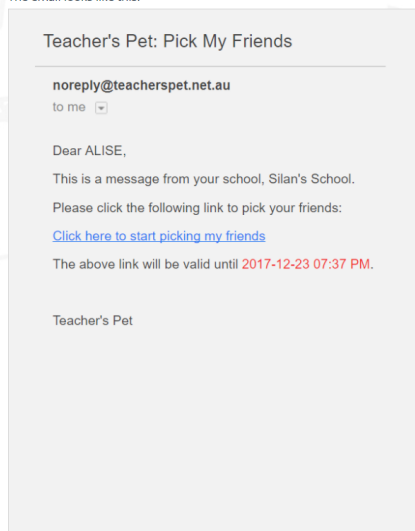
There are two ways you can invite students to "Pick My Friends" directly on Teacher's Pet:

Option 1: RECOMMENDED - Easiest and safest - if every student has an email

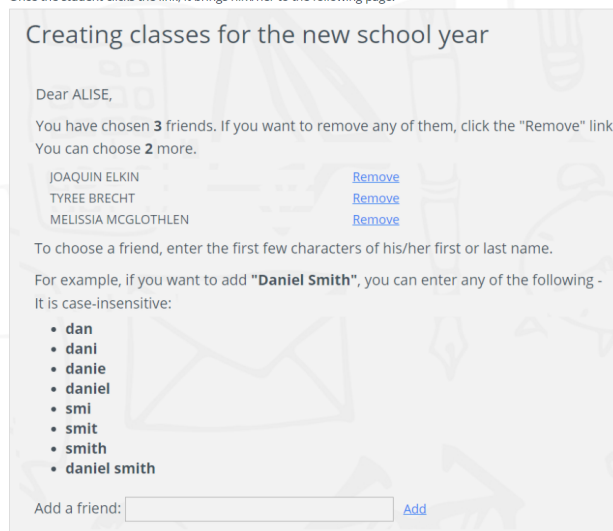
Just click the "SEND EMAILS" button. That's all.

The system sends an invitation email to every student enrolled in this "Creating classes for the new school year" task. The email contains a "Pick My Friends" encrypted link. The student clicks the link, it brings him/her to the "Pick My Friends" page on Teacher's Pet. No login is required.

The email looks like this:



Once the student clicks the link, it brings him/her to the following page:



Emails valid for hours **SEND EMAILS**

If anyone doesn't receive this email, you can double-click the student row on the "Students" tab and resend the email only to this student. Or you can manually add the friends for him/her.

Option 2: If students don't have emails

First, click button "GENERATE PIN" to generate the PINs. Then, click button "SHOW STUDENT PINs" to display the PINs. Print them out, and give each student his/her own PIN. Tell them don't show anyone their own PINs. Ask every student to login and enter the school name, his/her own name, and the pin. Then they will be directed to the same "Pick My Friends" page as in option 1.

Please be prepared for some "tech-support", because some students may make typos and panic and ask for your help.

GENERATE PINs **SHOW STUDENT PINs**

Click the "SEND EMAILS" button. The system will send invitation emails to all students in your year level. The email contains a secured link. The student clicks this link, it automatically logs him/her into Teacher's Pet portal without needing to enter student ID or password. No student can impersonate another. There the student can pick his/her own friends. Each student takes two to five minutes. The whole year level finishes picking friends within half an hour. Once the students are in the system, they don't need to be re-entered every year when they move up the grade. So, in the following years, the class allocation can be done in a matter of half an hour.



Step 3: allocate classes

Once you have imported all needed data, you can go to step 3 to allocate the classes:

1

2

3

Step 3: Allocate Classes

Creating classes for the new school year

[ALLOCATE CLASSES](#)[SHOW RESULT](#)[DOWNLOAD RESULT](#)

Saved allocation results:

<Create New>

Classing rule weightings :

