

A top-down photograph of three people working at a round wooden table. On the left, a man with a shaved head and a beard, wearing a grey long-sleeved shirt over a blue t-shirt, sits with his chin resting on his hand, holding a white coffee cup. In the center, a woman with dark hair tied back, wearing a light-colored ribbed sweater and dark pants, leans over the table looking down at her laptop. On the right, another man with dark hair, wearing a blue long-sleeved shirt and blue jeans, also leans over the table, focused on his laptop. Two white coffee cups are on the table, one between the two men and one near the center. The background is a carpeted floor.

THE ACADEMY WAY TEACHER TOOLBOX

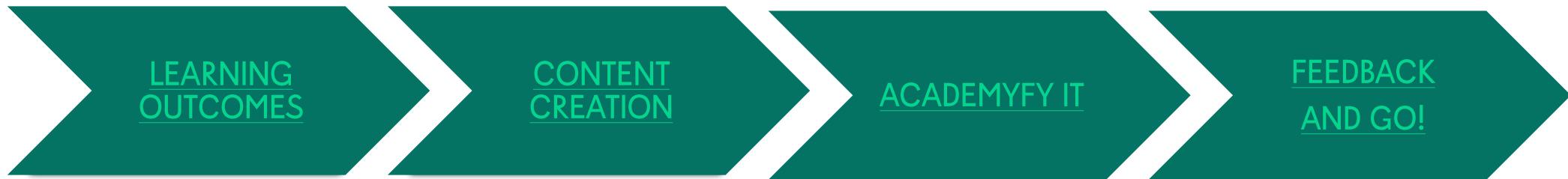
PLANNING & CREATING CONTENT

**A FOUR STEP GUIDE TO PLAN AND CREATE
CONTENT BEFORE TRAINING**

PLANNING & CREATING CONTENT

A 4 STEP GUIDE

Use this guide to plan, structure and create content from day one. Each step is described more in depth by clicking the step or scrolling down. Links to further guidance are available in each step.





PLANNING AND CREATING CONTENT

STEP 1. LEARNING OUTCOMES

At Academy, everything starts with the learning outcomes. The learning outcomes define the knowledge and skills that the consultants will have acquired at the end of the program or at the end of a specific topic. They are also a part of the agreement between you and Academy. Usually they are somewhat set when teachers enter the planning phase but the Program Manager finalizes it together with you. It's important that you feel confident in what the learning outcomes of the program/topic you will teach are since they set the goal for everything you do at Academy (content creation and delivery, follow ups and more).

Talk with the Program Manager and ensure that your picture of the course content and learning outcomes are anchored to finalize or set the learning outcomes.

If you are asked to create the learning outcomes yourself you can look into

- [The Learning Outcomes Guide](#)

PLANNING AND CREATING CONTENT

STEP 2. CONTENT CREATION

After finalizing the learning outcomes it's time to start creating content. The starting point of this step should always be the learning outcomes and, consequently, learning centered. With that said, we want the most effective and inspiring content that makes our consultants learn. The best content doesn't have to be newly created but it has to be updated, fill the learning purpose and be shaped according to The Academy Way.

To help you in the content creation it's a good idea to ask yourself;

- What content can Academy provide? (talk to PM)
- What content do you already have?
- Is there any free/existing content that you can work with not create from scratch?
- What content do you need to create?

When building your content use the [Learning Design Box](#) that includes both building blocks and hard core examples of all activities!





PLANNING AND CREATING CONTENT

STEP 3. ACADEMYFY IT

During your content creation it's important to ensure that you shape the content according to The Academy Way. Why? Because the Academy Way is built on five guiding starts that research has shown to be great ways to teach to enable learning in the most efficient way. To "Academyfy it" is to shape it in a way that makes the consultants learn the most. This means thinking thru all presentations and exercises with the learning centered mindset and with the starting point from our guiding stars. To help you Academyfy your content and structure your days the following resources are available;

- [The Academy Way](#)
- The Teacher Online Intro – ask your PM to get invited.
- The Teacher Intro
- [The Learning Design Box](#)
- Teacher Shadowing – ask your PM to plan it!

It's also important that you reflect after your own pre training audition and build your content from that.

PLANNING AND CREATING CONTENT

STEP 4. FEEDBACK AND GO!

Growth mindset and feedback culture is a big part of Academy's learning environment, also in the teacher community! We think getting feedback from a teacher colleague is a great way to give you the best opportunities before the premiere gig! Ask your Program Manager or Head of Learning Development whom is the best fit for you to turn to. After getting feedback from a teacher colleague you are ready to go!

At Academy we do Teacher Shadowing which means we "shadow" the teacher in action. Our teachers are one of the core pillars in our success and that's why we want to offer you constant feedback and support to ensure that we always develop and constantly get better. So be prepared that we might show up continuously to do shadowing!

When teaching you can always use these activities to get feedback;

- The weekly evaluation
- The weekly follow up meetings with Program Manager
- The Teacher Community
- Ask for teacher shadowing from a teacher colleague or Academy staff



LEARNING OUTCOMES CREATION

INTRODUCES YOU TO LEARNING
OUTCOMES AND GIVES YOU A STEP BY
STEP GUIDE TO CREATING THEM.

LEARNING OUTCOMES

WHAT ARE LEARNING OUTCOMES?

Learning outcomes define the *knowledge, skills and competencies* consultants should have acquired at the end of an assignment, a lesson, a project, a course or a program.

WHY ARE LEARNING OUTCOMES IMPORTANT?

In Academy's context, the learning outcomes are the consultants and the teachers learning goals and the competence goals for the client that ordered the program (client specific or Academic Work).

Research shows that the more familiar a person is with what they'll learn, the more engaged they are. Engagement influences motivation, which is crucial for our consultants ability to learn.



LEARNING OUTCOMES

LEARNING OUTCOMES FOR THE CLIENT

- Can in a clear way state what knowledge, skills and competencies they need
- Can consultants are actually expected to be able to do once they have completed their training and make sure that the outcomes match their competence needs

LEARNING OUTCOMES FOR THE TEACHER

- Can design the course/topic based on the learning outcomes and conduct systematic follow ups
- Can efficiently ensure that consultants are focusing on the right things
- Can in a clear way explain what is expected of the consultants
- Learning outcomes also provide a shared picture of the objective of the program, and feedback can be given on assignments with this in mind. In this way, learning outcomes form the basis for the formative assessment of the consultants, which helps us to ensure the quality of our training and the development of the consultants.

LEARNING OUTCOMES FOR THE CONSULTANT

- Can get an overall picture of their studies
- Can hone their learning and learn more effectively
- Can take greater responsibility for their own development
- Can maintain their motivation to study



LEARNING OUTCOMES

CREATING LEARNING OUTCOMES – A 6 STEPS GUIDE

1

Categorize in knowledge, skills and competences.

2

Use clear descriptors.

3

Be precise, avoiding using vague wording.

