

PSUG National Information Exchange

Users Helping Users



Troubleshooting GPA

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Agenda

- General Observations
- Auditing GPA
- Methods
- GPA DAT
- Grade Scales
- Credit Type
- Storing Grades
- Where GPA is used
- “Things to check” – Troubleshooting
- GPA challenges



Goals

- Understand the building blocks to GPA
- Become proficient at troubleshooting GPA issues.



About the trainer. . .

- Roger Sprik,
Technology Director
rsprik@vcschools.org
- Valley Christian Schools, Cerritos Ca
- 1200+ students Preschool - 12
- PowerSchool since 2003



General Observations



General Observations

- GPAs are calculated on the fly, only stored in Class Rank for Class Rank reports.
- The GPA method always supersedes the DAT
- "Weighted" - different assumptions about what that means



Do you really know your GPA?

Thoroughly
understanding your
GPA “outside” of
PowerSchool is critical



Do you really know your GPA?

- Do you know your GPA? You should be able to produce it outside of PowerSchool
- Document ALL the GPAs
 - Valley uses: Internal, CIF, CSU/UC, CalGrant
 - See our documentation "[California GPAs REV2b.pdf](#)"
- Start with an Excel Example
 - PowerSource [Article ID 55379](#) - "Calculating the GPA using the "Weighted" GPA Method"
 - PowerSource [Article ID 55371](#) - "Calculating the GPA using the "Simple" GPA Method"
 - See file "[GPA Examples](#)"



Audit Individual GPA



Audit one student's Historical grades

- PowerSource [Article ID 55348](#).
- Summary:
 - Select one student (or know their internal ID*)
 - In DDE/DDA select the StoredGrades table
 - "Match Selection" to Students or search by StudentID
 - Export the following:

** The student's internal ID can be found at the bottom of the Teacher Comments screen*

*** "Match Selection" is a powerful tool in DDE/DDA. See [Article ID 7891](#)*

[students]student_number
[students]lastfirst
Course_Number
Course_Name
Grade
GPA_Points
GPA_AddedValue
Credit_Type
ExcludeFromGPA
Grade_Level
EarnedCrHrs
PotentialCrHrs
StoreCode
TermID
SchoolID



Audit one student's Current grades

- PowerSource [Article ID 9917](#)
- Select one student
(or know their internal ID*)
- In DDE/DDA select the PGFinalGrades table
- "Match Selection" to Students
or search by StudentID
- Export the following:

[students]student_number
[students]lastfirst
[sections]course_number
Grade
Percent
FinalGradeName
[sections]termid
[sections]excludefromgpa
[sections]expression
[sections]teacher
[sections]id

** The student's internal ID can be found at the bottom of the Teacher Comments screen*

*** "Match Selection" is a powerful tool in DDE/DDA. See [Article ID 7891](#)*



Audit one student's Current grades-CC

- Select one student
(or know their internal ID*)
- In DDE/DDA select the CC table
- "Match Selection"** to Students
or search by StudentID
- Export the following:

[students]student_number
[students]lastfirst
Course_Number
[courses]course_name
^(pg.final.grades;S2)
^(pg.final.percent;S2)
[courses]credit_hours
[sections]GradeScaleID
[courses]GradeScaleID
Expression
[teachers]lastfirst
[sections]termid

** The student's internal ID can be found at the bottom of the Teacher Comments screen*

*** "Match Selection" is a powerful tool in DDE/DDA. See [Article ID 7891](#)*



Anatomy of the Method



Anatomy of the Method

General

Method name:

Description:

GPA Calculation

Formula:

Calculation type:

Grade scale:

Query Options

Terms: (comma-separated)

Grade levels: (comma-separated)

School years: (comma-separated)

Credit types: (comma-separated)

Only include grades

☒ that count in GPA
☐ that count in class rank
☐ that count in honor roll
☒ with potential credit

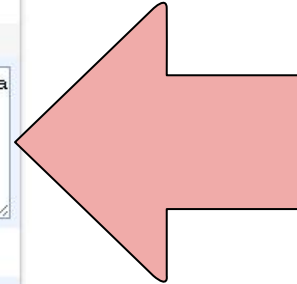
Projected GPA Options

Projected grades are:

Do not add grade if:

Stored credit hours:

[Export as template](#)



Formula

- Beyond the scope of this session, see [PowerSource Article ID: 6439](#) and built-in help

PowerSource [Article ID 7182](#) - "How it Works: GPA Calculation Query Options"



Anatomy of the Method

General

Method name:

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GPA Calculation

Formula:

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Grade scale:

Query Options

Terms: (comma-separated)

Grade levels: (comma-separated)

School years: (comma-separated)

Credit types: (comma-separated)

