**Interview 2**

**Interviewer:** The recording here. I decided to use Mural because that’s a very good tool to interact with people and to understand their insights. And you already know all these things above I feel because we discussed all these. If you see here, here’s the framework. And I’ve put the framework in sort of like separate questions about some possible sticky notes that we can move around different parts of the framework.

And also big question mark here, if you want to add something maybe at the end or things, pieces of the puzzle I might’ve missed. Because I have my own ideas based on evidence I gathered, but of course there might be opinions that you might have for future improvements of this frameworks or things missing.

So fairly quickly, if I go back and this is very interactive, I mean, are very similar. And the question would be like, for instance, what kind of skills or what students’ skills coming up, experiential learning and bootcamp impact. So here I focus on soft, technical, and project management skills.

And this is like the first example here stating that okay, where do you feel that soft skills are most interested for instance, [I need to put this one here], so let’s take soft skills. Soft skills can go in all three parts. If you visualize it here, like it can go here if you wish, or here or here or even in the three places. So what’s your perception about soft skills, and then we talk about technical skills and the rest?

**Interviewee:** Okay. Yeah. First of all, define what do you mean by soft skills?

**Interviewer:** Communication, teamwork, team dynamics. Yeah, this kind of things that usually happen when people work in a team.

**Interviewee:** Yeah. Okay. I would say the goes for sure, experiential based learning. Right? Experience-based learning for sure. And yeah, innovation bootcamp typically team-based work, so all the soft skills related. And that one, the other is sorry--

**Interviewer:** It’s about growth based startup practices. It’s about sort of the same idea that startups have some teams, but disciplinary, et cetera. So any growth based that happens pretty often, it’s not like there are the based, it’s only a couple of people working on the project.

**Interviewee:** Then it’s probably a more important to be able to communicate with larger team. And unless you consider also marketing sales skill, a softer skills, then that’s goes, yeah.

**Interviewer:** It’s not really like focused on the kind of profile. Anybody working on a project usually needs those soft skills to provide, for instance, give and receive feedback, have good teamwork approach, et cetera. So all the communication with stakeholders, with clients, customers. So marketing people, why not? But it’s not specific to them.

**Interviewee:** Okay.

**Interviewer:** And when it comes to technical skills, I’ve put three here for this three ones because it’s easier to sort of understand that this, everything can go in all these three quadrants here. It’s not separate. So technical skills, what do you think about technical skills?

**Interviewee:** Technical skills in experience-based learning, okay, yeah. I think of course, if we are talking about innovative high-tech startups, I think this is the master for all this, right. But I would say more in the growth based, in this innovation bootcamp or for learning purpose, because I think in those cases typically is early stage and early stage is not really the skills itself, but it’s more the technical knowledge, perspectives, understanding of technology.

That actually matters because it’s the most intensive perspective, sharing perspectives, interacting with other people. So, this is my understanding.

**Interviewer:** One quick clarification here. When I say soft skills and technical skills especially, they are supposed to learn from a practical standpoint. Do you think the students will learn if we expose them with lean startup growth, lean startup practices, innovation bootcamp and experiential-based learning?

**Interviewee:** So, then I understood the were around what you bring to. Okay. If they learn, then I would say soft skills for sure.

**Interviewer:** This is for sure in your opinion? Technical skills, is it for sure they will learn, technical skills?

**Interviewee:** Technical skills. I would say, my experience, less in the first two quadrants I would say. I feel based on my observation, unless they don’t have a strong team component that have good technical skills, so they have to in a sense to learn themselves, so there is a significant learning there. Otherwise, I think the technical skills tend to be reinforced rather than learned in the first two quadrants.

For the growth based, I have less experience because the courses I’ve been teaching, they are all really like the student initiatives startup ideas. So what I expect is that here the learning of new technical skills play a major role I would say.

**Interviewer:** Yeah. Okay. That’s nice. It could be lean startup, growth based startup practices because they also, that we start up at some level from what I found. Project management skills, what do you perceive? Like what could happen with this PM skills?

**Interviewee:** Yeah, I think PM skills for sure in this growth based, it’s this, I would say the strongest. The concept of project somehow is against the idea of this initial based of a startup, because project has this, you know, about different starting point, ending point, and then you can manage your estimate. This concept to somehow are not applicable to uncertain environment, especially the initial chaotic based. So I would say they would tend to learn less about this in the innovation bootcamp and in, yeah.