4

Limit the total number of learning competences.

5

Use the SMART (TT) model.

6

Use the format tool.

Click on the number to get to the right guide!

LEARNING OUTCOMES

1 & 2. CATEGORIZE AND USE DESCRIPTIONS

The European Quality Framework (EQF), is a framework for qualification of learning outcomes across Europe. EQF divides all learning outcome in tree categories to guide what kind of outcome it is.

The categories are;

- **Knowledge** which describes as theoretical and/or factual.
- **Skills** which describes as cognitive (involving the use of logical and creative thinking) and practical (involving manual dexterity and the use of methods, materials, tools and instruments).
- **Competence** which describes as the ability of the learner to apply knowledge and skills autonomously and with responsibility.

To help you come up with outcomes in the categories we have developed a library with useful verbs – you find it further down in this section.



LEARNING OUTCOMES

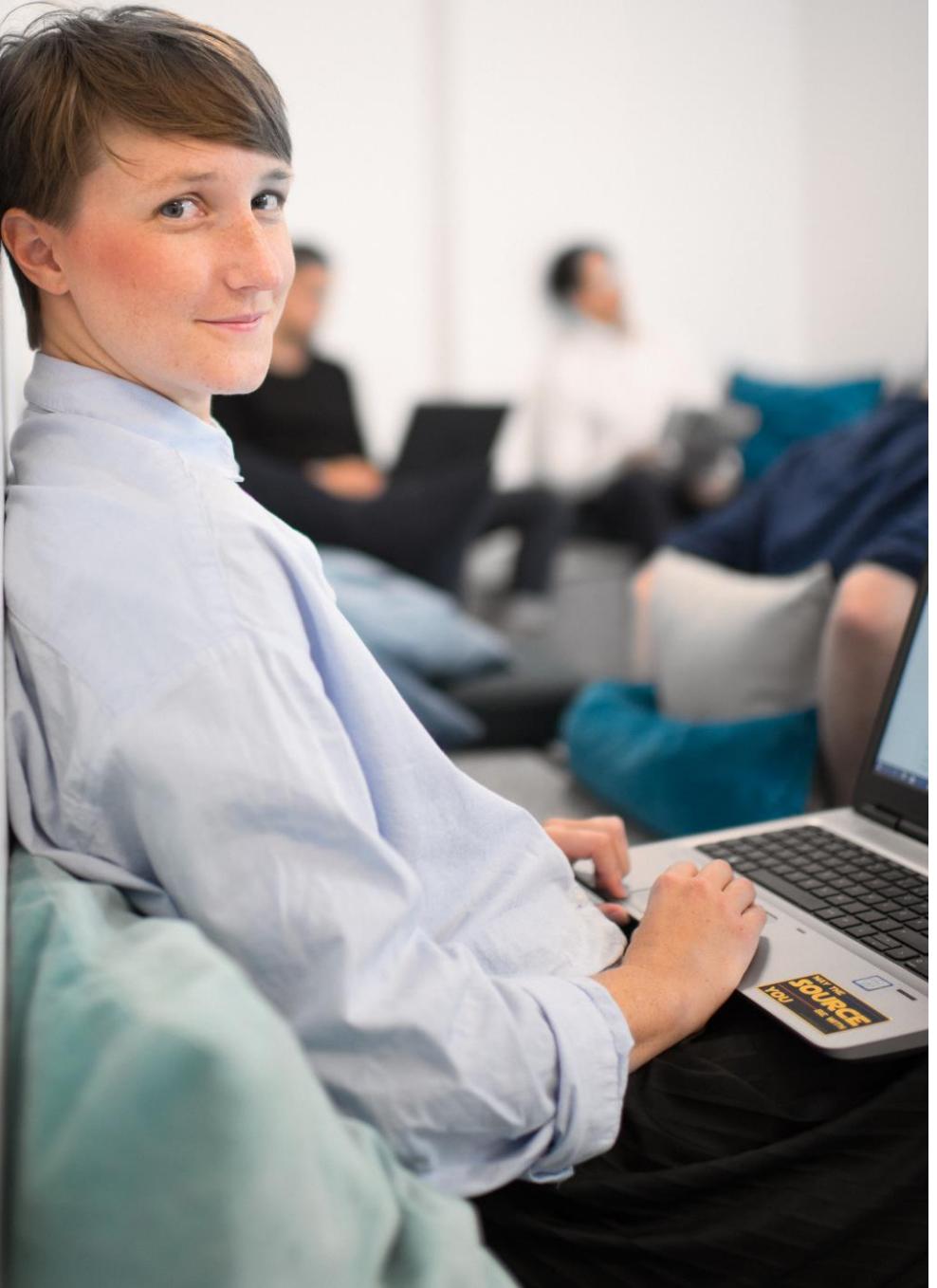
3 & 4. BE PRECISE AND LIMIT THE NUMBER OF LEARNING OUTCOMES

Good learning outcomes should always be specific and use active language (verbs) to make expectations clear. Avoid (if possible) terms that could be interpreted in many ways, like understand, demonstrate, or discuss.

Use the list of Useful verbs for developing Learning Outcomes.

Learning outcomes should be precise, but at an aggregated level focusing on the essential competence needs of the customer, resulting in as few learning outcomes as possible.





LEARNING OUTCOMES

5. USE THE SMAR(TT) MODEL TO PRODUCE LOGICAL AND TRULY PRACTICAL LEARNING OUTCOMES

- **Speak to the learner.** Learning outcomes should address what the learner will know or be able to do at the completion of the course.
- **Measurable.** Learning outcomes must indicate how learning will be assessed.
- **Applicable.** Learning outcomes should emphasize ways in which the learner is likely to use the knowledge, skills or competences gained.
- **Realistic.** All learners who complete the activity or course satisfactorily should be able to demonstrate the knowledge, skills or competences addressed in the outcome.
- **Time-bound.** Learning outcome should set a deadline by which the knowledge, skills or competences should be acquired;
- **Transparent.** Learning Outcomes should be easily understood by the learner.
- **Transferable.** Learning Outcomes should address knowledge, skills and competences that will be used by the learner in a wide variety of contexts.

LEARNING OUTCOMES

6. USE THE FORMAT TOOL TO PRODUCE LEARNING OUTCOMES THAT'S COMPARABLE AND COHERENT

By combining active verbs, content descriptions, context and quality of the action/activity, learning outcomes can be assessed according to how advanced the described action/activity is performed and thereby relevant grading criteria is easily produced.

	Example	Example
Choose introduction:	After graduation the consultant is ... After certification, the holder of the certificate is ...	After the program the consultant shall be able to... After the course the consultant shall be able to... After the 3-days training the consultant shall be able to...
Behavior:	An action/activity that can be observed and measured – expressed with an active verb corresponding to either knowledge, skill or competence	design, implement, test and troubleshoot...
Content:	The subject of the action/activity performed, what topic or process it relates to	simple programs in an object-oriented programming language...
Context and quality:	How the action/activity is performed and in what context it is assessed	in an object-oriented programming language.

