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## Department of Planning

## PURPOSE AND DELIMINATION

The processes of group formation are an essential part of the project oriented work form at $A A U$ and the processes have great influence on the students' wellbeing and learning in the project work. Often most the group formation goes well but group formation can to some students be an insecure, chaotic and in some cases uncomfortable experiences connected with social exclusion.

In general, there are a number of different stakeholders involved in the group formation and often with varying interests. The most important stakeholders are the students, the semester coordinators (who are superficially in charge of the processes) and the university as a whole (professionally/pedagogically/didactic). This document seeks to set up some tools to help at the process of group formation including different possibilities during the process. The document also covers the problems that can arise during the process including that some students cannot form a group or the possibilities of the splitting of groups.

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## CONTENT

## GENERAL PRINCIPLES

Generally the group formation varies from the entirely administrative divisions where the groups are divided administratively (for example on the $1^{\text {st }}$ year of study) to processes facilitated by semester coordinators or fully facilitated by students. Despite different opinions and wishes in the group formation there are a set of conditions that are broadly agreed upon:

- It is in general a good principle that no groups are closed before everyone is in a group
- On semesters with international students it is usually appropriate to divide nationalities/international students I different groups.
- Students generally learn different things by working in different groups, which should therefore be aspired towards.
- Project supervising is not solely about professional guidance but also pedagogical guidance, which makes it important that tutors are professionally trained to support and challenge the students in appropriately dealing with group formation as well as the collaboration process.
- Semester coordinators must have the possibility to vary the processes of group formation since there will be a difference between different education programmes and semesters.
- There should be coordination between semester coordinators so that a sharing of experiences from the former semester concerning group formation and group work as a whole (though without stigmatising individual students) takes place.

The processes of group formation should, as a minimum be evaluated along with the semester evaluations.

## GROUP SIZES

Group sizes can vary from semester to semester and from programme to programme. It must be specified in the semester description. Normally the maximum group sizes are recommended as:

- 1.-2. semester bachelor: 7 students pr. group in P 1 and P 2 , but up to 8 students in P0
- 3.-5. semester bachelor: 6 students pr. group
- 6. semester bachelor project: 5 students pr. group
- 1.-2. semester candidate: 6 students pr. group
- 3. semester candidate: 3 students pr. group
- 4. semester master's thesis or long master's thesis maximum 3 students pr. group.

Just as groups should not be too big they should not either be too small. It is namely the experience that students have a lower rate of success completing their education on the standard time Without dispensations and without problems of both professional and psychological character if they are working alone. Therefore it is the institute's and the study board's general recommendation that groups with several members are formed every semester; not least because it exercises the ability to corporate - both with people that looks like oneself but also with those who do not. The recommendation also applies to the $3^{\text {rd }}$ semester master's programme where a lot of students complete a project oriented process staying at a company; a corporation between 2-3 students will not reduce the gain of a business stay - rather the opposite.

## DIFFERENT METHODS TO GROUP FORMATION

There are a set of different methods with "administrative division" and "complete student management" being the two extremes. The semester coordinator specifies in the semester description which method for group formation will be used that semester. This can optionally be discussed and agreed upon at the semester planning meeting.

Administrative division: In some cases - and namely on the programmes' $1^{\text {st }}$ and $2^{\text {nd }}$ semester it can be an advantage to divide the groups administratively. With the administrative division the groups can be formed either at random or by having the groups formed on the basis of personality tests or a wish that a group is comprised of persons with different competencies.
Complete student management: The students are themselves in charge of the process of group formation. The semester coordinator defines the conditions and supervises the group formation including the number of groups, number of group members etc. It will ease the group formation if the semester coordinator has opportunity to inform the students of the conditions the day before the group formation so that the students can prepare for the conditions of the group formation. The groups can be formed on behalf of which subjects the students wish to work with and/or which persons the students wish to be in group with. The groups are as a rule
not formed before all students are in a group. In experience the process of group formation proceeds the best if the students show:

- Honesty - say what they mean but say it in a proper manner
- Openness - say what they are thinking in the situations that arise during the group formation
- Respect - show respect for their fellow students. Even though there are someone, with whom they do not immediately want to form groups.
- Responsibility - remember that all students are responsible for the group formation proceeds well and ends up with everyone being satisfied

If it against expectation turns out that one or more students invoke(s) the right to write alone, this cannot be denied but the student(s) must acknowledge that supervisor resources will be reduced accordingly.
If it turns out that the remaining students deny admitting one or more students in groups (it is impossible to close the groups) so that there are several unwilling independents, there can in certain occasions be agreed upon a conditional admittance in a group. That way a student, that has difficulties joining a group, is admitted on condition that the collaboration between the group and the student proceeds in a suiting manner. Hereby the group can reserve the right to exclude that student within an agreed upon period of time (trial period). It is in that case recommended that a cooperation contract is developed that makes clear what demands and expectations the individual group members must abide by and fulfil; or the that student(s) are excluded from the group collaboration. It is the semester coordinator's responsibility to periodically follow up on the process of group formation and to intervene if the process gets snarled up
The semester coordinator is usually not present at the group formation process but must be available if problems arise. If the students cannot themselves manage the process of group formation, the semester coordinator must intervene and for example divide the groups administratively.

