

NCKU Moodle Instruction Manual – Grade Aggregation

I.	Grade Aggregation	2
II.	Categories and Items.....	3
III.	Application Example	6
1.	Different weight for each assignment.....	6
2.	How to adjust all grades at once?.....	7
3.	How to filter the grade item by score?	8
IV.	Contact Us.....	9

NCKU Moodle Instruction Manual

I. Grade Aggregation

The aggregation determines how grades in a category are combined, such as

- Mean of grades
The sum of all grades divided by the total number of grades.
For example:
A1 70/100, A2 20/80, A3 10/10, category max 100:
 $(0.7 + 0.25 + 1.0)/3 = 0.65 \rightarrow 65/100$
- Weighted mean of grades
Each grade item can be given a weight, which is then used in the arithmetic mean aggregation to influence the importance of each item in the overall mean.
For example:
A1 70/100 weight 10, A2 20/80 weight 5, A3 10/10 weight 3, category max 100:
 $(0.7*10 + 0.25*5 + 1.0*3)/18 = 0.625 \rightarrow 62.5/100$
- Weighted sum of grades
Each grade item can be given a weight and get the sum of them.
For example:
A1 70/100 weight 10, A2 20/80 weight 5, A3 10/10 weight 3, category max 100:
 $(0.7*10 + 0.25*5 + 1.0*3) = 11.25 \rightarrow 11.25/100$
- Sum of grades
The sum of all grade values.
For example:
A1 70/100, A2 20/80, A3 10/10:
 $70 + 20 + 10 = 100/190$
- Mean of grades(with extra credits)
A value greater than 0 treats a grade item's grades as extra credit during aggregation. The number is a factor by which the grade value will be multiplied before it is added to the sum of all grades, but the item itself will not be counted in the division.
For example:

Item 1 is graded 0-100 and its "Extra credit" value is set to 2

Item 2 is graded 0-100 and its "Extra credit" value is left at 0.0000

Item 3 is graded 0-100 and its "Extra credit" value is left at 0.0000

All 3 items belong to Category 1, which has "Mean of grades (with extra credits)" as its aggregation strategy

A student gets graded 20 on Item 1, 40 on Item 2 and 70 on Item 3

The student's total for Category 1 will be 95/100 since $20*2 + (40 + 70)/2 = 95$

- Lowest grades
The result is the smallest grade after normalization.
For example:
A1 70/100, A2 20/80, A3 10/10, category max 100:
 $\min(0.7 + 0.25 + 1.0) = 0.25 \rightarrow 25/100$
- Highest grades
The result is the highest grade after normalization.
For example:
A1 70/100, A2 20/80, A3 10/10, category max 100:
 $\max(0.7 + 0.25 + 1.0) = 1.0 \rightarrow 100/100$

II. Categories and Items

1. Simple view

Click “Categories and Items” tag → Simple view

Edit categories and items: Simple view

View **Categories and items** Scales Letters Import Export Settings My preferences

Simple view Full view

Name	Aggregation ?	Weight ?	Extra credit ?	Max grade	Actions	Select
試用課程 10	Sum of grades			-	⚙️ 👁️ 🔒	All None
test2			<input type="checkbox"/>	100.00	⚙️ ⚡ 👁️ 🔒 (3)	<input type="checkbox"/>
HW category	Weighted mean of grades		<input type="checkbox"/>	-	⚙️ ✕ ⚡ 👁️ 🔒	All None
HW01		<input type="text" value="0.0"/>		100.00	⚙️ ⚡ 👁️ 🔒	<input type="checkbox"/>
HW01		<input type="text" value="0.0"/>		<input type="text" value="100.00"/>	⚙️ 📄 ✕ ⚡ 👁️ 🔒	<input type="checkbox"/>
HW02		<input type="text" value="0.0"/>		<input type="text" value="100.00"/>	⚙️ 📄 ✕ ⚡ 👁️ 🔒	<input type="checkbox"/>
Category total				<input type="text" value="100.00"/>	📄 👁️ 🔒	
Course total				200.00	📄 👁️ 🔒	

Save changes

(4) Move selected items to Choose... ▼

(5) Add category Add grade item







(1) Aggregation

The aggregation determines how grades in a category are combined.