**Interviewer:** Yeah. So I can leave it here.

**Interviewee:** Yeah, you can.

**Interviewer:** Yeah. So I don’t put it there at all. So this is in your understanding. And I totally understand from your standpoint. And when you say growth based startup practices, it’s just to clarify this several times maybe. The fact is that like you say, in early based, there are no practices at all almost, so it’s very chaotic. But when things tend to grow and become more stable, then the practices emerge.

So that’s why I prefer to bring to the education, the practices that are a bit more solid rather than bring practices that don’t exist. It’s not easy to tell students when you are very early on, you don’t know anything well, what you can do. So it’s very chaotic for you and you keep it like that. No. Maybe it’s best tell them this is how you’re going to get to the growth because maybe the growth based is doing better. This is my point there at least.

And realistic project, the question about realistic project, I think we went through this. Which of these three, like experiential learning, lean startup or growth start up and innovation bootcamp can offer more project realistic setting in software engineering courses w’re speaking about?

So sort of to say, if we introduce experiential learning path innovation bootcamp, plus growth startup, if all these three, do they bring some more realistic or some of them bring more realistic setting to the project?

**Interviewee:** Yeah, I would say for sure, the experiential-based learning, if there’s a real idea to work on. So it will be the, I think bring more realistic setting because innovation bootcamp is kind of condensed, intensive experience. That’s not necessarily reflect reality, no because it’s not that you have to create a startup or die in a matter of the week, right?

**Interviewer:** Yeah. No, but still there, you have to find out not the challenge, but the solution to a challenge, so that’s the purpose of adding the innovation bootcamp. It’s like a tool to be honest.

**Interviewee:** Right, right. Yeah. Yeah. I agree with that. It gives intensive experience, right. Give a kind of, you know, you probably in normal setting, you can experience, in two months you experience in one day. So yeah, in that sense, condensed. Yeah. But because of it’s condensation, that’s somehow lose the realistic flavor, right? Of course, the problem is real the experience is intensive and less real than the--

**Interviewer:** So I’ll be inclined to put it like half here, halfway for the innovation bootcamp without knowing that.

**Interviewee:** Yeah. If you want to put it that way.

**Interviewer:** Yeah. That’s understand. And then for the startup, lean startup practice and the growth based startup, do you perceive that there will be some realistic setting of the project if we use this lean startup and growth based startup practices?

**Interviewee:** This is difficult to say, depending on how you introduce this practice in the course. Right. Are you going to, for example, ask students to work with growth based startups or how are you going to-?

**Interviewer:** The idea is to clarify this. The idea is since growth based startups, as far as I’ve investigated have sort of good practices in developing software. Then we could tell students, and there is a section or two, some practices. We can use this kind of things like lean business commerce model.

It’s not stringent because this is experiential learning, so we don’t tell them you have to, but we tell them these are the options and we feel these options are good because growth based startups are using them in a sort of way.

So, they don’t have necessarily to work with growth based startups. They can work with public sector, government, or sector with industry, whatever industry, et cetera, because startups emerge from needs usually - from needs in the market, from needs in the industry. So they don’t have to interact with other startups to become a startup. Right. That’s not a requisite at least.

So since they emerged from needs, the idea is that growth based startup have a good solid practice. Yeah. And then does the lean startup is because they should eliminate waste as much as possible in a certain manner when they build their project. So does the project becoming more realistic setting startup settings or in that rule? I don’t know.

**Interviewee:** Not so sure about this aspect, because I feel what is realistic is either you introduce real cases, they can apply this in their own project. This give them a sense of realism. So I just cannot imagine how they could possibly use a practice that’s meaningful for growth phase and not the setting. So yeah, I’m not so sure about this quadrant. Yeah.

**Interviewer:** Okay. That’s fine, just one quick comment there. From my perception is then when I learned for engineering many years ago at university, what we have been taught were best practices from industry usually. And we’re asked to adopt those practices because those practices were very common. It didn’t mean that these were actually the ones that we are using today.

For instance, we learned about virtual product model, for instance, this V-shaped model and waterfall or whatever. But then agile came up and now everybody’s learning about agile for some reason, for a particular reason, because first industry, major industry is not using waterfall anymore and agile is become the most prominent practice or the most prominent approach.

