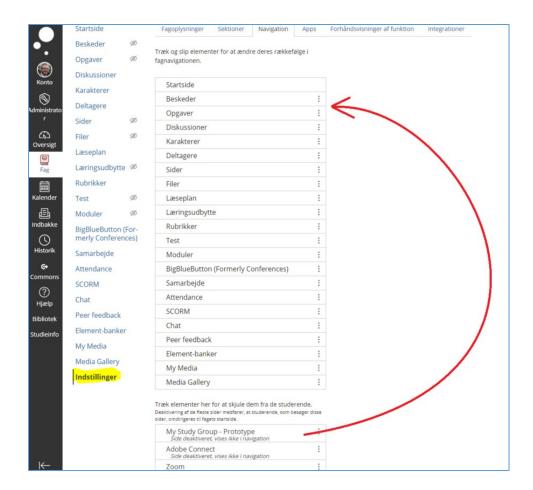# My Study Group (facilitator)

My Study Group is a tool in Absalon for matching students in study groups prior to their study start. The division is done via an algorithm that matches the students based on their answers to 3 basic questions. This is a guide for you as a facilitator.

The process is overall as follows (everything takes place directly in the tool)

- ➢ You send a message to the students to start the group formation process
- ➢ The students answer the questions
- ➢ You can send reminders to students who have not yet responded
- ➢ You start the group formation process
- ➢ The algorithm places the students in groups based on the similarity in their answers
- ➢ You approve the algorithm's suggestions for groups (alternatively edit the groups manually)
- ➢ Students are automatically notified of their groups and the other group members

My Study Group in Absalon

- If My Study Group is not already showing in the menu you click on Settings and drag the tool and placed it in the navigation menu. Remember to click save
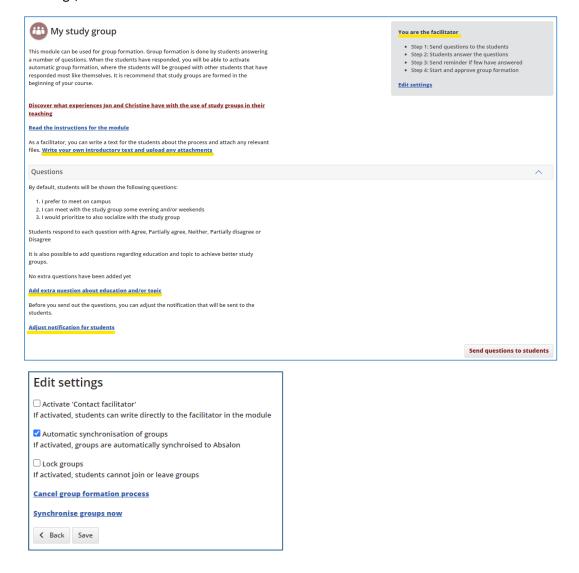
The role as facilitator

- Click on My Study Group. The first teacher to click on the element now becomes the facilitator
- (If you are not a facilitator to start with, you can choose to take the role afterwards)
- The page briefly describes the purpose of the My Study Group tool and also shows the 3 questions
- Your tasks as a facilitator are listed in the right corner (you have the option to edit som important settings, look under the screenshot

- You can switch off "write to facilitator" so that the students cannot contact the facilitator
- You can opt out of automatic synchronization of groups. When synchronization is switched on, My Study Groups creates and maintains the study groups as groups in Absalon that can be used for e.g. assignments. If changes are made to the groups directly in Absalon, the changes will be overwritten by My Study Groups and therefore it may be relevant to switch off synchronization.
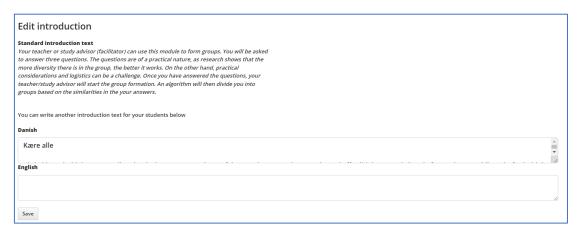
- You can lock groups if, for example, there are mandatory groups
- You can cancel/reset group formation processes that have already been started, if they have been started, for example by mistake (be aware that any formed groups are lost)