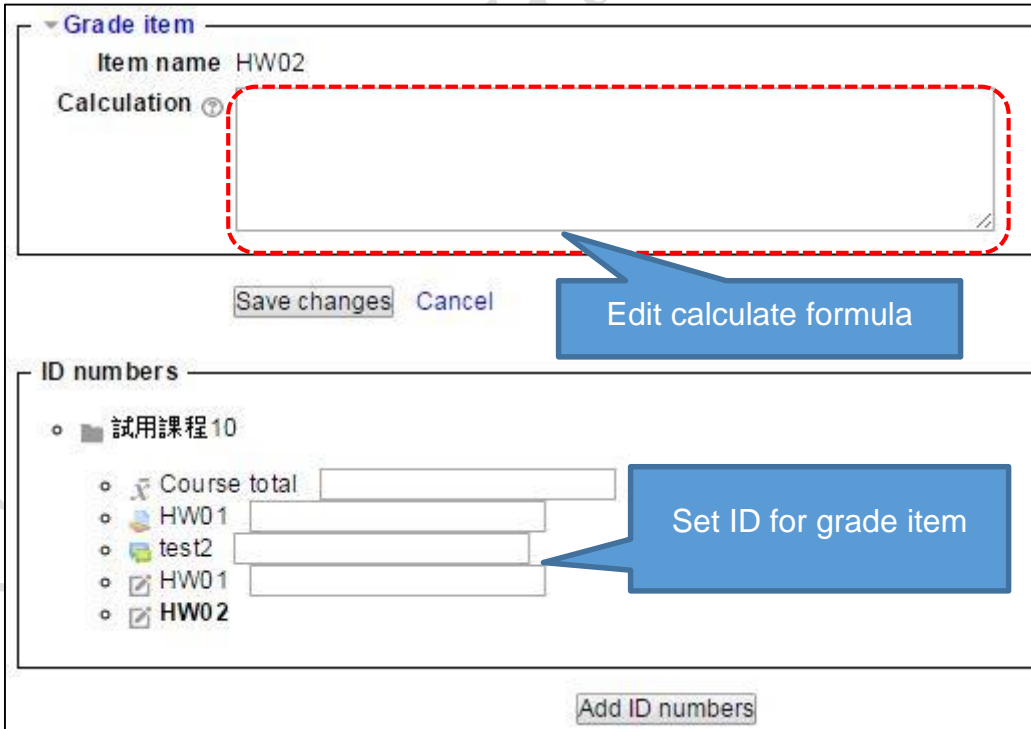
(2) Grade category

This block classify the calculate methods. Each contain their own method.

(3) Function icon

Icon	Name	Description
	Edit	Edit items
	Move	Move items
	Hide/Show	Hide item so that student can see it
	Lock/Unlock	Can be modify
	Delete	Delete items
	Edit calculation	Edit calculate formula

Edit calculate formula:



The screenshot shows the 'Edit calculate formula' interface in Moodle. It is divided into two main sections: 'Grade item' and 'ID numbers'.
1. **Grade item**: Contains 'Item name' (HW02) and a 'Calculation' text area. A red dashed box highlights the calculation area, and a blue callout bubble points to it with the text 'Edit calculate formula'. Below this section are 'Save changes' and 'Cancel' buttons.
2. **ID numbers**: Shows a tree view of course items. Under '試用課程 10', there are several items: 'Course total', 'HW0 1', 'test2', 'HW0 1', and 'HW0 2'. Each item has an associated input field. A blue callout bubble points to the 'HW0 2' input field with the text 'Set ID for grade item'. At the bottom of this section is an 'Add ID numbers' button.

Calculation formula :

A grade calculation is a formula used to determine grades. The formula should start with an equal (=) sign and may use common mathematical operators, such as max, min and sum. If desired, other grade items may be included in the calculation by typing the ID numbers in double square brackets

For example,

=average([[Quiz.1]], [[Quiz.4]], [[Assignment.1]])

=average(max([[Quiz.1]], [[Quiz.4]], [[Assignment.1]]), min([[Quiz.1]], [[Quiz.4]], [[Assignment.1]]))

Please refer to moodle.org to get more calculations.