Academic levels mixed

Even class sizes

Friends

At least one friend

Gender balance

Must exclude

4A (25) A SCOTT	4B (25)	4C (25)	4D (25) D SMITH
Brain Bazemore	Chong Flournoy	Ardella Albertson	Alise Colmenero
Cecily Reese	Darline Nicholes	Donella Lazard	Eboni Gibbens
Daniel Frisk	Elliot Helfrich	Lai Fine	Edyth Aguayo
Elyse Pinner	Magen Evensen	Lawrence Arguelles	Leo Mefford
Joaquin Elkin	Xavier Cheesman	Qiana Bourland	Megan Bowley
Leonard Sisco	Darron Poulsen	Romona Rufus	Adriana Mckittrick
Wai Tillison	Florance Lapeyrouse	Shanta Obermiller	Carrol Bealer
Carole Caudill	Lionel Heyen	Tyree Brecht	David Pitter
Darren Levin	Ophelia Letourneau	Bella Cortese	Maryjane Sippel
Georgiana Vancleave	Pearlene Hocker	Evelia Kinsella	Tomeka Eadie
Hassan Balke	Rosario Manos	Gina Minear	Cheyenne Raver
Leslie Speer	Tamekia Timmins	Hilario McLarty	Isa Etherton
Alysia Turnbull	Dalton Greenlee	Kera Arsenault	Johnathan Edelson
Clifford Ellingsworth	Jarrett Depaoli	Pat Sowell	Marceline Strohl
Danille Franzoni	Kenyetta Bassin	Stan Claudio	Ruben Gao
Ellis Mosteller	Peggie Cosner	Ward Lederer	Shanika Lamoreaux
Elton Cokley	Tanika Seagraves	Artie Fobbs	Zane Gambrel
Ena Dangelo	Troy Laiche	Bernie Regina	Dexter Welling
Ernesto Sica	Dylan Bien	Del Seckman	Guillermo Gaulin
Santos Yip	Euna Forward	Velva Litchfield	Jason Rodd
Velma Mcmillian	Evan Rappaport	Ariel Pucci	Melissia Mcglothlen
Francine Merlos	Kieth Poehler	Arnoldo Melito	Nathanael Entrekin
Margarito Carbone	Murray Kulas	Deena Berti	Stephenie Madill
Morris Dorais	Sunni Stangl	Dorathy Hurwitz	Towanda Bangs
Trey Copas	Terresa Nau	Frank Proudfoot	Werner Perreira

Average friends per student: **2.85**. Students who did not get any required friend: **1**.

[Show class allocation result summary](#)

As you can see in the above screen shot, each class-allocation requirement you have selected in **step 1** is shown here as a slider bar. You slide the slider bars to assign different weightings to the requirements. After you finish, click the **"ALLOCATE CLASSES"** button. The engine finishes the allocation following your weightings in a few seconds.



By nature, most of the class allocation requirements conflict with each other. For example, if you want the “**friends**” criterion to take priority, the secondary language criterion will have to give in. Using the slider bars, you can change the weightings of different requirements to fine-tune the class allocation outcome. You can repeat the “change then reallocate” process as many times as you want. The engine does the heavy lifting, while you have full control of the outcome. It is like you driving your children to school - it is not a machine that sends them to school, it is you, because you have full control over the machine.

The user interface allows you to visualize the effect of the class allocation in an intuitive manner. You first click a criterion, then a student, then all other students that are associated with this clicked student through the clicked criterion will be highlighted in yellow.

For example, if you click the “**friends**” criterion, then a student, all of his/her friends will be highlighted:

**1****2****3**

Step 3: Allocate Classes

Creating classes for the new school year

ALLOCATE CLASSES**SHOW RESULT****DOWNLOAD RESULT**

Saved allocation results:

<Create New> ▾



Classing rule weightings ⓘ :

Academic levels mixed 0



Even class sizes 49



Friends 50



At least one friend 0



Gender balance 0



Must exclude 0



4A (25)
A SCOTT

Brain Bazemore
Cecily Reese
Daniel Frisk
Elyse Pinner
Joaquin Elkin
Leonard Sisco
Wai Tillison
Carole Caudill
Darren Levin
Georgiana Vancleave
Hassan Balke
Leslie Speer
Alysia Turnbull
Clifford Ellingsworth
Danille Franzoni
Ellis Mosteller
Elton Cokley
Ena Dangelo
Ernesto Sica
Santos Yip
Velma Mcmillian
Francine Merlos
Margarito Carbone
Morris Dorais
Trey Copas

4B (25)

Chong Flournoy
Darline Nicholes
Elliot Helfrich
Magen Evensen
Xavier Cheesman
Darron Poulsen
Florance Lapeyrouse
Lionel Heyen
Ophelia Letourneau
Pearlene Hocker
Rosario Manos
Tamekia Timmins
Dalton Greenlee
Jarrett Depaoli
Kenyetta Bassin
Peggie Cosner
Tanika Seagraves
Troy Laiche
Dylan Bien
Euna Forward
Evan Rappaport
Kieith Poehler
Murray Kulas
Sunni Stangl
Terresa Nau

4C (25)

Ardella Albertson
Donella Lazard
Lai Fine
Lawrence Arguelles
Qiana Bourland
Romona Rufus
Shanta Obermiller
Tyree Brecht
Belia Cortese
Evelia Kinsella
Gina Minear
Hilaria McLarty
Kera Arsenault
Pat Sowell
Stan Claudio
Ward Lederer
Artie Fobbs
Bernie Regina
Del Seckman
Velva Litchfield
Ariel Pucci
Arnoldo Melito
Deena Berti
Dorothy Hurwitz
Frank Proudfoot

4D (25)
D SMITH

Alise Colmenero
Ebony Gibbens
Edyth Aguayo
Leo Mefford
Megan Bowley
Adriana Mckittrick
Carrol Bealer
David Pitter
Maryjane Sippel
Tomeka Eadie
Cheyenne Raver
Isa Etherton
Johnathan Edelson
Marceline Strohl
Ruben Gao
Shanika Lamoreaux
Zane Gambrel
Dexter Welling
Guillermo Gaulin
Jason Rodd
Melissia Mcglothlen
Nathanael Entrekin
Stephenie Madill
Towanda Bangs
Werner Perreira

Average friends per student: 2.85. Students who did not get any required friend: 1.