Partially student managed: There can be occasions where it is appropriate to have more control over the process of group formation than in full student management but where it is still possible for the students to have influence on the group formation themselves.
For example on the $1^{\text {st }}$ semester of the master's programme that admits students where part of the students come directly from the legal right of admission bachelor's programme while the rest comes from outside. In that case there can be an interest in the students forming mixed groups so that there are both AAU bachelors and other students in each group. The semester coordinator can in that case set up rules that there must be a certain number of AAU bachelors and other students in each group. The students can under these circumstances form the groups on behalf of the project theme and/or with whom they want to form groups. The same conditions count as if the groups were formed freely regarding problems if there are students who cannot/will not form a group.
It must be pointed out though that there are other options regarding the start-up of master's programmes. The curriculum can for example contain an introduction course for the students that are not coming with an AAU bachelor's degree so that they are introduced via the $1^{\text {st }}$ semester after which all students follow the same programme and form the groups freely. Another variant of partial student management is if the students want to shake things up that the groups are changed between semesters. Here a set of rules can be specified regarding
how many group members from the former semester group there can be in the new group. Yet another variant is "buddy groups" where the students get offered to pair up in two and/or three man groups after which the semester coordinator administratively forms these into the full groups.

## SPLITTING UP GROUPS

A group of students can ultimately split up if the collaboration does not work out or if a "collaboration contract" (cf. above mentioned) is overstepped and supervisor /semester coordinator actively but without luck has tried mediating etc.
Before the group is split up, there must be held an exploratory meeting with the supervisor or semester coordinator. Splitting up a group must in general happen well ahead of the end of the project period. At the time of splitting up all the students have equal rights to the material (documents, data, prototypes, experimental setups etc.) that exists at that given time in which the splitting up takes place. To avoid risking plagiarism when the same material entirely or partially make up several project reports it is important that the group before splitting up works out a short author's declaration (with information on the material that has been developed jointly and can make up several project reports) that is signed and inserted at the beginning of the respective project reports before turn in I Digital Exam.

## CHANGE OF PROJECT THEME AND/OR TUTOR?

A project group can regret the chosen project theme within a month after beginning the semester. If a project group is experiencing collaboration problems with their supervisor the group should at first make contact with the semester coordinator. If the supervisor incidentally is the semester coordinator contact is instead made with the programme coordinator or study board. If it is assessed that the supervisor does not live up to what should be expected of them a new supervisor can if necessary be pointed out.

## FAQ

The following elaborates on answers to some of the questions asked most often concerning group formation.

Why do we work in groups at AAU?
There are many reasons to work in groups. The most important reason for working in groups at AAU is that it is what you learn the most from and that what is learned happens in the high taxonomies. You learn to handle complex and interdisciplinary problems. Students who collaborate, educates, inspires and challenge each other naturally lead to a high professional level. Several studies have been made that show that the businesses expects that their employees can take initiative to identify which tasks that goes into a project and that they can collaborate professionally with others. These are qualifications that master's students from AAU are especially known for but they are not qualifications that come by themselves or are easy to achieve. It requires courage and a desire to evolve professionally and personally and the process of forming - preferably new - groups every semester is an important element to develop the personal qualifications. Experience also shows that students who have collaborated with many different fellow students in the run? Of their education at AAU also has
the advantage of a large network who knows their qualifications in depth. This is a great advantage on a labour market where many positions are filled through personal networks.

## Questions from students

\#1 - I did not participate in the group formation and was placed in a group that I did not help to choose - what do I do?

All students are expected to attend group formation or notify fellow students or semester coordinators of absence so that appointments can be made. In the current situation the group is formed and because it is and important qualification for all graduates from AAU to be able to collaborate professionally with others - including fellow students as well as colleagues - we expect you to contribute to making the group work as it is. The supervisor can be convened for meetings if help is needed to make the collaboration work.
\# 2 - Why can we not form groups before the start of the semester? We are a group that would very much like to work together again the upcoming semester.