LEARNING OUTCOMES

CATEGORIZING KNOWLEDGE, SKILLS AND COMPETENCE

The following lists are a list of useful verbs for creating learning outcomes. The lists are based upon the revised version (2001) of Bloom's Taxonomy of Educational Objectives, and thereafter categorized according to the knowledge, skills and competence categories of the EQF standard.

The section includes;

- Examples of knowledge verbs
- Example of skills verbs
- Example of competence verbs



LEARNING OUTCOMES

KNOWLEDGE REMEMBER/RECALL

Collect
Label
Define
List
Describe
Order
Duplicate
Quote
Enumerate
Recall
Find
Repeat
Identify
Reproduce
Locate
Select
Memorize

Show
Record
State
Recognize
Match
Relate
Select

KNOWLEDGE UNDERSTAND – DEMONSTRATION OF COMPREHENSION

Associate
Paraphrase
Classify
Predict
Compare
Recognize
Contrast
Report
Convert
Restate
Describe
Review
Estimate
Summarize
Explain
Trace
Extend
Translate

Generalize
Give examples
Identify
Interpret
Justify
Locate
Outline

LEARNING OUTCOMES

SKILLS - APPLYING THE KNOWLEDGE IN PRACTICE

Apply
Extend
Calculate
Illustrate
Chart
Implement
Choose
Instruct
Classify
Use
Complete
Modify
Compute
Operate
Construct
Participate
Contribute
Practice
Develop

Show
Solve
Employ
Teach
Experiment
Text
Predict
Discover
Dramatize



LEARNING OUTCOMES

COMPETENCE ANALYZING

Advertise Divide
Analyze Establish
Break Down Explain
Categorize Identify
Classify Illustrate
Collect Infer
Compare Investigate
Connect Order
Contrast Outline
Correlate Prioritize
Criticize Question
Diagram Select
Differentiate Separate
Distinguish Verify

COMPETENCE CREATING

Adapt Incorporate
Anticipate Individualize
Arrange Integrate
Assemble Invent
Collect Modify
Combine Negotiate
Compile Organize
Construct Plan
Decide Propose
Design Rearrange
Develop Reconstruct
Facilitate Revise
Formulate Select
Generate Structure
Generalize Substitute
Imagine Validate

COMPETENCE EVALUATING

Appraise Judge
Argue Justify
Assess Predict
Choose Prioritize
Conclude Rate
Convince Recommend
Criticize Reframe
Debate Score
Decide Select
Defend Support
Determine Value
Discriminate ¹
Evaluate ¹
Grade ¹
Integrate ¹
Interpret ¹

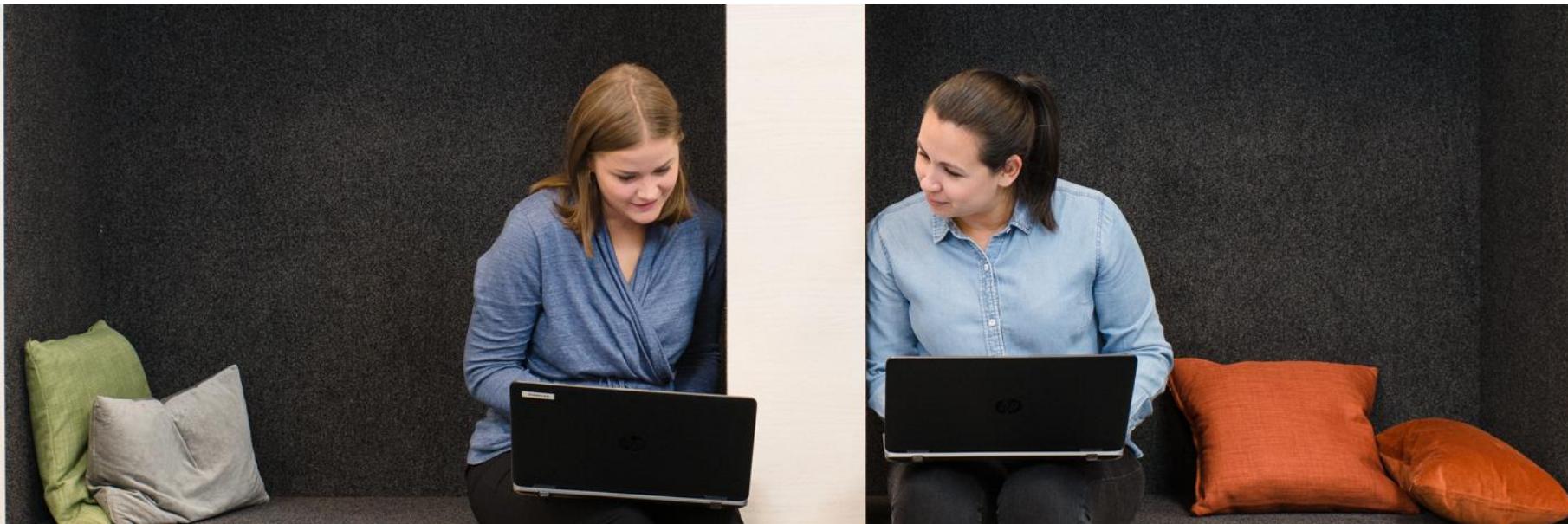
LEARNING DESIGN BOX

A TOOL TO STRUCTURE YOUR LESSONS

This section is a great tool that aims to help you in designing your trainings! The learning experiences at Academy are supposed to challenge and motivate the consultants, in order to reach that goal it's important to have a clear structure and a mix of different learning activities that supports the Academy Way. We know that it's not always easy to plan and structure training in a great way, therefore we have built an activity box with a mix of different building blocks to inspire you and help you design and structure your lessons.

The section includes;

- The learning design box
- Learning design template and example
- Learning design building box with purpose explanations and performance guides



LEARNING DESIGN BOX

**A BOX FILLED WITH LEARNING ACTIVITIES
TO INSPIRE AND SUPPORT YOU WHEN YOU
DESIGN AND STRUCTURE YOUR
TRAININGS.**

THE LEARNING DESIGN BOX

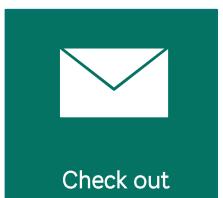
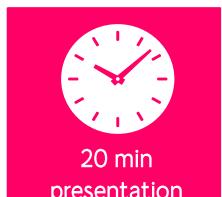
MANDATORY

ACTIVITIES

FOLLOW UPS

PROJECTS

ADDITIONAL



MANDATORY

CHECK IN

Purpose: Make sure that all consultants are present and create a structure of the lectures that communicates clarity towards the consultants. Here is the to-do's in the check in activity;

- Attendance! Read more about how to take [attendance](#).
- Summarize the previous day and the learning outcomes of that day.
- Seize the opportunity to check out the mood of the group – is everybody ready for the next step?
- Make the consultants switch places!
- Present the topics of the day and the learning outcomes to work towards with inspo on why!