So again, to go back to the growth based thing, even though these are not in growth phase, these are in early phase. In growth based startups, we see very good practices on how to build a startup into become more efficient in the market. So, it is worthwhile to tell the students to teach them growth phase startups practices because they are doing well.

Those are the good practices, which is to make a present with what I said, we were students learning about best practice in the industry, even though we are not professional, right. We are very early on in our career so we are just learning about this growth practices. This is how I-- I hope I explained it well now.

**Interviewee:** Yeah, this brought my memory of our last conversation when we talk about if the term ‘realistic’ is somehow difficult to understand for me, if you say, is it relevant to learn? Then for me it’s easier to, yeah, of course. If this other good practices drawn from how growth based startups doing things. I think it’s relevant to students to learn about them. Realistic for me, as I explained, I have a different understanding, right? I understand. Does this is give a sense of what they are doing is real, so that they learn from it.

**Interviewer:** Yeah. And also realistic in going back to my example was that when I learned about best practices in industry, like the virtual product model, then I felt like I was learning something real, that it happens in real case studies, find it in real life settings. That’s why I bring this as a realistic thing for them. Like act as if you are growing, not act as if you are only in early phase and you don’t know what you are going to do.

**Interviewee:** Yeah. Accepting what you say here as a real, realistic, I still think that if that’s knowledge is not- I mean the student couldn’t see the immediate application of that, how real that could be, because all the knowledge we learned somehow should be based on empirical or somehow empirical evidences we collect from industry.

So, I couldn’t think, especially in software engineering topics, most of what we teach actually are what’s happening in the industry.

**Interviewer:** Then let’s move on to the next and leave it here for the moment. Innovation mindset, what do you feel? Which of these? Because the question is more like what are the benefits of teaching designing course with-- How can innovation bootcamp or these other equities improve software engineering students’ innovation mindset. It’s more towards the innovation bootcamp because you see the word innovation there. Right? And then the focus is there but if you play any of the other two also contribute, may say so.

**Interviewee:** Yeah, I would put this probably for example, strongest definitely boost strongly during the innovation bootcamp because here is interaction and also the purpose is to innovate, right. And experienced-based learning to a certain extent, yes because they have to learn from their experience, so they have to create this experience first.

In this experience creation probably a certain level of innovation is needed, but not necessarily. They have to be guided in order to learn this innovation capability if they want to achieve this from experience-based learning.

Growth phase, these practices, would they boost? I think depending on what practice you bring into, right? Because certain practices used in growth phase startups, they are really highly innovative practices themselves. Being exposed to those practices may increase the awareness of students about innovation.

For example, I think this growth hacking topic is, I think it’s a good example of providing innovative perspective to students; how you can do digital marketing or how you’re going to hack the growth. So yeah, I would say depending on the topic. Yeah.

**Interviewer:** Yeah, yeah, certainly. And introducing multidisciplinary teams, and I think we discussed this. What are the benefits of teaching software new skills when designing the course with multi and interdisciplinary student teams? So apart from saying the benefits, also state if you wish, the fact that how is this multi-disciplinary entered? Like does it enter the experiential learning, innovation bootcamp setting, growth based and lean startup practices?

**Interviewee:** Yeah. Again, this goes more towards innovation bootcamp, right? Experience based learning to a certain extent is again depending on the experience they are creating. Some would call for this kind of multi-disciplinary perspective. Yeah. I would say yeah, to a certain extent, yes.

And I think the growth phase probably is a good occasion when for sure marketing sales aspect. And probably also where they could understand how to, I think here project management also is as we already discussed, is something that they would look in.

**Interviewer:** Yeah, certainly. When it comes to funding opportunities, like the question here about funding is more like if we provide students with funding, how will this impact their ability to embark in startup formation? Then of course, again here, the funding opportunities, it’s more of a question, do we offer it as a part of an experiential learning or innovation bootcamp, growth phase practices, and of course how this would impact the startup formation mindset?

**Interviewee:** Yeah. But this element is not necessarily any of these three, right? So it’s not-

**Interviewer:** No, no. Well sort of to say in the innovation bootcamp, we can have the best idea, the most innovative idea, but the price that’s or there is also another motivation here. We have instruments like we discussed like innovation Norway, and Norwegian research council. They offer funding for instance to the students.

And the fact that there is this funding there also is motivates students to create the startup and of course connects with realistic setting but motivates them further because you need the money to make the startup. Right? So, where do you find the money to develop a product worthy for the market, et cetera, and explore in the market?