Only include grades

☒ that count in GPA
☐ that count in class rank
☐ that count in honor roll
☒ with potential credit

Projected GPA Options

Projected grades are:

Do not add grade if:

Stored credit hours:

[Export as template](#)

Calculation type

- Current - Gradebook
- Cumulative - Historical Grades
- Projected - Mix

Leave it blank to default to "Cumulative" and allow flexibility in the DAT

PowerSource [Article ID 7182](#) - "How it Works: GPA Calculation Query Options"



Anatomy of the Method

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Description:

GPA Calculation

Formula:

Calculation type:

Grade scale:

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Terms: (comma-separated)

Grade levels: (comma-separated)

School years: (comma-separated)

Credit types: (comma-separated)

Only include grades

☒ that count in GPA
☐ that count in class rank
☐ that count in honor roll
☒ with potential credit

Projected GPA Options

Projected grades are:

Do not add grade if:

Stored credit hours:

[Export as template](#)

Grade Scale

- Blank - Use value in StoredGrades
- Grade Scale name - Looks up the points in that specific scale.

Good to use for special GPAs for alternate uses.

Example: CIF wants us to use a straight 1,2,3,4 scale. B+, B or B- are all just a 3.

PowerSource [Article ID 7182](#) - "How it Works: GPA Calculation Query Options"



Anatomy of the Method

General	
Method name	VCHS
Description	Weighted GPA for VCHS official GPA that takes into account extra GPA points for Honors grades of C- or higher.
GPA Calculation	
Formula	<code>round((gpa_sum((gpa_gpapoints()+gpa_addedvalue()*gpa_potentialcredit())/sum(gpa_potentialcredit()))),4)</code>
Calculation type	Cumulative
Grade scale	
Query Options	
Terms	(comma-separated)
Grade levels	(comma-separated)
School years	(comma-separated)
Credit types	(comma-separated)
Only include grades	<input checked="" type="checkbox"/> that count in GPA <input type="checkbox"/> that count in class rank <input type="checkbox"/> that count in honor roll <input checked="" type="checkbox"/> with potential credit
Projected GPA Options	
Projected grades are	Current final grades
Do not add grade if	A grade for the course exists in any term
Stored credit hours	Use actual credit hours
Export as template	

Terms

- Blank: if Calculation Type is Cumulative, and there are no other query options defined, it's all historical grade levels.
- Terms Only: If "Terms" is the only query option specified (no Grade Level or School Year), *the GPA will be based only on grades in the current year associated with the store code.*

PowerSource [Article ID 7182](#) - "How it Works: GPA Calculation Query Options"



Anatomy of the Method

General

Method name:

Description:

GPA Calculation

Formula:

Calculation type:

Grade scale:

Query Options

Terms: (comma-separated)

Grade levels: (comma-separated)

School years: (comma-separated)

Credit types: (comma-separated)

Only include grades

☒ that count in GPA
☐ that count in class rank
☐ that count in honor roll
☒ with potential credit

Projected GPA Options

Projected grades are:

Do not add grade if:

Stored credit hours:

[Export as template](#)

Grade levels

- i.e. "9,10,11" only for those grade levels.
- Blank - If type is cumulative uses grade levels set for the school in *District - Schools/ School Info*

PowerSource [Article ID 7182](#) - "How it Works: GPA Calculation Query Options"



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Projected grades are	Current final grades
Do not add grade if	A grade for the course exists in any term
Stored credit hours	Use actual credit hours
Export as template	

School years

- Fall Year(s), i.e. 2008,2009 will only use the 08-09 and 09-10 grades.
- Blank - ignored.

PowerSource [Article ID 7182](#) - "How it Works: GPA Calculation Query Options"



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Projected GPA Options	
Projected grades are	Current final grades
Do not add grade if	A grade for the course exists in any term
Stored credit hours	Use actual credit hours
Export as template	

Credit types

- i.e. "MAT,SCI"
- Blank - ignored

Valley uses these extensively to manipulate stored grades as categories.

Example: All our CSU/UC approved courses have UCA or UCH in their credit type. So our GPA for that has the entry "UCA,UCH"

PowerSource [Article ID 7182](#) - "How it Works: GPA Calculation Query Options"



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School years	(comma-separated)
Credit types	(comma-separated)
Only include grades	<input checked="" type="checkbox"/> that count in GPA <input type="checkbox"/> that count in class rank <input type="checkbox"/> that count in honor roll <input checked="" type="checkbox"/> with potential credit
Projected GPA Options	
Projected grades are	Current final grades
Do not add grade if	A grade for the course exists in any term
Stored credit hours	Use actual credit hours
Export as template	

Only include grades

- The common settings are "that count in GPA" and "with potential credit"
- "with potential credit" allows you to store progress grades that won't count if you store them with zero credit.