Writing your own introductory tekst

You can also choose to write an introduction of your own choice which will be shown to the students when they click on the tool

- If you want to write a different text than the generic one (below) then click on *Write your own introductory text…*

Edit introduction

Standard introduction text
Your teacher or study advisor (facilitator) can use this module to form groups. You will be asked to answer three questions. The questions are of a practical nature, as research shows that the more diversity there is in the group, the better it works. On the other hand, practical considerations and logistics can be a challenge. Once you have answered the questions, your teacher/study advisor will start the group formation. An algorithm will then divide you into groups based on the similarities in the your answers.

You can write another introduction text for your students below

Danish

Kære alle

English

Save

Adding extra questions

You can add 2 additional questions (subject and education) that the students must answer in addition to the 3 basic questions. If subject and/or education is used, please note that *the* algorithm prioritizes *matching on the basis of these answers over the answers to the 3 basic questions.* This means that matching is based on the similarity in students' answers.

- Clicking on *Add extra questions about education and/or subject* and click on *Enable*

Settings

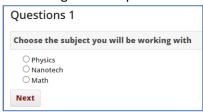| **Topic questions**	
Topic questions deactivated	Enable
Questions about programme	
Programme questions have been deactivated	Enable

‹ Back

- If you want to add eg. "Question on subjects", you need to fill in the options between which the students can choose. If you forget to fill those out the students will be met by 2 "blank" options

Before filling out the options:

Questions 1

Choose the subject you will be working with

○
○

Next

After filling out the options:

Questions 1

Choose the subject you will be working with

○ Physics
○ Nanotech
○ Math

Next

- Adding subject as a question will look like this on the facilitators page
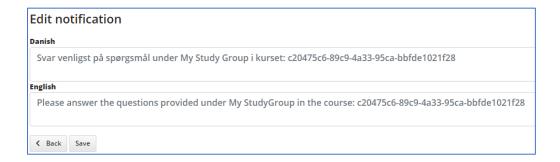
It is also possible to add questions regarding education and topic to achieve better study groups.

- Students must choose a subject

Add extra question about education and/or topic

My own notification to the students

- If you want the change the generic notification that students receive in their inbox in Absalon then click on *Adjust notification for students*
- Remember to hit *Save* when you have finished

Edit notification

Danish

Svar venligst på spørgsmål under My Study Group i kurset: c20475c6-89c9-4a33-95ca-bbfde1021f28

English

Please answer the questions provided under My StudyGroup in the course: c20475c6-89c9-4a33-95ca-bbfde1021f28

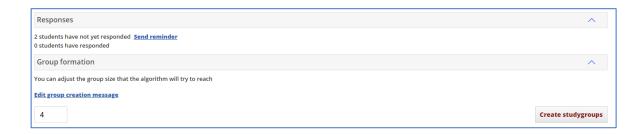‹ Back   Save

Send out the questions to the students

- When are finished writing your own notification hit *Send questions to the students*
- After clicking, you will see a summary of the introductory text and the message that the students see. If it can be approved, click on

Send questions to students

Waiting for the students' answers

- You can follow the progress of the students' answers
- You can send reminders to those who have not yet responded
- You can adjust the *group creation message* (that the students receive when the groups have been formed)
- You can adjust the group size, if necessary

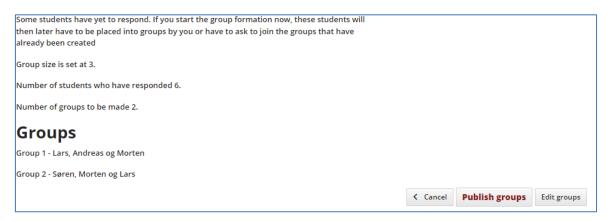| Responses	⌃
2 students have not yet responded **Send reminder** 0 students have responded	
Group formation	⌃
You can adjust the group size that the algorithm will try to reach **Edit group creation message**	
4	**Create studygroups**

Create studygroups

When the students (or the majority of the students) have responded the group formation process can begin. The algorithm will form groups based on the similarity in the students' answers (appendix 1 gives a more detailed and technical explanation of how algorithm works)

The overview below gives a preliminary status showing the number of replies, the group size and the number of groups/members

- You can now choose to either *publish groups* as they are or *edit groups* if necessary (this is explained on the next page)

Some students have yet to respond. If you start the group formation now, these students will then later have to be placed into groups by you or have to ask to join the groups that have already been created

Group size is set at 3.

