

FAKE IT 'TILL YOU MAKE IT:
Helping foreign language trainee teachers use
ICT confidently

Master's thesis
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<p>Tiivistelmä – Abstract</p> <p>Tieto- ja viestintäteknologia (TVT) on nyky-yhteiskunnassa erittäin tärkeässä osassa, ja jokaisen kansalaisen tulee omata tarvittavat taidot tietoyhteiskunnassa selviämiseen. Näitä tietoja ja taitoja opetellaan perusopetuksessa ja varsinkin uuden opetussuunnitelman myötä niitä tulisi opettaa osana kaikkia oppiaineita. Siten myös vieraiden kielten opettajien tulee kyetä käyttämään TVT:tä osana opetustaan. Moni opettaja kokee tarvitsevansa tukea näiden taitojen kehittämiseen, ja varsinkin juuri valmistuneet opettajat ja opettajaopiskelijat eivät koe saavansa riittävää koulutusta teknologian käsittelyyn ja sen käyttöön vieraiden kielten opetuksessa.</p> <p>Tämän tutkielman tarkoituksena on tarjota tarvittavia tietoja ja taitoja yliopistossa vieraiden kielten opettajaksi opiskeleville yliopistokurssin muodossa. Yhteistyössä kahden Jyväskylän yliopiston opettajan kanssa kehitettiin vieraiden kielten opettajaopiskelijoille suunnattu kuuden kurssitapaamisen ja niihin liittyvien tehtävien kurssi. Kehitystyö tapahtui työpajatapaamisissa ja alkuperäinen suomenkielinen kurssi opetettiin koko kolmen hengen tiimin voimin. Tämän tutkielman tarpeita varten kurssi käännettiin jälkikäteen englanniksi.</p> <p>Kurssin aikana opiskelijat voivat keskittyä muodostamaan oman suhteensa teknologiaan ja kehittämään sitä. Kurssin aikana käydään läpi useita osa-alueita, jotka liittyvät läheisesti opetusteknologiaan, mm. pelit ja pelillistäminen, arjen teknologiat, verkko-opiskelu, sekä yhteisöllinen oppiminen. Kurssin aiheisiin liittyvät kotitehtävät entisestään syventävät opittuja ja keskusteltuja aiheita, ja kurssin päätyttyä opiskelijoilla on useita TVT-työvälineitä ja tuntisuunnitelmia käytettävissään tulevaisuudessa.</p> <p>Yliopistokurssia kokeiltiin keväällä 2014 ja saadun palautteen perusteella kurssia on entisestään muokattu ja parannettu. Palaute oli pääasiassa positiivista ja kurssille koettiin olevan tarvetta. Siksi siis tämän tyyppisen kurssin järjestämistä myös vastaisuudessa suositellaan. Lisäksi olisi jatkossa tärkeätä tuoda TVT opiskelijoiden arkeen myös muilla keinoin, esimerkiksi vaatimalla sen käyttöä kursseilla tai kurssimateriaaleissa.</p>	
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TABLE OF CONTENTS

1	INTRODUCTION.....	4
2	BACKGROUND TO THE MATERIALS.....	8
2.1	Aspects of teaching and learning foreign languages.....	8
2.1.1	The multiple faces of foreign language learning	9
2.1.2	Social foreign language learning	11
2.1.3	Communicative competence.....	14
2.1.4	Some roads to communicative competence.....	16
2.1.5	Self-regulated learners	19
2.1.6	Foreign language learners' motivation	21
2.1.7	Learner-centered foreign language learning	23
2.1.8	The eclectic approach – picking and choosing for learners' benefit	25
2.2	ICT in foreign language learning and teaching.....	27
2.2.1	The history of ICT in educational – CALL	28
2.2.2	To CALL or not to CALL – conceptualization and reasoning.....	33
2.2.3	ICT in Finnish classrooms	38
2.2.4	Expanding the classroom with technology – collaborative learning	40
2.2.5	Blended learning	42
2.2.6	Personal learning environment	44
2.2.7	Normalization	46
2.2.8	Multimodal pedagogy.....	51
2.3	Foreign language teachers and ICT.....	53
2.3.1	Foreign language learning and technology in the NCC 2014.....	53
2.3.2	The effect of the EU legislation and goals.....	59
2.3.3	Changing materials and resources	63
2.3.4	Teachers at the dawn of new classrooms.....	66
2.3.5	Teacher education and ICT.....	68
2.3.6	Revisiting the key concepts of ICT in the classroom	72
3	FAKE IT ‘TILL YOU MAKE IT – THE MATERIALS PACKAGE.....	74
3.1	Course aims and the target group.....	76
3.2	Course outline and principles.....	78

3.3	Main activities and online tools	81
3.4	Pre-tasks and homework assignments.....	85
3.5	Expert’s Words.....	87
3.6	The final assignment	88
3.7	Additional classes to learn specific platforms.....	90
3.8	Optional project for extra credit	91
3.9	Feedback from the students.....	93
4	DISCUSSION	97
5	CONCLUSION	103
	BIBLIOGRAPHY	105
	APPENDIX.....	114
	Appendix 1: Fake it ‘till you make it - Course materials.....	114

1 INTRODUCTION

In the last few years, education in Finland has been rapidly moving toward integrating *information and communication technology* (ICT)¹ into everyday routines of classrooms. The Finnish National Core Curriculum for Basic Education (NCC) was reformed in 2014, partly to help further integrate ICT into other subjects to give learners basic abilities in working with computers in the future, in addition to renewing and modernizing basic education in its entirety (Finnish national agency for education 2014, 2016, NCC 2016). For decades, education has been unable to keep up with changes in society (Levy 1997: 1; Kankaanranta, Palonen, Kejonen and Ärje 2011: 47). During the past few decades, we have developed from a pen-and-paper, somewhat rural, industrial society into a technologically advanced, information-based society (see Luukka, Pöyhönen, Huhta, Taalas, Tarnanen and Keränen 2008: 22–24). Society at large utilizes the possibilities of ICT in countless ways in everyday life, to the extent that in many people using technology no longer even notice they are doing so (Selber 2004: 36). These changes demand rapid development in education, as the everyday challenges, requirements, and expectations of working life are based on ICT and workers' ability to use it. Tools that were available only to a select few just ten years ago are now available to middle-schoolers, and more and more communication (and language learning) is mobile and based on technology (Thomas, Reinders and Warschauer 2013: 21–22).

While today's learners may be more technologically savvy and use ICT more than ever before, some of them still lack media reading skills, and tend to use ICT for entertainment purposes

¹ The term *information and communication technology* encompasses not only *information technology* (IT), but also the usage of IT for communication purposes. In research, both of these terms are used in literature, as well as the plural term *information and communication technologies* (ICTs). In the present study, ICT shall be used to follow the example set by the Finnish NCC 2014. It does not seem necessary to reinforce the idea that technology has many different iterations.

rather than advanced learning (Britschgi, Öörni, Hautala and Leviäkangas 2011: 264, Järvelä, Järvenoja, Simojoki, Kotkaranta and Suominen 2011: 50–51, Tuomi, Multisilta and Niemi 2011: 181–182; Laukkarinen 2014). Britschgi et al. (2011), as well as Tuomi et al. (2011), report that many teachers feel that working practices and critical thinking skills are more important in advanced ICT skills than skills to use specific platforms or devices. Therefore, the role of modern education is not only to teach knowledge about a variety of subjects and thinking skills, but also to educate learners in information processing and technological skills for their future careers. Due to changes in society and education, teachers of foreign languages are facing new challenges in their everyday work. They must be able to understand, as well as explore and teach, ICT related aspects. Never before has ICT been such a big part of a language teacher's job. In general, teachers want to help their students learn languages, and they want to use ICT to achieve this goal. Furthermore, some teachers may have the willingness and drive, but lack the technological skills and the personal relationship with ICT to use the tools available, let alone develop new ones (Wideroos, Pekkola and Limnell 2011: 240, 252–253). On the other hand, some may have the required technological skills, but lack the pedagogical tools to integrate technological aspects seamlessly into their teaching (Taalas 2005: 184, Järvelä et al. 2011: 51). Many teachers are struggling to get a foothold in the challenging new reality of being a teacher in a world where knowing your own subject inside-out is not enough, and this struggle has its roots in the teachers' competence (or lack thereof) and attitudes (Tuomi et al. 2011: 185).

New foreign language teachers complete their teacher education fully capable of teaching their subject. However, they have to quickly assume professionalism in a completely separate subject that may have never been covered by their education: ICT (Taalas 2005: 185–186, European Commission 2013a: chapter 1.2, Laukkarinen 2014). This gap in their education causes unnecessary stress and uncertainty at a time that is already stressful. There is ample research available on ICT as a part of language learning and teaching (see e.g. Taalas 2005, Selwyn, Gorard and Furlong 2006, Britschgi et al. 2011, Kankaanranta et al. 2011, and Norrena, Kankaanranta and Nieminen 2011), and many schools are taking steps toward integrating ICT into their curricula. However, the role of ICT in teacher education has traditionally been somewhat limited (Taalas 2005: 161, 185–186, 187–188), and many trainee teachers feel like this particular aspect of teacher education has been continuously overlooked. Taalas found that in

teacher education, ICT is barely covered, and the few available courses are generally very limited in availability and coverage.

The aim of the present study was to find methods to alleviate this uncertainty and map some steps to make the transition to working life easier for new teachers of foreign languages, more specifically new English teachers. Personal experience as an English trainee teacher revealed that University of Jyväskylä was not offering enough support in learning and teaching technologies. Trainee teachers of foreign languages felt that the support was inadequate to learn technological skills for teaching purposes, or to discuss and reflect upon their relationship with technology and their pedagogical beliefs. Trainees were concerned that the educational pedagogy and possibilities in teacher training were disconnected from the realities of teaching in classrooms and the demands of the new NCC, and many students felt that they did not possess a deep understanding of educational technologies or the related challenges and possibilities. Students felt that they needed something to tide them over. The present study attempts to answer the following question in a limited manner: What kind of course would help trainee language teachers use ICT to help their students better learn languages?

To alleviate the issues listed above, a university course was designed in 2014 to cater to the University of Jyväskylä's trainee language teachers' need to explore and understand their relationship with ICT, as well as their needs and hopes. The course was designed by a team of three: the author, Tanja Välisalo and Ilona Laakkonen. The present study attempts to indicate which parts of the course were mainly planned by the two others, and which was mainly the work of the author. The course was intended to serve as a tool for trainee teachers to understand how and when to use ICT in the classroom and for what purposes, as well as what can be achieved by using it. This course and its contents could be used to help students and in-service teachers alike to feel more comfortable using ICT in their work. The initial stage of designing the course was to review current research on language learning and teaching, technology in general, and technology for learning purposes to ensure that the course would address the most common issues. The course is designed to not become obsolete quickly, so it does not cover specific tools, as they age quickly, making it somewhat counterproductive to spend time learning them specifically. Consequently, it is more productive for trainee teachers to examine their

2 BACKGROUND TO THE MATERIALS

To limit the scope of the present study, the focus will be on learning and teaching foreign languages, as opposed to more general learning theories. English is the subject language in most of the examples and decisions. Furthermore, the study will be limited to basic education, grades 1-9. The present study cannot be generalized to apply to other learning and teaching scenarios, such as teaching Finnish as a first language. While many aspects may overlap, and much of the rationale of the present study may apply to teaching other languages, the potential differences must be carefully considered.

In the present study, the term *learning* will be used to describe learning both within and outside the context of formal teaching. As Taalas (2005: 13) points out, learning should always be the focus of all teaching. Furthermore, she explains that not all learning happens due to teaching, but all teaching should enable learning. This was the starting point of the present study, and was the primary reason for the vocabulary choices. The present study will follow her example in mostly using the term *language teaching* to describe both learning and teaching languages, but *language learning* to describe only learning.

When talking about ICT, foreign language learning, and basic education, there are numerous factors to consider: ICT in education and at large, teacher education, the demands of the NCC, different theories about foreign language learning, and our current and future society. Thus, an array of research fields must be discussed to lay the groundwork for the present study: First, some theories of foreign language learning, learner motivation, and various approaches to foreign language learning will be discussed. Second, the history and current applications of ICT in education will be explored. And finally, language teacher education in Finland will be considered, and teachers' needs will be identified.

2.1 Aspects of teaching and learning foreign languages

To give a sufficient backdrop to the present study, it is imperative to understand the theoretical background regarding foreign language learning. While studying to become teachers of foreign

languages, trainee teachers study and reflect on the main theories, such as *second language acquisition* (SLA) to form a basis for their teaching methods and principles (Andrade and Evans 1989: 4). The following sections will explore central theories regarding foreign language learning. First, the difference between a learner's first language and subsequent languages is discussed, and some ways to categorize SLA are introduced. Next, the sociocultural learning theory is introduced. Third, the learner's perspective is explored. Fourth, the effect of motivation on a learner's foreign language learning is considered. Finally, the eclectic approach and co-designing classrooms are discussed.

2.1.1 The multiple faces of foreign language learning

Saville-Troike (2009: 1–3) describes SLA as the process of learning a language other than the learner's first language, as well as the study of learners engaging in learning. She notes that despite its name, SLA can refer to the learner's third, fourth, or any other language. She explains that the main difference between learning a first language and a second language is that the first language is often "picked up", whereas learning a second language usually requires more conscious effort. However, she cautions that SLA does not always concern merely formal learning (e.g. classroom instruction), but also informal learning in more natural environments. Klein (1986: 19) points out that second and foreign language learning can be differentiated by the milieu in which the language is acquired. He argues that when a language is learned in an environment where it is used like one's first language, the language learned is a second language. Thus, a foreign language is one that is not used in routine situations, but is instead as part of a school curriculum, for example. However, he cautions that the term *second language* may also cover *foreign language*, as it is sometimes difficult to draw a clear distinction between the two. In the past, English has been clearly a foreign language in Finnish education, both in descriptions and how it has been taught. However, this has been in the process of changing, and in the NCC 2014, it is mentioned that learners are increasingly using English during their free time and that English has become a global *lingua franca* (NCC 2014: chapters 14.4.3 and 15.4.3). This might indicate that learning and teaching English may be on the way toward being that of a second, rather than foreign, language. Nevertheless, for the purposes of the present study, English is a foreign language and the term *foreign language learning* will be used. However, when

describing language acquisition theories and frameworks, the term *SLA* will be used to cover both second language and foreign language learning to follow the most common academic convention. Next, some of the basic ways of categorizing approaches to SLA will be introduced.

SLA frameworks can be roughly divided into three categories depending on what they are mostly interested in (see e.g. Saville-Troike 2009: 24–29, Myles 2013: 52–70): those concerned with the **linguistic aspect of SLA**, those studying **the psychological or cognitive processes of language learning**, and those involved in **the social aspect and learning environments of SLA**. Saville-Troike calls these categories the *linguistic*, *psychological*, and *social* frameworks according to the disciplines they mostly fall under. She explains that theories under **the linguistic framework** are mostly interested in a learners' knowledge of the structure and use of the language in question. They can further be divided into those of internal focus, which study learners' internal knowledge of the language, and external focus, which concentrate on language use. She continues that **the psychological frameworks** focus on processes related to the language, as well as learners and their brains; aspects such as emotional involvement and motivation. Finally, **the social frameworks** study SLA from a perspective where the most important variable in language learning is the social context in which learning happens. Each framework has developed over time, reshaping how SLA is understood. Furthermore, she points out that many SLA learning and teaching methods cannot be placed solely within one framework; rather, they are a mix of two or more approaches within the frameworks. Saville-Troike notes that despite the division into different disciplines, all perspectives on SLA are needed to form a complete picture of language learning.

Myles (2013: 52–70) also divides different theories into three categories: *linguistic*, *cognitive*, and *interactionist*, *sociolinguistic* and *sociocultural* theories. Myles also notes that exact divisions are hard to make and remain somewhat artificial and that it may be difficult to maintain the separations when studying SLA. She argues that **sociocultural learning theories** are mainly based on language, or on interaction, the latter of which she calls interactionist theories. They view learners as individuals engaging in interaction that leads to learning. She further argues that if learning is a purely social process, one of the most important contributions of sociolinguistics would be to criticize the focus on the linguistic and cognitive areas of SLA. However, she also

claims that the various frameworks and theories of language learning have all made our understanding of SLA richer.

Throughout the history of language learning, there have been numerous frameworks, consisting of numerous theories, models and approaches. From the multitude of approaches, scholars and practitioners alike have developed learning and teaching methods to suit the latest understanding of what foreign language learning is, and how best to serve the multitude of different learners. As Myles (2013: 68–70) points out, the main strength of the sociolinguistic approach as opposed to other frameworks is that it seems to explain processes related to language learning that could not previously be analyzed, giving a more holistic window into foreign language learning. Thus, in the perspective of the present study, it is justified to focus on the sociolinguistics and its different manifestations. The sociocultural theory itself has given rise to several methodologies and approaches, and those will be the focal point below.

2.1.2 Social foreign language learning

When considering foreign language learning in the school setting over the past few decades, the general focus has been turning more and more toward social environments. Motteram, Slaouti and Onat-Stelma (2013: 70–77) point out that in the past, the study of language learning has been predominantly based on traditional theories of SLA, which rely heavily on **cognitive approaches**, such as behaviorism. Cognitive approaches view learning as happening within a learner's brain in isolation, aided by understanding grammar and memorizing vocabulary. This means that in traditional cognitive and psychological SLA theories, the function of the classroom is to offer learners opportunities for repetition and practice. Motteram et al. note that modern SLA, in terms of research and learning and teaching, has turned toward **sociolinguistics**, where learning occurs through negotiation of meaning with others. They also claim that it will be increasingly important to consider sociocultural aspects in the future.

The social aspect of learning was first explored in linguistics by Vygotsky when he introduced the *sociocultural* theory. Vygotsky (1978: 83–90) claims that learning is not just the ability to learn; it is also the ability to focus resources toward learning what needs to be learned. Thus, learners not only engage in learning a language, but also in negotiation over what they should

focus on in order to learn what they want to learn. Even more importantly, he points out that learners learn faster and more effectively when aided by somebody with more skills or knowledge. He claims that individual learners have a personal set of abilities that they can use unaided, but anything beyond that set of skills or thinking is beyond their grasp. However, if a tutor or more skilled peers aid learners, their set of abilities is expanded. The tasks that learners cannot do on their own, but can complete with the help of another are located within the *zone of proximal development* (ZPD). Vygotsky argues that, for learners, the functions to complete a task within their ZPD have already begun to develop, but have not yet fully matured to the point where learners can independently access them. What is more, interaction with other people and co-operation with peers awaken a variety of internal processes related to learning: learning a language arises from learners' need to communicate and express themselves, their needs and intentions. Independent development happens once these processes are internalized and learning has run its course. Furthermore, Vygotsky claims that only learning that happens ahead of the developmental curve is "good learning".

After Vygotsky's initial proposal of ZPD and the social aspects of learning, pedagogies in SLA began to change. Since Vygotsky, numerous researchers have begun to promote language learning as a sociolinguistic phenomenon. Nevgi and Lindblom-Ylänne (2009: 227) point out that learning is not only an individual change, but that it has close ties to social and cultural aspects. In fact, they claim that groups can learn. They claim that earlier learning theories (behaviorism, constructivism, and various other linguistic and cognitive theories) focused on individuals as units of learning. However, aspects of learning that the theories could not explain were largely ignored. One of the most notable things forgotten was that learners can learn from seeing or hearing other people doing something new to the learners. Holzman (2009: 47–48) notes that the school environment often stifles learners' joy at the understanding that something is possible, if the learners themselves cannot do it. This, she claims, hinders learners' ability to learn. She claims that it is more important to know something is possible than to possess the ability to do it. Furthermore, since learners of different ages have different ZPDs, it is important to enable them to share knowledge and learning with others to reach better learning outcomes.

Järvelä et al. (2011: 43–44) boil learning down to four main points: They claim that learning is, first of all, actively building and understanding knowledge. Secondly, it builds on previous knowledge and skills. Thirdly, learning is situational. And finally, they argue that learning is social. Different situations encourage different learning: interaction, location, methods, and equipment (books, classroom equipment, ICT) all produce different results. Furthermore, knowledge is of no value if learners do not know where and when to apply it. Gass (2013: 298) points out that learners' experiences, the interactions they engage in, and the learning context all influence learning. As a result, learners do not function well in isolation. In fact, Järvelä et al. (2011: 43–44) claim that learners build knowledge interactively with other people and situations. In a group that is working toward a common goal, it is important that learners ask, clarify, and argue their points.

Holzman (2009: 91) emphasizes the importance of the process, as opposed to the product, in learning. She claims that many businesses have accepted that they must pay at least as much attention to processes as their profit to encourage creativity and productivity in the working environment. It would thus be reasonable to expect that schools would be willing to promote learning as a process, but in many cases, the process is still not a part of the assessment. Taalas (2005: 17, 58–59) found that classrooms in Finland were more rigid and formalized in the past. She goes on to explain that with new technologies and new understanding of learning, education has become more engaging. However, more needs to be done in order to include social, cognitive, and emotional aspects in learning processes. Furthermore, she points out that language education in Finland has been moving from a teacher-centered to **a learner-centered approach**, which also brings social processes with it. She argues that processes have also become important in education: instead of focusing on what is being learned, teachers have begun to focus on how learning is achieved. Taalas encourages allowing individual and group processes to flourish and evolve in collaboration with other learners. If indeed learning is social and happens in interaction and with the help of communication, the traditional methods used in classrooms are falling short, and new ways of learning are sorely needed to encourage autonomy and learners' awareness of their own learning. Furthermore, learning and teaching should not be oversimplified. Learning processes are indeed important and have a great effect on learning. Thus, teaching practices matter, and they should first and foremost rely on pedagogical thinking.

Regarding the sociocultural theory and language learning, Saville-Troike (2009: 113–116) notes that besides interpersonal communication, learning may also happen within intrapersonal communication. A learner may choose to speak to oneself out loud or internally. This *inner speech* or *private speech* is regularly used for practice of words or pronunciation, as well as guiding speech in difficult situations, and for solidifying new linguistic patterns. It functions as practice for competence, and learners have a tendency to talk to themselves when the environment allows the use of inner speech without penalty, such as language laboratories and private learning. Furthermore, Saville-Troike draws similarities between private speech and private writing, where learners write private learning diaries or jot down notes in papers or margins of books to aid their learning. Therefore, learning may happen in communication with the learner himself or herself, without learning being any less social (see also Gass 2013: 294–295). Furthermore, private speech can also be used as a tool to self-regulate a task or the learning process itself. In language education, therefore, allowing and even encouraging private speech in learning may be beneficial.

2.1.3 Communicative competence

When discussing sociolinguistics, one must also discuss *communicative competence*. Like Motteram et al. (2013) above, Thomas et al. (2013: 23) note that, in recent decades, language learning has focused more on communicative ability than form. Furthermore, they claim that this shift is an important one: instead of focusing on form and correctness, it has become more important to be able to communicate a message. Saville-Troike (2009: 100) points out that communicative competence includes everything that people need to know about a language to properly use it. This means vocabulary, phonology, grammar, and other linguistic aspects, but also the ability to understand the social aspect: who to speak to, what to say and how to say it, and when to remain quiet. Furthermore, unlike what was believed in the past, correctness alone is insufficient to ensure successful interaction. Learners need to be aware of their social environment and capable of making decisions regarding the style of language usage. Gass (2013: 307–319) claims that adapting their style identifies the speaker as a part of a social group, class, or ethnological background. Thus, understanding social norms is also a part of learning the language. She continues that language cannot be understood in isolation, and that learning is not

only influenced by, but also instigated by, the learner's social surroundings. Furthermore, Tarone and Yule (1989: 31) argue that there are several different registers for different situations, and some selection must take place regarding what is being taught as not all of a language can ever be learned.