PowerSource [Article ID 7182](#) - "How it Works: GPA Calculation Query Options"



Anatomy of the DAT

DAT =
“Data Access Tag”



Anatomy of the DAT

- PowerSource [Article ID 5826](#)
- Format:

```
^(*gpa method="[gpa method]" type="[gpa type]" term="[term1],  
[term2],[etc]" grade="[grade]" credittype="[credit type]"  
year="[year1],[year2],[etc]" scale="[grade scale]")
```

Examples:

```
^(*gpa)
```

```
^(*gpa method="Weighted" type="Cumulative")
```

```
^(*gpa method="Weighted" type="Current")
```

```
^(*gpa method="Simple" term="S1")
```

```
^(*gpa grade="10,11,12" credittype="MAT,SCI")
```



GPA DAT “Defaults”

- If "method" is omitted - assumes "weighted"
- If "type" is omitted - assumes "cumulative"
- If a term is specified, the current year only is assumed unless otherwise specified

`^(*gpa) = ^(*gpa method="weighted" type="cumulative")`

`^(*gpa method="simple" term="S1")`
only uses historical grades from the current year

`^(*gpa method="weighted" term="S1" grade="9")`
will pull S1 grades from 9th grade, even from previous years



Grade Scales

A

A-

B+

B



Grade Scales

- Grade Points
- Counts in GPA?
- Receives added value

Grades		GPA and Credit Values				Teacher Gradebook Values		
Grade *	Description	Counts in GPA	Grade Points (GPA)	Added Value	Grad Credit	Teacher Scale	Cutoff % *	Grade Value *
A	Superior	<input checked="" type="checkbox"/>	4	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	96	96
A-	Superior	<input checked="" type="checkbox"/>	3.667	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	90	90
B+	Good	<input checked="" type="checkbox"/>	3.333	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	87	87
B	Good	<input checked="" type="checkbox"/>	3	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	83	83
B-	Good	<input checked="" type="checkbox"/>	2.667	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	80	80
C+	Average	<input checked="" type="checkbox"/>	2.333	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	77	77
C	Average	<input checked="" type="checkbox"/>	2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	73	73

Credit Type



Credit Type

- PowerSource [Article ID 5933](#)
- Optional, but can be very powerful as a "group filter". Gives you a lot of flexibility.
- Since it is not defined or validated, it is prone to typos.
- Very useful also for transcript control and graduation progress/planner
- Can use multiple types, separated by commas and no spaces
 - 15 characters max, including commas
- Document your use of Credit Types
- Audit them regularly
- Examples:
 - California - Use only UC approved courses for a UC GPA
 - Add a year credit type to create one transcript-based report card for all grades
 - Create multiple GPAs for different uses



Storing Grades

~~Hysterical~~ Historical
Grades



Storing Grades

- PowerSource [Article ID 55324](#)
- Final Grade Setup

- Here teachers are setup to store Q1 for Year, Semester and Quarter courses

2008-2009 School Year							
Q1	Q2	Q3	Q4	S1	S2	Y1	[NEW]
Semester 1				Semester 2			
Q1	Q2	S1	[NEW]	Q3	Q4	S2	[NEW]
Quarter 1	Quarter 2		Quarter 3		Quarter 4		
Q1 [NEW]	Q2 [NEW]		Q3 [NEW]		Q4 [NEW]		

- Here a teacher is calculating Q1 grades in the gradebook

Filter By: Reporting Term: Q1 Category:

</



Storing Grades — Store Codes and Final Grade

- Use this Final Grade... which Final Grade as defined in Final Grade Setup to "pull" from. In our example we'll be storing the S1 grade.
- Save with this Historical Store Code
 - USUALLY the same as the Final Grade
 - Any letter and number (1st character a letter, 2nd a number).
 - Can literally be anything, not defined anywhere.
 - We use codes like P1,P2,Z4 and Z5 to store Progress Grades that have no credit value

Permanently Store Grades

Which Grades

Use this Final Grade/Reporting Term: *

Save with this Historical Store Code: *



Storing Grades – Classes by term length

- Do not store
- Store with credit: 1-100%. This will store grades and the specified percent amount of the potential credit.
- Store with no credit

Classes by term length		Store	% of course credit
2014-2015	(05/26/2014 - 05/23/2015)	Store with credit ▾	50 %
Semester 1	(05/26/2014 - 11/29/2014)	Store with credit ▾	100 %

In this example, we are storing 50% of a yearlong class and 100% of a semester long class.