CHECK OUT

Purpose: Close the learning session/day and summarize how far we reached connected to the learning outcomes.

This activity can also be a tool for you to see if your day went the way you wanted and where to start your next class. It is also a self evaluation tool for the consultant. A few examples of how you can summarize;

- A word on a post it about how they did today
- A rating with for example Mentimeter about their engagement in the class
- Red, yellow or green signal about their understanding of the topics of the day
- 1 min in silence to write down what they found challenging during the day

FOLLOW UPS

CHECKPOINT

Purpose: Follow up and evaluate the consultant's individual skills based on the current topics/lessons of the week and give the consultants feedback on their learning outcomes.

Checkpoints are exercises or assignments that they should be done individually.

Checkpoints are done in two levels. Level one evaluates that the consultants have reached the "minimum" learning outcomes they need to move on to the next week without any action or support. Level two aims to challenge the consultants!

Click [here](#) for more information about the checkpoints activity

QUIZZES

Purpose: Use quiz to evaluate what the consultants know about a topic, rehearse or to follow up the consultants progress towards the learning outcomes.

Have a lot of theory during the day? You can add short quizzes in the theory blocks to activate the consultants.

Here are a few examples of ways to do a quiz;

- The quiz tool in our LMS Canvas. The quiz tool in Canvas allows you to follow up on the quiz
- Mentimeter
- Socrative
- Kahoot!

Click [here](#) for more information on how to create quizzes in Canvas

FEEDBACK

Purpose: To give the consultants feedback that supports the learning. Feedback is actually one of the things that effects learning the most!

Feedback is given based on the actual learning so far and given in a way to support further learning, to help the consultants move on to the next level! Even if you regularly give the consultants feedback during the days, it is also important to plan for more structured feedback sessions. Examples of feedback sessions;

- Peer to peer reviews
- Technical feedback with the teacher
- 1:1 (PM)
- Group sessions

ACTIVITIES

20 MIN PRESENTATION

Purpose: Give the consultants the theoretical knowledge they need to be able to do the practical tasks.

Think carefully about what is most important that you go thru during the presentation – what do the consultant need to be able to start working on their own?

Here is a few examples of questions to help you;

- Is there some information they can get by video before class instead?
- Is there some information that they might be able to discover when working with an exercise?

Remember that problem solving and finding information yourself is a great skill that you learn by doing!

PRACTICE EXERCISE

Purpose: Let the consultants practice, consolidate and deepen the content and connect the theory to real cases and practical skills – learn!

How a practical exercise is designed depends on what the topic and the purpose of that topic. Design your exercise with the purpose in mind. One question that often helps when you create an exercise is to think of a problem/situation that the consultants solve when doing the exercise. Remember, during a practice exercise it's often great to let the consultants collaborate.

Depending on the topic we have gathered a few examples on a couple of exercises that you can find here;

- Canvas online intro

DISCUSSION

Purpose: Making the consultants learn by communicating and discussing certain topics, concepts, problems or challenges.

The benefits of working with discussions is that consultants broaden their perspectives and learn that there probably is several different ways to solve one problem. Discussions can be used as a learning activity at any time during a day.

Tips:

- Address the topic/challenge/situation that should be discussed
- Let the consultants discuss in smaller groups and then in bigger groups
- Remember that you as a teacher are the moderator
- End the discussion by summarizing the learnings

ACTIVITIES

SHOW OFF

Purpose: Create peer to peer learning sessions. To show off the groups work is a great way for the consultants to reflect on learnings along the way and share knowledge. Feedback from peers is also shown to have great effect on learning so show offs are a really efficient way to learn for the whole class.

Show offs can for example be used as a summary when working with assignments, exercises or projects to share challenges, successes and learnings they consultants got so far.

Remember that this is not only about showing off best practice, sometimes learning from a failure is the best way for the whole group to improve.

TEACHER TUTORIAL

Purpose: Making the consultants learn both knowledge and skills at the same time by presenting a new topic or concept and have the consultants follow the teacher's instructions.

In this way the teacher creates a safe learning environment and the consultants build a solid base of practical skills and theory before starting a project based assignment. Examples of teacher tutorial are;

- Code along
- Lab along
- Write along

Remember to practice on your tutorial before to avoid not wanted mistakes and misunderstanding that are time consuming.

PEER REVIEW

Purpose: Making the consultants learn from reviewing other peers work. This not only gives them a chance to learn from others but also practice on communication, giving and receiving feedback and a task that often is perform on the job.

Examples of peer reviews are;

- Code reviews
- Oppose presentations
- Reviewing checkpoints

Remember to give the consultants an introduction on how to give feedback.

THE LEARNING DESIGN BOX

HOW TO USE IT...

On the right hand side you see an example of what a day at Academy could look like. Every day at Academy starts with a check-in and Inspo, and ends with an check-out, these activities are mandatory. In between you can mix the different activities in a way that supports efficient learning!

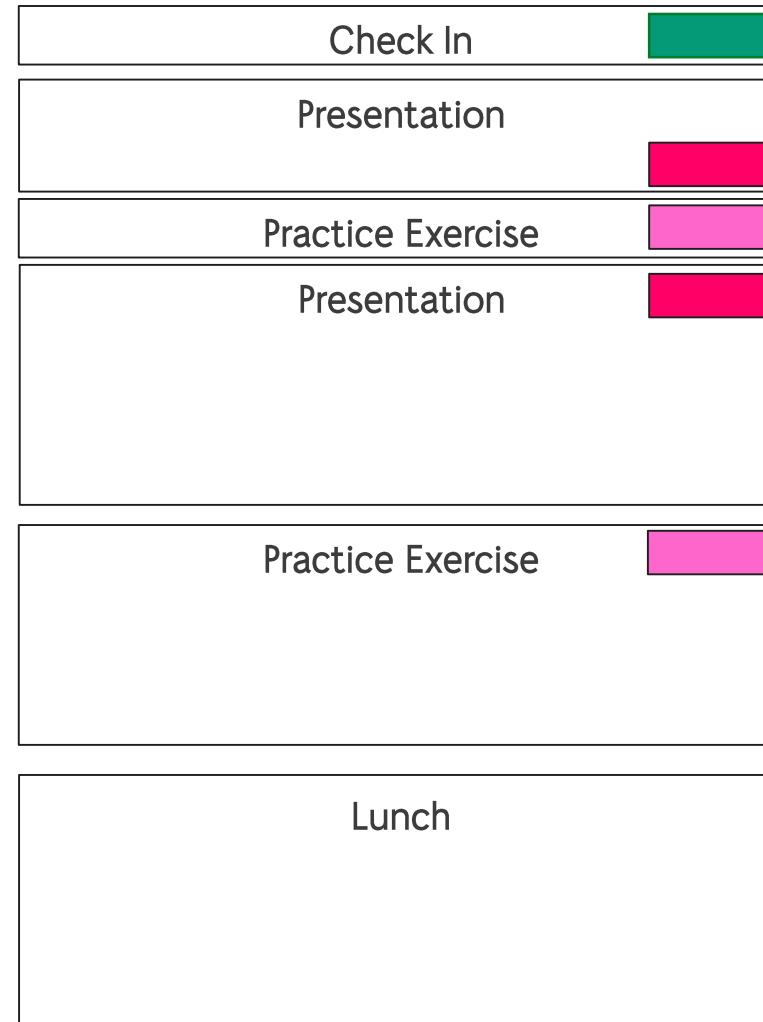
When working this way, always keep the group in a clear "state" (presentation, practice exercise, teacher tutorial, project, discussion) and mark clearly changed state to keep structure.