Show class allocation result summary

The pink student was the one clicked, the yellow students are his desired friends.

If you click the “gender” criterion, then a student, all students of the same gender as the clicked student are highlighted, and the tooltip tells you what gender are these highlighted students:

**1****2****3**

Step 3: Allocate Classes

Creating classes for the new school year

[ALLOCATE CLASSES](#)[SHOW RESULT](#)[DOWNLOAD RESULT](#)

Saved allocation results:

<Create New>

Classing rule weightings

Academic levels mixed

Even class sizes

Friends

At least one friend

Gender balance

Must exclude

4A (25)
A SCOTT

Brain Bazemore
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Ernesto Sica
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Morris Dorais
Trey Copas

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Darline Nicholes
Elliot Helfrich
Magen Evensen
Xavier Cheesman
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Ophelia Letourneau
Pearlene Hocker
Rosario Manos
Tamekia Timmins
Dalton Greenlee
Jarrett Depaoli
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Tanika Seagraves
Troy Laiche
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Evan Rappaport
Kieth Poehler
Murray Kulas
Sunni Stangi
Terresa Nau

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Shanta Obermiller
Tyree Brecht
Bella Cortese
Evelia Kinsella
Gina Minear
Hilario McClarty
Kera Arsenault
Pat Sowell
Stan Claudio
Ward Lederer
Artie Fobbs
Bernie Regina
Del Seckman
Velva Litchfield
Ariel Pucci
Arnoldo Melito
Deena Berti
Dorothy Hurwitz
Frank Proudfoot