Tarone and Yule (1989: 17–20) discuss the **three components of communicative competence**: *grammatical*, *sociolinguistic*, and *strategic competences*. They note that, previously, most of the emphasis was on grammatical competence, where learners needed to identify and produce correct forms of an utterance, or write a language flawlessly. However, as previously stated, to be able to communicate effectively, learners must also understand their social environment and be able to choose forms suitable for the scenario they are in. This kind of sociolinguistic competence requires practicing linguistic expressions and utterances in different contexts. Strategic competence encompasses all the survival strategies that learners can employ to cope with situations that have gone awry; for example, when they do not know or cannot remember a needed word, or when there has been a breakdown in interaction. It also includes being able to use the language effectively. Tarone and Yule claim that even though strategic competence has received less attention than grammatical and sociolinguistic competences, it is still a crucial part of communicative competence. Furthermore, they argue that attempting to help learners gain communicative competence forces teachers to consider aspects of language learning that they would otherwise never consider. For instance, learners may not be able to practice in a genuine situation in the classroom due to the teacher being their only point of reference to the target language. Hence, the learning methods may have to change to accommodate more varied learning, for example by using task types that allow learners to practice their different competences with each other, such as role play or working in groups. Finding out what learners already know and what they need to know in the future is crucial to knowing what still needs to be learned.

Saville-Troike (2009: 134–138) offers multiple ways of **defining communicative competence**. She claims it consists of several components: vocabulary, morphology, phonology, syntax, and discourse. In addition, learners must be able to differentiate between at least two competences: *academic competence* and *interpersonal competence*. Academic competence is needed in

professional situations, as well as in gaining more knowledge about specific fields or subjects. It specifically emphasizes writing and reading skills. Interpersonal competence revolves more around speaking and listening skills, and is required in situations where learners are dealing with other people. Each of the components must be practiced in each of the situations until learners are capable of functioning appropriately and effectively in them. Nevertheless, learners' first language competence is typically more varied and more comprehensive than their foreign language communicative competence. She furthermore argues that even the most highly educated native speakers cannot achieve complete competence in all of the components in all situations. Therefore, expecting foreign language learners to achieve mastery of the target language would be completely unrealistic. Tarone and Yule (1989: 27) also caution teachers against expecting learners to produce flawless sentences, noting that accomplishing things via the target language is more important.

2.1.4 Some roads to communicative competence

The following section discusses five **approaches to achieving communicative competence**. This list is far from exhaustive, and should only be considered a dip into a vast ocean of different methods and approaches. These five approaches – *communicative language teaching*, the *content-based approach*, *content and language integrated learning*, *the task-based approach*, and *situated language learning* – will allow an understanding of how communicative competence can be achieved in the classroom via communication.

Larsen-Freeman (2000: 121–136) claims that *communicative language teaching* (CLT) emphasizes learners using the target language as much as possible and trying to understand the situation, as well as the intentions of the other people in it. She points out that following the guidelines of sociolinguistics, the focus of CLT is on the learning process, and the classroom activities are intended to provide practice of the target language in social contexts. After an initial teacher-led introduction to the topic at hand, most of the classroom time is spent practicing it in small groups or in pairs. Communication situations are designed and enabled by the teacher, whose role is mainly that of an advisor. Learners are encouraged to attempt to understand and be understood, and errors are allowed. Teachers can choose to address the most common errors

when they see fit, but never mid-practice. Authentic language resources are used to allow learners listen to the language being used. Thus, they can practice both the language and the cultural aspects.

Larsen-Freeman (2000: 137–142) introduces two more ways of placing communication at the center of learning: the *content-based approach* and the *task-based approach*. She points out that, while in CLT linguistic functions are introduced at the beginning of the lesson, these approaches use the target language to identify and learn functions. In content-based language learning, the target language is used for learning professional or subject-specific matters. The teacher's role is to support learners in understanding material written in a foreign language that is crucial to their studies or professional competence. Language serves as a bridge to the knowledge offered, and language learning happens as a byproduct. Learners build knowledge and foreign language skills based on their previous knowledge, and hence, teachers must know their learners well. *Scaffolding*, the teacher building linguistic content together with the learners by guiding their efforts, plays an important role in the classroom practices of both content-based and task-based approaches. Content-based classes are often immersive, using authentic materials and real communication to build communicative competence. The goal is to learn real content and language skills at the same time. In the European framework, *content and language integrated learning* (CLIL) is often used instead of the content-based approach, but although related, there are differences between the two. Dalton-Puffer, Nikula and Smit (2010: 1–3) claim that the teachers are often not professional language teachers but rather content teachers, albeit this is not always the case. CLIL classes usually happen after learners already have literacy and writing skills that can be easily transferred into the foreign language learning. Furthermore, the foreign language in question is often also taught outside CLIL classes as a separate subject. Dalton-Puffer et al. note that CLIL is an umbrella term for various educational practices that are delivered in a foreign language, and as such, it has gained a strong support in European mainstream education. The content-based approach and CLIL have much in common, and many foreign language teachers certainly may have to work together with CLIL teachers, and vice versa.

As mentioned above, another way of providing learners with an authentic context for language use is task-based instruction (*task-based learning* (TBL) or *task-based language teaching* (TBLT), see Thomas 2013 for further reading). Larsen-Freeman (2000: 144–150) claims that while learners are trying to complete a task, task-based instruction encourages them to use the target language to interact, thus developing their communicative competence. While interacting, learners must practice skills such as confirming they have understood, or requesting clarification when they feel uncertain. Furthermore, classroom practice does not emphasize specific linguistic functions, but rather the fluency of communication during the task. Tasks themselves are often contained within one lesson, and have a tangible outcome, supporting learners' motivation by offering clear purpose and goals. The teacher provides learners the tasks, breaks them into smaller parts, and supports the learners throughout the process of completing them. Moreover, the teacher also supports learners' utterances by reformulating them when needed and attempts to use as natural language as possible, while making sure the learners understand the communication. Students receive feedback on their performance in terms of communicating meaning and completing the task. Larsen-Freeman notes that the task types used in task-based language learning can be roughly described as information-gap, opinion-gap, and reasoning-gap activities. The main concept is that learners share information and opinions, or negotiate new information derived from the materials provided. Tarone and Yule (1989: 104) also note that task-based language learning can be as simple giving one learner information that the other learner does not have, and informing them that there is an information-gap.

The approaches explored above are methodologies that are used in striving toward communicative competence, and they all have distinct features and related activities. However, they share certain features: whether they attempt to solve problems or explore phenomena, the focus is always on real communication and authentic materials. Furthermore, they rely on learners as active agents of their own learning and promote learners' ability to regulate their own performance and processes. The problem or phenomenon becomes a vehicle through which learners can channel their prior knowledge and collaboratively develop new knowledge. In this process, communication and language play key parts. Nevertheless, it is important to take a step away from specific learning and teaching methods, and look at learning as a process that simply occurs.

The fourth approach, *situated language learning* is based on a broader take on learning. It may, however, give some perspective to learning process itself, and as such, deserves its position on this shortlist of roads to communicative competence. Lave and Wenger (1991: 29, 40–42, 93–123) suggest a completely new approach to learning, where learning is situated. They call attention to the *communities of practice*, groups of people with shared goals, who develop knowledge and skills together in social interaction. They argue that through a process called *legitimate peripheral participation* learners are naturally drawn from the outskirts of a community of practice towards more involved participation through their need for learning. Lave and Wenger caution that the concept of situated learning is not a learning pedagogy or an educational form, nor is it developed to be used in schools. On the contrary, they caution that, in many ways, legitimate peripheral participation was developed to stand clear of traditional schools and serve as a viewpoint to learning itself. They also note that learners may learn quickest when discussing with other learners, rather than a master of the trade, and that the main function in learning is the facilitation of communities of practice, of which a master is a part. Learners are driven by becoming a part of the community, and gaining respect and participating in the activity are motivating factors. Lave and Wenger argue that learning in a community of practice that functions around a common topic not only enhances learning, but instigates it. Lave and Wenger point out that currently, in educational settings, the communities of practice consist of a community of educated adults, with foreign language learners engaging in peripheral participation. While the original ideas of situated learning and legitimate peripheral participation may not be developed in educational setting as such, schools can most definitely strive toward creating communities of practice as well as bringing the context of learning closer to reality. In fact, schools would likely gain significantly from attempting to add more context and communication to the learning situations, and creating communities of practice within classrooms and among learners themselves.

2.1.5 Self-regulated learners

In modern SLA, the focus has shifted from teachers and language theories onto learners and **learning as a process**. This focus is present in the sociocultural learning theory: languages are not taught, but learned. However, according to Tarone and Yule (1989: 3–7), no single theory of

learning applies to all learning. Because learners need the things they are learning, it is beneficial to recognize that all learning originates from learners. Thus, changing the focus from learning theories to learners themselves is required to achieve the best learning outcomes. As we will find below, when the focus is on learners' willingness to learn and on their needs, the teacher's role also changes. Teachers cannot be seen as educators as much as enablers, perhaps even guides. They must listen to – and cater to – learners' motivations, their needs and wants. As a result, learning and teaching should always be at least partially co-designed. Learners setting their own goals with the help of a teacher and achieving those goals requires constant dialogue between the learner and the teacher.

Andrade and Evans (2013: 12–21) note that most teachers are familiar with two groups of learners: self-regulated learners and those who do not yet know how to self-regulate. The first group consists of those learners who come prepared, meet deadlines or ask for help if they notice themselves failing, ask insightful questions, and apply their previous knowledge to new situations, as well as motivate themselves and set their own goals. Andrade and Evans explain that teachers working with self-regulated learners often assume the role of enabler, allowing learners to utilize these skills, and encouraging them to take responsibility for their own learning. The second group (those who cannot self-regulate) lack the skills that self-regulated learners already possess. However, it is often forgotten that teachers can influence those who have not yet mastered the skills available to self-regulated learners, and help those learners to attain such skills. The terms “autonomy” and “self-regulated learning” are often used interchangeably, but Andrade and Evans argue that the self-regulated learner is a larger concept that includes learner autonomy. They note that autonomy cannot be achieved by putting a learner in an autonomous situation, nor does it mean a complete lack of support. Rather, they claim that autonomy is a state of interdependence between learners and teachers, and it can be positively influenced by formal learning with a teacher at the helm. They point out that self-regulated learning, unlike autonomy, places more emphasis on guiding learners toward being effective without control by the teacher. Self-regulated learners learn how to take control of the learning process and, with the teacher's guidance, become active agents in their learning. Thus, it is not, and cannot be, an automatic, nor solitary process.

To summarize, Andrade and Evans (2013: 12–21) argue that learners can become more proficient in regulating their learning, but this process takes time and often requires teachers to guide learners on the journey. This does not mean that teachers are required to guide learners' every effort, but they should be available and willing to give learners advice, answers, and support when it is needed. Andrade and Evans point out that learners should be encouraged to self-regulate because it improves their learning experience. Self-regulated learners are aware of their own ways of learning, their limitations and strengths, and are able to take responsibility for their learning. Teachers can support this development by discussing learning strategies with learners, allowing open-ended assignments (preferably collaborative), and using assessments that promote creativity and motivation, such as portfolios. When learners rely on their personal capabilities and are self-motivated, they should, by all logic, enjoy learning and their progress should reflect that.

2.1.6 Foreign language learners' motivation

While self-regulated learners are already motivated to learn, it may be beneficial to discuss motivation in foreign language learning itself, as there are steps that teachers can take to further motivate learners. Dörnyei (2001: 1–2, 5–7, 30, 62–65, 72–78) considers **motivation** an integral part of learning. Learners' persistence, interest, and commitment in the long process of learning a language determine their success. He points out that motivation is not a simple issue and that motivational strategies may work in one context but not in others. He argues that when learning is enjoyable and stimulating, learners are more willing to keep learning. While not every activity needs to be interesting, Dörnyei notes that it is beneficial to make learning more motivating by “breaking the monotony of learning,” “making the tasks more interesting,” or “increasing the involvement of the students.” By mixing and matching the aspect of the language tasks (e.g. language skill orientation or class organization), materials (e.g. materials or presentation style), or the rhythm of the class at regular intervals, teachers can ensure that learners do not get bored by monotonous learning. Furthermore, Dörnyei points out that there are several ways of making learning tasks more interesting, e.g. making them personal, challenging, or exotic, or by having learners produce a tangible product. He argues that it can be as simple as encouraging the learners to think about what would happen if the topic at hand was introduced at the learners

homes. When learners have a reason to connect learning materials to their life experiences, familiar locations or situations, they are more willing to work on the materials.

Dörnyei and Ushioda (2009: 14–15, 116–118) express surprise over the lack of research into motivation regarding the effects of changing environments brought about by the development of technology in language learning. They claim that the world has changed drastically for language learners: both sociocultural and linguistic diversity and fluidity have increased in importance. This change must eventually influence learners' motivation to learn languages. They furthermore support the concept of making materials more relevant to learners. If learners do not see the use of what they are learning, they are less motivated, leading to less effective learning. Besides making the materials themselves interesting, the way learners encounter materials also matters. Some materials are less interesting than others, and the way they are presented and administered go a long way interesting the learners. Dörnyei and Ushioda point out that at least three things should always be communicated: the purpose of the activity, a reason why learners should look forward to the task, and some strategies for completing the activity. Lindblom-Ylänne, Mikkonen, Heikkilä, Parpala and Pyhäntö (2009: 80–88) caution that while rewards and interesting materials may be a good way to help learners become initially interested, external motivation alone (such as seeking a reward or avoiding punishment) is not enough to fuel learners through difficult times. However, external motivation can help learners find their inner motivation and power through setbacks. In addition, learners need to believe they can accomplish and do things. Lindblom-Ylänne et al. point out that to give learners a sense of capability and capacity, teachers must give them individual, constructive feedback, and guide them toward success.

If learners are self-regulated, why does a teacher have to go through all the trouble of motivating them? Dörnyei (2001: 27–30, 122–123) notes that most teachers would argue that the responsibility for being motivated lies with the learners themselves. On the grand scale, it is indeed a requirement of good learning that learners are motivated to learn. However, teachers must remember that teaching cannot happen without them motivating learners. In an environment that does not cultivate motivation, learning will grind to a halt, and thus motivational training is likely beneficial. Dörnyei lists four steps to creating a motivating

learning experience: Teachers must first create suitable conditions for motivation. Once the conditions are in place, initial motivation must be generated and then protected and maintained. Finally, learners must be encouraged to engage in positive self-evaluation. Alongside self-evaluation, a teacher's feedback can be very motivating. It can give learners a feeling of gratification, encourage them to trust themselves as learners, and constructively guide them toward better learning.

Holzman (2009: 67–69) argues that allowing learners to be passionate about learning at school will help creativity. She points out that it is important to allow learners to bring the things they care about to school with them, and to pay more attention to motivating learners than to cognitive learning. Another way of enhancing motivation is to allow learners to become more self-regulated, and to allow them more choice and more responsibility over their learning (Andrade and Evans 2013: 12–13). Similarly, Dörnyei (2001: 66, 136–137) suggests bringing in learners at the stage of designing foreign language learning. However, he notes that teachers should not attempt to follow all possible ways to enhance learner motivation: it only requires small steps, as small changes often have big effects in classroom activities. Keeping this in mind, the next section explores taking learners' needs into account and allowing learners take part in designing their learning.

2.1.7 Learner-centered foreign language learning

Tarone and Yule (1989: 8–9, 21, 45–47) point out that learners can give information regarding what they want to learn and what they need for their future. This can help teachers gear their teaching toward learners' needs. Thus, it may be beneficial to integrate learners into the planning phase of classroom activities. Furthermore, when classroom activities and topics are chosen according to learners' aims, their motivation is enhanced and their learning better directed. However, learners may not be aware, or may not know what their aims and needs are. Learners' needs may also change over time, and needs may vary in heterogeneous groups. This makes it difficult for a teacher to know how far to let learners influence what is being learned. In addition, for example in basic education groups of learners are extremely heterogeneous, which makes a thorough needs assessment impossible. Thus, gearing teaching towards special purposes is not a

feasible course of action. Tarone and Yule argue that many teachers attempt to take their learners into account based on their instincts and understanding of the learners. However, new teachers or trainee teachers may be uncertain over their choice of methods. Nevertheless, they claim that some basic needs evaluation can indeed be carried out during classes to support intuition, by using simple tools such as questionnaires. For example, learners can be asked what topics they would find interesting and what kinds of activities they would enjoy.

Tarone and Yule (1989: 9–10) also caution that teachers need to prepare for learners' expectations in a classroom. Some learners may have previously attended formal foreign language classrooms, where the teacher is the authority and the focus is on grammatical correctness. Thus, when placed in a very informal environment where learning revolves around discussion, discovery, and negotiation, they may feel like the teacher does not know how to teach. In these situations, teachers may have to choose one of three reactions: giving the learners what they want, ignoring their feelings and complaints, or compromising between the two. Giving learners what they want may result in more satisfied learners, but less efficient learning, because the teacher may be forced to abandon their best methods. However, while ignoring learners' complaints may allow the teacher to keep teaching in an effective way, it may also result in learner discontent and lower levels of motivation. Thus, Tarone and Yule suggest that a compromise may be the best direction to take: learners get the support and structure they expect, and teachers can use the methods they find best. For example, introducing a new grammatical concept can be followed up by discovery or discussion regarding how this grammatical concept may be used in communication. This way, learners who require structured classroom activities receive the grammatical introduction they are expecting, and teachers can use methods they find suitable for the activities. It is important to understand that learners' needs and a teacher's style of teaching do not necessarily have to cancel each other out, even if they are different. Naturally, compromises can and should be made in foreign language learning, but in addition to Tarone and Yule's approaches to preparing for learner expectations, a teacher may also choose to address them verbally, explaining that styles may vary. However, even in this case, it may be beneficial to cater to the learners' needs even when they are different from the teacher's style.

Kotilainen (2011: 142–159) notes that according to a modern view on learning, the focus has shifted from teachers and materials to learners. She points out that in learner-centered education, learners process data and build knowledge according to what they find and how their interpretation of it. Thus, it is important to support this development and give learners positive learning experiences. Furthermore, one of the key factors in learner-centered learning is the fact that learning follows the learner, and thus whatever methods are being used should also have this kind of mobility. Learning is no longer deemed to only happen in a classroom, but in the outside world as well. Kotilainen explores portfolios as educational tools and claims that portfolios, when done on a mobile platform and supporting the needs and wants of the learners, can reinforce their ability to plan and carry out learning objectives. A portfolio, as opposed to more traditional writing tasks, allows learners to choose their personal approach and goals. When planned together with the teacher, who functions in the role of a tutor, learners can choose which works they want to complete and include in the final product. Furthermore, she claims learners like the independent working style of a portfolio. When using electronic platforms for portfolios, learners enjoy being able to show different materials to different audiences (e.g. limiting certain pieces for the teacher only). She finds it imperative that the goals are predetermined together with the teacher, despite learners making individual choices regarding their portfolios. Furthermore, it was equally required that learners are urged to reflect on their own work and that they are allowed to evaluate their work for example in the form of blog posts. Furthermore, Kotilainen cautions that posting on a blog or portfolio should not be an additional burden, but rather a natural part of the working day, for example at the beginning or end of each lesson.

2.1.8 The eclectic approach – picking and choosing for learners’ benefit

Teachers must choose how they want to approach their learners’ language learning, and what would best benefit the learners. Larsen-Freeman (2000: 181–183) notes that all language teaching methods have some things in common, but are all different. Choosing which method is best may differ between each group of learners, different topics, and different situations. So how do teachers choose? Larsen-Freeman claims that some learners choose the methods most suitable for their personal tastes and beliefs. All methods, however, are influenced by their sociocultural context – teachers, learners, and institutions – and so a method that may suit one teacher will not

work for another. Additionally, not all methods suit all learners, and suitability is relative to the learner's proficiency, age, and the level of the materials. What works fine with young children may not be at all suitable for adult learners. Some teachers cannot bring themselves to subscribe to just one method in the first place, and instead believe that a mixture of methods should be used. They recognize that in a process as complex as language learning, there is no single truth to be found. When teachers pick and choose methods to fit different purposes, they are engaging in what is called the *eclectic approach*.

Larsen-Freeman (2000:183–184) claims that this approach should always be executed with great care. It is imperative that teachers always consider their choices from a pedagogical point of view, and that the choices they make are coherent with learners' needs, materials used, and the teacher's educational philosophy. Teachers' thought processes are not always clear, and often not visible to outsiders, but teachers should consider questions regarding the reasons they are using a particular method, and its effects on the learners. Larsen-Freeman notes that answers beginning with "It depends ..." can communicate important information, even though they can be understood as avoiding taking a stance. If a teacher selects to one method over another because the nature of the group of learners, the topic of the discussion, or even the time of the day, it is likely that the teacher has a pedagogical reason for making this choice.

Tarone and Yule (1989: 10–11, 23–24) claim that many teachers seem to value and utilize the eclectic approach in their day-to-day instruction. They note that "local solutions to local problems" may be beneficial to many language teachers in their attempt to choose the best practices from the available theories. Rather than relying on a single theory in their instruction, teachers may choose some practices from one method, some ideas from another, and bind them together with a process from a third. They furthermore argue that finding teachers who follow solely one theoretical approach may be difficult. Thus, it would seem reasonable to assume that a language teacher must work cautiously in catering to the learner's needs without doing the learner a disservice by neglecting one form of instruction or another. Eclecticism has been criticized by theorists and teachers who follow certain methodologies, who claim that it results in a confusing mix of shards of methods. Tarone and Yule argue that the eclectic approach requires deliberate work, planning, and consideration from the teacher, and teachers do not choose their

practices on a whim. Very often, teachers are indeed guided by their understanding of learners' needs, and eclecticism places quite a bit of responsibility upon teachers to make educated, measured choices for their learners' best interests.

Should teachers choose to utilize the eclectic approach to foreign language learning and teaching, the end result is often a kaleidoscope of what they are attempting to get across to their learners, the nature of those learners, and the situation they are in. It is certain that no matter what method teachers choose, they must tread carefully and keep in mind that learners have individual needs and personalities, and that in learning, the process is often as important than the product, as it lays foundations for further learning. Teachers and learners both should be open and willing to engage in a dialogue over the learning process, and they should attempt to keep in mind that the responsibility of learning ultimately lies with the learner. Regarding different methods and approaches, many questions remain unanswered, despite rigorous research, and those questions must remain at the forefront of education. The sections above have discussed some ways of categorizing and approaching foreign language learning and teaching, and explored their key aspects. It is important to keep these considerations in mind in the following sections, which outline ICT and foreign language learning and teaching.

2.2 ICT in foreign language learning and teaching

ICT has held a place in foreign language learning and teaching for the past several decades, and that importance is only increasing. Levy (1997: 1) notes that technology has developed at an extraordinary speed, and that the development has also been extremely sustained. He argues that these two aspects have caused educators around the globe problems to develop with the technology and also to evaluate its merits reliably. Furthermore, he claimed that *computer-assisted language learning* (CALL) had not yet been properly absorbed into education, nor practices of professional linguists in 1997. In the following sections the history and applications of ICT in education will be explored. To understand how ICT in education came to be, its history must first be discussed starting with early CALL and finishing with the past decade and the rise of Web 2.0. Once the historical groundwork has been laid, current ICT applications in foreign

language learning are discussed, and some rudimentary ways of analyzing and studying them from a pedagogical point of view will be explained.