So you need the instrument, right? So this is the funding opportunity that can be introduced you in the bootcamp, during the course, of course you apply for funding, but there should be the opportunities for that.

**Interviewee:** But in this case, I think this will be true for all three settings, all three quadrants you are talking about. I think regardless of the setting, I would say by itself, it will increase students’ motivation and desire to learn, so yeah.

**Interviewer:** And the collaboration with the external stakeholders, like let’s bring in academia, government, industry, and nonprofit organization. All this stakeholders, how would they impact the skills and resilience and themselves, the students, and where can we introduce this external stakeholders? It’s more like how do you feel we can introduce them and offer how they will impact the skillset of the students in a certain way?

**Interviewee:** So I think the nature of, for sure the innovation bootcamp, how it’s set up, there are different stakeholders, especially companies who bring in the challenges in. That’s probably will boost the all aspects we have discussed so far, especially they also, sometimes either the organization with the bootcamp itself or companies, they also bring awards. So that’s also incentive.

Experience-based learning again, if the students have a kind of customer to serve, this will for sure give the realistic sense of what they are doing and motivate them to do the job because they somehow, it’s not just a toy project. It’s something, what they do, has an impact to real people’s real life. Yeah. So in this case, I would say it also helps to provide good learning experience. I am feeling difficulties of always connecting your questions to this quadrant of growth phase.

**Interviewer:** No, that’s fine. You don’t have to. The idea here, that’s why I did the first part of the exercise with three parts. So you don’t have to put an idea. You see, I need things here but do you feel don’t fit in any of these, I leave them out. You have to give your opinion, so it’s not like strange and that they should move.

**Interviewee:** Good. Good. Yeah.

**Interviewer:** And then the last one for this section is the startup formation based on the fact that we introduce UN goals, the United Nations sustainable development goals. These influence the startup formation mindset. And of course, sort of connected because the course is experiential learning course, it’s based on an external activities such as innovation, bootcamp, Hackathon or whatever, innovation workshop, and it should adopt growth based startup practices and lean startup practices.

So would the UN goals influence in a certain way, the motivation of the students or whatever, or any of these sections will depend on any of these sections?

**Interviewee:** I don’t know, but at least that should be our teaching goal to increase students’ awareness of all these UN goals because now sustainability is the issue that all the companies care about. So it’s better that our students also be prepared to, yeah. And I think the, allowed to innovation bootcamps and probably also experienced-based learning projects, they have the social aspect of the project that corresponds very well to the UN goals.

I’m not sure how it fits to the growth phase startup. Of course, depending on the goal of the growth. Right. So if it’s only monetary, then it’s so difficult to see. But some companies now they actually approach sustainability also as a goal from the economic sense. And that probably will impact. I think here is more how we teach this goal rather than how this will impact on students.

**Interviewer:** Yeah, I see. Yeah, totally agree. Please, or they’ll be moved down there. Okay. So if I go to the course theoretical lens, here we discussed this, I believe also earlier this week. The idea was that we are using cold team dynamics, cope theory about group dynamics, and then how can we expand skills of software engineers when using cold group dynamics in a certain way. And combining it with lean startup and with growth phase practices.

And so do you feel students are willing to expand their skills? How the skills going to be expanded? I think you mentioned this actually when you commented at the very beginning. For instance, for technical skills, you said not really learning new skills for experience based learning and bootcamp, but expanding those technical skills. Or is it in a certain way--

**Interviewee:** To reinforce what they already know.

**Interviewer:** Reinforce, yeah reinforce. So what do you feel about the extension here? Like apart from reinforcing what they know.

**Interviewee:** Okay. You mean in terms of technical skills?

**Interviewer:** Yeah. Whatever – soft skills, technical skills, project management skills. It doesn’t have to be one particular.

**Interviewee:** Okay, so you mean bring this cope theory?

**Interviewer:** Yeah, cope theory, lean startup, growth phase startup, and innovation bootcamp of course. All these three components.

**Interviewee:** I think I like this term very much called reflective practitioner. Where they really emphasize on if you want to become a true professional, you need to develop this reflection capability. And I think that’s actually the cope theory really about how to reflect through doing things and improve learning. So, I think, lean startup has this build measure learn loop, and that’s actually the learning part is the opportunity for students to reflect.