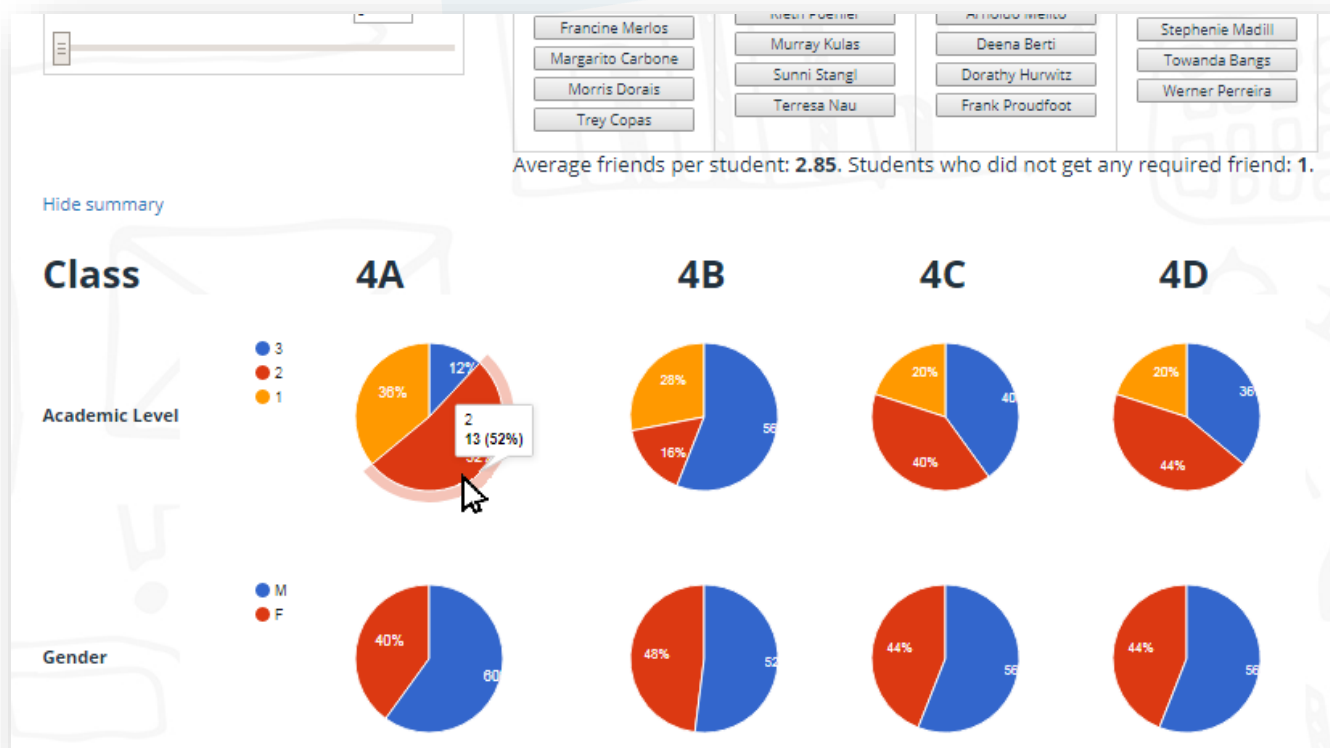
4D (25)
D SMITH

Alise Colmenero
Ebony Gibbens
Edyth Aguayo
Leo Mefford
Megan Bowley
Adriana McKittrick
Carrol Bealer
David Pitter
Maryjane Sippel
Tomeka Eadie
Cheyenne Raver
Isa Etherton
Johnathan Edelson
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Zane Gambrel
Dexter Welling
Guillermo Gaulin
Jason Rodd
Melissia Mcglothlen
Nathanael Entrekin
Stephenie Madili
Towanda Bangs
Werner Perreira

Average friends per student: **2.85**. Students who did not get any required friend: **1**.

[Show class allocation result summary](#)

If you click the “Show class allocation result summary” link at the bottom of the page, pie charts of the result will be shown:

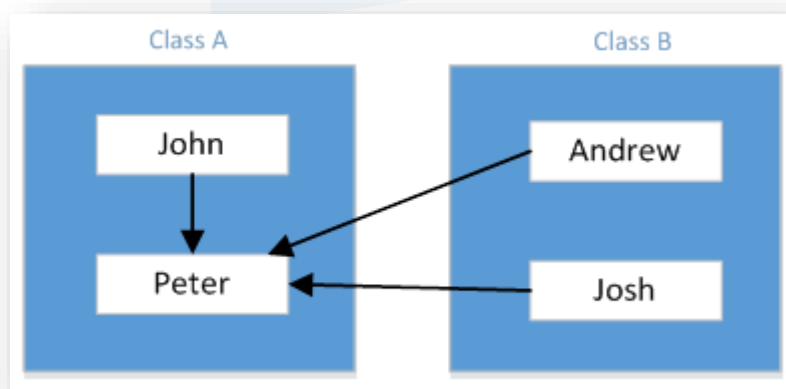


SYMPATHY TOWARD FRIENDLESS STUDENTS

On the **step 3** page (**Error! Reference source not found.**), you may have noticed that the “**friends**” criterion is different from other requirements in that it has two slider bars. The first slider bar sets the weighing of the “**friends**” criterion, in the same way as all other requirements, while the second slider bar, which is called “**at least one friend**”, sets the weighing of the first friend of each student. If you set this second weighing higher than the first, it means you want the engine to go extra length to guarantee that each student has at least one friend.

This feature is called “**sympathy toward friendless students**”. It is very useful in minimizing or even eliminating friendless students.

Consider the following example:



John, Andrew and Josh all want Peter to be in their own classes. John has no other friend in his class except for Peter, while Andrew and Josh have already some friends. If you set the **“at least one friend”** weighting to lower than the first slider bar, then the engine will move Peter to class B, because this move gives an extra friend to two students, while only one student loses a friend. This would result in John having no friend in his class. If you believe that a student getting his/her first friend is more important than a student getting his/her second or third friend, then you can assign a weighting to the **“at least one friend”** slider bar that is higher than the first slider bar. This will prevent the above-mentioned move from happening.

It is also useful when you find that the **“friends”** criterion suppresses other requirements too much, but, if you lower the **“friends”** criterion weighting, there are too many friendless students. In this case you can lower the **“friends”** criterion weighting, and increase the **“at least one friend”** weighting. The effects of this are:

1. If a student has no friend, the engine suppresses the competition from other requirements, including competition for friends from other students who already have at least one friend.
2. As long as each student has one friend, the engine suppresses the **“friends”** criterion to not to compete with other requirements.

WHEN DO YOU NEED TEACHER'S PET?

If you are a very small school, and you don't have other class-allocation requirements to consider, such as academic level, behavior, exclusions..., then you probably don't need Teacher's Pet. For example, to allocate 40 students into two classes, even if you mix them randomly, in average each student will still have two or three friends, with few or even no students being left friendless.

However, if you have more than two classes, or if you also have other requirements to consider, then you will benefit from using Teacher's Pet. The bigger your school, the greater the benefit. For example, when you are allocating 200 students into eight classes, to do it randomly, in average each student will have less than one friend, with close to 100 students left friendless. However, if you use Teacher's Pet, each student can have two to four friends, with no student left friendless. The benefit is tremendous.