It can be easy to misunderstand the relationship between FGS and Store Terms. It is often the cause of GPA issues

2008-2009 School Year			
Q1 Q2 Q3 Q4 S1 S2 Y1 [NEW]			
Semester 1		Semester 2	
Q1 Q2 S1 [NEW]		Q3 Q4 S2 [NEW]	
Quarter 1	Quarter 2	Quarter 3	Quarter 4
Q1 [NEW]	Q2 [NEW]	Q3 [NEW]	Q4 [NEW]

Troubleshooting

“Things to check”



Things to check – “Include in GPA”

- The Course AND the Section both have an "Exclude from GPA" setting. Check both.
School > Sections > select course > select section > Exclude from GPA
School > Courses > Exclude from GPA
- The grade may have been stored with the wrong "Exclude from GPA" setting. Check a student's Historical Grades.



Things to check – Grade Scale “Counts in GPA”

- Each grade scale item must have the "Counts in GPA" setting checked to be included.
District > Grade Scales > Edit Scale > Edit Grade > Counts in GPA
- This assumes your method has the "Only include grades that count in GPA" setting checked.



Things to check – Grade Scale “Grade Points”

- Each grade scale item must have Grade points assigned if they are to be calculated.

District > Grade Scales > Edit Scale > Edit Grade > Grade Points

- If the GPA method uses a Grade Scale, check that one.
- If the GPA method Grade Scale parameter is blank, the grade scale assigned to the section or course is used. Check Section first, it can have it's own grade scale or be marked "Same as Course"



Things to check – Added Value

- If using Added Value for Honors weight, the amount of added value to add is defined in the course.

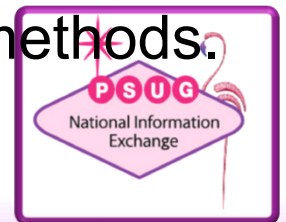
School > Courses > Edit Course District Information > GPA Added Value Points

- The grade scale assigned to the course or section must also have a setting checked for each item that gets added value.

District > Grade Scales > Edit Scale > Edit Grade > Receives Added Value?

- The grade may have been stored incorrectly. Check a student's Historical Grades to see if the "Added Value" setting is correct.

- Remember there are no included "Added Value" methods. See [Article ID 5720](#) for help in making your own.



Things to check – Current GPA

- Current GPA grades are determined by the "Current Grade" term as defined in:
School > Current Grade Display > Current Grade (always comes from the teacher's Gradebook).



Things to check – Credit

- The credit for the course is assigned in the Course Definition.

District - Courses - Edit Course District Information - Credit Hours

- The grade may have been stored with the wrong credit value. Check a student's Historical Grades screen and click on a grade to inspect. (*or use the steps on the "Audit One Student's GPA" slide*)



Things to check – Credit Type

- Are you using Credit Type?
- Check that the course is properly set.
School Setup > Courses > Edit Course District Information > Credit Type
- Check that the Stored Grades has the right value.
- *Select a student and inspect their Historical Grades screen*
- Check that the method or DAT has the right setting



Summary of the “Pieces”

Putting the puzzle
together



Summary of the pieces

- Method
- DAT
- Which grades? (Parameters and Options)
- Potential Credit Value (Courses and StoredGrades)
- Include in GPA (Grade Scale, Course, Section, StoredGrades)
- Grade Scales (Courses, Sections, Method)
- Grade Points (Grade Scale, StoredGrades)
- Added Value (Courses, StoredGrades)
- Credit Type (Courses, StoredGrades)
- Current Grades



The Audit

“Is you data clean?”



The Audit – Is your data clean?

Periodically dump your storedgrades data to Excel and use Pivot Tables to check for inconsistencies

- In DDE/DDA export from the StoredGrades table
- Use Excel to analyze and check for errors

[students]student_number
Course_Number
Credit_Type
StoreCode
Grade
GPA_Points
GPA_AddedValue
Grade_Level
Percent
EarnedCrHrs
PotentialCrHrs
ExcludeFromGPA
TermID



Challenges

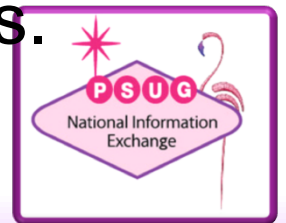


Challenges – Quick Lookup GPA

- Quick Lookup always forces a "current" parameter on the method. But the school may wish to display more than just the current GPA.

Solution:

- Create methods that are coded to be cumulative, current, or projected in the method.
- Create a master GPA method that uses the concatenate functions to create a GPA narrative that combines text and other GPA methods.
- See "[Quick Lookup GPA.pdf](#)" for specifics



Challenges

Can GPA still work in "Graduated Students"?

- With just a little modification, GPA should be fine in Graduated Students.
- Understand that the Graduated Students school is typically not defined as just grades 9-12 in District - Schools/School Info
- At Valley we usually can resolve it by including the grade parameter in the DAT on the transcript and in the Cum Info screens.
~(*gpa method="VCHS" grade="9,10,11,12")



GPA Troubleshooting