Every week should also include a checkpoint or quiz to follow up on the consultants progress.

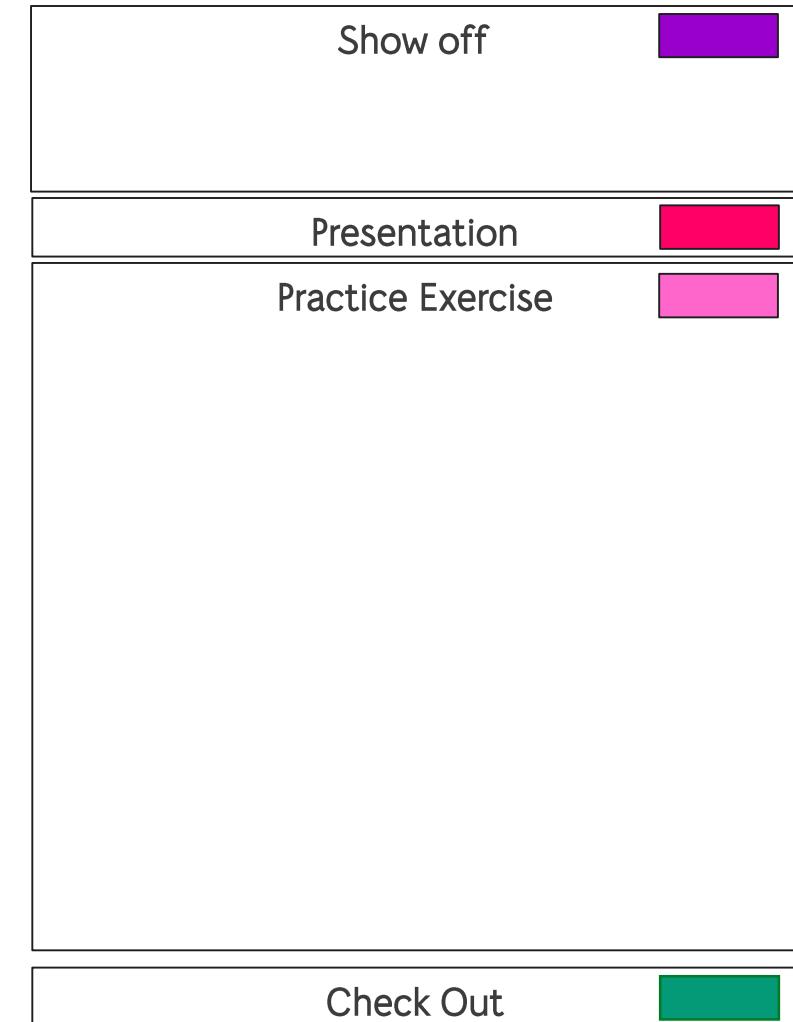
Before your day you might be able to prepare the consultants...?

Blended Learning

EXAMPLE MORNING



EXAMPLE AFTERNOON



PROJECTS

MINI PROJECT

Purpose: To let the consultants practice the knowledge and skills in a larger scale, deepening their skills while also practicing the “consultancy” skills such as teamwork, communication and delivery.

To work in real life projects is a great way to learn, both because the projects are similar to those that consultants will face in their new careers. It's also great since working in teams enables peer to peer learning which accelerates the learning for all members of the group.

Mini projects usually are projects that go on for about one to three days.

OWN PROJECT

Purpose: Raise and maintain curiosity and self development with the consultants.

By encouraging the consultants to work on own projects during the program they will always have a project to work on and try the new concepts, knowledge and skills they gain every day.

Time for own projects are given when/if a consultant has done all planned activities, extra exercises, lightning tasks and other.

GROUP PROJECT

Purpose: Let the consultants practice, consolidate and deepen the content and connect the theory to real cases and practical skills while getting to practice teamwork and real work skills.

How a practical exercise is designed depends on what the topic and the purpose of that topic. Design your exercise with the purpose in mind. Remember, during a practice exercise it's often great to let the consultants collaborate.

Depending on the topic we have gathered a few examples on a couple of exercises that you can find here;

PROJECTS

FINAL PROJECT

Purpose: Tie together all topics of the program and embed knowledge, skills and competences that the consultant have gathered throughout the program. By working several days to solve an assignment the consultants get a feeling of real work-life problem solving!

Final projects differ in both time and setup due to the nature of the program but usually lasts for 1-2 weeks at the end of the program with the final presentations ion graduation day.

Click [here](#) for more information about Final Projects.

ADDITIONAL

LIGHTNING TALK

Purpose: Challenge and develop consultants that are far ahead in the curriculum and to spread the knowledge of these consultants to the rest of the group!

A lightning talk it's a short talk where the consultant shares their knowledge/skills that they have or has been given the possibility to acquire within a special topic.
This is how it's done:

- Offer the consultant a selection of topics or allow them to choose
- The consultants takes (the given) time to acquire more knowledge about the topic
- The consultant prepares his/hers presentation
- Presentation (max 10 minutes)

READING

Purpose: Prepare the consultants for the upcoming lesson or to deepen the knowledge before a theoretical presentation.

This activity should mostly be used as extended activities, meaning the consultants should do this activity on evenings or weekends.

A few examples of readings;

- Case Studies
- Course literature
- Relevant links /blogs /news
- Tutorials

BLENDED LEARNING

Purpose: Accelerate the learning even more by giving the needed knowledge on before hands, make sure that the time in the classroom is mainly about action learning and create preunderstanding.

Examples;

- A video screen-cast when showing something, coding or being at a workplace visit
- A recorded lecture
- Digital material to prepare for class
- Podcast

In our LMS Canvas we have a great tool to enable flipped learning by using video – ARC. ARC enables you to embed your own videos or content from YouTube.

Read more about how to create great blended learning [here](#)

ADDITIONAL

REPETITION

Purpose: To give the consultants the possibility to repeat learnings to make sure it really has set.

Repetition could be done for a specific concept or if you see a general need in the class to go thru several topics.