2.2.1 The history of ICT in educational – CALL

ICT has been used in education for the past several decades. Blake (2008: 52) claims that ICT in education first emerged as early as 1966. He claims that computers were first used as listeners, to ask follow-up questions and mimic sympathetic responses. Levy (1997: 7) points out that re-tracking the history of CALL can help trace recurring aspects and avoid getting caught in the latest development of the technology without criticism. He continues that historical aspect to CALL may also allow an understanding of the relationship between CALL and approaches to language learning and teaching. Davies, Otto and Rüschoff (2013: 37–38) describe three ways of examining the history of technology in language learning: **learning and teaching theories**, **technological development**, and **terminology**. Moreover, they explain that due to the nonlinear nature of learning pedagogies evolution, the history of CALL is interesting and multisided. In the following chapter, the development of **terminology** will be first looked at to gain a generic understanding of the complexity of the field. Then the development of CALL will be explored from the point of view of **language learning and teaching theories**. Interwoven with these aspects, some **technological development** will be briefly discussed. Finally, other ways of looking at the history of CALL are briefly considered.

One of the more concrete ways of studying the evolution of CALL is to look at the changes in **terminology**. There is some discrepancy in when certain terminologies were born, when they reached their peak, and how long they have been used. Davies et al. (2013: 37–38) argue that even through the history of CALL has been extensively recorded, it is not exactly clear, when the term CALL itself was first used. Davies et al. found that the first official appearance of the term was in 1981 in a conference paper in the United Kingdom, and that by 1982 the term was already widespread. It was preceded by more generic terms *computer-assisted instruction* (CAI), *computer-assisted learning* (CAL) and *computer-assisted language instruction* (CALI). Taalas (2005: 57–60) notes that CALI never gained much of a following as a term or as a method and both more generic terms quickly fell out of favor in language learning research as CALL was

introduced. Furthermore, CALI was followed briefly in the 1990s by a more holistic *technology-enhanced language learning* (TELL). Levy (1997: 82) notes that moving from “computer” to “technology” signifies an understanding that the field had broadened and now covered all the various technologies involved in language learning. However, Davies et al. (2013: 37–38) claim that TELL had already emerged in the 1980s, to signify that technology was an enhancer rather than an assistant. The modern understanding of CALL, as Levy (1997: 1) puts it, is “the search for and study of applications of the computer in language teaching and learning”. Levy (1997: 81–82) furthermore notes that CALL is an established term, and encompasses all the roles of the computer in language learning. Taalas (2005: 57–60) explains that as the World Wide Web (Web) emerged, internet-reliant *web-enhanced language learning* (WELL) was also conceived, and nominates a combination of CALL and WELL as the most commonly used terms at least in European framework. In the present study, CALL will be used to refer to language learning where ICT is used.

Besides **terminology**, CALL can be reviewed in the context of **foreign language learning and teaching theories**. Warschauer and Healey (1998: 57–71) divided the history of CALL into three phases according to the language learning theories and development of technology: *behavioristic, communicative, and integrative CALL*. Since then, many scholars have used similar or same terms to denominate the development of CALL. According to Davies et al. (2013: 38–40), ICT in language learning has its roots firmly in the dawn of mainframe computers in the United States in the 1960s. Early CALL was based on behaviorist learning theories, and even though for example the audio-lingual method emphasized oral skills, grammar practice was still considered the most important part of language competence. However, some of the key concepts of modern language learning were already present: learner autonomy, student-orientation, and asynchronous access to materials. As early as in 1972, students in technically most advanced higher education institutions could move relatively freely within the education software. Taalas (2005: 57–62) points out that as teaching and learning theories developed, CALL developed as well. Nevertheless, she notes that the process was slow: even as late as between the 1980s and 1990s, CALL tasks for language learning and teaching were largely based on isolated, repetitive text-related exercises (fill-the-gap, vocabulary training), grammar drilling, and authoring tools for teachers.

Taalas (2005: 61) states that communicative learning theories such as CLT introduced less drill-style tasks, where learners were given more choice regarding exercises, and more control and interaction. Computers were used as tools, providing discussion and encouraging critical thinking. However, Davies et al. (2013: 42–46) claim that despite communicative learning theories having been fully established in the beginning of the 1980s, many programs still had their roots firmly in the soil of drilling, and ICT brought few innovations. Interestingly, the change in general language learning theories and the rush of materials for microcomputers happened virtually simultaneously in the late 1980s. Davies et al. note that TBL and the cognitive-constructivist approaches to language learning paired up nicely with technological possibilities, and contents were directly drawn from authentic sources digitally, providing materials to context-oriented language learning. At the same time, teachers found new and innovative ways of using new generic programs that were becoming more widely available: word processors, communication software, and spreadsheets. Levy (1997: 23) points out that the dawn of microcomputers brought more user-friendly programming tools and computers more widely available, thus, in theory, allowing language teachers to develop their own concepts of CALL.

Davies et al. (2013: 46–48) point out the internet, as it emerged in early 1990s, strengthened the bond between ICT and language learning. They claim that the rise of the internet may be the most important technological advancement in CALL in the past 30 years. Bringing large amounts of multimedia materials to learners quickly and affordably was first enabled by CD-ROMs in the early 1990s, and later by the internet. Taalas (2005: 62) notes that today, the internet has countless websites full of materials and communication possibilities. She argues that the emergence of the internet marked the beginning of the integrative phase: multimedia brought together all the parts of language learning. Furthermore, the communication between learners and teachers was possible in more ways than before: synchronously and asynchronously, face-to-face and online. Davies et al. (2013: 48–51) claim that e-learning (most commonly understood as learning online) became a movement during the late 1990s and early 2000s, as Virtual Learning Environments (VLEs) were first developed. In the beginning of the millennium, better quality of images and sound, and faster bandwidth to deliver data instigated full online courses published by large entities like governments. Nevertheless, it was quickly realized that even though

individual self-study substantially supported language learning, it was not capable of completely replacing social interaction, classroom routines, and the presence of a teacher. E-learning as it was gave way to other interpretations of CALL, such as *blended learning*. This development has continued with Web 2.0, a term that describes the internet as a platform and source of collaboration and communication as well as knowledge. In modern CALL, dedicated language learning software have given way to blogs, wikis, chatrooms, and different video tools. As Davies et al. point out, “current pedagogy advocates collaborative knowledge construction rather than simple instructivist learning, as well as authenticity and task orientation” (p. 49), and continue that contemporary learning in digital spaces has become easier than ever before. The three phases discussed above were not unanimously accepted, though.

Bax (2003: 13–28), while accepting that Warschauer and Healey’s phases of the history of CALL is one of the most comprehensive approaches, criticizes it for reducing the history of CALL into phases that have a beginning and an end. He points out that, for example, in many ways the behavioristic phase has not ended: many programs still rely on drill-and-practice tasks. Likewise, he points out that in the 90s, which is described as the birth of integrative phase, CALL usage in classrooms was not natural and common, as the integrative phase describes, and that arguably is still not quite there. Furthermore, he claims that many descriptors of communicative and integrative phases are mere wish lists of the authors, and many of the items cannot be found in the CALL practices of the time. Many of the actual uses attributed to integrative phase are communicative in nature, thus rather belonging to the communicative phase. He argues that listing dates of different innovations does not give accurate information of how CALL was used during its history. He claims that to study CALL, one should also look at the **actual and intended use of technology**.

To offer another way to further understand the history of CALL, Bax (2003: 13–28) introduces three labels to describe it: *restricted*, *open*, and *integrated CALL*. He forms the labels by studying three aspects: how CALL is used and approached, what are the theories regarding foreign language learning, and the history of technical devices and programs. In the beginning, CALL was only available to a select few, and its uses were quite restricted as well, and names the first approach restricted CALL. The ways CALL is used have since gotten more inclusive, and CALL

has begun to be available to more learners. Likewise, the uses have been more open in nature, earning the second approach the name open CALL. The third, and possibly final approach would then be integrated CALL, as opposed to Warschauer and Healey's integrative phase. Bax claims that integrated CALL, as opposed to the integrative phase, has partially begun, but that restricted CALL and open CALL are still very much alive and used by many. Furthermore, integrated CALL will be only achieved via *normalization*, which will be discussed in chapter 2.2.7.

Interestingly, Davies et al. (2013: 41–42) argue that each generation of new technology over the past decades has caused a substantial setback in the CALL materials produced. They point out that when technologies develop and change, the materials written for the previous generation have to be rewritten for the new technologies, which takes time and effort. However, they note that with each new generation, lessons have been learned, and future generations reap the benefits. Thus, backpedaling seems to be only temporary. This stutterstepping has happened with every major advance in computing: the development of microcomputers, changes in storage (from tape drives to hard disk drives), graphics (from text-based to graphical), and most recently, the emergence of the internet. However, they claim that all of these changes have proven to give more than they take. Furthermore, CALL seems to have come a full circle, as computers are no longer expected to replace the teacher in the classroom as drillmasters and tutors. Instead, teachers function as guides for learners on a journey to communicative learning and creativity using ICT such as shared resources, mobile devices and social platforms. Taalas (2005: 57) claims that what started as isolating CALL grammar and vocabulary drilling has evolved to be quite the opposite: CALL today can be used to connect students with each other, and provide means of communication.

The history of CALL is complex despite its relative shortness, and covering it in its entirety is a task that would take several years and hundreds of pages. However, it may be beneficial to note that the pedagogical theories often affect, and should affect, the way computers are used in language learning, and thus studying language learning pedagogies and CALL together may give the best understanding of the history of CALL, as discussed above. Thomas et al. (2013: 23) argue that phrases such as “revolution” and “transformation” are widely overused, and not very appropriate for the evolution of CALL, and that in education in general, change is a process

rather than a sudden event. They furthermore point out that modern CALL may yet be emerging in what they call a fourth social phase, built around social media and mobile technologies. They note that future CALL may be even more participatory and communicative than previously estimated, following the language learning theories' shift toward communicative ability rather than focus on form. Davies et al. (2013: 50) argue that CALL has become a permanent part of foreign language classrooms and continue that CALL “has come of age”, after over half a century in development, and integration has begun. Bax (2003: 27), however, claims that full integration requires technology to become invisible, which state it has yet to achieve. Thus, despite several decades of CALL, more work is still required to normalize technology in the language classroom.

2.2.2 To CALL or not to CALL – conceptualization and reasoning

Luukkonen and Taalas (2015: 224) note that ICT in the world is **ubiquitous**, and social media have become more and more important to our everyday lives. Stanley (2013: 1–6) claims that technology is an inseparable part of our society. In fact, Stanley goes as far as to claim that “technology permeates every aspect of our lives” (p. 1). He explains that technology makes our lives easier, radically reduces the amount of labor, and allows people to communicate with people that they would not be able to communicate with without technology. Thus, figuring out how to upgrade our educational methods to include using technology is an inevitable development that eventually had to happen, and even more so, must continue to happen. He points out that technology in language learning can be used for many purposes from gaining access to information and authentic sources of language to creating communities. Sharma and Barrett (2007: 10–11) argue that there are several reasons to use ICT in language learning; it can motivate, make learning more interactive, give instant feedback, enhance learner autonomy, save time, and enable communication (*computer-mediated communication*, CMC). In addition, ICT can make learning current, if contemporary materials such as news and pop-culture are used. These materials often have shorter shelf-life than carefully edited and published learning materials, but they can be more interesting to learners. Many learners enjoy working on multimedia activities, and very often they benefit from proceeding at their own pace.

Levy (1997: 39–54, 72) claims that many professional authors have expressed that language acquisition processes should dictate the development of CALL materials. However, maintaining solely SLA-based approach to CALL may prove difficult, as SLA itself is a very complex field. Choosing the most fitting model requires a deep understanding of the abilities of the technology chosen for the purpose. Furthermore, he notes that CALL has been influenced by several different disciplines and the theories within them (see Figure 2). Technology itself, as well as language learning and teaching, are the most important fields of study, but in addition to them are *psychology* (including SLA and cognitive psychology), *computational linguistics* (including natural language processing, machine translation, and language data processing), *instructional design and technology*, *artificial intelligence*, *applied linguistics* and *human-computer interaction*. He furthermore notes that CALL is not a homogenous field or activity, and cannot be described as such. Beside technology, CALL includes the people, the learning environment beyond the classroom, and the functionality and interactivity of the materials. As a result, defining an appropriate role for the computer in the classroom has been an issue, and it will remain one for the time being. Furthermore, the role of the computer in language learning may affect the teacher's role, and the way materials are handled in the classroom. Levy points out that as long as technology continues to change, the role of CALL must be re-evaluated from time to time. Nevertheless, Davies et al. (2013: 50–51) state that in many cases, technologies have successfully been paired with methodologies and paradigms of language learning.



Figure 2. CALL and related disciplines (Levy 1997: 72)

There are different types of technological solutions to be used in education. They can be categorized in several ways. Many of these categories are informal, and arguably some categories may only exist to individual teachers. Technologies can be categorized for example by:

- their type: hardware, software, or based on the internet (Stanley 2013: 6);
- the linguistic module they are used to target: grammar, vocabulary, reading, writing, listening, speaking, or cultural aspects (Levy 2009: 769–777);
- whether they fall under tutorial (such as grammar or vocabulary drills, and cultural tutorials), engagement with authentic materials (often adjusted for educational use by teachers within an authoring program), or communication (software used for CMC) (Garrett 2009: 721–723);
- whether they were designed for educational use or not: 1) generic software applications such as word-processors, presentation software, communication and Web 2.0 applications and 2) CALL software applications such as commercial content-specific multimedia (e.g. to accompany a language learning book), or content-free applications or websites

(e.g. authoring tools) (see Davies, Walker, Rendall, and Hewer 2012, section 3 for this and a summary of several other categorizations).

Stanley (2013: 6) divides learning technologies into three categories, namely **the internet** (web applications and resources), **software**, and **hardware** (Table 1). In the present study, this chart is used as a loose guideline to what teachers may encounter in their daily working life, and what they should prepare for. While some of the technologies may be slowly phasing out in favor of new innovations (such as CD-ROMs giving way to websites and online hosting for files such as cloud storage services), most of the items on the lists (such as news websites, online games, and word processors) undoubtedly will remain an important part of language teaching for the foreseeable future. Teacher students should be, if not familiar with, then at least aware of most of the technological tools available for them. However, as already mentioned, the tools themselves are secondary to the reasons and pedagogies behind the use of ICT in the classroom.

Table 1. Learning technologies (Stanley 2013: 6)

The internet	Software	Hardware
Automatic translators	Apps	CD-ROMs
Blogs	Authoring software	Computer room
Comic-creator websites	Concordancers	Data projectors
Image-creation software	Ebooks	Digital cameras
Instant messaging	Electronic dictionaries	DVDs
News websites	Email	Interactive whiteboards (IWBs)
Online games	Interactive fiction	Laptops
Podcasts	Mind-mapping software	Mobile phones
Poster websites	Music software	MP3 players
Social networks	Presentation software	Netbooks
Survey websites	Quiz-making software	Pen/flash drives
Text and voice chat	Screen-capture tools	Tablets
Text and voice forums	Social bookmarking	Video cameras
Video-sharing websites	Sound-editing software	Voice recorders
Wikis	Word processors	Webcams

Stanley (2013: 4–5), based on Hockly (2011) and Lyon-Jones (2011), expands on guidelines for teachers to decide which technology to use and when (Figure 3). He argues that using a principled approach in making decisions regarding the use of ICT in the classroom can mitigate the problems in language learning and teaching, as well as the criticism that it generates. Similar approaches have been suggested by Gruba and Hinkelman (2013) and Bax (2011) regarding blended learning and normalization respectfully. These approaches will be discussed in later segments. The key factor in all three approaches is that the use of ICT should be critically considered and planned, and the reasoning behind usage should be visible and clear. A simplified summary of the key factors would be to first choose what needs to be learned, and choosing the technology accordingly.

Why use the technology?

- Do not use technology just because it is available. Make sure there are gains.

Who is the technology best for?

- Make sure learners are able to use the technology. Different technologies require different linguistic skills or technical experience to effectively engage in learning.

What is the technology best used for?

- It is sometimes beneficial to attempt to make sure the technology is suited for the intended use, or map the alternatives.

Where should it be used?

- Consider not only location such as home or classroom, but also who can use the technology, and whether some learners are left out. If only some learners can use the technology at a time, the others must be otherwise occupied.

When should the technology be used?

- Decide when to use the technology within one class, but also when during the syllabus or school year. Technology should be used to enhance what is already being done, instead of tacking on external activities.

How should the technology be used?

- It is important to evaluate whether learners' and teachers' time is used efficiently. Incorporation into class must be considered, as well as what is done.

Figure 3. Guidelines to using technology, based on Stanley (2013: 4–5)

Levy (1997: 8–9, 68–71) uses a series of indicators to conceptualize CALL to make it possible to develop and use iterations of CALL. These eight indicators are: the approach to language learning and teaching, the role of the computer, the point of departure (starting point into the project at hand), the hardware and software available, the role of the teacher as a contributor to the project, the developmental process of the project, the role of the teacher as an author of the

CALL materials, and the materials already available for the project. These indicators are primarily used to inspect CALL authors' conceptualization of CALL, but they may serve as a relatively solid basis for foreign language teachers to understand why and how they use or do not use the CALL resources at their disposal. He further points out that while in the past creating functional programs with a linear progression was on the forefront, in the 90s developers started to pay attention to recognizing the user's needs and wants. Since then, developers have become aware of the need for user-friendliness and intuitive use in computing. Using data related to human-computer interaction, software's merits in foreign language teaching and learner development can be assessed.

DeKeyser (2010: 158–162) points out that because learning often takes a long time, the tasks and methods of learning used should be kept interesting and creative. He further explains that language acquisition requires repetition and practice, and offering learners a wide variety of meaningful methods of learning in addition to repetitive task types such as drilling is very likely beneficial. Summarizing this and the sections above, CALL in classroom can be used to give learners a chance to learn and engage in a foreign language in more situations and in more engaging ways. It could be understood that a learner is more motivated if the learning happens in a way that the learner is most willing to tackle, and as such, computers may offer learners new ways of being interested and keep learning. It must be kept in mind, however, that ICT should not be used in education without careful consideration of its uses, benefits, and the theoretical background of language learning. The various uses of ICT in education will be discussed below in terms of how much ICT is used in education in Finland, how to implement CALL in the classroom, and what may some of the end-goals of ICT in foreign language learning look like.

2.2.3 ICT in Finnish classrooms

Above it has been argued that **pedagogical approaches** and **learning theories** should be considered before using technology in foreign language learning. Teachers in Finland have worked arduously to bring ICT into basic education. Klemetti et al. (2009: 100–102) found that in Finnish basic education, up to 83% of teachers used ICT in one form or another in their classrooms. Teachers reportedly felt that computers were a learning method that allowed

individual learners to learn and receive feedback without the teacher constantly present. The learners would receive neutral, supportive feedback and continue practicing, and they would worry less about making mistakes in front of the teacher. Similarly, Kankaanranta et al. (2011: 53–54) found that 93-98% of principals in Finnish schools, depending on the level of education, felt that ICT in learning and teaching is at least somewhat important. Next, some of the implications of ICT to Finnish classrooms are discussed, and some problems and their solutions considered.

Britschgi et al. (2011: 258–269) claim that ICT has changed the way people learn, study, and socialize. Information has become important part of modern societies, and access and abilities to acquire, control, and understand information should be equally available to all learners. They warn that currently, this equality may not happen due to schools' different integration levels of ICT into classrooms. They emphasize that education should be renewed and streamlined using ICT, and this process requires both pedagogical and technical support. What is more, learning environments should be reconsidered in terms of classroom spaces, teachers' roles, learners' roles, and use of ICT, moving toward wider learning environments and inquiry-based learning. They argue that teachers need good examples on how to take their education principles further toward integration and effective use of ICT in learning and teaching. Pilot projects alone are not enough, if the results and gained knowledge are not taken to the schools and teachers at large, nor supported. Likewise, Wideroos et al. (2011: 240) point out that educational technology is still somewhat new to Finnish schools and there is incentive to use it. Investments are done in hopes of technology being used, but in some areas these expectations are not fulfilled. Teachers' limited technology skills, lack of knowledge of ICT, and limited access to technological support have caused the new technology in schools to fall partially unused. This means that the positive effects of ICT in learning and teaching are not achieved, and as a result, ICT is perceived as a missed investment. On the other hand, when ICT is successfully used, it is perceived as a useful tool and a positive investment.

Järvelä et al. (2011: 41–44, 51–52) emphasize that as pedagogical theories develop and change, so should schools, their methods and practices. Part of the current issues in using ICT in education is related to ICT being used based on technologies, when all education should be based

on pedagogical beliefs. They argue that ICT in education should support building of knowledge and provide possibilities for acquiring, managing, and producing information and knowledge, as well as promote learners' social interaction and self-regulation. At its best, ICT in education is used as a carefully considered part of the classroom to support better learning results: they help build the atmosphere, enhance motivation, and encourage creativity. Learners benefit from learning as individuals and as a group, and ICT should be used to support that by challenging learners to develop. Taalas (2005: 77–79) argues that ICT is not a replacement for teachers, and that face-to-face teaching will remain an important part of foreign language learning, as interaction and reflection have gotten even more crucial than before. Most importantly, meetings with the teacher, and each other, give learners a sense of community, and function as checkpoints. Furthermore, face-to-face meetings enable a teacher to allow learners to take more responsibility of their own learning, and still be aware of how they are doing.

2.2.4 Expanding the classroom with technology – collaborative learning

Richardson (2010: 6–11, 147–155) points out that spaces other than the physical classroom, such as online blogs, websites, and other online tools can all be used to create a **learning environment**. He argues that the creation of knowledge and learning content is increasingly collaborative. Furthermore, as communities of practice begin to spread across the world, classroom walls become more and more transparent. Things can be learned in the same situations as they are to be used: writing can be done to a larger audience than just a single teacher, and learning can happen through materials that are not provided directly by a teacher. In fact, Richardson claims that as learners collaborate with other learners, teachers, and experts online, they tap into learning resources superior to what any one teacher could provide. Likewise, teachers are no longer solitary, but a community of practice of their own, sharing information and ideas. What is more, completion has become less important than contribution, and as such, learning has truly become a lifelong process. Davies et al. (2013: 49–50) claim that modern CALL is based on groups negotiating toward a common goal and accumulating knowledge together. Having a context in which these activities are engaged may result in better learning outcomes, and ICT, especially digital media, can be helpful in providing meaningful contexts to materials. Reinders and Hubbard (2013: 332–333) argue that, among other things like as access

to authentic materials and online interaction, technology allows situated learning, such as real world settings, discovery, and more responsibility-taking for the learners, as well as provides a meaningful context for language practice. Thomas (2013: 312–313) proposes that TBLT and CALL may have a potential relationship: they could learn from each other in terms of design, understanding of tasks, and behavior of learners in a task cycle. Furthermore, he claims that TBLT can be seen as a natural evolution of CLT, and suggests that should authentic learning environments not be available, using make-belief or ICT in the classroom may be a viable way of giving learners incentive to complete tasks.