Number of students who have responded 6.

Number of groups to be made 2.

Groups

Group 1 - Lars, Andreas og Morten

Group 2 - Søren, Morten og Lars

‹ Cancel   **Publish groups**   Edit groups

Published the studygroups

When you have published the groups you get an overview of the formed groups and the members

- You can also send reminders to students who have not yet responded
- You can choose to directly *assign students* without a group to a group (if they have not yet responded to the questions), *suggest the student to a group* or *create a new group*
- You also have the option of automatically distributing students - who have not answered - randomly into newly created groups

Groups

2 groups have been formed

Download groups as Excel spreadsheet (Group, First name, Surname, UCPH username, KUmail)

Group	Requests members
Gruppe 1 - Lars, Andreas og Morten	NO
Gruppe 2 - Søren, Morten og Lars	NO

Students not in a group

Right now, 1 students are not in a group

- Anne Bjergø (annbje) **Assign to group**   **Suggest for a group**   **Create a new group and add**

Responses

1 students have not yet responded **Send reminder**
6 students have responded

Tools

Students will also get access to tools that support good group work. This happens at the same time for all groups according to a fixed rollout plan, which begins when groups are formed. As a facilitator, you can adjust this rollout plan, see the status of the rollout and, if relevant, deselect individual tools.
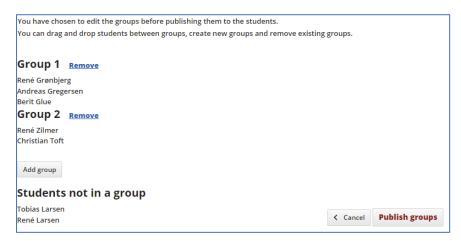**Adjust tools and rollout**

Editing groups

You can edit the groups if you are not happy with the composition of the groups or if you for any other reason need to change them by *dragging/dropping students*, *removing* entire groups and *creating* new ones.

- Make the necessary changes
- Click on *Publish groups* afterwards (be aware that this cannot be undone)

You have chosen to edit the groups before publishing them to the students.
You can drag and drop students between groups, create new groups and remove existing groups.

Group 1 Remove
René Grønbjerg
Andreas Gregersen
Berit Glue
Group 2 Remove
René Zilmer
Christian Toft

Add group

Students not in a group
Tobias Larsen
René Larsen

‹ Cancel   **Publish groups**

- If you wish to remove students from formed groups click on the group and then remove

Groups

5 groups have been formed

Download groups to Excel spreadsheet (Group, First name, Surname, UCPH username, KUmail)

Group

Gruppe 1 - Andreas, Berit og Arvid

Gruppe 2 - Thomas og Andreas

Gruppe 1 - Andreas, Berit og Arvid

Participants

- Andreas Klein (andkle) **Remove**
- Berit Gregersen (bergre) **Remove**
- Arvid Zilmer (arvzil) **Remove**

Send notification to the group

Setup via Mass creation

If sections have been created in a course and you do not want to mix students from the different sections, you can via the mass setup function form groups on the entire course but without grouping students from different sections. Mass creation allows you to edit and adjust the setup for all sections at once, so you do not need to access each section separately and adjust the setup.

- Click on mass creation

Start new group formation process

Sections have been created in this course, so you must choose whether you want to work with group formation on a specific section (possibly via mass setup so you can work with several sections at once) or with group formation across all sections, where you mix the students from different sections.

Mass creation

Use mass creation if you want group formations to take place within each section of the course.   **Mass create**

Now you can work with the different default texts, in the same way as when setting up a single section

Mass create

Adjustment/setup of default texts for all sections
My study group already contains a number of default texts, but if you want to adjust these you can do so below.

You can write your own introductory text if you don't want to use the default text (which you can also see if you click on the link below). The text is shown to the students when they click on My Study Group on the course.