And that probably will increase students’ capability of if they adopt lean startup approach, fully adopt lean startup approach, these should be reflect very often, and this will reinforce their capability of reflecting and learning. So I would say from this perspective, I can say lean startup is a good approach going together with this experience-based learning.

For the other two, I’m not sure because I don’t see immediate connections. Because my understanding of cope theory is really as I said, is this reflection, experience-based learning, reflection.

**Interviewer:** Yeah, that’s true. But overall, the idea here is how is to understand, are we expanding the skills if we use all these three within a startup driven software engineering course? Because I understand what you say, the learning is part of the process, the reflection is part of the process of learning and cope group dynamic theory does not.

But then the idea is if I’m trying to do a new course model and the new core setting, which is startup driven, are we expanding students’ skills? Because if we are not, if we are only reinforcing students’ skills, they’re most probably are not learning anything new and that might be an issue.

But with this kind of approach, with this kind of theories that we have introduced; lean startup, growth startup, experience-based learning some theories from innovation bootcamps and practices from that.

So are we really expanding as a course, as an entire course? This is more like is the expanding of skills entering the course, are we really expanding the skills here?

**Interviewee:** If they adopt lean startup approach and they learn lean startup growth through the course, then you are expanding their knowledge and skills because they didn’t have this kind of skills. But no, I’m struggling to understand. So lean startup is not the subject you teach, it’s actually the way you conduct teaching.

**Interviewer:** Yeah, actually we don’t teach anything in this course. This is a course based on the experience, previous experiences students have. And what we try to facilitate is more facilitation process. We don’t have classes with teaching with slides, etcetera, but it’s project-based learning.

**Interviewee:** Right. And then, the introduction of growth phase practices, how you’re going to introd- Here is there’s some teaching or not?

**Interviewer:** Yeah, a little bit. A little bit of a presentation but it’s not forced on students. We just tell them, for instance, quick example in growth phase startups, we noticed a lot that they are using agile. And how this differs with other type of studies and companies, it’s a different argument. But they are using agile and they are frequently using scrum for instance. And what we tell a student is you can use scrum for instance, but we don’t start making classes about scrum.

They can learn themselves if they want about scrum and we can have a 15 minutes presentation or one hour presentation or post about scrum practices, that’s it. So, it’s more like we don’t do follow up classes about anything, but we facilitate and they come to us and ask questions sort of. Oh, what do you think? Can we use this? Yeah, we can use this and that maybe you have another option as well, but you choose. So it’s like, it’s very flexible in a way, so it’s based on experience.

**Interviewee:** But in this case also, what they learn is very flexible. You don’t know, you cannot define exactly what they learn. Probably they learnt some very specific skills related to the project they are doing. But would that be considered the outcome of your course or not?

**Interviewer:** Yes. Yes. We have also customer-driven course here. That is a bit more specific, like the customer comes and says what he wants. But when it comes to the development part, the students decide in a certain way. Like to use scrum or not or to use a different approach, so that’s their decision. I’m thinking of the example of scrum, but it can also be technologies. Like students decide, we are using to use Django, Python, C#, Microsoft stack, whatever. So they decide again, but they learn from this. So they learn by-

**Interviewee:** I would say, yeah, I can see they learn more soft skills than hard skills I will say because hard skills, it’s highly dependent on what kind of project they are doing so you cannot really predefined exactly what they learn. But soft skills, I think it definitely learn, especially I would also consider this capability of being able to reflect is also part of soft skills, and they definitely learn if they truly adopt lean startup process.

**Interviewer:** Yeah. Okay, okay, so I’ll just leave it more towards this. Startup formation, when it comes to startup formation, I know we do this again, but these motivations when you are using this whole good dynamics, lean startup theories because this is a theoretical lens now. It’s repeating the startup formation setting, but not from a practical standpoint, it’s more theoretical standpoint.

So if I introduce them with lean startup, and if I introduce them with good group dynamics, where they can create a solid team, which is important for startups, et cetera. So do you perceive that startup formation will be like sort of motivations will be improved in this case? Should I simplify the question?

**Interviewee:** Simplify please.

**Interviewer:** In a startup, you need a team that is balanced, that has strong bonds between them, they are very close to each other, and they are sort of motivated in a certain way to work together. And then they have lean startup practices, which help them find and store good solutions.

So do you feel that startup formation in a certain way by using the core group dynamics to reinforce their bounds, their team work, et cetera, and plot lean startup to explore well the different solutions and plus the innovation come to do that with external stakeholders. Do you feel that startup formation is also thought of, boosted with this kind of theories?