Games and simulations have been used in foreign language education during the past several decades, and throughout the past 20 years many of the games used have become digitized. Lai, Ni and Zhao (2013: 178–184) claim that games have gained a loyal user-base in education due to their various uses of learning by discovery and experiment, as well as enabling language learning through materials that are authentic in their context. Games are no longer only physical, but have been extended to a virtual context. They argue that digital games make it possible to facilitate learners taking part in goal-oriented and task-based learning in collaboration with others. Collaboration encourages development of social relationships and learning, and using an avatar to mask one's identity reduces anxiety, which encourages learners to take more risks and be more creative in their language usage. Cohesive and meaningful contexts create situated and immersive learning experience.

Kotilainen (2011: 142–159) considers mobility an important aspect of learner-centered learning. She reminds that learning happens everywhere. She points out that for example mobile phones, laptops, tablets, as well as all the programs and applications on these platforms are mobile platforms suitable for education purposes. Any of these can be utilized in a learning environment, also outside the classroom. Kotilainen also lists voice communication software as a useful resource for learning anywhere due to learners concentrating better at the task at hand when there is both visual and auditory information available. Many learners use mobile platforms outside classroom, thus utilizing time that would otherwise be wasted, i.e. waiting for the bus, while on the bus, and during recess at school. Kotilainen, however, cautions teachers to carefully consider what is being done with different platforms and applications, as the usage

defines whether learning happens. She also argues that in her usage of electronic portfolios in education she found that it is important for learners to constantly have the internet at their disposal. For learners, having a platform to write is not enough, it is imperative to have the ability to post the material online, and gather materials online. She points out that problems in learners' internet connection are quick to cause immediate drop in their willingness to finish assigned work.

2.2.5 Blended learning

Gruba and Hinkelman (2012: xiii, 4) describe *blended learning* as an approach where face-to-face environments are integrated with technologies. They point out that blended learning requires conscious effort and thought to choose suitable activities and tools that support each other. The taxonomy of blended learning versus terms such as web-enhanced, hybrid, or mixed-approach learning is ongoing, and they note that there is no clear taxonomy that all scholars would agree upon. However, they argue that blended learning aims at activating learners to become co-constructors of knowledge, and that in all blended learning, face-to-face methods are blended together with ICT.

Gruba and Hinkelman (2012: xiv, 6–7) argue that many problems may arise when using blended learning in a classroom. The designs may not be designed scalable, building a community of practice may fail, or resources may turn out to be insufficient in regards of teacher time or school resources. Despite these possible problems, they claim that face-to-face and technological tools in classrooms are equal. Sharma and Barrett (2007: 8, 11–12) state that blended learning, like all other ICT in learning, must be based on pedagogical ideologies, or it will result in a worst-case scenario of a confusing mixture without uniting factors. However, when planned and designed properly, blended learning can be the best of both worlds, enhancing motivation and generating interest. They point out that to many teachers, blended learning is nothing new, and that it is a logical extension to what many teachers already practice. In fact, the generation of digital natives expect being able to use ICT in their learning. Nevertheless, Sharma and Barrett caution that while ICT can help learners set their pace by, for example, re-listening difficult parts of an audio

recording, ICT should never be used instead of a teacher. Many aspects of language learning, such as writing and speaking, cannot be properly taught without teacher guidance and evaluation.

Sharma and Barrett (2007: 13–14) propose four key principles of successful blended learning. First, they state that the roles of teacher and computer must be separated and clearly defined. Naturally there may be some overlapping, such as feedback, but the two should never occupy the same space interchangeably. While ICT may be better for things like information search, offering limitless exposure to a language, and being tirelessly available when learners need practice, teachers are aware of learners' needs, can apply pedagogical principles to learning design, and deal with the unclear areas of language and learning. Second, blended learning should always be led by pedagogical approaches. They caution that novelty wears off and wow-factor will not captivate learners for long, but if course design is led by pedagogy and supported by ICT, blended learning can offer variety and ways of using the language not otherwise available. Third, the content of the online materials must be connected to face-to-face instruction, for example by offering practical activities. Online materials should complement and recycle materials used during classroom activities for them to yield the possible benefits to learners. Should the materials remain completely detached from the classroom activities, they may end up confusing learners more than helping them. Finally, teachers should bear in mind that computer programs or online materials alone will not make blended learning more effective; they must be used correctly. Even if the materials are great, they will not help learners if they are not used correctly. ICT can spice up learning, offer new points of view, and enable communication, but only if teachers use them effectively, and connect them to the course design. Materials must be introduced, and their usage monitored.

ICT can be merged with face-to-face classrooms in numerous ways from interactive white boards to mobile devices. Sharma and Barrett (2007: 7, 86), however, caution that technology is not infallible, and that teachers should always bring a plan B to classroom, just in case. Gruba and Hinkelman (2013: 103–105, 155) state that one of the most important attractions of blended learning lies in that it can bring different teachers together. Those who believe in traditional classroom design, and those who utilize the newest technologies in their teaching, do not always seem to be on the same level, nor share similar interests. However, blended learning should

equally support traditional teaching methods and styles, online materials, mobile learning, printed materials, and ways of foreign language learning we have yet to discover. They point out that often the division of blended learning into classroom activities and online materials is not useful, but that for teachers engaging in blended learning the borders are often fluid and tasks often begin in face-to-face classrooms and finish online, or vice versa. They note that teachers engaging in blended learning should carry a few key questions throughout the planning and implementation phase (p. 105):

- Is the lesson design purposeful? Are the principles thought through?
- Is the configuration appropriate? Does the process fit the level of the students, and is it sensitive to their needs?
- Are the materials and interfaces multimodal? Do they combine physical/facial communication with image/audio/video-recorded communication and textual/printed communication?
- Is the plan sustainable? Does it energize teachers and students for the long term?

Blended learning, then, is fusing together face-to-face classroom activities and online work to expand the classroom beyond its walls. It makes it possible to bring different media into the mix, and allows learners to pick and choose what they want to work on and in which style. Many foreign language learners require more exposure to the target language than traditional classrooms can provide, and providing them with extra materials designed for their learner level will very likely produce better learning. It can also bring together teachers with different views of learning pedagogy, and allow them to work together and share materials in an environment that allows different opinions and different styles.

2.2.6 Personal learning environment

Laakkonen and Taalas (2015: 224–226) point out that educational institutions have had to start integrating social media, new collaborative ways of working, and ICT into their curricula. Furthermore, learning has to be more and more personalized to enable learners to achieve the skills required in the modern society. Laakkonen and Taalas suggest that the answer to supporting learning ownership, group work, and collaboration, could be found within **personal**

learning environments (PLEs). They describe PLE as a holistic concept, where integration of ICT into learning is approached from a learner-centered point of view. They state that even though PLE is often approached as a technology, it is rather a question of pedagogy. Their main question is “How can we make use of the learners’ often informal PLEs in the context of formal education?”, followed by questions of implementation and limits of PLEs in higher education. Furthermore, the definition of the concept is complex and subject to change as the PLE discussion is ongoing in communities and literature.

Furthermore, Laakkonen and Taalas (2015: 225–229) note that learners’ informal learning environments consist of various networks, technologies and online resources, but also non-technological aspects. Important aspects in all of these are openness, shared knowledge and ownership, and flexibility, all of which are also present in Web 2.0 environments. This is to say that often PLEs cannot be integrated into traditional, rigid education styles of educational institutions. This would mean that schools must reinvent themselves before PLEs can be fully exploited. Through PLEs learners are able to learn and utilize core skills for 21st century, such as self-regulated learning, reflection, critical thinking, collaboration, creation of knowledge, and communication. Learner autonomy and expanding language learning are present in every aspect of PLEs, as they are crucial to learners’ success. However, for PLEs to be effective, learners must acquire “capabilities concerning access, skills, practices and identities.”

Juntunen and Laakkonen (2014: 59–81) state that PLEs are never complete or finished, because they constantly change and evolve with their owners. Thus, the most important things to learn are the skills related to learning to learn, such as the skills mentioned above, added with process management and recognizing one’s strengths. This makes them so worthwhile regarding life-long learning. PLEs consist of goals, strategies, tools, networks, and one’s personal environment, which means that PLE is always unique, and owned by the learner. PLEs are closely related to approaches such as self-regulated learning, collaborative learning, learner-initiated learning, personalized learning, problem-based learning, and communities of practice, many of which have been discussed also in the present study. PLEs rely heavily on co-designing learning and learner-centered learning, and it is based on dialogue between learners and teachers, thus affecting the design of learning, but also perceived content relevance. Juntunen and Laakkonen

caution that moving toward PLEs in education can be challenging, but the rewards are also significant. Furthermore, schools can begin moving toward PLE as an ideology in small steps, starting with adding learning ownership in learning environments by, for example, adding personal spaces, and moving on to using learners' personal online environments in learning.

2.2.7 Normalization

Technology has evolved from an innovation to a tool for everyday use, much like the wheel for our ancestors. Tileston (2011: 120) claims that using technology should be as natural to us as using pen and paper was to our parents. We should use computers and other technological devices as naturally as our teachers used the blackboard. It should be a continuum of the space we inhabit, and a part of our reality just like any other daily routine. From this point of view, technology does not need to bring anything new to teaching. It just needs to be an option available among other options, with its pros and cons. Technological devices should never be the most important part of any action, but rather they should serve as tools to get something done (Selber 2004: 36).

As long as ICT is considered unusual in the classroom, many of the benefits will not be gained. Bax (2003: 13–28) argues that CALL in the classroom could reach its full potential in the future, if it were to become *normalized*. He points out that integration can only happen if ICT becomes as normal a tool for education purposes as other tools such as pens, books, or communication, and that this requires conscious attempt. He argues that for technology to be completely integrated in language learning communities, CALL as a term must cease to exist, and its practitioners have to go extinct, and the technology must become invisible to its users. He states that more likely than not, this process requires technology itself evolving in shape and size, and learners and teachers learning to use it for their everyday practices without extra effort or expectations. Once the majority of teachers, institutions, and learners have proceeded through the steps of trying, and then learning to use technology without fear or awe, normalization and integration have truly begun. He claims that CALL will be normalized when “computers are treated as always secondary to learning itself, when the needs of learners will be carefully analysed first of all, and then the computer used to serve those needs” (p. 24).

Chambers and Bax (2006: 477–478) discuss 11 issues that must be addressed in order for normalization to take place in a given context. They divide the issues into four categories: A) Logistics, B) Stakeholders’ conceptions, knowledge and abilities, C) Syllabus and software integration, and D) Training, development and support. Each of the categories must be considered and the problems arising remedied before CALL can become natural part of education. Starting with the location and access of ICT, continuing with attitudes and capabilities of each of the functioning, institutions and teachers must be prepared to change the layout of both where ICT is accessible, but also how learners and teachers see it, and how much is expected of them to begin with. Furthermore, teachers should be expected to use ICT in their work, and the ICT they use should be authorable, or at the least modifiable for different uses. Finally, training, development and support both in technical and in pedagogical aspects must be provided. These factors are not isolated from each other, but Chambers and Bax argue that the most important out of the many is probably syllabus integration. They explain that if teachers are not expected to use ICT, they will not use it, even if all the other issues are dealt with. They emphasize that every teacher must be expected to use ICT regularly, but caution that coercion should not be used. Furthermore, the support, both pedagogical and technological should be sympathetic and training provided should be ground-up and preferably collaborative. In addition, Chambers and Bax note that extra time should be provided for the teachers in planning and preparation.

Gruba and Hinkelman (2012: 6–7) point out that the **normalization process** has not yet been accomplished, and that normalization would take several types of resources to achieve. Drawing from Chambers and Bax (2006, discussed above), they have placed the 11 issues in a concise list. Among these crucial resources are making training available for teachers, building supportive communities, reconsidering and refurbishing learning spaces to fully integrate ICT, managing attitudes and expectations, and pedagogical thinking must be constantly present in all of the above (see Table 2).

Table 2. Areas of normalization in language programs (Gruba and Hinkelman 2012: 7, based on Chambers and Bax 2006)

Area	Issue
Logistics	<ol style="list-style-type: none"> <li>1. No separation of CALL and other teaching spaces <li>2. Classrooms organized to allow for a free-flow of CALL and non-

	CALL activities
Stakeholders	3. Additional time and resource for lesson planning
	4. Teachers and managers are confident in using technology
	5. Computers are seen to be normal and integrated
Integration	6. Pedagogical effectiveness depends on many factors; that is, technology alone is not a single determinant of success
	7. CALL is “properly integrated“, and supported, into teaching practices and syllabus
	8. CALL materials are “authorable”, not closed, to allow for specific tailoring into curriculum
Training	9. Professional training is approached as collaborative
	10. Wariness about using technology be met and overcome with support and encouragement
	11. Pedagogical support is as valued as IT support

At times ICT is painted as miraculous cure that has and will completely fix everything that is wrong with education. This is, however, a false assumption. Bax (2003: 25–27) speaks of the **two fallacies of CALL**. The first fallacy is one of *omnipotence*: ICT is expected to revolutionize all aspects of education, work perfectly in every aspect, and solve all problems. If a software does not have every aspect covered, it does not receive any appreciation, even if it performs its intended use perfectly. Should a program or a service offer a great library of materials, but have no communication platform available, it is viewed as an incomplete program. Instead, Bax states that not every program and every service needs to be an overarching box of magic, and that well designed, single purpose tools may yield great results without doing anything else. More features do not always mean automatically better. The second fallacy can be seen when teachers and institutions alike forget to pay attention to all the *other parts needed in implementation* of CALL into learning. A good program or availability of a resource does not guarantee successful implementation alone. It is important to remember that training, designing, conscious effort, and support are crucial parts of integrating technology into foreign language learning.

Bax (2011: 1–2, 8–9, 11–12) revisits normalization to ask if the normalization of a particular technology is always necessary and desirable. He cautions that it should be carefully considered whether and which technologies should be attempted to normalize in order to conserve effort and resources. He claims that normalization may not be automatically beneficial, and normalization should yield benefits, as just being invisible is not enough. He introduces several questions that should be asked to determine the potential value of the technology:

- Is the central focus of the technology on learning as opposed to learners? Focus on learning means that teachers will challenge what learners believe, state, or want, which helps them break preconceptions and develop in critical thinking.
- Is the technology useful? Technology should not be placed on a pedestal, but instead its usefulness should be carefully considered in regards of the learning process.
- Are there cheaper or easier alternatives?

These questions are a part of a process he calls the needs audit, and claims it should be the first step taken when trying to decide whether a new technology is worth the time invested in it. Second step should be developing a learning plan that ensures that the new technology is implemented correctly. Such a plan should include decisions on how different aspects of mediation (access to technology, participation in activities, interaction between learners and the teacher, and expert intervention such as scaffolding) are integrated into the educational process using the new technology. The plan should also have a plan on how to reach productive normalization quickly and easily. These two steps should help avoid rushed or badly designed approaches, and help consider a bigger picture than one teacher and his or her learners.

With so many factors at work, and so much work to do, then, it is normal that there is resistance, doubts, and conversation over the matter of ICT in foreign language learning and teaching, as

well as other education. Within the past few years in Finland, learners, teachers, and other key groups have waged a lively discussion over the pros and cons of ICT in education. This conversation has taken place in schools, newspapers, committees, and homes all over the country, and the attitudes and opinions have been many. There have been voices against ICT, stating that teachers have too many responsibilities and too little support regarding ICT, which leads to exhaustion². It has also been claimed that learners do not gain enough from the usage of ICT³, and that same benefits could be reaped easier using pen and paper⁴. There have been voices that argue the process of integration has been led badly and that the process is happening too slowly⁵. Meanwhile, there have been advocates of ICT, pointing out that users of ICT are managing better for example in English⁶, and that teachers sharing materials are dividing the workload and gaining from the communities of practice⁷. Some have pointed out that even small children are using the internet⁸. This kind of discussion, arguably, is completely normal, and both sides are bringing up important points that, if used correctly, can aid the normalization process by eliminating threats, developing tools, or encouraging the progress.

Drawing from the above, it would seem clear that it is indeed possible to teach badly with ICT. It seems that in learning and teaching today, sometimes gadgets are indeed used just because they are new and they must be used. Should pedagogical critical thinking not be implemented in the new technologies, ICT can result in bad teaching practices, thus resulting in sub-optimal learning. The key seems to be critical thinking and open discussion over ICT and the place of

² <http://www.aamulehti.fi/kotimaa/mielipide-useampikin-tampereen-koulu-on-kaaoksessa-opettajat-taiteilleet-jaksamisensa-aarirajoilla-24302262> and <http://www.aamulehti.fi/kotimaa/ovatko-tampereen-koulut-kaaoksessa-opettaja-ja-apulaispormestari-taysin-eri-linjoilla-24306857/>

³ <http://innokampus.fi/digiloikan-vaarinkohdistetut-askelmerkit/>

⁴ <http://www.aamulehti.fi/kotimaa/tampereen-on-lopetettava-koulutuksen-heikennykset-24302559/>

⁵ <http://www.tivi.fi/CIO/digiloikka-on-harhaa-etennemme-mateluvauhtia-6629260>

⁶ <http://yle.fi/uutiset/3-5450679>

⁷ <http://www.hs.fi/mielipide/art-2000002721078.html?src=haku&ref=hs-navi-paivanlehti>

⁸ <http://www.nuorisotutkimusseura.fi/ajankohtaista/uutiset/575-lasten-mediabarometri-2013-internetista-on-tullut-osa-pienimpienkin-lasten-arkipaivaa>

CALL in foreign language learning, but also to keep searching for the best practices, researching CALL's usage and effects on learning, and, above all else, keep taking learners' needs into consideration regarding ICT as well as all other education. Making support and training available for teachers, and sharing resources and information will be holding a key position in the years to come.

2.2.8 Multimodal pedagogy

Multimodal pedagogy, as Alanen, Huhta, Taalas, Tarnanen and Ylönen (2011: 25, 35–36) describe it, is a combination of using new technologies and media, as well as traditional literacies side by side. It is closely related to **multiliteracies**. However, even though multimedia is an important part of multimodal pedagogy, face-to-face education still plays a crucial role in foreign language learning. It is reinforced by different ways to search for information as well as multiple ways to read. Alanen et al. note that in multimodal pedagogy, knowledge is no longer written in books, or located inside the brain of a teacher or a learner, but it is built in negotiation with others, sharing information and experiences. To become an expert on multimodal pedagogy, one must possess both theoretical and practical knowledge for example in ICT-related skills. Alanen et al. emphasize that developing one's expertise on multimodal pedagogy, its design and implementation during teacher education is imperative. They further point out that this process is both collective and individual, and requires new ways of thinking from trainee teachers, their trainers, schools and institutions alike.

Taalas (2005: 13–15, 65–66) argues that supporting learner processes requires more tools than merely linguistic ones: tools for reflection, evaluation, and real-life language uses must be used as well. She notes that progress toward multimodality in teaching and learning practices is happening, and that with modern language learning resources in ICT, there is no longer shortage of solutions. However, tastes and uses vary, and integrating ICT meaningfully into teaching remains a pedagogical challenge. She points out that the key to successful usage of ICT in language learning and teaching is to base it on learning theories, even when using modern tools such as ICT. Technological innovations should be integrated into teaching and be used as tools for the purpose of learning. Furthermore, she argues that critical evaluation of many of the

current practices is in order, as some of them may be no longer viable. Multimodal settings are available, and using them would be a natural step. Taalas points out that multimodality is but one of the changes that will lead to more social and integrated learning environments. Other such changes are embracing new constructs of knowledge, networked learning, and learning as interaction, while language teaching, learning, and technology are still in the center of teaching and learning practices (Figure 4).

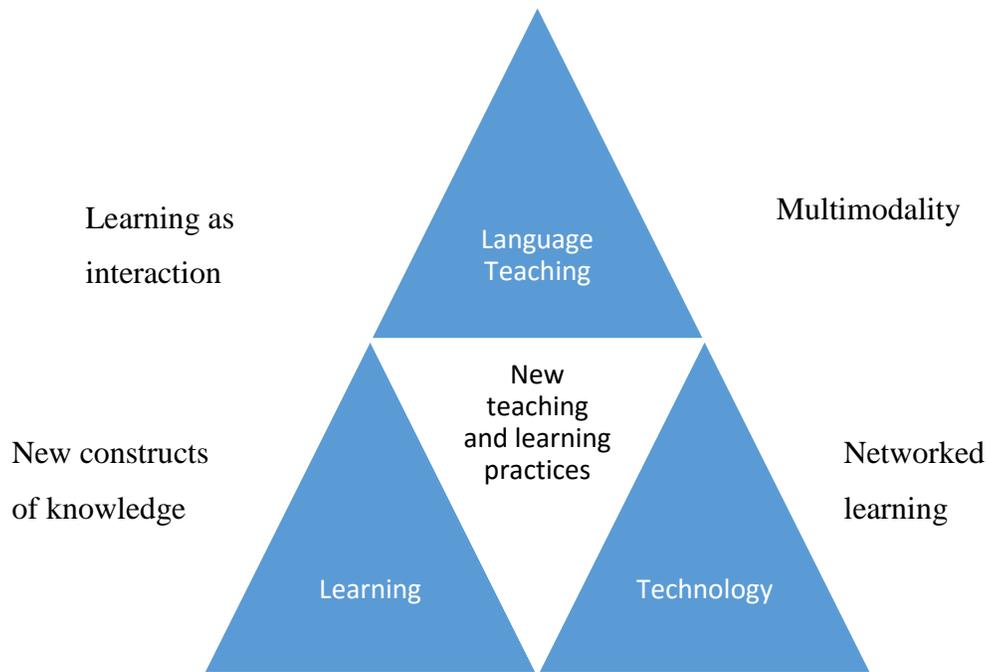


Figure 4. The imposed changes to the current teaching and learning practices (Taalas 2005: 15)

Above it has been argued that it would seem that the use of ICT in foreign language learning and teaching has begun to develop from CALL toward a more **normalized, multimodal use** in the classroom. With this development, new possibilities and choices are opened, but simultaneously great care must be taken to use ICT in education with a keen eye on benefits, theories, and practices to avoid pitfalls such as getting dazed by novelty. It has been argued that using ICT as an integrated, invisible part of the classroom and other learning practices is beneficial, but only after the technologies used have been critically considered, and the **learners' needs** taken into account. Multimodality has been suggested along with normalization as a viable end goal of foreign language learning and teaching, but it has been emphasized several times that ICT itself does not bring better learning results, but that premeditated, correct, and innovative use of ICT

may. Next, the position of foreign language teachers as users and teachers of ICT, as well as teacher education will be briefly discussed.

2.3 Foreign language teachers and ICT

As explained above, computers have been used in learning languages for decades, but their uses have been limited. With the past two decades of technological revolution, the possibilities have become wider and more complex. In many ways, teachers are in the center of this unfolding change, and it is important to note some of the factors affecting teachers' efficacy in using ICT in their teaching practices. In the following sections, foreign language teachers and ICT will be discussed from four points of view. First, the **expectations of ICT used in education**, expressed by the NCC, as well as the EU legislation, will be considered. Then, the **changing materials resources**, as well as **teachers at the edge of a new world** will be discussed. Third, **ICT in teacher education** will be explored. It will be demonstrated that there is a vacuum in the teacher education, as ICT and its possibilities are not taught to future teachers in the extent that they probably should be. Moreover, it will be discussed, whether teacher training in ICT is limited to the trainee teacher's own interest and resources in how to use computers. It will also be argued that when many teachers struggle with the technology, possibilities and potential are lost to their pupils and students. Finally, the **key elements of the multimodal or ICT-integrated classroom** from teachers' point of view will be briefly revisited.