The repetition can be done in several ways, here are a few examples:

- Present the topic again (maybe in a different way or due to the need you see).
- Let the consultants go thru exercises again (or new once!)
- Let the consultants prepare before and hold presentations them selves.

THE CHOICE

Purpose: Make the consultants choose whether they want to participate in repetition or a project to challenge themselves. This activity is great to get structure in planning for the teacher and also makes the consultants decide on their own what their needs for the moment is.

- Be clear about the exact time for the activity (since the group probably will be in different locations at campus during the session).

CHECKLIST TRAINING

BEFORE

- Plan your lectures and come well prepared!
- Go thru your plan and make sure that the consultant's gets to practice the knowledge and skills you teach.
- Create exercises and activities that are closely linked to their new job roles.
- Look into what pre knowledge the consultants has, make a quiz/video! To maximize the effect of each moment of the course, it is important that the level be as good as possible directly.
- Fill in the blanks! If you discover that you can raise the level, you can prepare them by, for example: Link to relevant videos, tutorials, or other that increase understanding. If you upload the video in Canvas ARC, you can also see who has watched your video and allow consultants to ask questions!
- Get a handover from your colleague who taught before you.
- Decide what follow up activity you will use after your lectures. We need to follow up the consultants skills and knowledge, quiz or checkpoint?



CHECKLIST TRAINING

DURING

- Check in!
- Inspo!
- Switch between presentation and activity
- Keep challenging the consultants
- Remember to take breaks
- Give feedback on a continuous basis in the classroom
- Credit trying and a fail fast culture
- Encourage peer-to-peer.
- Check out!



CHECKLIST TRAINING

AFTER

- Give feedback to the consultants on the follow up you had!
- Share your own key habits to the consultants! Share how you work to develop and learn new things! It might be certain books, magazines, events, blogs or podcasts – or something completely else?
- Reflect! After your day, take a moment to reflect on if you think the group reached the learning outcomes you had for the day? Reflect on what you did good and what you can develop until next time?
- Feedback to PM! Any consultants that you reacted on? Any changes in the program you thought about? Anything else?
- Handover to the colleague that will teach after you.
- Help develop The Academy Way! We always want to become better, please feedback us on what we can do to develop and also pedagogic ideas we can implement!? Together we become better!



GUIDES & EXAMPLES



GUIDES AND EXAMPLES

GUIDES AND TEACHING MATERIAL

EXAMPLES

This section is a great tool that aims to more in depth guide you in creating content or perform different activities that lies within the teacher role.

- Checkpoint creation guide
- Checkpoint examples
- Final projects guide

CHECKPOINT CREATION GUIDE

ABOUT CHECKPOINTS

Checkpoints can be described as exercises or assignments with the difference that they should be done individually. The checkpoints should as far as possible cover the topics of the current week. As a teacher you create checkpoints that gives you feedback on how well the consultants has learnt the concepts/topics – if they have reach the learning outcomes!

To follow the consultants progress we work with different activities where *checkpoints* is a follow up to evaluate the consultant's individual skills based on the current topics/moment of the week. Other values that checkpoints provide is;

- Teachers can in a more effective way get an overview over consultants individual learning progress
- If a consultant is struggling with the practice of the skill this will be noticed very early and we can take action and help this consultant at an early stage
- The consultants get clear feedback on their skills progress relative to learning outcomes.

“The idea of the 2-hour coding test is to tell us and the teacher where we are and what areas we need to practice on. After 1 hour and 40 minutes, I was done and started checking everything. And that is when I realized I was missing a small but crucial step that catches a potential error... I started fixing it fast as I could,... I saw the missing exclamation mark with 3 minutes to spare and submitted the assignment with 1 minute to spare, phew!!”

Academy Consultant C#
Spring 19 Finland

CHECKPOINT CREATION GUIDE

HOW TO CREATE CHECKPOINTS?

- Create checkpoints that are based on the knowledge and skills the consultants should reach the current week.
- Create the checkpoints in two levels. Level one evaluates that the consultants have reached the “minimum” learning outcomes they need to move on to the next week without any action or support. Level two aims to challenge the consultants!
- Conduct the checkpoint Friday morning (09:00-11:00) every week the first four weeks of the program. The reason is that we know how important it is to follow up the consultants skills in the start! After that you can switch between quiz and/or checkpoints. If you also want to use quizzes the first four weeks you can do that together with the checkpoints.
- When the consultants have submitted the checkpoints the teacher corrects them. The consultants that didn't make the checkpoint gets to redo a similar checkpoint on the following Sunday night (from home) to evaluate the learning progress again before the next week starts off!

TEACHERS TIPS!

- Adjusting the levels is hard, so think carefully about what is the minimum goal and make it achievable in less than 30 min.
- In the checkpoint shortly, but clearly state the objectives in a way that the consultants can't misunderstand the goal!
- Try to make the result really simple to check, so it won't take much time (preferably less than 5 minutes each).
- During the checkpoint...take the time to prepare material for next week/future and start checking the checkpoints once the first consultant is done.
- Have a longer teamwork task for the consultants after the checkpoint to buy you some time to check thru the rest of the checkpoints.

CHECKPOINT CREATION EXAMPLE

IT/CODE EXAMPLE

Checkpoint - Churches

Intro

Create a database model from the following instructions.

Add suitable relations and primary keys.

Just hand in one solution. (If you do level 2, just hand in level 2)

Submit three files:

- One picture of your database diagram (in the format PNG)
- SQL-code for creating your database (in the format SQL)
- SQL-code for querying the database (in the format SQL)

Time

2h

Level 1

This should the database be able to store:

Oscar-Fredriks church is located in Göteborg and is built 1893
Masthuggs church is located in Göteborg and is built 1914
Sankt Georgios church is located in Stockholm and is built 1890
Matteus church is located in Norrköping and is built 1892

Create SQL-code for getting/info about the churches. Example:

Göteborg	1893	Oscar-Fredriks church
Göteborg	1914	Masthuggs church
Stockholm	1890	Sankt Georgios church
Norrköping	1892	Matteus church

Level 2

This should the database be able to store:

Linnea lives in Göteborg
Harry lives in Stockholm

Oscar-Fredriks church is located in Göteborg and is built 1893
Masthuggs church is located in Göteborg and is built 1914
Sankt Georgios church is located in Stockholm and is built 1890
Matteus church is located in Norrköping and is built 1892

Linnea likes Oscar-Fredriks church and Matteus church
Harry likes Matteus church

Write SQL-code to get all inhabitants and the churches that they like. For example:

Linnea	Oscar-Fredriks church	1893
Linnea	Matteus church	1892
Harry	Matteus church	1892

CHECKPOINT CREATION EXAMPLE

IT/CODE EXAMPLE

Checkpoint - Watching birds

You're going to write a webapp for bird watching.

Write a Single Page Application (only use one html file). Make request using AJAX.

Create a database with SQLite.