**Interviewer:** I repeat, you ask me to evaluate if this configuration actually can better teach student innovation.

**Interviewer:** Can help them, can increase their motivation in startup model formation.

**Interviewee:** Yeah, I would say yes. Because a lot of aspects of building startup is considered a myth. A lot of success is considered miracle. I think all these will give them, you know, it’s all about execution, process. It’s not about just some better brilliant idea, a million-dollar idea, and then you will be successful. Yeah,

**Interviewer:** I agree. Nothing is like that actually. I haven’t seen a startup that didn’t have a good team and then they succeeded by just one man, individual. Every startup that spark like even April in the ‘80s and Facebook in the early 2000, they had good teams, even though the most famous names are out there, but they have good teams working together.

And learning outcomes, if we introduce all these big productivities and offer them, the growth phase startup and experienced during the learning outcomes, do you feel this will be like sort of improved and what we expect from the students?

**Interviewee:** Okay. Yeah. I think this is a risk of this kind of a project-based or experiential learning because really it’s highly depending on the student themselves; what they decide to explore, what did they decide to focus on. So the learning outcome is very difficult to control for all students. But I guess make some certain framework more visible, certain angle, teaching angle more visible will remind them what should be expected learning outcome.

**Interviewer:** Yeah. That’s true.

**Interviewee:** But again, it’s not a guarantee, so if they actually learn the right thing or not.

**Interviewer:** Yeah. But we have some good exercises in teaching them soft skills. It’s not like it’s random, it’s well-structured and facilitated. We facilitate the soft skills communication, we facilitate the challenges coming from stakeholders. And we also facilitate in a certain way the practices. Like I said, we give some small lectures about the practices. So facilitate, talk to them; how do you feel you are using this practices, maybe these are the options, you find out the better option if you want.

So it’s flexible but it’s also giving them the framework of things, of tools and not totally random - get out there and do your project. Because that will be very unstructured in a way. And the learning outcomes in a certain way are also defined sort of like they learn how to work in a team, they learn how to talk to stakeholders and identify normative solutions, they learn how to adopt good software practices to build an MVP, minimal viable product, et cetera. So it’s not totally random to be honest.

**Interviewee:** Okay. For these kinds of more general goals, I do believe that if you have this kind of more clearly set up configuration, it would help. Yeah, I agree.

**Interviewer:** Now this quadrant here is more practical so it’s mainly one question. Which of these three, like experience-based, experiential startup bootcamp, innovation bootcamp affect learner-learner for instance, learner-instructor, learner content or learner external stakeholder in any directions.

So it’s sort of to say learner-learner, why is it boosted more in experiential learning, in innovation bootcamp or in both of them or in lean startup based?

**Interviewee:** I would say the first two based on my experience again.

**Interviewer:** I need your experience. Learner instructor?

**Interviewee:** Learner instructor. I think instructor though probably more visible when you need to have somehow more knowledge transfer in that describing the practices for growth phase. Of course, you do need to instruct them, but for the first two phases, it’s like you said, it’s more the facilitator role that makes sense. Rather than the instructor or-

**Interviewer:** Yeah, that’s a whole course actually. We facilitate more than we teach.

**Interviewee:** I think that’s the good way, because again, they have to have the capability to think themselves. Right?

**Interviewer:** Yeah true. So learner instructor, what do you feel it goes most?

**Interviewee:** I will say to a certain extent, of course, the role changes. Instructor will become more facilitator in the first two and probably go strongest in the growth part.

**Interviewer:** The practices, yeah, that’s true. Learner content, content is the materials we provide to them because we provide a compendium and some goods and some information. Like where do you feel students will interact mostly with this content? Maybe during the entire course.

**Interviewee:** Yeah, of course to a certain degree. But the content is most visible probably again in the growth phase where you have more explicit instructions instead the first two phases where they have to deal with more than content is their own experience.

**Interviewer:** And learn the external stakeholder interaction?

**Interviewee:** Yeah, I would say probably bootcamp is the most strongest. Yeah.

**Interviewer:** Yeah. I see, just to clarify this, it’s not like we say goodbye to these guys, the students still meet them along the course. Bootcamp is three days, but they still develop the project with the stakeholders until the end.