In practice, it is possible for a group of students to work together on several semesters; but it is not something we in the department or the study boards recommend or support. We cannot forbid anyone to work with the same fellow students for several semesters, but we can guarantee that you will become a better student by working with different fellow students. As most AAU students are aware, persons quickly get an informal role in a project group, and just like formal roles, informal roles also affect your professional and personal development. By being challenged in collaboration with new people, you train an important competence in the current labor market - and in addition, it increases the size of your personal network, which is especially important concerning (informal) job offers. One of the main reasons to work with others is to get to know one's own strengths and weaknesses through mirroring in others.
\#3 - I would like to invoke my right to write the project alone - what do I do?
The curricula have been prepared with a view to work in project groups consisting of typically four to six students in collaboration - with the exception of the master's thesis. The work of fulfilling the learning objectives alone, without cooperation and sparring is typically too demanding for one person to be able to carry out the task alone. Supervision is allocated according to the number of people in a group, and as an individual, you will not be able to expect more than two or three supervisor meetings during the project period. From experience, that is too little. We therefore encourage students who want to claim their right to do a project alone, at least to join with fellow students in current supervisor meetings and sparring.

## Questions from semester coordinators

\#4 - How much time should I set aside for group formation?
It is in everyone's interest that a group formation process does not take place under time pressure, but how long it takes to form groups depends on the team size, the semester and that
specific year's students. The most important thing is to agree on a method of group formation and make a schedule for the process that allows for several interactions. If the students know the framework for group formation (and they should be informed about this before the start of the semester; preferably in the semester description), and if they know that they are responsible for forming a specific number of groups of a certain size, and what happens if they do not succeed within a given time, the experience is that the process will proceed as planned. If the students know that they, for example, have 40 minutes to form groups before the coordinator will ask for a status, the process will be more manageable for everyone. If the status after 40 minutes is that not everyone has formed groups, the coordinator can ask two or three students to help plan a new round, while the other students take, for example, a 15minute break. The students can contribute with information about what prevents the students from getting the group formation to come together, and the coordinator thus gets the opportunity to adjust the framework or have a chat with individual students before starting a new round.
Alternative approaches to the group formation process, which require the allocation of more time, but also have a team building effect for the whole team/year group, could be to:

- ask the students to discuss the possibilities in the project catalogue in random groups ( $1,2,3$, ..N ... $1,2,3$, ..N, etc.) and only then use, for example, the boards in the room to form groups
- ask students to discuss their preferences and priorities concerning project work in random groups in several rounds to enable students to come together, concerning whether they want to learn as much as possible or study to pass the exam, when in the day they work, how much structure they want for the collaboration etc.
\#5 - Group formation is not coming together - there are 1-6 students who have not joined a group - what do I do?

When you, as the coordinator, assess that everything has been tried to get the group formation to come together and the vast majority have formed groups, you can end the group formation process by announcing your decision to the students. Make a meeting appointment the next day with the student/students who are not in a (self-selected) group, and contact, if necessary, beforehand the head of study board to discuss possible solutions to the problems, to the extent that the problems can be foreseen (e.g. the scope of the project assignment). At the subsequent meeting with the student(s), the student(s) are expected to come up with suggestions for solutions, and on that basis agree on a solution that you believe will be able to work, to the extent that the students can meet the learning objectives for the semester. It is the students' responsibility - and clear interest - that it works in practice.

## Questions from project supervisors

\#6 - I have been contacted by a group before the start of the semester who would very much like to collaborate on a specific project proposal. What do I do?

In order to give all students equal conditions, group formation is planned at the beginning of the semester for virtually all semesters. It gives all students equal opportunities to bid on the project proposals that are offered, and it ensures that the semester coordinator can distribute the
teacher resources, etc. in a fair way between the students. Exceptions are usually graduation projects where students may wish for a certain supervisor. The semester coordinator will try to take this into account if possible, otherwise the group will be assigned another supervisor with competencies within the project's subject area.
\#7 - I am supervisor for a group that need help getting the collaboration to work - what do I do?

Ask the students to convene a meeting where collaboration is an item on the agenda. First of all, ask what experiences they have from previous collaborations, and refer to the PBL course teaching on the $1^{\text {st }}$ semester bachelor - all students have a course module where they are taught methods on how to collaborate, plan and learn in project groups. There may be - by agreement with the department - a "group doctor" attached, if the collaboration in the group needs a "restart".
\#8 - The project group that I am supervising has told me that they want to split up the group/exclude a member - what do I do?

Ask the students to convene a meeting where cooperation conflict is an item on the agenda and there must be one or more written presentations of what the conflict or conflicts consist of. The group is expected to solve the problems themselves, but the supervisor can be a good facilitator concerning getting the group members to solve the problems and propose possible solutions that are, for example, written down in a "collaboration contract" that becomes the framework for the group collaboration. If the supervisor assesses that the conflict is so deadlocked, or if the group's "cooperation contract" is not complied with, and the supervisor sees no other option than splitting, the group can agree on a model for splitting and continued supervision with the supervisor, of which the group then notifies the semester coordinator and semester secretary. Depending on the time of the project period and the causes of the conflict, there may be several ways to ensure supervision within the already requested framework - e.g. that all students participate in the remaining supervisor meetings regardless of which part of the previous group convenes.

## CONTACT / RESPONSIBILITY

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