Start with this project:

https://github.com/happy-bits/CollectorAcademyStudent/tree/master/Checkpoints/BirdWatcher_StartProject

Level 1

The user enters a specie and hits OK. The specie should then be saved in the database.

When the user presses the button below "Show all observations", all birds should be listed:

Add observations

Species
Gråsand

Show all observations

Ok

All observations

Större guldova
Domherre
Brun kärnhök

Level 2

The user enters date, specie, location and notes and presses OK. The observation should then be stored in the database. The table should be updated right after the observations is sent to the database.

Moreover, display a list of all species. Just show one specie one time.

Sort the observations by date.

Sort the species by name.

start

localhost:52191/start.html 73%

Add observations

Date
2018-05-04 09:00

Species
Gråsand

Location
Brunnsparken

Notes
I saw three at the canal

Ok

All observations

Date	Species	Location	Notes
2018-05-01 08:20:00	Större guldova	Stora Amundön	Really nice bird
2018-05-01 09:00:00	Domherre	Balltorps vätmärk	
2018-05-01 09:20:00	Brun kärnhök	Hárssjön	This could be a crow

Species

Brun kärnhök
Domherre
Större guldova

CHECKPOINT CREATION EXAMPLE

IT/CODE EXAMPLE

• Checkpoint - Triangles

Intro

Create a console-app and solve Level 1 or Level 2. Just hand in one solution.

Time

2h

How to submit

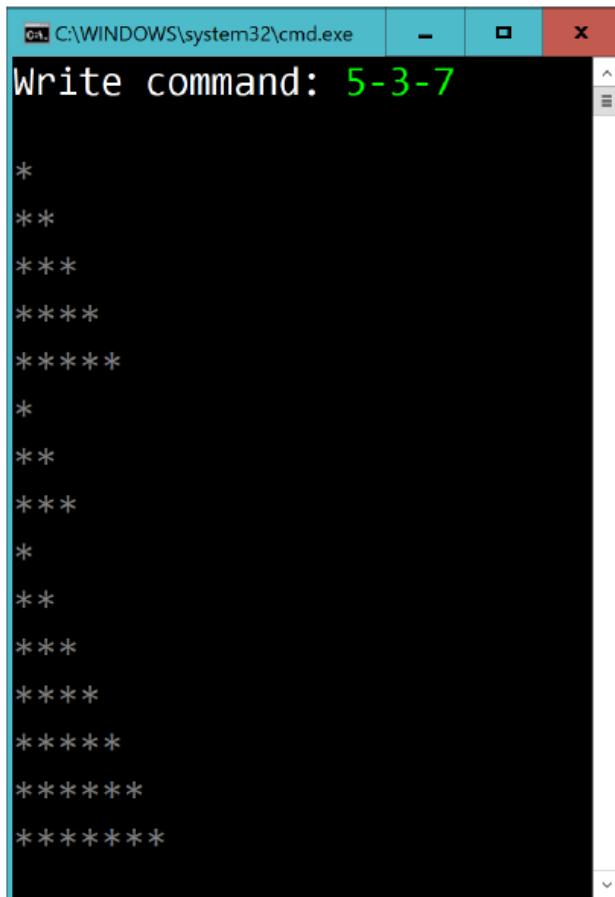
When you're done, create a zip of your solution.

Remove the folders .vs, bin and obj.

Level 1

The user enter a list of numbers, separated with dash. Write triangles using stars. The height and base of the triangles should be the same. The triangles should be displayed below each other in order.

In the example below a triangle with size 5 is displayed, then a triangle with size 3 and finally a triangle with size 7.



Level 2

The user should be able to display two types of triangles:

- Triangle A has one sharp corner pointing up
 - Triangle B has one sharp corner pointing down

Example:

- Triangle A2 has one sharp corner pointing up with the size 2.



CHECKPOINT CREATION EXAMPLE

IT/CODE EXAMPLE

Time

2 h

Introduction

Create a Command Line Application and solve either Level 1 or Level 2. To solve Level 2, you must have already solved Level 1.

Just submit one version of your program.

Upload instructions

Upload the project as a zip file.

Level 1

Create a program that lets the user enter one line with information about the rooms in an apartment. You can assume that the type of room is entered as one word, for example LivingRoom instead of Living room, if this makes it easier for you to parse the input from the user. Below is an example of executing the program (the user's entry in green color):

```
Enter rooms in the apartment:  
LivingRoom 3 5 & Kitchen 2 3 & Bedroom 3 4  
Room: LivingRoom  
Width and depth: 3 x 5 m  
Area: 15 m2  
Room: Kitchen  
Width and depth: 2 x 3 m  
Area: 6 m2  
Room: Bedroom  
Width and depth: 3 x 4 m  
Area: 12 m2
```

In this example, the user has entered 3 rooms, each room must be separated by the '&' character. Next to the name of the room, detailed information about the rooms is entered. You can assume that the user will enter at least two rooms.

To solve the task, you should use a custom class **Room** that you use to create room objects. The class must meet the following requirements:

- 3 private instance variables
 - name (String)
 - width (int)
 - depth (int)
- A constructor that you use to initiate the variables: name, width and depth
- A public method *printDescription()* that prints information about a room in the same form as in the example:
 - Room: <room name>
 - Width and depth: <width> x <depth> m
 - Area: <width*depth> m²
- The area is calculated as the width * depth and should be printed in the same form as in the example.

Tips for managing user input:

- Use the **Scanner** class and the *nextLine()* method to read the user's input
- Use the *split* method in String to split the string on the '&' character
- Use the *trim* method to remove empty characters in front of and behind the text in the string.
- Use *Integer.parseInt* to convert a string representation to an integer.

Example of correct use of *Integer.parseInt*:

```
int numberThree = Integer.parseInt("3");
```

Example of incorrect use of *Integer.parseInt*:

```
int numberThreeWithSpace = Integer.parseInt("3 "); //runtime exception!
```

No validation or error handling of the user's input is necessary, you can suppose that the user enters data in the correct form.

Final tip: it is not a requirement to save the Room objects after you have printed its information on the screen!

CHECKPOINT CREATION EXAMPLE

IT/CODE EXAMPLE

Level 2

To solve this task, level 1 must be resolved.

Create a Class named **Apartment** to contain (as a minimum):

- 4 private instance variables
 - type (data type of your choice, representing apartment type that is "A", "B" or "C")
 - livingRoom (Room)
 - kitchen (Room)
 - bedroom (Room)
- A constructor where you initiate all 4 instance variables
- A public method *printDescription()* that prints the information about the apartment and the rooms in the form:
Type: <type>
<Information about livingRoom>
<Information about kitchen>
<Information about bedroom>

The call to the constructor and *printDescription* should be done in the following manner:

```
// many lines of code here  
// ...  
Apartment apartment = new Apartment( /* input parameters to constructor here */);  
apartment.printRoomDescription();
```

You can assume that the user will always enter 3 rooms and that the user begins by making a choice between "A", "B" or "C" to choose the apartment type.