I give this clarification because bootcamp is to identify the challenge, try it out quickly. Like you say, experienced a lot within a compressed amount of time, but this doesn’t mean that the course ends with the bootcamp or communication with the stakeholders ends with the bootcamp. It continues furthermore more than that. This is just a quick clarification actually.

When it comes to tools and practices, now here is not as far as for the rest. It’s not that I know everything. I’m trying to find out and evaluate, these are the findings that I have had during my experimentation for two to three rounds of experimentation with this course. So I have some rough ideas, but it doesn’t mean I know everything. So what I do here, I list some tools and practices that we have used. There might be a bit more, but of course you can suggest. Like I think you would suggest one, I heard one about growth hacking or something like that.

**Interviewee:** Growth hacking. Yeah. That’s probably more the whole approach of doing, I wouldn’t say just digital marketing, but really thinking about growth, but in a lean way.

**Interviewer:** So what I listed here is lean business canvas model, is it relevant or if yes, where does it fit with this three parts here? And is column XP, for instance, agile break this presentation or pitching. This should be pitching and presentation pitching.

We have done this so pitching and presentation, customer journey, MVPs with a low code, for instance, developer. Like rapid development of MVPs with app builder whatever, MVP builders or something like that. So where do you feel this, the first fit in? And then whatever you feel we could add, you have the time to say that I think.

So, for instance, lean business canvas model, one quick reasoning could be okay. Could it go to the bootcamp? Could it go to the exercise, could it go to the entire course and separate thing? Or could it go to growth phase startup practices, we should pitch them?

**Interviewee:** Yeah, I observed that this is a tool used very intensively during the bootcamp phase and supposed to be used throughout the course to guide the development of startup. But somehow it was, I see at least for some teams, it’s used very intensive in the beginning, then somehow just put they’re either outdated or forgotten.

**Interviewer:** Yeah. That’s true. And how about the rest?

**Interviewee:** Okay. Customer journey again, if you start risk challenge with a risk company presenting, so customer journey is also typical activity you do to understand what is the real need of customers? So I will say I would go if I put, I will put more into innovation bootcamp as the journey. But again, as you said, this should be the tool also throughout the course, or at least at the early phase, really need to be done.

Of pitching, I think the students have to get used to pitch. So pitching should be a practice that throughout the course innovation camp and so on.

**Interviewer:** I tried to put it in the course here. Like startup, later in the middle.

**Interviewee:** Yeah, I agree. And scrum XP and combine boards, I would also put into probably more towards left hand side. In innovation bootcamp, typically it’s collocated, so these tools for online and visibility, not so important. But when they manage the whole course process, Kanban boards and XP scrum process will be more useful.

**Interviewer:** And MVPs, yes.

**Interviewee:** Yeah, probably more towards-- Yeah, also relevant to the whole course and probably more towards the end of innovation bootcamp. That’s you can end up with MVP start to test.

**Interviewer:** That’s nice. So where do you want to fit that?

**Interviewee:** I think the whole course. Yeah, I’d say more towards, again to the left-hand side. It’s so necessary.

**Interviewer:** The lean practices. Now it’s we’re almost at the end, but I hope you have enjoyed at least the discussion with this one more than the-

**Interviewee:** I think it’s always, this discussion helped me also to reflect on what I have been doing and try to connect to what you are asking here. So that’s why I am happy to have this session with you.

**Interviewer:** And the last part is actually about this tool that we are supposed to have. Do you have any suggestions? You mentioned go hack, whatever suggestions come to your mind because you see I’ve put a big question mark. Maybe I’m missing a piece of the puzzle here.

**Interviewee:** I do think you miss one piece, very important in my opinion, that it makes or breaks the course is designed thinking. I think design thinking is more than just a tool or technique, no. It’s the whole bunch of ideas and tools and practices. Actually, customer journey can be considered part of it, but I think design thinking is bigger than that. The concept behind design thinking and I actually feel this should be the first thing to be taught to, all the knowledge to be conveyed to students.

**Interviewer:** Right. Yeah, that’s very good point actually. As I said, I’ve experimented, I’ve gathered my own evidence and then the reason I decided to talk to you and I also have the possibility to suggest further for future work, because I don’t feel this is done with those iteration I’ve made. And I think it can be improved. If I don’t suggest improvements in my work, then why did I do the work? Did I finish everything?

I really feel it’s important, this question mark, to bring in the insights you have, because you have more experience than me obviously in this kind of courses and these kind of works I think so.