2.3.1 Foreign language learning and technology in the NCC 2014

Foreign language learning in basic education in Finland is heavily influenced by the NCC, which in turn closely follows the spirit of EU legislation. Besides foreign language learning, the NCC and EU legislation also affect how ICT should be taught in basic education. In the following sections, the NCC 2014 and EU legislation within the past decade are discussed to gain a basic understanding on what foreign language teachers in basic education must be prepared for, and what are the possible challenges they will face in service.

Education in Finland is based on a multi-year NCC that dictates the major guidelines and framework for different levels of education in Finland, starting from first grade roughly at the

age of 6 or 7, and ending at the ninth grade at the age of 15 or 16. The NCC is updated roughly once a decade to integrate the newest educational theories and technologies, and making sure the education offered in Finland is up to par with international and societal demands. All in all, the NCC is the most important tool when different educational institutions are updating their individual curricula. It is also used when teachers are planning their teaching for the year. The purpose of the NCC (2016: 9–10) is to ensure equality and united learning goals across the nation. Nevertheless, while the NCC offers general guidelines and goals for each level of education on a broader basis, it does not stipulate or enforce teaching methods, nor the order in which different topics in different subjects should be taught. These decisions are left for individual educational institutions and teachers to decide and describe in local curricula and annual plans (NCC 2016: 9–13, 17–18, 26, 34–35, 46–48). In the following sections, the differences between the NCC 2004 and NCC 2014 and the importance of these differences are discussed. Furthermore, the NCC's effect on foreign language learning, the changing role of teachers, and ICT in education are explored.

The previous curriculum, NCC 2004, was still used in schools when the present study was started and the materials package was designed. However, the previous curriculum had been designed in 2004 and it had been used in Finnish schools for nearly 10 years, so it was clearly somewhat dated. It had been designed at a time when technology was not as clearly present in the society as it is today, and it held less importance to society at large. At the time, not every citizen was expected to be able to use computers to the extent they are now. Therefore, technology in education was only briefly mentioned in the NCC (2004: 42–43), as the last item on a long list. Although the signs of ICT becoming more crucial were already present, basic education at the time did not address ICT directly. During the last few years before the reform, it became more and more apparent that ICT was integrated into every part of modern living in Western societies (Stanley 2013: 1), and thus the NCC needed to be updated in a manner that allowed technology to be a bigger part of education (Finnish national agency for education 2014). The new NCC was finalized in 2014 and the implementation in everyday education was formally begun during fall of 2016.

As this materials package was created in 2014, there was already an abundance of information available about the new NCC and the direction it was going to take. Various resources cited certain aspects of the NCC, and the work-in-progress NCC 2014 was partially available. Looking at the provided materials, it was clear that technology was going to be a big part of it. What was less obvious then, but at least as important, was that the importance of school connecting to the outside world is mentioned several times in the NCC 2014 (NCC 2016: 9, 15, 218–219, 348–349). According to the Finnish Board of Education (Finnish national agency for education 2014), learning happens more and more outside formal educational settings, e.g. classrooms. Salo, Kankaanranta, Vähähyppä and Viik-Kajander (2011: 30) concur, noting that learners already learn in social networks on the internet, and school should not hinder this type of natural learning. Teachers, especially future teachers must be able to connect to the learners' world, or there is a risk that school becomes a detached part of the learners' lives (Finnish national agency for education 2014). This aspect has been assessed in the new NCC, and teachers now need to include ICT and the learners' worlds in their teaching. Thus, more information and education in the technological possibilities of foreign language learning for teachers is sorely needed (Taalas 2005: 185, Wideroos et al. 2011: 240, Laukkarinen 2014).

The NCC 2014 (2016: 20–25) describes a need to teach learners transversal competences (T), a broad set of skills and abilities. These consist of seven different areas: T1) Thinking and learning to learn, T2) Cultural competence, interaction, and self-expression, T3) Taking care of oneself and managing daily life, T4) Multiliteracy, T5) ICT competence, T6) Working life competence and entrepreneurship, and finally T7) Participation, involvement, and building a sustainable future. Combined, these skills are aimed at producing citizens who can look after themselves and function in society. According to the NCC, transversal competences consist of knowledge, skills, values, attitudes, and will that determine how an individual understands the world around oneself, and how said individual acts in the society. The new NCC specifically mentions that different subjects should function within their field of knowledge but also together with other subjects to give learners abilities to survive and thrive. The goal is to support learners' growth as individuals as well as allow learners to understand how to live in their societal framework, and lead a sustainable way of life. More than anything, the new NCC stresses the importance of

learning one's individual worth, one's strengths and areas of development, and appreciation of oneself.

Out of the seven areas of knowledge (NCC 2016: 20–25) three are immediately important to the present study regarding foreign language learning and ICT. T2) Cultural competence, interaction and self-expression, T4) Multiliteracy, and T5) ICT competence seem like extremely important aspects to future teachers' work. Firstly, according to the NCC, T2) Cultural competence and interaction aim to make learners aware of cultural and linguistic differences, possibilities, and challenges in the multinational and multilingual international society around us. This is achieved by giving learners knowledge in several languages, at least one of them foreign, and about several cultures and lifestyles. Learners are encouraged to form and express opinions constructively, and gather experiences both within and outside their own cultural framework. In short this means that learners are taught (foreign) languages and given a chance to get to know and interact with other cultures and peoples, even with a very limited ability in a foreign language. Secondly, in the NCC T4) Multiliteracy means being able to understand, evaluate, edit, and produce different forms of text, including visual and auditory texts. To be able to teach such a multilevel subject, teachers themselves need to understand the field in question. Thirdly, T5) ICT and the skills related to it are equal to other transversal competences. ICT competence is considered a civic skill, which supports multiliteracy and one's ability to function in modern society, where more and more functions such as medical care, education, and civic information are, or will be, online. ICT in basic education is considered both a subject of learning and a tool that is used throughout education: on every level, in every subject, and as a part of most settings. What is more, parts of the different areas of ability explored above overlap. Consequently, this means that a teacher of one subject (i.e. *English as a foreign language* (EFL)) can no longer teach only his or her subject, but must, in fact, teach other subjects as well. Graduating trainee teacher teachers must take all of the above transversal competences into account as they step into service.

In the NCC 2014, basic education is divided into three different class levels, with different amounts of teaching allocated to them: first and second year of school (1-2), third grade through sixth (3-6), and years seven through nine (7-9). The time reserved for teaching any subject is

expressed as lesson hours, each worth 38 hours of educational hours during the school year. In English, or any A1-level foreign language, learners are to receive 16 lesson hours over seven years, beginning on 2nd or 3rd grade (Finnish national agency for education 2012a, 2012b). In comparison, ICT or computer skills are not even mentioned in the distribution of lesson hours. At the same time, the NCC 2014 emphasizes the importance of learners acquiring skills in ICT. These two seemingly contradictory points will be further discussed in the chapters below by first summarizing the goals for foreign language learning and ICT competence in the NCC, and then identifying some of the key guidelines to achieve them.

In the previous NCC (2004: 138), the outline of foreign language learning is 1) to give learners sufficient skills in communication situations in foreign languages, 2) to allow the learner to learn how to use their linguistic skills, and 3) to teach learners to understand foreign cultures. Similarly, in the NCC 2014 (2016: 135–136, 236–240, 374–379), learners are expected 1) to understand cultural differences, 2) to know how to monitor their own learning, and 3) understand and produce the language in different medias and to communicate with the language in different situations. This means that the internal balance within EFL in Finnish schools has shifted. By the time learners leave basic education behind, they should have sufficient skills to read, write, understand, and produce English to communicate in the language in common situations, as well as be aware of their own learning styles and strengths. They should be able to pronounce the language somewhat clearly, and understand and produce spoken and written English. Their vocabulary and grammar skills should be somewhat comprehensive, and they should recognize some of the most common phrases and idioms. Furthermore, learners should be moderately aware of cultural aspects and be able to perform politely. What is more, learners should understand that English can be used after and outside formal educational settings, and should be able to use the language in communication settings.

Meanwhile, similarly after nine years of basic education, learners should possess basic skills in ICT. In the current NCC (2016: 24, 30, 304), teaching ICT competence is further divided into four categories: 1) tutoring students in understanding ICT usage and functions, main concepts, and bettering themselves in producing ICT mediated products, 2) guiding the students to use ICT safely, ergonomically, and responsibly, 3) teaching the students to use ICT in information

management, as well as creative work and research, and 4) allowing students to experience and practice using ICT in interaction and networking. It is further noted that the most important aspect in all ICT education is that learners should be active partners in learning; when learners are working together and having fun doing it, their motivation to learn grows. When learners are finished with basic education, they should be capable to use computers at a level that enables them to enter schools and/or workplaces without having to worry about their computer skills. Furthermore, they should also be able to use ICT in their everyday life, and perform their current and future civic duties and functions in society. Yet, there are no lesson hours reserved solely for teaching ICT. Looking at the NCC, it is not immediately clear that EFL is taught for 16 lesson hours over seven years, and computer skills are not allocated any lesson hours. The requirements explored above are quite similar in scope. Then when is ICT taught? The answer according to the NCC (2016: chapters 3.3, 4.3, 5.4, 13.2, 14.2, 14.4.3, 15.2, 15.4.3) is that learners should be taught ICT integrated into other subjects (i.e. foreign languages such as English). This means that every teacher who works in basic education is required to have the skills to teach ICT, no matter the teacher's subject to teach. The NCC offers some ideas and suggestions on how ICT could be integrated into EFL learning and teaching, and these will be briefly discussed next.

The NCC does not outline exactly how ICT should be used in the foreign language classroom, or outside it, but there are some guidelines; folded into the guidelines of EFL learning and teaching, guidelines for ICT related skills are also listed (NCC 2016: chapters 4.4, 13.2, 14.4.3, 15.4.3). ICT is described as a possible choice for natural education and as a part of making language instruction and communication more authentic. The goal is to make using EFL as natural, meaningful, and appropriate for learners as possible. Among other ways of integrating ICT into foreign language education, *multidisciplinary learning modules* (MLs) are introduced in the NCC as a way for teachers to cooperate and offer variety in teaching methods. In MLs, all subjects are involved in exploring a chosen topic, and different approaches are used to further shared objectives in a project. ICT should be used in searching for information, as a tool for communication, and their systematic, safe usage should be learned during foreign language education. This kind of integrated education should produce learners with transversal competences. Some of these guidelines introduced in the NCC require ICT to accomplish, others could greatly benefit from it. This is somewhat a tall order to make even to a seasoned English

teacher, whose ICT competence may not be sufficient even for himself or herself to perform in such a manner, let alone a teacher fresh out of university, who may have never had to consider these elements before.

Above, it has been argued that teachers, including graduating and new teachers, must be able to teach their subject of expertise as well as ICT. Furthermore, the NCC emphasizes using technology as a tool: despite technology being a major part of the curriculum, it should be used to learn, not for the sake of technology. Teachers themselves should consider technology a tool, and it should be a natural part of their educational framework. Thus, the definition of a foreign language teacher is changing. Teachers no longer teach learners in subject-specific information, but rather guide and encourage learners to find answers and use tools available to them correctly and creatively. Teachers must be able to connect with learners' world to interest learners into learning and to keep offering learners challenges and guidance to overcome them. This means that schools must keep up with the recent development and offer learners integrated, interesting, and contemporary learning methods. Overarching the whole NCC 2014 is the need to enable learners to live, to function, and to thrive in a world where ICT is integrated in every bit of life. This means that teaching trainee teachers how to teach English is no longer enough, they must be taught in ICT as well. Furthermore, it is not enough for the EFL teacher to know *how* to use ICT, he or she needs to know *why* and *when* to use it as well.

2.3.2 The effect of the EU legislation and goals

On a larger scale, the Finnish ICT strategy for education seems to be greatly affected by the goals for education indicated by the EU Commission and other EU organs. The focus of both the current EU legislation and the new NCC is on giving citizens-in-training the ability to cope with working life challenges, ability to learn foreign languages both before and after formal education, and age-level sufficient skills in linguistics, natural sciences, and ICT alike (European Commission 2012, 2016a, Council of the European Union 2013, for further reading Finnish national agency for education 2014). For the scope of the present study, attention will be paid to only the past two decades, in a very restricted manner, to shed light on Finnish foreign language and ICT education. First, the main points of EU legislation regarding language education and

ICT, as well as the relevant goals and guidelines will be explained. Second, the EU programs to remedy these concerns will be introduced. Lastly, the EU strategy for 2020 and its effects on Finnish basic education will be examined.

Taalas (2005: 31) points out that in the EU legislation in 2003, ICT is mentioned as a tool for foreign language teaching, and for networking European teachers with others. Furthermore, Taalas mentions that the EU promotes the idea of “mother tongue plus two other European languages”. The European Commission (2012: chapter 2.1) advocates language learning in basic education, stating that knowing several languages is increasingly important for European citizens, and may be a major obstacle in getting higher education and employment. The Commission calls for education in two foreign languages in basic education. In 2016, the European Commission (2016c: 10) addressed the importance of making language learning materials available online for migrants and others in need of them. Furthermore, it has been noted that at least one additional language is being taught during upper secondary education (European Commission 2016b: 29–30). In Finland, nearly 100% of pupils in basic education were taught two or more languages. Finland has thus reached the EU-wide goal of teaching at least two languages to learners of early age.

The EU Commission (European Commission 2010: 2–3, 7, 12–14, 2012, 2013a, 2013b, 2016a) has repeatedly noted that our society is rapidly changing and that the changes require citizens to learn digital skills and competences. Nearly as often it has been expressed that the responsibility of giving future generations as well as current labor force these skills lies on the shoulders of the EU member states. These responsibilities should be fulfilled by means of education, training, and making resources available to learners. Taalas (2005: 26–43) claims that external pressure from the EU legislation exists on changing the education in Finland toward adopting ICT and moving toward an information society. Furthermore, there is pressure to make more resources available for learners, which means both financial and educational investment. Taalas points out that on the European level many programs have already been initiated. She elaborates that one of the key points in the European program for eLearning for 2001-2004 was that appropriate content and learning environments must be created to give learners sufficient and relevant education, both in linguistics and technology-related skills. The European Commission has indicated that these

aims are still current, but instead of focusing on eLearning, the Commission encourages integrating ICT into other subjects. Furthermore, in the 2010s, languages are still a priority, the aim being that 50% of 15-year-olds have knowledge of a foreign language by 2020. The digital revolution is considered a potential carrier of new opportunities for learning. Therefore, it is important to benefit from using ICT, and educational institutes are urged to make *open educational resources* (OERs) available for everyone.

The European Commission (2012: chapters 1–2) claims that education and skills are “a core strategic asset for growth”. Much like the NCC 2014, the Commission calls these skills the modern transversal skillset. According to the EU Commission, the skillset includes the following (**emphasis added**):

- skills that can be easily transported, such as critical thinking, problem solving and collaborative work,
- entrepreneurial skills such as vocational skills and understanding of one’s own career progression,
- STEM skills; an understanding of Science, **Technology**, Engineering and Mathematics, especially for women,
- basic skills: numeracy, literacy, math and **technological skills**,
- **linguistic skills**, especially **foreign languages** to increase mobility in the workforce.

In 2013, the European Commission (2013a: preface, 2013b) launched an action plan on how to boost innovation and digital skills in schools and universities. EU member countries agreed to optimize ICT-supported learning and access to open educational resources. The “Opening Up Education” action plan consists of three main areas: 1) encouraging teachers, learners and organizations to innovate, 2) increasing the amount of OERs available and using them, and 3) enhancing ICT infrastructure and connectivity in schools. According to the European Commission, anywhere between 50% and 80% of learners within the EU do not have access to digital resources such as digital textbooks, software, learning games, simulations, or different broadcasts or podcasts. Furthermore, most teachers do not feel like they have enough knowledge or skills in ICT to teach them properly. These teachers also reportedly want more training in

technological aspects of education. According to the European Commission, the reasons for launching the act are numerous: the workforce in the EU is lacking in digital skills (37% of labor force has low or no skills in digital technology), only 20-25% of children are taught by teachers who are confident about their digital skills, and as mentioned before, up to 80% of EU member states' students have no access to digital learning materials.

In 2013, the Council of the European Union (2013) observed that the extra attention and funding given to education in boosting EU member states' growth and competitive ability has been satisfying. They cautioned that education should be available to every citizen equally, and that the goals introduced in the Europe 2020 strategy should be used as guidelines for future investment. Among many other goals to strive for, the following three points are encouraged in the Europe 2020 strategy (European Commission 2010: 5–6):

- using innovative and learner-centered pedagogical methods to promote lifelong learning,
- ensuring all teachers are professionally qualified by making sure teacher education and courses are available and that they are up to par. This includes training opportunities for teachers already working at education, as well as trainee teachers' education, and
- exploiting ICT and using the possibilities it offers in giving learners access to online resources by offering OERs.

In 2016, the European Commission (2016a, 2016c: 2–5, 7–8) announced ten actions to help Europeans gain better skills. The Commission argues that learners attaining a broad skillset from early age is an important factor in boosting Europe's human capital. Among these are basic skills such as literacy and numeracy, but ICT skills are also mentioned. Ten initiatives are to be launched to instigate progress toward these goals, some immediately. Several of them have to do with ICT: "Digital skills and jobs coalition" attempts to bring EU member states together with professional and educational parties to ensure European citizens are equipped with adequate digital skills in the near future, "Skills Guarantee" action attempts to ensure that a minimum level of literacy, numeracy and digital skills are attained by those with the lowest level of skills. Furthermore, the Commission explicitly expresses concern about the fact that "[a]ccording to studies, 70 million Europeans lack adequate reading and writing skills, and even more have poor

numeracy and digital skills.” By falling behind in skills needed in information society, these Europeans are at risk of becoming unemployed, or even excluded from society.

As presented above, the EU deems both linguistic skills and technology-related skills crucial for future professionals and citizens, and they expect learners in EU-wide education programs to achieve sufficient levels of tutelage in these areas. These areas of improvement repeat in virtually every education-related communication, plan of action, and program published by the European Commission. Foreign language teaching in Finland is generally in good hands, but if teachers are expected to also teach ICT skills, it becomes apparent that they themselves need to be suitably fluent in ICT skills. To attain this proficiency, they must be instructed in it, and learning must be enabled.

2.3.3 Changing materials and resources

One of the pressing reasons for teachers to become skilled and knowledgeable in ICT in foreign language education is, besides society at large, the current digitalization of major examinations in Finland. For example, the Finnish matriculation examination, the final exam of high school, is in the process of being digitalized. The English as a foreign language exam, as well as many other foreign language exams, will be taken digitally beginning spring 2018, and will include a wider variety of different text types, such as audiovisual materials (The Matriculation Examination Board 2017a, 2017b). This means that the students taking the exams must be fluent in using ICT and different texts, which requires practice. Consequently, the materials used in classrooms must be similar to the materials used in the exams, preferably beginning before high school level studies to allow learners to get used to them.

Levy (1997: 105–106) claims that the existing, commercial materials are often produced by larger organizations, authored by experienced writers, and commonly designed to work as self-contained packages. He points out that while textbooks are developed to be consistent, logical and follow a set of principles, and even though they undergo thorough testing and checking, they are developed for an audience that the authors do not know personally. Thus, they remain more generic, thematically and otherwise, than the materials produced by a teacher for his or her learners directly. Dörnyei (2001: 64–65) notes that textbook publishing and the electronic

materials that accompany it are a multimillion dollar business. Furthermore, he claims that even the most colorful books often leave the learner “cold” as they are heavily edited, and topics are often diluted. He points out that the publishers may even override writers’ authority and remove the most interesting texts due to possible controversy, thus making them less enticing for learners. Laukkarinen (2014) claims that in Finland, large text book publishers are very open to technological solutions and innovations. She claims that most ideas, where viable, are welcomed and used, and interactive classroom tasks are increasingly a part of language learning materials. She mentions that developing electronic materials is the only direction for publishers, even when schools struggle to adopt these materials: focusing solely on printed materials would not be financially viable. She further argues that new and uncertain teachers may benefit more from printed books, but electronic materials are nevertheless a useful addition to the traditional book approach. Even so, electronic materials are not used in all schools due to technological limitations and lack of funds, leaving schools in unequal positions.

Peuna (2014) points out that the learning spaces have become more varied, but that the everyday act of teaching has stayed largely the same. She notes that spaces alone do not make varied classroom activities, but they may aid in achieving more multimodal education. She claims that learners are found to learn better as more of their senses are engaged. Thus, audiovisual materials are better than books alone, et cetera. Testing and trying out different classroom activities in different spaces, and using online communications, for example, to help create emotional experiences may result in better learning outcomes. It is then important to note that ICT in its various iterations is merely a continuum of the spaces that have been used in foreign language learning and teaching throughout its existence. While for example a smart board is more complex than a blackboard, it should be designed and used with learners in mind.

Kankaanranta et al. (2011: 47–48, 71) claim that ICT is an integral part of learning in modern schools. Nevertheless, as recently as 2008, most teachers had not started using ICT as a part of their normal classroom routines. The resources were available, but teachers had not started to utilize them on a larger scale. All around the world there is a movement to integrate technology in schools, and computers and other devices have been invested in. The actual usage has not followed the amount of investments or plans. They caution that schools are not equal in their

resources and possibilities, and in 2010 the technological advancement was clearly concentrated at higher levels of education, such as high schools. Despite this, between 2006 and 2010 in Finland, a definite development toward integration of ICT could be seen, and according to studies this has had a positive effect on learners' results. This is echoed by Laukkarinen (2014), who notes that it takes time and effort for teachers to begin using technology in classrooms, but once the process is started, the results are usually encouraging. From her experience, some teachers can be suspicious of integration of ICT, but the change can be eased with enough information and training. Norrena et al. (2011: 94–95) note that in many Finnish schools in 2010, ICT resources were available, but in many schools the classrooms themselves did not always have computers available for everyday use. They found that having technological equipment in the classroom was more effective than having equipment in separate computer labs, for example. According to Norrena et al., smart boards were still somewhat rare in 2010, and internet connections were only in as many classrooms as there were computers. Furthermore, they claim that using ICT innovatively and often was quite rare in Finnish classrooms. It would seem that different schools had different amounts of ICT at their disposal, and it is very possible that different results in the usage were also connected to resources available for training and support.

It seems clear, however, that the first decade of the new millennium has been a decade of rapid change and growth in using ICT in education. During this time, foreign language teachers have faced new challenges. They have embarked on a journey to adopt and integrate the new possibilities offered by the new equipment and new social aspect of ICT in classrooms and outside of it. They are trying to connect their teaching with the world outside the classrooms, and in many cases, it seems that learners' families are receptive to this development as well. Korhonen and Lavonen (2011: 108–109) claim that ICT has been used not only in teaching and learning, but also in communication between schools and families in an attempt to bring home closer to school, and ensure that information is available not only to learners but their families as well. They note that parents have been pleased with how ICT has enabled them access to more information about how schools function and the ability to take part in their children's education.