This is an example execution of the program:

```
Enter apartment type (A, B, C):  
B  
Enter rooms in the apartment:  
LivingRoom 3 5 & Kitchen 2 3 & Bedroom 3 4  
Type: B  
Room: LivingRoom  
Width and height: 3 x 5 m  
Area: 15 m2  
Room: Kitchen  
Width and height: 2 x 3 m  
Area: 6 m2  
Room: Bedroom  
Width and height: 3 x 4 m  
Area: 12 m2
```

God luck!

FINAL PROJECTS

ABOUT THE FINAL PROJECT

All Academy program ends with a final project. Depending on the nature of the program the requirements of the project can differ since the purpose of the project is to let the consultants really practice on their upcoming role (talk to your PM about this).

With this said, there are still a few requirements that always is the same;

- The consultant work at least 09:00–17:00 at campus during the project weeks.
- The project idea will be accepted by head teacher and/or PM and have focus on sustainability.
- The project will be presented the last Friday of the project. A panel with different perspectives will ask questions and give feedback during the presentation.

PITCH DAY

Pitch day is held on the Wednesday before the presentation and aims to give the consultants feedback to get the possibility to improve before final presentation, true growth mindset attitude! Each group will get 10 minutes to present and get feedback from PM and possibly assisting teacher.

GRADUATION DAY & PANEL

The presentation of the final project will take place on the last day of the program. All consultants within the project group will take part in the presentation. The bullet points below shall be included in the presentation. The presentation will last for 15–20 minutes and should always include; presentation of project members names, education & background, the project idea (the biggest part of presentation), the teamwork, challenges/lessons and possible next step.

- The panel consists of 4 people (one developer, a representative from Aw, an alumna, a teacher).
- The panel will receive the list of requirements for the final projects one week before the final presentation. The panel consists of people who will be able to judge from the given criteria, techniques as well as Personal Development. The panel's task is to, with a positive approach, give feedback to the project groups.
- Total 10 minutes per project group.

CANVAS GUIDES

This section is a great tool that aims to give you guides for the most used functions in Canvas – our digital classroom.



CANVAS INTRO

THE BASICS

How do I take attendance in Canvas?

At the start of each day the teacher takes attendance in Canvas as part of the “Check in”.

Read this document to learn how to take attendance in Canvas.
[Attendance](#)

How do I create a announcement In Canvas?

You can create an announcement to share important information with all users within your course and with users in sections of a course. In your notification preferences, you can choose to receive notifications for announcements created by you as well as replies to announcements you've created.

- Watch the [Announcements](#) video

How do I create a page in Canvas?

- Watch the [Pages creation](#) video.

How do I upload files/add content in Canvas?

- Watch the [Add content](#) video

Is there a mobile app for Canvas?

Yes! The Canvas Teacher app allows teachers to manage certain aspects of their course, communicate with students, and grade assignments from a mobile device. Download the Canvas Teacher app on Android and iOS devices.

To find Academy school you type in “aw” in “find my school” and then AwX Academy will appear – choose that one.

Watch the [Teacher App](#) video to learn more about how to work with the app!



CANVAS QUIZZES

HOW TO CREATE QUIZZES

Quizzes in Canvas are assignments that can be used to help consultants repeat, help teachers understand and assess comprehension of course material and to follow up on consultants. Quizzes can also be used to conduct and moderate exams and assessments (such as checkpoints), both graded and ungraded.

- To learn how to create quiz settings watch the [Quizzes overview](#) video
- Learn more about the different types of quizzes you can create by watching the [types of quizzes](#) video

Overall the quiz tool in Canvas is used to create and administer online quizzes and surveys. Canvas has a few different types of quizzes, the ones we use the most are:

- The **graded quiz** rewards consultants points based on their quiz responses. Canvas automatically creates a column in the grade book for any graded quizzes you build. After a consultant takes a graded quiz, certain question types will be automatically graded. You can also view quiz results for graded quizzes in SpeedGrader. This will help you get an overview of consultants in your program. Learn more about SpeedGrader here on the next page!
- The **practice quiz** is a learning tool to see how well consultants understand course material (also helps the consultants understand their own level) without providing a grade. Consultants do not receive a grade for practice quizzes, even though the quiz results display the number of points earned in the quiz. For more information read the [results of practice quizzes](#)



CANVAS QUESTION BANKS & SPEEDGRADER

QUESTION BANKS

Question Banks are a place to house questions in Canvas that can be added to quizzes across courses or accounts. By building and using question banks you save time and can create quizzes much more efficient.

Learn more about question banks in the [question bank](#) document

At Academy we have set a structure for question banks. The structure is to organize the banks after topic, that way you can easily drag and drop questions and quickly find the questions you want when building a quiz. Furthermore it's much easier for other teachers to use your questions and for you to add from other question banks.

SPEEDGRADER

SpeedGrader makes it easy to evaluate individual student assignments and group assignments. SpeedGrader contains all assignments and quizzes that you create in Canvas which enables you to view the consultants learning thru digital documentation. In SpeedGrader you are able to give feedback to the consultants in a efficient way, by text, video or voice – quick and easy!

Watch this video to learn more about SpeedGrader;
[SpeedGrader](#)



BLENDED LEARNING IN CANVAS – ARC

WHAT IS BLENDED LEARNING?

Blended learning is a term that summarizes a mix of digital training and classroom training. Blended learning consists of digital learning material, structured independent study time, in-person classroom activities facilitated by a trainer and different pieces of training methods adjusted to the goal of accelerating the learning and focusing on problem solving and co creation of learning in the classroom.

There are many arguments for a blended learning approach;

- Time in the classroom (expensive time!) can optimized and will add value through discussion and practice, rather than lecturing. The trainer role switches from lecturer to coach/tutor.
- Focus can be set on a specific (sometimes difficult) topic and enable for consultants to get some pre understanding before class, come more prepared and start off the lecture on a higher level.
- The learner has constant access to digital content and can repeat it as many times as he/she needs to.

WHAT IS ARC?

ARC is a great video tool in Canvas that enables you to work blended while still managing the consultants.

[ARC introduction](#) video

How do I create good blended learning?

Decide what should be the main purpose of your flipped activity.

- Is it understanding of concepts?
- Is it to create an instruction video for the consultants to use at home when practicing coding skills?
- Is it to have them watch a video to get inspired to learn more?

Keep it short!

Do some research to see if anyone already created a video on the topic? Maybe you can use that one?

MORE TO COME!

THE TEACHER TOOLBOX IS ALWAYS IN DEVELOPMENT TO
ENSURE UPDATED INFO AND INSPIRING EXAMPLES FOR
YOUR TRAININGS. REACH OUT TO ACADEMY IF YOU
HAVE ANYTHING YOU WANT TO CONTRIBUTE WITH!

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