**Interviewee:** Actually, I don’t. For example, in my course, I don’t have the element of innovation bootcamp, but I see the value of having that in the course actually. It give a strong boost to students’ work and actually trying to encourage the students to go to a startup bootcamp during the course. So it happened to one or two additions, but not to every course that I have been teaching. And I didn’t have this growth phase or the whole knowledge on growth phase is very weak in my teaching.

**Interviewer:** Yeah, still every course does intersects with some different kinds of knowledge, might intersects with similar things, but also with different things. I can feel it can intersect more with other things, but of course, this is an experimentation for the future perhaps, and it will bring more better settings for the course. I don’t know. This is something I’m exploring and evaluating.

Now, , what I’ll do next is I’ll share this board with you in a better polished way, because as you see now, these are overlapping, so I need to make them bigger, etcetera.

Now, this paper, of course I will transcribe the discussion and hide what you have said, etcetera or not. But the idea is, at least I’ll love if you’d be part of the paper in a certain way, like at least like I mention that has made this proposition with this documentation of the board. And of course I’m grateful when everything else.

So all of you are very important names in this research field, like startup, lean startup, and etcetera.

So it would be very nice if I could, because you see the number of people is not large. However, I am, as I’m saying, I’m not moving towards the quantity, but rather the quality, and the quality needs the names. This is the background that I’m trying to say. So it would be okay for you to say you mentioned, has made this propositions based on her proposals, we have thought of this but we wanted to add design thinking to that, right? Because this is what you said.

**Interviewee:** Yeah. And I actually, I’m not hesitating if you say this is said by me, because this is one of the few things I said here that actually have strong belief, strong also feeling about.

**Interviewer:** We got to the end of it I believe. And these slides are very good for me at least.

When you have time after I finished this research part, you’ll see that some of the things you said fit with my probably already published research from the previous year.

So startup for technical skills, they are not learning here. Maybe they are learning there etcetera, so somethings change but it doesn’t matter. I think it’s good that things fit on the author because this is a relation based and the revelation, I can say these are different, no problem so we can improve them in the future in a certain way.

But I’d love to thank you so much for the time, unless you want to add something more. I feel you have given me great feedback here that I can work with in the future this.

**Interviewee:** That’s will be what? Do you have a timeline already?

**Interviewer:** Yeah. In August next year is my--

**Interviewee:** Next year, okay.

**Interviewer:** But I want to finish as soon as possible.

**Interviewee:** Of course, of course. Yeah.

**Interviewer:** We published a lot so done a lot of research on the topic, so I feel it shouldn’t be like that.

**Interviewee:** Yeah. I can see that you are really doing well also on the publishing side, so I’m sure you are more than ready to graduate already. So now it’s just mental wrapping up what you are doing.

**Interviewer:** And the evaluating because I’m trying to evaluate in the best manner. I think this is the most important part. Like evaluate with your feedback, your insights.

**Interviewee:** As I said, I’m not sure that I fully captured your intention. So I’m answering from just my understanding, my perspective. So of course you need to make your own sense of what I’m saying.

**Interviewer:** Yeah, I do, no worries. I’ll come up with the paper very soon so I will.

**Interviewee:** Great, okay.

**Interviewer:** It is fine. I think the Mural helped in a certain way. I don’t know what’s your perception, but I think Mural helped.

**Interviewee:** Yeah, definitely, definitely. I think this kind of interactive online tool is always facilitating the conversation better than, yeah, yeah.

**Interviewer:** Just questions and answers, and imagination.

**Interviewee:** Right, yeah, so we’re a good move. Yeah.

**Interviewer:** Yeah. Let’s see what has to say in the coming weeks about this, and because he is also part of the-- He is my supervisor but he’s also part of the research and the whole project as well. Now I have to run and pick my daughter from school . I thank you so much, and I wish you good luck and I hope everything turns out for the best and you never get forgetting me.

**Interviewee:** Yeah, I wish too.

**Interviewer:** Know your family and yeah, we’ll be in touch very soon. Thanks a lot.

**Interviewee:** Thanks and happy holidays.

**Interviewer:** Happy holidays as well. Have a nice-

**Interviewee:** Yeah.

**Interviewer:** -holidays too. Thank you .

**Interviewee:** Yeah. Bye. Bye bye.

**Interviewer:** Bye bye.