2.3.4 Teachers at the dawn of new classrooms

Laukkarinen (2014) notes that over the recent years, computers in the classroom have gotten more common. She recounts that when she began her studies to become a teacher, and when she was a new teacher, computers were not widely used: she remembers having been intimidated by learners playing the game Worm. Since then she has gained insight into using ICT in language teaching, and has been a part of a team writing new English textbooks for Finnish schools. From her perspective, getting online and into the technical world has gotten easier. For example, many tasks in textbooks are located on the publishers' servers online. This has made ICT an increasingly ingrained part of language learning in the schools where these materials are used. Laukkarinen remembers a time when many of her colleagues were apprehensive about ICT, or were directly opposed to using computers in their teaching. Many of these teachers considered computers to exist for gaming and entertainment rather than a tool for learning purposes: ICT lacked a function in learning and teaching. She points out that once these misconceptions were corrected, and teachers learned to fit technological solutions into their personal teaching, many of the previously "ICT-negative" teachers became interested and even excited about the new possibilities. Laukkarinen notes that this positive attitude had to be built from ground up before the teachers were ready to integrate ICT into their daily routines.

Levy (1997: 100–106) points out that in the implementation of CALL, the teacher's role as a contributor may be minimal, or if the CALL materials are self-contained, non-existent. On the other hand, the teacher's role may be crucial to the successful integration of CALL into foreign language learning. The difference is usually caused by the role that is cast on the computer: when the computer is used as a tutor, the teacher's role may be smaller, and in contrast, when CALL is considered a tool among others, the teacher's role is more significant. He notes that the teacher may be a tutor while learners work on computers, or the teacher may design larger projects or activities that include using CALL as a part of it. Levy also reiterates that the idea of computers replacing the teacher has proven quite impossible. He argues that while it has been claimed that CALL would somehow "free" the teacher from the mundane parts of language teaching, the sheer amount of materials available on the internet may require the teacher to know and do more than before to facilitate learning possibilities. In addition to being a facilitator in the

implementation of CALL, teachers may also choose to author their own materials from scratch, often because the existing materials do not fit their purposes.

Laukkarinen (2014) suggests that foreign language teachers especially may have a steep learning curve in using ICT in classrooms due to lack of exposure. In her personal experience as a teacher training school tutor, lower grade trainee teachers have a better understanding about how computers can be used in a classroom. Furthermore, the proficiency of foreign language trainee teachers varies wildly: some students are familiar with computers and can easily integrate them into classroom routines, whereas others lack even the most basic skills. Laukkarinen mentions that more attention toward the personal ICT skills of trainee teachers could be beneficial. When doing their teachers' practice at teacher training school, the students and the tutors have neither time nor resources to go over the basics of ICT skills, and the classroom practice is often lacking in variety. Laukkarinen notes that more resources are sorely needed in this area of teacher education, and all trainee teachers should be taught basic ICT skills to make their transition from trainee teacher into a new teacher easier. Classes that allow the trainee teachers to examine their attitudes toward ICT, alleviate unnecessary fears and apprehensions, and allow the students to explore learning and teaching methods outside school books should be a part of a trainee teacher's curriculum. Currently a teacher's proficiency lies solely on an individual trainee teacher's activity. Laukkarinen notes that not everybody has to know everything, and that specializing in something is certainly allowed. However, basic skills should be available for everybody.

Learners in basic education should receive basic skills in ICT, as discussed in section 2.3.1, including self-regulation skills, basic ICT skills, including communication and working skills, as well as skills to learn more on their own. Teachers should be able to teach these abilities, which means that each teacher truly is a teacher of ICT (Tuomi et al. 2011: 181). This calls for a new understanding of a teacher's expertise. Hubbard and Levy (2006: 11–12, 14, 16–17) discuss different roles that ICT expertise can take in the education world, such as practitioners, developers, researchers, and trainers. They call these roles functional. They furthermore point out that each role pairs up with an array of institutional roles, such as classroom teachers, CALL specialists, and CALL professionals. They note that the roles refer to actions more than job

descriptions: a classroom teacher may function as a developer when writing his or her own materials, or a trainer when gathering more knowledge and skills about ICT. Thus, the roles are rather fluid. Moreover, they continue that the knowledge and skills required in each role can be viewed on a scale of “shallow vs. deep knowledge”, as well as by the breadth of the knowledge: “limited vs. elaborated skill sets” (p. 14). Considering all of the dimensions may help those planning ICT courses for teachers avoid overlooking some areas. The trainees’ expected knowledge and skills after a course should be identified and recognized, and content developed according to them: knowledge and skills, technical and pedagogical, functional and institutional roles should all be considered when designing a course. Following Hubbard and Levy’s logic, it may be beneficial to attempt to give trainee teachers a shallow but wide understanding of different technologies, and keep in mind that they, also, must recognize their various roles in their work.

2.3.5 Teacher education and ICT

Warschauer and Healey (1998: 58–68), in addition to others, point out that teacher education has a crucial role in developing CALL practices in the classroom. Furthermore, making it possible for teachers to use flexible and multimodal resources in their practices plays a significant role in integrating ICT in foreign language learning. They point out that teachers have a large and varied selection of tools and programs available for them to support their students’ foreign language learning and enhance their classroom practices. What is more, they emphasize the positive effects of game-like learning, and promote keeping a wide variety of CALL tasks and activities at hand to integrate them into foreign language learning. Taalas (2005: 185, 161–162) calls for early education for teachers, and argues that training teachers in ICT skills after they have graduated is often more expensive than addressing these needs during teacher training. She also claims that generic training does not seem to have a strong impact and invites consideration of more pedagogically oriented approaches. Furthermore, she notes that it is not enough to teach trainee teachers ICT skills, but that reflection and providing them with time to integrate ICT into their own teaching are equally important. She argues that merely trying out new technologies does not invite scrutiny and evaluation, and claims that professional development is “a reflective

process where the capacity for learning is combined with the teachers' practitioner knowledge and used as a basis for the new approaches" (pp. 161–162).

Lahtinen and Toom (2009: 34–39) suggest that one of the most beneficial methods of teacher training is reflection. They describe reflection as a tutor-supported course of action that enables trainee teachers to meditate on their professional growth, and further develop their attitudes and conventions regarding foreign language learning and teaching. Furthermore, reflection is a continuous process with a concrete aim of becoming a better teacher. Besides individual reflection, it can also include discussion with peers and tutors. By reflecting on the information and pedagogies regarding SLA, trainee teachers can use what they have learned in their practices. In short, reflection helps trainee teachers choose their personal pedagogical direction. This does not mean they will be magically transformed into better teachers. However, the process can be started by offering feedback, information, criticism, and discussion to guide trainee teachers toward their best selves as foreign language teachers. Consequently, when designing their classrooms, teaching practices, and activities, trainee teachers will have a solid understanding of how they want to guide their learners. Andrade and Evans (1989: 4–11) point out that trainee teachers are faced with several difficult questions during their education. They must choose what their point of view is toward different aspects of language learning, and which framework to subscribe to as teachers. Andrade and Evans argue that preferences in language learning and teaching styles may depend on the teacher's personal experience, and that perhaps trainee teachers may be wise to make sure they understand their own motives and pedagogical views, and try to implement them according to their learners' needs. This, arguably, also applies to using ICT in foreign language learning and teaching, and trainee teachers should be allowed time to reflect and understand their own motivations and their relationship with ICT.

Kessler (2006: 23–35) notes that many teacher training programs lack CALL components, and that training is largely still informal and done for personal purposes via conference workshops, in-service training, or personal effort. Kessler points out that many teachers who do not already have a positive attitude toward ICT are still intimidated by its use. Personal use, he claims, should not be the deciding factor in how well teachers know ICT, and how deep their understanding of it is. He argues that while personal use seems to be a positive factor, teachers'

knowledge should be “pedagogically focused and informed by the literature” (p. 26) rather than rely on what happens to be picked up when using ICT. In addition, training should aim to prepare teachers for the possible limitations in their future careers. Kessler cautions that while teachers are in training, they have access to a multitude of resources. These resources may not be available once the training ends, and teachers may be less willing to use technology in their classroom if these limitations come as a surprise. Kessler found that teachers were generally dissatisfied with the level and amount of training into ICT they received, and how much they had to rely on materials and courses outside formal training. He claims that teachers felt that the time used for CALL was overwhelmingly insufficient. Meanwhile, teachers considered CALL a valued component with language learning and teaching, and used various resources in self-training. Kessler, then, suggests that CALL education should be revised to involve specialists and stakeholders, provide incentive to use CALL in the classroom, and keep its use relevant.

Meanwhile, Hegelheimer (2006: 117–127) emphasizes that language teachers will not be replaced by computers, but that teachers who have ICT skills will do better than those who do not. He points out that currently, ICT skills are either not taught at all, or they are taught too late in a teacher’s career. As a solution he suggests mandatory ICT education for language trainee teachers during their training period. He claims that all courses in CALL for trainee teachers should include practical and theoretical components. Practical components should include getting to know teacher and management tools as well as development and research tools. Theoretical components should consist of discussions and in-class presentations, as well as reading materials relevant to the topic. After such courses, trainee teachers should be more computer-literate, and able to evaluate and build ICT resources for learning purposes. All of these should also make it easier for teachers to gain employment. After teaching such a course, Hegelheimer found that trainee teachers felt more confident about their skills in ICT, and as a result, they used ICT in their practices more, and were more willing to take risks regarding using ICT. Furthermore, they created their own projects in order to help their careers and CALL skills along.

Peters (2006: 154–164) states that it is more important to train teachers to feel comfortable integrating technology into their classroom practices than try to train them as technicians. She

emphasizes the different sub-competencies of ICT, such as being competent in using the tools available and being able to help learners. She argues that a teacher in the classroom should be a resource that provides answers, help, guidance, and advice, since while tutoring learners, teachers themselves learn more. Furthermore, she claims that one course of ICT education is not enough during teacher training, as there is not enough time spent learning basic ICT skills. A series of short courses or a single course in ICT can alleviate some problems, but they are generally too superficial to allow trainee teachers enough time to learn and practice. She found that many teachers consider computers more of an ally than a threat. In fact, it seems problems integrating ICT into the classroom are caused by lack of resources, support, or access to computers, rather than teachers' attitudes. As a solution, Peters suggests integrating ICT training into trainee teachers' education, starting with basic ICT skills such as making electronic portfolios, and using forums and office programs. Later, the emphasis should lean more toward language learning technologies and integration of CALL. Nevertheless, when there is virtually no training available regarding ICT for educational purposes for trainee teachers, every small step counts. Taalas (2005: 170) notes that all change should be started small, but planned on a bigger scale, and thus providing trainee teachers one course of ICT in foreign language learning is a step to the right direction.

In Finland, Viitanen (2014: 119–126) found that foreign language trainee teachers feel that the amount of ICT education during their teacher's studies is inadequate. Moreover, it seems that trainee teachers are largely unaware of the resources available for self-study, and remain dependant on courses provided by universities. Thus, they also lack a complete understanding of how to use ICT in language learning and teaching. He also suspects that it may be possible that in the ICT training trainee teachers receive, a sufficient link between pedagogical considerations, language learning theories, and practice in ICT in education is never made. Therefore, trainee teachers largely are not able to connect theory to practice when it comes to the use of technology in language learning. Furthermore, he found that trainee teachers are quite willing to receive more education in ICT. Their attitudes and views toward ICT are positive in general, and they see ICT as an opportunity to access authentic materials for language learning purposes. In addition, they consider ICT a possible means toward development of learning practices and motivational aspects. Interestingly, Viitanen also found that generic ICT courses are not enough

to provide the training they need, and that trainee teachers require education specifically in the pedagogical use of ICT. Hence, courses directed toward pedagogical use of ICT in foreign language learning are sorely needed. His findings in Finnish universities are in line with other studies considered above, and as a result, this clear gap in education and training offered cannot be overlooked in the future.

2.3.6 Revisiting the key concepts of ICT in the classroom

Before moving on to introducing the materials package, it is imperative to go over some of the key concepts of ICT and its uses in pedagogical settings. ICT in foreign language learning and teaching is a complex issue. However, some key points can be raised to the foreground to help understand some of the choices made in the materials package.

Most importantly, it is clear that pedagogical considerations must be the key factor in any use of learning and teaching practices. The tools cannot become the focus, and the concepts of integration and multimodality must be considered. Laukkarinen (2014) emphasizes that the device itself is somewhat irrelevant as any device can be used for learning purposes. Moreover, in the present study ICT has been described as a tool to expand the classroom. Different texts and media provide learners with more varied, interesting, and authentic materials and language examples. For the learners to benefit from the use of ICT in classroom practices, the devices and methods must be chosen according to the proficiency level of the learners and the pedagogical ideology of the teacher. Whether ICT remains visible to the users or not may be a matter of perspective and taste. What is certain is that technology must be part of the classroom practices, and its use natural to teachers and learners both.

It has been noted that learners are no mere consumers of existing knowledge, but are rather active constructors of new knowledge. Most of the methods and approaches to foreign language learning and teaching discussed in the present study have been learner-centered and the teacher's role has been one of a tutor or a guide. It has been pointed out that there is no conflict between ICT and teachers, as they serve different purposes in modern education. It has been argued that foreign language learning and teaching should be learner- and learning-centered, and that learners should be supported in acquiring skills that help them sustain life-long learning.

Activating and motivating learners may be one of the great challenges of modern education, but it must be accompanied by coaching learners in skills related to self-regulation.

It has been shown that trainee teachers must be provided with training regarding combining pedagogical ideologies with the use of ICT in their classroom practices. While many teachers may find training outside formal programs and initiatives, it remains imperative that education is provided in a structured manner by institutions and governments. Teachers must receive early training to mitigate the amount of stress that using ICT in the classroom causes, as well as to ensure that learners are reliably provided with multimodal education, advocated by numerous researchers, as well as the Finnish government and the EU. It has been noted that teachers view ICT as an ally rather than an enemy, and most problems are created by lack of training or time.

Reflection and critical evaluation are key tools in understanding “good use” of ICT in classroom practices. As ICT becomes an integrated part of learning and teaching practices, classroom walls will slowly cease to exist and multimodal pedagogy becomes more and more important. Teachers must ask themselves numerous questions to find their ideology and personal philosophy regarding ICT in education. Which resources to use? How to teach learners ICT skills without it taking time from the subject matter? How to integrate ICT into one’s practices in a pedagogically sound manner? These and many more questions must be answered before multimodal pedagogy and integration of ICT can be fully utilized and exploited. Consequently, allowing teachers the time, skills, and space to reflect upon these questions may be one of the factors in maximizing innovative and pedagogically sound usage of ICT in foreign language learning and teaching. In the present study, reflection and critical evaluation of technology, tools, and methods have been shown to be critical in teacher’s training concerning ICT.

What is clear is that ICT is ubiquitous and here to stay, and must be exploited in an innovative, creative way to help foreign language learners discover interesting ways to learn and keep learning. As school curricula are bringing different subjects closer to each other and promoting teachers working together on more project-based learning practices, so must technology be brought into the classroom as an integrated part of the learning practices. Teachers must begin to use ICT as a natural part of their practices. This requires more education and training during teacher training, and all of the decisions made must be guided by pedagogical considerations.

3 FAKE IT ‘TILL YOU MAKE IT – THE MATERIALS PACKAGE

Above, various approaches and theories regarding using ICT in foreign language learning in Finnish basic education have been discussed. It has been discussed that the new NCC requires teachers to teach ICT skills along with their main subject, in this case foreign languages (see sections 2.3.1 and 2.3.2). Furthermore, it has been shown that when used correctly, for pedagogical reasons, ICT in foreign language learning can help learners achieve results, and help teachers make activities in the classroom and outside of it more interesting and versatile (see sections 2.2.2 and 2.2.4). Nevertheless, it has also been pointed out that trainee teachers and new teachers do not feel comfortable with their ICT related skills, and feel like they need more knowledge on why, how, and when to use ICT in their education (see section 2.3.4). Likewise, aspects of teacher education and trainee teachers have also been explored (see section 2.3.5). It has been argued that teacher education does not fully support trainee teachers' relationship development with ICT in education. The theories are not exhaustive, and many aspects of foreign language learning, ICT in education, and teacher training have not been covered in the present study. It can, however be assumed that the picture painted by the theoretical section paints is relatively balanced and comprehensive to draw some conclusions. It has been shown that there is a gap between teacher education and foreign language teachers' needs in basic education.

In the beginning of the present study a question was posed: What kind of course would help language trainee teachers use ICT to help their students better learn languages? With this question in mind, the present materials package was created. I was lucky to have the help of two university teachers and researchers with more experience in university level education, Tanja Välisalo and Ilona Laakkonen. They were working for University of Jyväskylä at the time, and were gracious enough to accept me as a part of their team designing and delivering a course that revolved around ICT in education. The course was a pilot course, and by my request it was further geared specifically toward language trainee teachers. It was developed in a series of design workshops where first the general outline and themes of the course were chosen, and later the course materials were created around those choices. It is safe to say that Välisalo's and

Laakkonen's influence can be seen in the finished materials for the course, and that without their guidance, many choices would have been different. In short, the materials package is vastly better because of their help. They made many suggestions, asked many important questions, and were the ones responsible for the smooth running of the course administration. The course was originally delivered in Finnish, and I have translated the materials including the PowerPoint slides, and written the user's guide and assessment guides for the course in English. Furthermore, the homework assignment examples were originally provided by me. However, the vast majority of the course materials were co-authored and separating my contribution completely from theirs would be difficult, if not impossible. I have done my best to give them credit whenever possible in the materials. The finished course and the materials package aim to do two things: First, help future teachers understand what possibilities ICT offers in teaching foreign languages. Second, help them make educated decisions about what technology is best at certain types of educational goals.

The guiding principle of the course is that teaching using ICT in language learning in any manner other than combined with pedagogical considerations would be a mistake, as a teacher's pedagogical background must always be the guiding factor of his or her teaching (as discussed in sections 2.2.2, 2.2.2, 2.2.7, and 2.2.8). Thus, the course has been designed first and foremost to activate trainee teachers in discussing, analyzing, and exploring educational ICT, rather than learning particular device skills. The aim of the course is to help trainee teachers grasp that it is more important to understand the purpose of ICT in learning and to know why and when to use tools, than to know how individual tools are used. In the following sections, when discussing the attendees of the pilot course, most often the word *student* will be used to signify their role during the course, and as a nod to their various backgrounds. When referring to their future profession and who they will be teaching, the term *learner* will be used. To signify the informal and learning-centered nature of the course, the development team of teachers running the course will be referred to as *tutors*.

3.1 Course aims and the target group

There are three main goals for the course. These goals should also be brought to the attention of students by writing them in the course description before students sign up to the course. After the course, students should be able to do the following:

1. They should be able to evaluate the suitability of different technologies to their pedagogical views of foreign language learning and teaching, as well as design new ways to using them.
2. They should also be able to use some of the central tools and devices, and know how to learn to use new devices and tools.
3. They should be able to work independently and creatively with learning technologies.

These goals are mostly achieved through discourse, reflection, and critical evaluation together with other students. Reflection and the course goals are previously discussed in sections 2.3.4 and 2.3.5. Course tutors guide the conversation topics, but most of the learning happens in groups or together with peers. A part of the course is dedicated to finding, creating and analyzing different tools, materials, and methods for learning purposes. Topics are first covered during classes, together with tutors and peers. Then the newly acquired knowledge is put to use through assignments. Pedagogical views and approaches are never forgotten, as they are constantly used in evaluating what is “good use” of technology. The course materials aim to invite students to discuss their experiences and beliefs, as well as question and ponder their motivations regarding ICT in the classroom

The materials package is aimed toward university foreign language trainee teachers with some experience with ICT. Experience in ICT is strongly recommended because a part of the course work is done online, and the course relies on students being able to navigate online, use basic tools available to them, and have a basis to discuss their experiences in the past. In addition, students are expected to have completed their teacher education to ensure they understand the basic theories and approaches of learning and teaching. Attending the course work without some basic understanding in language education and ICT would be difficult. Furthermore, large variety in the student skill level would have unnecessarily complicated designing the course, and it was

decided to limit the attendance accordingly. Otherwise the target group can be kept somewhat large to attract students from several language departments.

Due to the heterogeneity of the target group, specific language learning theories or sets of theories have been used as a basis for the course materials, but not enforced. This is done to ensure that students can make their own decisions about their future teaching styles. All theories, approaches and methods are equally welcome in the discussions, despite the course materials following theories revolving around social learning, multimodality, and personal learning as discussed in sections 2.1.2, 2.2.6 and 2.2.8 respectively. In the future, it may be worth consideration to create separate groups for foreign languages such as English and German, and first languages such as Finnish as a first language and Swedish as a first language. While they are all languages taught in Finnish schools, their foci are slightly different, as previously discussed in section 2.1. Finnish as a first language (and Finnish literature) students may revolve more around literature-related designs, while foreign language students are more concerned about reading and listening comprehension and grammar, for example. It must be noted that this variety in approaches can be a positive thing. However, should the student groups be larger in the future, this could be one easy way of dividing students into smaller units, and focus more on specific kinds of language learning and teaching technologies.

To ensure that the course is designed to cater to their needs, and that the learning goals can be attained, the students should be asked to fill a survey prior to the beginning of the course. The concept of light needs analysis has been previously discussed in section 2.1.7. The survey is geared to map what the students' expectations, learning goals for the course are, and what their previous experiences are. The students fill in which types of ICT they have used previously, and whether they feel comfortable with that technology. They are also asked whether they have used the technology in their work as teachers previously. In the survey, several tools and methods are available to select as a checkbox: language studios, smart boards, mobile devices, ICT studio or laptops in the classroom, co-authoring such as Google Drive, online learning materials, online videos, personal websites, search engines online, online discussion boards and chats, wiki authoring and writing a blog. They can also fill in a previous technology not yet available on the list. In addition, they are asked to specify which technologies or tools they were the most

interested in. The information yielded by this simple needs evaluation should be used to further tailor the course to the students' needs, and to make sure the course materials are challenging enough for the students. The survey is available in the materials package in Appendix 1.

Altogether 16 students signed up for the course, but two of them did not wish their answers to surveys to be used in research. The 12 females and 2 males attending to the course that allowed their answers to be used wished for more options in their work as teachers. Since students' language of study was not limited in any manner, the students attending the pilot course were mainly from English, Swedish, Finnish, and German departments. Many of them mentioned wanting to learn to use the technologies on a concrete level. Also practical information was mentioned in several answers. Most of them had finished their teacher training, and all of them had basic knowledge of ICT, and most of them had also already used one or more different technologies listed above in their teaching. Many of the students requested more information about social media applications, smart boards, and tablet computers especially.

3.2 Course outline and principles

The course outline is affected by several things. First, students' skill level (as discussed above) must be taken into consideration. Second, the students of this course are in a phase in their studies where they are novices in ICT, experts in linguistic skill, still students, but getting close to assuming roles as teachers. Their ability to move fluidly between these roles must be appreciated. Third, the contemporary nature of ICT in general, and the variety and differences in the materials available must be considered. Since the students that select to take part in the course are not yet experts in ICT, the course level has to be kept below a certain threshold, and it is imperative not to require too much technological understanding. At the same time, the course has to be somewhat challenging to make it interesting, and to allow the students to develop. Similarly, it is to be expected that the students will come from different backgrounds, and have different understanding of learning and teaching as well as different experience in working life and education. Some of them may have more experience in teaching than others, as some of them may have only just finished their teacher training, while some of them may have already taught in some form before and during their university studies. Likewise, the demographic of the

students may differ according to age or other background factors, and as such, their personal experiences and expectations in education may differ.