(4) Move selected items to

Select items which desire moved then select destination in drop-down menu.

(5) Add category and grade item

It can add category and grade item.

2. Full view

This page contains more setting than simple view.

Edit categories and items: Full view

View **Categories and items** Scales Letters Import Export Settings My preferences

Name	Aggregation	Max grade	Aggregate only non-empty grades	Aggregate including subcategories	Drop the lowest	Keep the highest	Multiplier	Offset	Actions	Select
試用課程10	Mean of grades	-	(1)	(2)	0(3)	0(4)	(5)	(6)		All None
HW01	-	100.00	-	-	-	-	1.0	0.0		
test2	-	100.00	-	-	-	-	1.0	0.0		
HW01	-	100.00	-	-	-	-				
HW02	-	100.00	-	-	-	-				
Course total	-	100.00	-	-	-	-				

Save changes

Add category Add grade item

(1) Aggregate only non-empty grades

This setting determines whether empty grades are not included in the aggregation or are counted as minimal grades.

(2) Aggregate including subcategories

This setting determines whether grades in subcategories are included in the aggregation.

(3) Drop the lowest

This setting enables a specified number of the lowest grades to be excluded from the aggregation.

(4) Keep the highest

If set, this option will only keep the X highest grades, X being the selected value for this option.

(5) Multiplier

The multiplier is the factor by which all grades for this grade item will be multiplied, with a maximum value of the maximum grade.

(6) Offset

The offset is a number that is added to every grade for this grade item, after the multiplier is applied.

III. Application Example

1. Different weight for each assignment

Q: There are three assignments in the course. However, the weight are 30%,30%,40%.
How should I set the grade aggregation?

A: Click “Categories and items” tag → Simple view. Select “Weighted mean of grades” and input the weight.

View Categories and items Scales Letters Import Export Settings My preferences

Simple view Full view

Name	Aggregation	Weight	Max grade	Actions
試用課程10	Weighted mean of grades	-	-	
HW01	-	30	100.00	
test2	-		100.00	
HW01	-	30	100.00	
HW02	-	40	100.00	
Course total	-		100.00	

Save changes

Add category Add grade item



















2. How to adjust all grades at once?

Q: How to plus 5 point for every student

A: Click “Categories and items” tag → Full view. Input the point you want to add in the offset field.

View Categories and items Scales Letters Import Export Settings My preferences

Simple view Full view

Item /	Aggregate including subcategories	Drop the lowest	Keep the highest	Multiplicator	Offset	Actions	Select
<input type="checkbox"/>		0	0	-	-	  	All None
-	-	-	-	1.0	5	  	<input type="checkbox"/>
-	-	-	-	1.0	0.0	  	<input type="checkbox"/>
-	-	-	-			  	<input type="checkbox"/>
-	-	-	-			  	<input type="checkbox"/>
-	-	-	-			  	<input type="checkbox"/>

3. How to filter the grade item by score?

Q: There are three assignments but only the two highest grades will be calculate.

A: Click “Categories and items” tag → Full view. Input the number of highest grades you want in the “Keep the highest” field.

Edit categories and items: Full view

View Categories and items Scales Letters Import Export Settings My preferences

Simple view Full view

?	Max grade	Aggregate only non-empty grades ?	Aggregate including subcategories ?	Drop the lowest ?	Keep the highest ?	Multiplicator ?	Of
	-	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0	2	-	-
<input type="checkbox"/>	100.00	-	-	-	-	1.0	0.0
<input type="checkbox"/>	100.00	-	-	-	-	1.0	0.0
<input type="checkbox"/>	<input type="text" value="100.00"/>	-	-	-	-		
<input type="checkbox"/>	<input type="text" value="100.00"/>	-	-	-	-		
<input type="checkbox"/>	<input type="text" value="100.00"/>	-	-	-	-		

IV. Contact Us

If you have any questions and suggestions about the system, please contact Teaching & Learning Technology Division, Extension 61024 ~ 61029.