Write your own introductory text and upload any attachments

If you want to select questions about the subject/education in addition to the 3 questions that the students already have to answer, you can add them via the link below.

Select questions about topic and/or programme

If you want to you can adjust the message that the students receive in their Absalon inbox, you can do this via the link below.

Edit invitation to answer poll

Customize receipt text for when groups are formed
If you want to you can adjust the message that the students receive in their Absalon inbox when they have been assigned to a group, you can do this via the link below.

Edit notification about group formation

Send out to multiple sections
Click on the link below to get an overview of sections and any already initiated group formation processes and send questions.
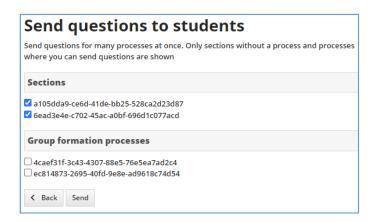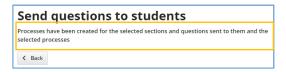
Send questions to students

Sending out to the students via mass creation

When you have clicked on "Send questions to the students" you will be given the opportunity to "check" the correct sections. (If group formation processes have already been initiated on selected teams, they are displayed under Group formation processes)

- Click on Send

Send questions to students

Send questions for many processes at once. Only sections without a process and processes where you can send questions are shown

Sections

☑ a105dda9-ce6d-41de-bb25-528ca2d23d87
☑ 6ead3e4e-c702-45ac-a0bf-696d1c077acd

Group formation processes

☐ 4caef31f-3c43-4307-88e5-76e5ea7ad2c4
☐ ec814873-2695-40fd-9e8e-ad9618c74d54

⟨ Back   Send

Send questions to students

Processes have been created for the selected sections and questions sent to them and the selected processes

⟨ Back

Appendix 1 – Group formation algorithm

The algorithm identifies the "worst" group by finding the students that differ the most in their answers. The members in that group each create their own group. The groups are then being formed iteratively by each group getting assigned a student with answers closest to the average answer of the group. The algorithm only uses the answers provided by the students in the My Studygroup app.

```csharp
public sealed class ArcanicGroupingGenerator : IGroupingGenerator
    {
        public IReadOnlyList<Group> Group(IReadOnlyList<Data> data, int groupSize)
        {
            var consumable = data.ToList();

            var someData = data.Last();

            var seed = new List<Group>()
            {
                new(someData)
            };

            consumable.Remove(someData);

            var seeds = this.WorstGroups(seed, consumable, (int)Math.Ceiling(data.Count / (double)groupSize)).SelectMany(e =>
e.Data).Select(e => new Group(e)).ToList();

            foreach (var d in seeds.SelectMany(e => e.Data))
            {
                consumable.Remove(d);
            }

            var result = this.BestGroups(seeds, consumable, groupSize);

            return result;
        }

        public double Compare(Data data, IReadOnlyList<Data> dataSet) => this.Compare(data, new Group(dataSet));
        public double Compare(Data data, Group group) => Euclid.Distance(data.Vector, group.Average());

        private IReadOnlyList<Group> WorstGroups(IReadOnlyList<Group> groups, IReadOnlyList<Data> data, int groupSize) =>
this.FillGroups(groups, data, groupSize,
            (ds, g) => ds.OrderByDescending(e => this.Compare(e, g)).First());

        private IReadOnlyList<Group> BestGroups(IReadOnlyList<Group> groups, IReadOnlyList<Data> data, int groupSize) =>
this.FillGroups(groups, data, groupSize,
            (ds, g) => ds.OrderBy(e => this.Compare(e, g)).First());

        private IReadOnlyList<Group> FillGroups(IReadOnlyList<Group> groups, IReadOnlyList<Data> data, int groupSize,
Func<IReadOnlyList<Data>, Group, Data> dataSelector)
        {
            var consumable = data.ToList();
            var gs = groups.ToList();

            for (var i = 0; i < groupSize - 1; i++)
            {
                foreach (var g in gs)
                {
                    if (!consumable.Any()) break;

                    var x = dataSelector(consumable, g);
                    consumable.Remove(x);
                    g.Append(x);
                }
            }

            return gs;
        }
    }
```