The course materials consist of six key areas. Each of these areas is covered over one self-contained class and its pre-tasks and homework assignments. The classes should be held once a week, as far as the academic calendar allows, with a two-week pause between 4th and 5th class. Originally four out of the six classes were two hours long, each hour including a 15-minute break, and two were three hours long. For the updated course materials, 2nd class has been expanded to three hours to allow more time for the discussions and activities during that class. The chosen topics and class durations are:

- 1) Introduction to ICT in education, 2 hours
- 2) Everyday technologies, 3 hours
- 3) Collaborative learning, 2 hours
- 4) Learning online, 2 hours
- 5) Games and gamification, 3 hours
- 6) Language, learning and technology, 3 hours

The first class is used to get to know some basic terminology, each other, and the course outline, second class revolves around technologies in the students' everyday life and how those could be utilized in language learning and teaching, and so on. The final class is spent on wrapping all of the previous topics together via discussion and final thoughts. The areas of interest have been chosen based on how they fit together for the course, but also how they work as self-contained units. A conscious attempt has been made to include as many controversial topics such as gaming and gamification to allow students to form an opinion of them based on their experiences, discussions, and information given during the classes. The course is designed to move from more concrete to more abstract, and more familiar to less familiar.

Rather than go through individual technologies suitable for different kinds of activities, students are exposed to different areas of learning and guided through discussions about these areas. They are then asked to complete activities regarding the use of the various topics from finding suitable technologies and designing class activities using what they have learned, to evaluating the

solutions others have devised. The students are continuously encouraged to evaluate what they are learning. The three key questions they should be asking are the following: 1) What do I want to teach to my learners? 2) Which tool fits the purpose? 3) What do I need to take into consideration when using this tool? These questions are used in homework assignments in different forms, but are otherwise not directly asked to avoid limiting the students' thought processes. One of the guiding principles that must be constantly kept in mind is that ICT itself cannot and will not bring anything "extra" into education. ICT itself is an option that should not be unavailable due to fear or lack of skill. The value and validity of ICT in foreign language education is determined by *whether* and *how* it is used (as discussed in section 2.2.7).

It must be taken into account that the students hold several partially overlapping roles over the duration of the course. Students attending the course occupy three different mental seats that they swap in between. While these roles are partially overlapping, they can also be mutually exclusive. These three main roles are:

- ✓ The students as language experts
- ✓ The students as ICT novices
- ✓ The students as future foreign language and ICT teachers

These roles do not so much affect the course design as such, but they have to be taken account and given space to flourish, or they will affect each other. For example, the students are already professionals of foreign languages, and their expertise has to be respected. One of the main goals, then, is to encourage the students to trust their expertise in language learning and teaching, and to learn how to use ICT to support it. Some students may be very apprehensive about their skills as users of ICT, and it is imperative to not allow that uncertainty to prohibit them from flexing their ability to design and deliver great language education in the future. Furthermore, beside their personal roles, it is to be expected that the students may also continuously consider their future learners while working on the course assignments. They may think about their future jobs as teachers, and evaluate their ability to use ICT, and what they can give to their future learners. Hence, it is imperative that the students are allowed to challenge everything they learn during the course, argue their position, and ask all the questions they need to ask.

The course outline and materials have been kept simple on purpose. Passing the course requires attendance to the classes, finishing the homework assignments, and finishing the final task given at the end of the course. Outside these requirements, there are no formal demands on how students should accomplish any given assignment, or how they should conduct the discussions or group work. Each individual student has great freedom of choice over the way they finish the course (the effects of learner choice and freedom have been discussed in sections 2.1.5 through 2.1.7), and different outcomes in homework assignments, for example, are a testimony to the creativeness of the students attending each course. While the course is assessed numerically, the assessment should be based on the effort, critical thinking portrayed in the assignments, and participation rather than the quality or professionalism of the materials they produce or the eloquence of their discussions.

3.3 Main activities and online tools

The course consists of pre-class tasks, six classes, homework assignments, and a final task to be turned in after the course. Pre-class tasks, homework assignments, and the final assignment will be discussed in separate sections below. The activities during classes have been kept simple: discussion (in groups or together with the class), group work with a tangible outcome, and short tutor-led sections called Expert's Words, which will also be discussed in a separate section. By design, the time reserved for each section of the class is kept moderate to avoid the classes getting too monotonous and taxing. The results of the activities are shared to the whole class and discussed after the activity. This should keep the discussions fruitful and avoid stagnating. The group work is often problem-based in nature to encourage students to share ideas and work toward a common goal. The discussion topics have been kept rather broad, and simple yes or no questions have been avoided. One of the classes has been designed to be held online to further help breaking the monotony of alternating discussion and group-work. Students and tutors attend the meeting via an online tool, and the different options of the tool should be used to test different kinds of ways to discuss and work in groups online.

The main activities during the classes are themed discussions in groups and task-oriented group work. The discussion and group work topics vary from casual comparison of experiences to

designing a learning game, and are always based on the topic of the class. The merits of social learning have been previously discussed in section 2.1.2. While the course is not aimed at foreign language learning purposes, the social aspects of learning should still be present throughout the course. Students are, for example, asked to compare their experiences with technology in the everyday technologies class, attempting to find similarities and differences, and contemplate on the reasons. One of the group work tasks during that class is to begin working on that week's homework assignment in groups, designing a class plan that includes the topic that had been discussed. The task is then continued after the class, online or face-to-face, until the homework assignment is finalized and turned in. This piece of homework is then continued in a second homework assignment, where the students evaluate and comment on the other groups' works. Finally, this chain of activities is finished during the following class, as the designs are discussed and evaluated in class, and the most interesting ideas are lifted to the forefront for closer examination and conversation. In general, all of the activities are somehow related to each other to ensure that the classes feel connected to and built upon each other.

The goal of the course design is to encourage the students to ask questions, challenge their views, and share knowledge. Thus, it is crucial that the students can discuss with their peers on at least two levels: within a group of a certain language students, as well as in mixed language groups. During the design phase of the course, a slight tendency of language students grouping with common language students was anticipated, such as Swedish students grouping up with each other, and English and Finnish students within their own groups respectively. In an attempt to provide the students with a more holistic understanding and varied points of view of each topic, in the beginning of the course, students should be divided into mixed-language groups called *home groups*. These groups are used in homework assignments and most of the discussions. During the first class, students are tasked to come up with a name for their home groups. This name should be something that they all have in common, or can all relate to. From time to time, students should be asked to choose different seats and mix their groups to get to know new points of view. Students' diverse views should always be welcome in the discussions, and mixing the groups from time to time should help make sure that the groups do not become too unanimous. This way, students always have something to share with each other. Conversation should also be invited and encouraged on the online platforms to make sure the learning and

sharing processes continue outside formal class hours. Once conversations online become more common, students may end up sharing links and thoughts after each class. This will give more depth the classes through final thoughts and revelations being shared.

For the pilot course, two online platforms were chosen for the conversations outside classroom activities to enable sharing information and continuing the discussions outside the assigned times. For future courses, these choices should be critically evaluated regarding the availability and usability of possible new platforms. Nevertheless, to form a cohesive picture of the choices made, the two platforms chosen will be discussed here. The first one, Yammer, was used for just **conversation purposes**, and sharing resources or findings in a very informal social media environment. Class materials were also posted online on Yammer for the students to examine after each class. Yammer was chosen because it was already used and paid for by the university, and because the network was well defined into communities such as “University of Jyväskylä students”, which made it somewhat safe from unwelcome attention. A closed group was created for the course, and all the students were invited into it. Surely, any other social media platform can be used in the future. However, it cannot cost anything for students to use, must be easy to learn to use, and allow privacy settings to be defined by the group owner. It has to be taken into account that students cannot be forced to join a commercial service against their will. Thus, services such as Facebook are not viable options due to their commercial use and questions of privacy. In addition, it must be taken into account that some students may be against joining social media services, especially ones with controversy around them. Yammer faced some resistance, but it was accepted by the students as a tool that was used for the course, as they were assured they would be free to delete their accounts after the course was over and grades given. To complement Yammer, another tool was chosen to be used for **sharing homework and group work results**, and to give the students a chance to learn to use two different kinds of services that they could use in the future. While more informal conversation was done in Yammer, a wiki was used for turning in homework assignments. Logistical reasons were yet again on the forefront of the decision-making, and University of Jyväskylä Confluence wiki was chosen. Again, any other platform can be chosen for this purpose, as long as the above restrictions apply. The platform should be fairly easy to use, and uploading materials to it and finding what others have uploaded should be doable with moderate effort. Limiting the audience via privacy settings

must be available, as some students may not wish their work to be automatically available to a larger audience. Finally, there is no reason why one platform could not be used instead of the two. However, for the pilot course, none of the platforms reviewed could be comfortably used for both purposes, and thus it was decided to instead choose two for the students to learn.

The fourth class is titled *Learning online*, and to give students a chance to experience learning online first hand by themselves, this class should be held online. A meeting platform should be set up beforehand, and if needed, students should be invited to join in an online conference call, along with information on how to join. It must be noted that this class requires some work to set up, and should be planned early. Technical difficulties, such as sound not working on the students' computers, or internet issues, should be expected, and the students should be mentally prepared for this eventuality already during the previous class. Getting to know the online platform chosen for the class is highly recommended, as well as trying to find solutions to the most common problems beforehand. The class is designed to withstand moderate delays in the beginning. During the pilot course, the technical difficulties only occurred in the very beginning of the class, and were promptly solved. The tutors getting to know the platform beforehand and preparing for the most common issues helped solve the issues that arose. Mentally preparing the students for possible difficulties may have helped the situation as well, as they never expressed more than mild confusion, discomfort, or bewilderment. They were able to solve most problems on their own, and were willing to work on the issues and calmly wait or search for solutions. All problems were solved within ten minutes.

The conference platform chosen for the online class should include a tool to divide the attendees into groups, and it should be used to facilitate more private and better flowing conversations. Students may also find being allowed to write instead of speaking out loud calming, especially at the beginning of the class. Should there be more than one class held online, students may become more willing to speak out loud. Thus, it is recommended that the students are not forced to speak out loud, and that the conversation pace is kept slow enough to accommodate people communicating in writing. Students should also be warned about the possible mild confusion caused by the latency between responses. During the pilot class, most of the speaking was done by the tutors, and most of the students opted for typing. At times, students said the same thing at

the same time, or the conversation went back and forth as comments came in an unusual order due to the students' different thinking and typing speeds. These problems did not seem to be overwhelming, and many students seemed to like working online. After the online class, each student should be asked to share their thoughts and feelings on Yammer about this form of studying as a homework assignment to give them a chance to analyze and understand their experiences together with their peers. For the pilot course, it seemed to be somewhat common consensus that attending a class with a cup of tea, favorite woolly socks, and a tuna sandwich made the conversation more relaxed and informal.

The single most important rule of the course is to keep the discussion and group tasks as social and as close to reality as possible. For the most part, the questions have been formulated to include the students' opinions, experiences, or aspirations. Partially this has been done to invite personal opinions, but also to avoid discussing theory alone, which might quickly become detached from the reality. The goal of the course is to encourage students to reflect upon their experiences and beliefs, and question and understand their motivations regarding ICT in the classroom. Thus, it is important to try not to overload the students' discussions with theoretical knowledge. However, during each class, some tips on further reading should be given, either in class or online. While the students are not required to use these reading tips, they should give more substance to the course for those students who prefer knowing and learning as much as possible about each given topic. Some of these tips are included in the present iteration of the course materials, but it is strongly suggested that these materials and tips are kept current and contemporary. Newest research is naturally recommended, but the style and topics should be carefully considered.

3.4 Pre-tasks and homework assignments

To keep the course schedule easy to follow, only a handful of different task types have been chosen in addition to class discussion and group work. Prior to the course beginning students should be asked to fill a pre-course questionnaire and do a pre-course task. The questionnaire should then be used to get a first glimpse into the group composition and skill level. The pre-task is aimed at helping students to get into the correct mindset for the first class via reflection (see

section 2.3.5). They are requested to keep a technology journal prior to the first and second class, altogether for two weeks. The journal-keeping consists of taking notes over what kind of technology they use in their free time, studies, or work. They are asked to note what they use them for, and how they feel using them. These notes are then compared and discussed in depth during the first two classes.

Homework assignments are given after each class to guide the students put their new skills to use and explore the topic further, but also to help them prepare for the next topic. Often the homework consists of several parts, varying in difficulty and involvement. Even when there are different parts to the homework, every attempt has been made to connect them to each other. Some of the tasks include scouring the internet for good ideas and then analyzing them; others are more involved and consist of designing a class plan or a technology-related part of a class. Nearly all of the homework assignments require critical thinking and creativity. Homework assignments are introduced in the end of every class, and they should also be posted online for the students to refer back to. To help the students get started with the homework assignments, some materials should be posted on the wiki page as well. These materials include things like assignment descriptions, background and possible resources information where applicable, and, in some cases, examples on what the finished product could look like. The students should also be encouraged to ask questions online whenever they have some, and discuss the tasks among themselves. Most homework assignments are designed to be turned in on the wiki page. During the pilot course, the class size was rather small. Therefore, plagiarism was not a major consideration, and thus each assignment was visible to all participants as soon as they were turned in. In the future, should the class size be larger and should it be necessary, it may be worth consideration to only make students' assignments visible to other students after the possibility of turning in has been closed. Most homework assignments are designed to be due before the next class. One larger assignment should be assigned to be completed over a two week period, and the extra time is reflected in the assignment.

An important part of many of the homework assignments is a follow-up assignment, where the students are required to look at each others' assignments and give feedback and constructive criticism about them. The aim is to guide the students to get to know each others' point of view,

seeing how they have solved the same assignment, or what kind of designs they have come up with or found. Consequently, they go through the assignment one more time. Additionally, they get to practice their evaluation and feedback-giving skills. Even more so, since some of the homework assignments are completed in groups, this gives the groups a chance to see how differently different groups approach the topics, and what kind of things they pay attention to. During the pilot course, these peer-feedback assignments turned out to be needed, as otherwise students may not have looked at each others' work at all.

3.5 Expert's Words

Even though most of the course work is done in groups and as active building of knowledge by sharing ideas and discussing problems and their solutions, there is a need to deliver condensed, basic information to raise questions and jolt thinking processes along. This need is assessed by devoting a part of each meeting to a 10-20 minutes long Expert's Words section. It is a short lecture-style presentation held by one of the course tutors, exploring and presenting some of the key terms and discussion points, and asking some of the main questions that has or will come up regarding the topic at hand. These sections should be prepared ahead of time, and the most current research should be used as a basis for them. The tone should always be kept fairly informal to invite further conversation regarding the students' opinions and thoughts on the matter. Expert's Words can also be used as a vehicle to deliver terminology, and address most common (mis)conceptions in the field of study regarding the day's topic. Questions should be asked during these sections to invite conversation, among others questions like whether the term *digital native* is a correct one, or whether a teacher should do all the work in a classroom to be a good teacher. The questions and concepts should be discussed with open-ended answers in an attempt to give the students' thoughts space to flourish afterwards. It is, however, important to keep these talks concise and relatively short, to avoid making the class a full lecture, as students' discussion and exploration of the topics must remain the top priority and the key form of learning.

Expert's Words are strategically placed wherever they are needed the most: during a couple classes, they are fairly early during the class, or in the middle of it, to help raise questions or

discussion about the topic. Other times, they are in the end of the class to give students a new perspective to what has been discussed during the class. When the Expert's Words are placed in the beginning or middle of the class, they are often followed by a related task, such as discussion in groups about the topics mentioned, or some activity that utilizes the terminology or information provided. Likewise, whenever the Expert's Words are placed toward the end of the class, they are used to give the students something to mull over at home, or while working on their homework assignments. During the pilot course, the Expert's Words were well received by the students, and they often noted that the presentations were a great way to challenge previous beliefs, or give them something to discuss. Many of the students pointed out that in the beginning of a new topic they had difficulty wrapping their heads around the topics, and they were grateful for the short introduction to the topics.

In the present iteration of the course materials, Expert's Words can easily be replaced with other activities, such as group work in researching the topics and coming up with answers to a list of questions that the course tutor provides. Experts like those used during the pilot course may not be available, or may be beyond the course resources. For these cases, a detailed description of the Expert's Words materials have been added to the course materials package. However, should experts be available, their use is warmly recommended.

3.6 The final assignment

The course is concluded by a final assignment that is assigned after the last class. The final assignment is to be turned in two weeks after the course ending. Originally the final assignment was to compose a teaching philosophy regarding ICT, complete with a teacher's professional level description. The students were given a resource⁹ describing different professional tiers of a teacher, and they were asked to find the tier they found most fitting for themselves. The students

⁹ Ope.fi website: <http://opefi.wikispaces.com/Ajankohtaista+ja+esipuhe>

had most likely completed a teaching philosophy as a part of their teacher training, and the final assignment was allowed to be built upon that. The assignment was aimed at once more directing the students' thoughts and reflection toward their ICT skills, attitudes and their relationship with ICT, this time in written form.

In the revised course materials this assignment has been revisited to cover more of the course materials. Many of the students attending the pilot course noted in their feedback that they had not spent much time on looking at each others' works. This has been remedied by making the final assignment slightly more comprehensive. In the new final assignment students are asked to create a teacher's portfolio. The portfolio consists of several parts: short teaching philosophy regarding ICT, teacher's professional tiers, and selected examples of a teacher's ICT tools or class plans. For the last segment of their portfolio, the students choose some of the best homework assignments and some of their favorites from the other students, providing they have allowed that by using Creative Commons licensing. Creative Commons is discussed and covered during one of the classes, and its use is encouraged throughout the course, as well as proper citation practices. This portfolio is more thorough, but should require only a little additional work compared to a mere teaching philosophy. In addition, it offers the students a chance to create a tool kit available for future use, or as an additional tool for gaining employment in the future. It might encourage the students to further study how others have solved the same assignments, or what kind of other ways of teaching with ICT there are. The portfolio can be discussed earlier, and it can be built over the duration of the course to help with the workload. After the course, at best, only writing the philosophy and finalizing the portfolio remain to be done.

The new portfolio-based final assignment may prove to demand more work than anticipated. Since it has not been tested, and recognizing this possibility, the original final assignment of teaching philosophy regarding ICT has been included in the course materials as an invisible slide after the new portfolio-based assignment.

3.7 Additional classes to learn specific platforms

The purpose of the course was to offer the students a path to creating a relationship with language learning technology through pedagogical consideration combined with skills to use technology. When deciding what could be done within the timeframe reserved for the pilot course, discussion and exploration were given precedence over individual platforms. It was considered more beneficial to attempt to give students tools to discuss and ponder their attitudes and aptitudes in ICT as well as the ability to learn the usage and benefits of current and future tools. However, an attempt has been made to provide students with optional extra classes during which they can familiarize themselves with chosen platforms. These classes are designed to be held outside the course curriculum, and led by tutors who have used the platforms or devices before. In the future, it should be carefully considered whether these classes should be included in the main curriculum of the course, or if they should be kept optional.

These additional classes would add substance and variety to the course, and it would probably be beneficial for students to allow them to familiarize themselves with certain platforms. The goals should be kept simple: the students should be aware of how to use the chosen technology, where it is best used, what the limitations are, and how to avoid most common issues. Furthermore, they should be challenged to contemplate on what kind of use of the technology can be considered “good”, and how to ensure learning with the technology is interesting and encouraging to learners. This could be done by demonstration classes held by the tutors, as originally planned for the pilot course, by providing the students examples and tasks. On the other hand, it could possibly be better achieved by the students familiarizing themselves with their chosen platform or device, and preparing *news flash*, *tutorial* or *demonstration* type of presentations in which they could teach each other how to utilize those platforms. Such platforms to cover could be things like mobile devices, tablets, smart boards, educational games, language labs, laptops, document cameras, or varied educational software. University resources must be taken into consideration, but for example tablets and smart boards could conceivably be used for short periods at teacher training schools with the help of faculty of teacher education.

Should the platforms or devices be learned in groups and then presented to others, the students should be able to choose, or be assigned, a platform to get to know and physically test. They should also be allowed to decide how they want to demonstrate it to the rest of the class. This would allow students to become more proficient in one platform, and receive tips and an idea of the best parts of the others as well. It would also allow the students to familiarize themselves with the limitations of the platforms. It should be considered whether to allow the students to pick their own platforms or devices, or assign them one. Furthermore, it should be decided whether the devices should be chosen from a list provided the tutor. There are benefits to allowing free choice, but it is very likely that the students would lean towards whatever platform or device is considered new and interesting at the time. This could be seen in the pre-course survey, as many students mentioned that they were especially interested in tablet computers, which had just become available for classroom use in the Jyväskylä university teacher training school. This kind of bias could be avoided by assigning groups to different platforms or devices, but that would very likely result in less enthusiastic students.

During the pilot course, in the surveys taken before the first class, many students requested for coverage of certain devices. Unfortunately, arranging such classes within the timeframe provided proved to be impossible. There was no prior experience in such co-operation between faculties and different functions of the system. Thus, it would have taken more research and connecting people to make this a possibility for the pilot course than was possible. Consequently, the materials for additional classes were never designed, and the classes never held.

3.8 Optional project for extra credit

The course is accompanied by an optional section with a chance to earn extra credit (using European Credit Transfer and Accumulation System, ECTS), and a possibility to improve their grade. Students can work with more experienced teachers or on their own on a project related to one of the course topics. The teachers they would be working with are volunteer in-service teachers needing extra help with technology-related matters. The project section has been designed with two-fold benefits in mind: students get a chance to work with more experienced in-service teachers and test their newly learned ideas, and in-service teachers get help with their

technology-related problems from trainee teachers who have spent several weeks thinking about and innovating technology in teaching. The benefits of working with a more experienced people have been discussed in section 2.1.4. The course tutors first contact language teachers in the area, and ask for volunteers who need help. In-service teachers then explain their problem, and give ideas on how students could help them. These projects are then chosen by students according to their interests. The teacher-student groups will then work together for a predetermined time, and the results would finally be showcased in a mini-seminar held a few weeks after the course has ended.

During the pilot course, there were initially several teachers who welcomed the help from students in inching their way over the hump of integrating technology in their classroom. The project topics they provided ranged from designing interactive tasks and integrating computer usage in group projects for learners in their schools, to mapping out resources for the teacher to use and deciding how to use them by designing example classes. One of the in-service teachers would have been interested in taking the time to learn to use tablets in their classroom, and needed help in getting to know the platform and finding or coming up with tools to use for their classes. In every case it was clear that both the in-service teachers and the students would have greatly benefitted from working in tandem. On the other hand, the students were also extremely interested in working side-by-side with more experienced teachers in uncovering the challenges they would be faced with in the future. Initial plans were made, and working on a project seemed like an extremely viable option for extra credit. However, once the time came to commit to the projects, the students did not sign up. There were many reasons given for this change of plans, and most of them had to do with scheduling or time management issues. Many of the students were burdened by other courses, final exams, other projects, or their master's thesis work, and were not able to clear time for the project work. It is possible that arranging the projects took too long, or that the projects were scheduled too late during the spring. Furthermore, it was not quite time for summer courses yet, so the students were not able to schedule the projects for the summer, either. It may be possible that the projects were not advertised or explained well, or that some information was lacking by the time the choices needed to be made, and the trainees declined due to uncertainty that was not sufficiently alleviated by the course tutors.

All in all, the projects may give students a chance to try out their skills in practice, and it seems that in-service teachers may also be interested in working on a tandem project. Thus, offering this kind of professional collaboration in the form of a project should be kept a part of the course. However, the risks involved both to teachers and students must be considered more carefully. In-service teachers may not have the time to allow students to get to know the materials and needs of the teacher properly. Consequently, students may be left hanging and unable to finish the work they have started, and thus fail to get the credit they need. On the other hand, students may not be able to sufficiently help teachers in need, and teachers would have spent their time gaining nothing in return. Thus, the projects section should be well-timed, sufficiently regulated, and supported by the course tutors to enable both parties to gain what they need from the projects. It might even be beneficial to make the project an integrated part of the course.

3.9 Feedback from the students

As already mentioned above, the pilot course was held in the fall 2014, and feedback was collected from the students. The course has since been revised to enable future courses being taught using the same materials. The materials package (Appendix 1) is the revised course materials package.

One of the most frequent comments in the feedback received from the students was that they found the course sorely needed and welcome. Most of the feedback was positive, and the students felt that the course had been useful. Many pointed out that the discussions had been fruitful, as the overall atmosphere of the course was encouraging and accepting, and the topics varied and complex. Some mentioned that the group work outside the classes had been somewhat difficult to arrange due to different schedules of the students themselves and the limited time to finish the assignments, but that it was otherwise fun and gave them new ideas. The online class especially was considered interesting and memorable, as well as using online platforms for further conversations. Many of the students were sharing links to online tools and news websites on a regular basis, and often there was some conversation following these links on Yammer. In their feedback, some students mentioned how other students' links and comments were very helpful and interesting. All in all, other students' tips, experiences, and ideas regarding

the use of technology were deemed improving the course experience. Peer-support and peer-feedback seemed to be warmly welcome as well. One student noted that one of the most useful lessons learned during the course was that of the importance of pedagogical consideration of the contents, as well as the importance of concretely designing their teaching. Another student pointed out that the presence of three tutors with different points of view brought the course activities more depth.

When asked about the different parts of the course, the students found the Expert's Words sections inspiring. They gave criticism over the lack of concrete use of different platforms, and would have greatly appreciated more hands-on training on different devices, such as tablet computers. They found hands-on technical training interlacing with pedagogical principles regarding the use of ICT the most useful part of the course. The students also requested more time to finalize homework assignments, as well as going through them in class, or receiving feedback from the tutors. They felt that the homework assignments that were not discussed in class afterwards were left slightly loose and separated from the main course. Many also mentioned that they would not have minded some professional feedback or advice about the assignments they turned in. It was also mentioned that the classroom space could have been more encouraging and comfortable than it was.

During the course, all the course work was available on a wiki platform that everybody attending the course could access and get to know the ideas provided and shared by others. However, students reported that they had not spent a lot of time viewing other students' works due to time limitations, or problems finding the materials. Yammer received good feedback as a discussion platform, but the students felt that turning in assignments and finding others' assignments on the wiki was challenging and would have required further arranging. Many students eventually gave feedback to their peers, but the comments were often short or consisted of comments that did not spark further conversation. Constructive criticism was present only in a handful of cases. More encouragement for the students to review each other's work in more detail may be required once the platform issues are remedied to facilitate a wider perspective for the students. They should be specifically taught to upload their materials online, or at least a simple guide should be made available to ensure easy access to the assignments. Part of this problem could be avoided by

choosing a different platform to turn in assignments, or arranging the platform front page differently, making sure each assignment can be easily found. All in all, the limited manner students got to know each others' assignments may prove to be a problem in the future, and may be an oversight in the course design. It may cause the course to not yield the best results regarding the future careers of the students. It became evident during the last days of the course that, as it was, the assignments were not useful to them after their initial completion. This leads to the conclusion that, besides encouragement and platform fixes, it may be beneficial to do the collection process as well as the final product of the course in a more cohesive way. For example, collecting one's own portfolio of different teaching methods using ICT might solve the problem.

Similarly, the students found it disappointing that the homework assignments were not looked into by the tutors, and that top-down feedback was not given. While they appreciated the peer-feedback, some students expressed a desire to get some advice and feedback on the larger assignments. Originally, this sort of feedback was not given due to an attempt to make the course as learner-centered as possible. Nevertheless, this may have made the homework assignments feel like a moot point, as some students may have felt that the assignments were too separated from the course. It may not be feasible to give tutor-centered feedback of each of the assignments, but it may be useful to spend a few minutes each class discussing the homework assignments. In addition, it may be viable option to give tutor-led generic feedback and tips after one of the larger assignments.

Most of the course assignments were done in groups. While this served the course's main goal of discussion and bouncing ideas off of others, this made the course cumbersome. The groups were often required to work together outside classes, and finding the time between students with different schedules was challenging. As a result, the students may have found it tiresome and burdening to put the effort into course work. It might be beneficial to allocate more time to the course, and add group get-togethers in the course schedule, possibly after each class. This way the students would have automatically allocated time to finish course assignments in groups. On the other hand, this may make students less likely to attend the course due to it seeming like a larger and more demanding course. The course was intended to be kept moderately laborious to

make it easy for students to get interested and join. If the course looks like a burden, even the most compelling description may not be enough to encourage students to sign up. Naturally this would not be a problem if the course was a mandatory part of the teacher training.

4 DISCUSSION

The purpose of the present study was to offer trainee teachers, future teachers, or new teachers a chance to reflect on their relationship with ICT in language learning, and learn how to best to bring their learners more interactive and engaging classes. A course to cater to this need was designed, including mostly reflection, discussion, and group work. The course included six topics, each discussed during a two- or three-hour class once a week. Each class was followed by homework assignments, where the discussion and information of the class was applied in reality by finding examples, designing class plans, or innovating ways to use ICT in language learning and teaching. The course was aimed at the University of Jyväskylä trainee teachers, and it was piloted during the second spring period of 2014. Feedback was collected and the course materials were further developed to better address the students' needs throughout the course. The course topics included topics such as everyday technologies, learning online, and games and gamification.

When the material was designed and piloted, I had the benefit of getting help from two more experienced colleagues. Tanja Välisalo is a digital education specialist, and brought with her a great amount of knowledge and expertise about designing and managing university level courses, as well as evaluating them. Ilona Laakkonen, who is an expert in eLearning and a researcher in applied linguistics, is a fountain of ideas and approaches to learning spaces, CALL, and different learning styles and possibilities. It was under the tutelage of these two professionals that the course materials were wrought from unfinished ideas and theoretical background into a functioning course. They pointed out faults that I could not have noticed on my own, and their questions and guidance were instrumental in the success of the present materials. Furthermore, they introduced many ideas as well as a great deal of help in academic learning in the matter, and thus the materials were partially shaped around their expertise. It must be noted, however, that not all universities, let alone less specialized schools, have the necessary expertise freely available. Expert's Words, a part of the materials heavily leaning to the teacher's knowledge, can be easily replaced with research activities that rely on the students' ability to find, curate, and process information. However, the students enjoyed the Expert's Words immensely, and often

discussed the points raised by the expert after the class or on the provided discussion board. Thus, when possible, experts and specialists should be used to bring variety and challenge the students to think outside the beaten path, as this adds substance to the course curriculum. To aid future teachers of the course, the Expert's Words sections have been equipped with detailed information on how to deliver them.

A course such as this should not be the first introduction to ICT for the students attending. When designing the course, it was clear that students needed some experience in at least some form of digital tools since that experience was the source of their work during the course. Students with limited experience may end up struggling with the assignments and understanding the course work. When inviting students to attend the pilot course, it was specifically mentioned in the prerequisites that the students should have basic ICT skills and that they should have completed, or be near the completion of, their teacher training. These guidelines were not strictly followed, though, to allow for a more varied student base for the pilot course. Thus, it is hard to say whether students who had completed their teacher education and had experience in ICT performed better than those who had not. Nevertheless, the course should be offered when students have already finished their teacher training, or at least most of it. Timing is very likely imperative in students' ability to utilize the course materials. Furthermore, designing a course with interesting and challenging topics and discussions is easier, when students share a common pedagogical knowledge base. In addition, should students not have finished all or most of their teacher education they might not yet have a need for the course, and might just be attending for course credit. On the other hand, if students are burdened with their final theses or are otherwise in a stressful situation in their studies, they might not have the time to produce materials that will aid them in the future. Therefore, it is important to make sure students are aware of exactly what the course entails, and that they are prepared to give the course the time it requires to be useful.

During the pilot course, several of the students never finished either by failing to attend all of the classes, or by failing to turn in their final assignment. This may have been caused by the timing of the course: arranging the course too late during the spring caused several issues that may have not existed otherwise. Late spring is often stressful and a busy time for many students and a course such as this one requires time to think and reflect to yield its best results. Many students

seemed to struggle with the schedule, and reported several time-related issues: final exams, theses, and other courses being very time-consuming. This may have affected their reluctance to take part in the project as well, as none of the students signed up after the initial interest. Thus, it may be better to offer the course during the fall semester. On the other hand, the course benefits from as many prior studies done as possible for students to have something to work with, which would mean that a course offered during the spring semester would yield the best results. It might be possible to offer the course earlier during the spring, thus escaping the late spring rush, but allowing students to finish their teacher training. Whichever approach is chosen, it should be ensured that students are aware of what they are required to do as early as possible, and they should be encouraged to give the course as much time and effort as possible. Following attendance and effort levels closely is strongly recommended.

The above being said, during the classes participation was consistently high, and the students were extremely active and enthusiastic about the conversations and willing to share their experiences. Nearly every discussion period was characterized by free-flowing conversation, and the discussions were often deep and fruitful. It seemed that the students had many questions to ask, and anecdotes to share. Often the groups went on to solve problems, discuss ideas and share stories with enthusiasm, and would have continued longer than the allotted time. Most classes were two hours long, and more often than not the class had to be cut short, and many conversations had to be ended early. It is noteworthy that the conversations partially continued online, but face-to-face time seemed to bring more varied conversations and freedom of expression. Two hours seemed too short to allow the conversations to flow to a point where clear solutions or consensus was reached. Extending the class time to three hours with a short break in the middle might alleviate the problem and allow the discussions to continue a bit longer. This naturally depends on the students and their activity, but at least for this particular course, more time would have been welcome to allow the fruitful discussions to continue in more depth. For the present study, the length of the second class (Everyday Technologies) has been altered to three hours to allow the discussions and group work some extra time.

The feedback collected offered both encouraging positive points and some constructive criticism. The students criticized not being able to try different devices and not being able to test their

assignments, and hoped for more time to finish assignments. They also reported that they would have appreciated receiving more concrete feedback on their assignments, as well as more thorough discussion about the homework assignments. These points have been taken into consideration in the updated course materials: short homework assignment retrospectives have been added to the beginning of each class. In addition, tutors are encouraged to give feedback regarding one of the larger assignments to give students some pointers from a professional point of view. The students also mentioned that the wiki platform made it difficult to turn in assignments and browse other students' assignments, which may have contributed to the perceived disconnect between classes and assignments. The constructive criticism was used to first develop the materials for the following classes as the course proceeded, and second to further develop the materials package after the course was over, should the course be offered in the future. The materials presented in the present study are the second iteration of the course materials, and have been changed and further polished according to feedback and experience during the course. Some of the changes were mentioned above. In addition, some other minor changes were done.

The biggest problem that emerged during the course was the project. A part of the course was project work that was designed to allow the students to put their new skills and understanding to good use by working together with in-service teachers who needed help with some ICT-related questions. The project would have yielded another two credits at the completion, and its grade could only affect the grade of the course positively. Initially, the students were interested in the premise, and several teachers also signed up with their questions or project ideas. Nevertheless, the projects never happened, as by the time the projects were planned to begin, none of the students had signed up for them. The main reason for not taking part in the projects was scheduling problems. In the course feedback, one student suggested that the projects should have been better advertised and described at the beginning of the course, as well as in the course description. What is certain is that the project requires more development to make sure it is designed in a way that is appealing to both students and in-service teachers. It was, however, considered an interesting and fun idea. Thus, it may be worth keeping as an additional part of the course, as it would indeed allow students to put their skills to concrete use, and would allow

them to work side-by-side with in-service teachers. For in-service teachers, it would offer a chance to get some help with their problems with ICT in the classroom.

The final assignment has been revisited for the new materials package. The original final assignment was a teaching philosophy regarding ICT in foreign language learning and teaching. While it was a good assignment on its own, it has been revised to include review of the homework assignments. The new final assignment is a teacher's portfolio that consists of a teaching philosophy, teacher's tier levels, and a functional portfolio of ICT in education. The final segment includes some of the student's personal best homework assignments, as well their favorite homework assignments and designs from their peers created during the course. During one of the classes, Creative Commons licensing is explored and studied. Afterwards, students are encouraged to use Creative Commons licensing on their homework assignments and various designs, and the portfolio should include them as well. Thus, the new portfolio assignment encourages practice of ICT-related skills as well as reflection and careful consideration. To make the final assignment easier for students, it can be discussed earlier during the course, and students can begin building their portfolios over time. As a result, the amount of work required for the final assignment should not be much larger than the original teaching philosophy.

On the other hand, the amount of positive feedback was greater than the criticism. During the course, it was clear that the main decisions made for the course were generally correct ones. These decisions included things such as using reflection and discussion as the main tools during the course, and leaning heavily on pedagogical reasoning rather than learning to use different platforms. The students reported having enjoyed the variety and complexity of the discussions and topics. While some of the students wanted more hands-on practice, and it would have given some more substance to the course, students seemed to benefit from the pedagogical approach. In the future, attempts should be made to provide some extra classes on using tablet computers, for example. It seems that in-depth discussion on critical topics interspersed with some hands-on group work made the course enjoyable for most students. In addition, they liked the concrete approach to different topics, as well as working with each other and considered the links and comments shared by other students useful. The methods used in the course, such as discussions, group work, and assignments were well received in general, and deemed inspiring and enjoyable.

The course was welcomed and appreciated by the students, as they seemed interested and active during classes week after week. In the final feedback, many students pointed out that the course had helped them to think critically about ICT, and had given them new ideas and new perspective to it. They also reported having been able to find their own point of view and relationship toward ICT in education, and seemed more willing to tackle technology in their future work. The conversations were reportedly interesting, and many felt that the course was beneficial to their future careers. Many of them considered attending an online class personally one of the best parts of the course. It was clear that the course was deemed useful.

Several students, especially in conversations during the classes, expressed hope that a course such as this would be offered as a part of teacher's training. This correlates with research and literature: the course should not be separate from teacher education. As Taalas (2005: 185) points out, resources are easily wasted trying to give education in ICT after students have already graduated and are in service. It could be said that a course such as this would be more beneficial if it was connected to teacher education classes, as some students suggested. Keeping in mind the European Commission goals of encouraging teachers to integrate ICT into their subjects, this course should not be the only course where technology and pedagogical theories are discussed and contemplated together with each other. By no means, however, has it been the purpose of the author to exclude new teachers, who are beginning their careers, or more experienced teachers, who feel like their skills in ICT require some refreshing. This course could be used both inside and outside university teacher training, provided the students share a somewhat similar knowledge base and basic ICT skills.

Further research and development of the materials included in this master's thesis is warmly invited. Integration of ICT in language learning and teaching is still a fairly new field of study compared to language learning and teaching itself, and thus all new points of view are surely welcome. What is more, further research into several segments related to the theoretical background of the present study is required. The effect of ICT on foreign language learning, the development and needs of foreign language teacher training, and trainee teachers' skills and needs must be further researched. If needed, additional training and education must be provided for trainee teachers in the future.

5 CONCLUSION

This university course aimed at foreign language trainee teachers is a good example of how small steps can be taken toward addressing trainee teachers' uncertainties regarding using ICT in their classroom practices. After piloting the course, receiving feedback from it, and reflecting on the feedback, it can be safely said that the course was welcome and sorely needed. Pedagogical considerations intertwined with concrete practice, examples, and discussions seem to be the right direction to help trainee teachers integrate ICT into their teaching. Such a course must be designed from a pedagogical point of view, keeping a keen eye on the needs of the students.

The main findings of the present study were that a course such as this one is needed and welcome, and that it should be further developed and implemented as a part of teacher training studies. Students were happy to have a chance to understand their own motivations and learn more about ICT in education, as well as to try to find ways to implement ICT into their work in the future. Furthermore, it is clear that one course of ICT in foreign language learning and teaching is not enough to give the students everything they need. Moreover, a course such as this should be preceded by courses during which the students learn basic ICT skills, such as most common office programs, the use of internet, etc.

The largest portion of learning during the course was done through discussion and reflection on the students' knowledge, skills, and attitudes. They were encouraged to meditate upon their personal relationship with ICT in education, and asked to challenge their views together with the others. This seemed to resonate with the students, as many of them reported having found the discussions fruitful and useful. It is also clear that the social aspect of peer-support and peer-feedback was well received and a pleasant way for the students to familiarize themselves with the different aspects of ICT in education. This means that the course relies on the students' willingness to discuss and contemplate, as well as their participation in homework assignments and the reflection required in the final assignment.

The course, however, suffered from a distinct lack of concrete tutelage of different devices and services. This meant that the hands-on training was clearly less important than pedagogical

discussion. This was the original intent, but the difference was larger than originally planned, and the students were quick to notice this. In the future, the extra classes suggested for learning the basics of a select combination of devices should be designed and held as a part of the course curriculum. Likewise, the extra project segment of the course should be promoted, discussed, and designed in more detail to ensure its success. Without these aspects of the course, there is a danger that the course lacks hands-on practice, and leans excessively on pedagogical discussions.

In the future, further research should be conducted in several fields that are currently under-represented, especially in Finland. Firstly, the reasons why many teachers find it difficult to use ICT in their classroom practices, and whether courses such as the present study can be used to alleviate their apprehension, should be further mapped. Second, the pedagogical foundations of ICT in the classroom, as well as how to best integrate ICT pedagogically into education should be further discussed and explored. Finally, there is still only a moderate amount of research on the real effects of ICT in education and its best uses, and these topics should also be more thoroughly covered in the future. There are still many who are apprehensive or even disagree on the benefits of ICT in education, especially in foreign language learning. Further research in these topics must be done to evaluate whether the use of ICT is, in fact, as positive a force as it seems to be in the light of the current research. Once there is sufficient information on the positive effects of ICT in foreign language learning, it is important to find the best practices in using it, and the best ways to help teachers and learners alike find those practices.

It would be arrogant to assume the present study is ready to be directly used in building a university course for trainee teachers. There are many aspects not covered, and since the integration of technology into education is a many-fold topic, there are still many assumptions and issues that need correcting. As such, one cannot expect to receive a one-size-fits-all solution from a study with such a narrow scope. It can, however, underline the significant need for such a course, and encourage a change toward a more multimodal and technology integrated outlook toward teacher education. The present study can be further developed to better serve its purpose in the future. Courses such as this are needed, and they are welcome.

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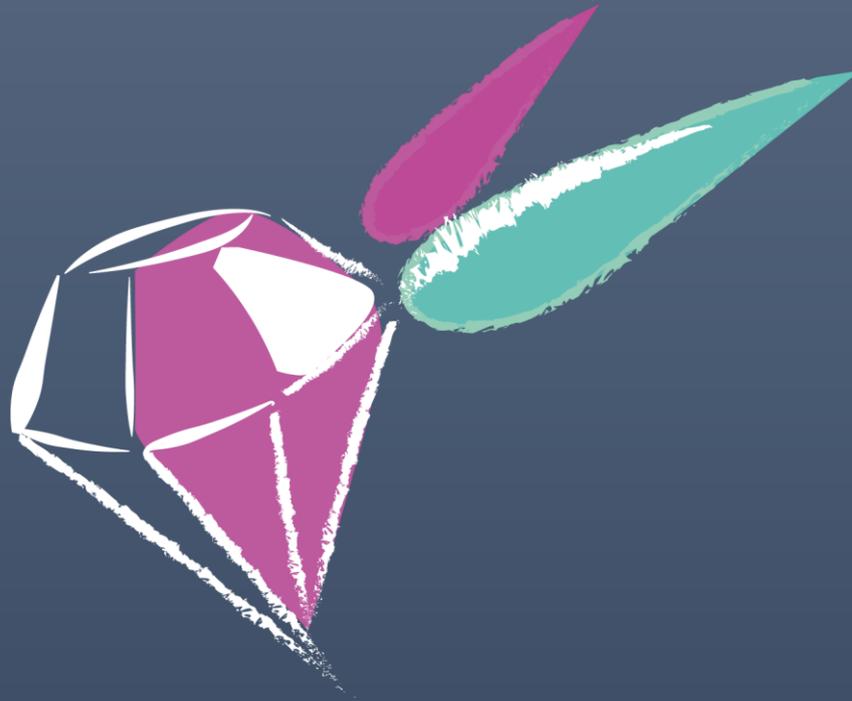
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APPENDIX

Appendix 1: Fake it 'till you make it - Course materials

2017



Fake it 'till you make it

HELPING TRAINEE TEACHERS USE ICT CONFIDENTLY
COURSE MATERIALS

KAISA HIRVONEN

UNIVERSITY OF JYVÄSKYLÄ



Special thanks:

Neil McAlister, for believing in me, giving me all the hugs and support I could ask for, and for helping me hunt for pesky bugs in my manuscript. You da bes!

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Iloa Laakkonen, for being a part of the crew, and putting up with my nonsense during the pilot course.

Without you folks, I would have never finished.



This course material was originally designed together with two spectacular individuals, whose professional brilliance can be seen both in the class plans and in the contents of the slides prepared for the course. **Tanja Välisalo and Iloa Laakkonen** graciously accepted me as a part of their team in designing this course from start to finish. The brainstorming and content designing was done in a series of workshops in which the framework and underlying theories were chosen, and the final design of the course was then spun around them. The original design is very much present in the current materials package, even though some details and the language of the course have changed since its pilot in Finnish in 2014.

It would be impossible to indicate clear divisions on the original author of many of the segments, as the whole team was involved in most of the themes and ideas, but an attempt to give credit to whom it belongs has been made, nevertheless. The English translation of the slides, this user's guide with its written class plans and detailed homework assignments, as well as the example solutions for homework assignments are all completely my doing and thus the responsibility for any possible errors in them is all mine. In the attached slides, the original author of the slide has been indicated in cases where my involvement in the slide has been smaller than usual. Some editorial work has been done after the pilot course: some of the slides have been changed slightly, and some have been rearranged to reflect the feedback received and the experience gained.

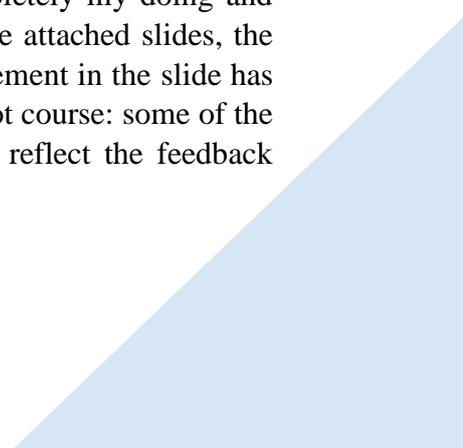




TABLE OF CONTENTS

1	FOREWORD: WELCOME!	4
2	USER'S GUIDE	5
2.1	Goals and Methods of the Course	5
2.2	The Two Parts of the Course	6
2.3	Online Learning Environments	6
2.4	Homework	7
2.5	Expert's Words	8
2.6	Optional Classes	9
2.7	Course Schedule	11
2.8	Assessment	12
2.9	Setting Up the Course	13
3	CLASS PLANS	15
3.1	Class 1: Introduction to ICT in Education, 2h	15
3.2	Class 2: Everyday Technology, 3h	20
3.3	Class 3: Collaborative Learning, 2h.....	26
3.4	Class 4: Learning Online, 2h	31
3.5	Class 5: Games and Gamification, 3h	36
3.6	Class 6: Language, Learning and Technology, 3h	41
3.7	Project Deadline and Seminar	47
4	TUTOR'S CHECKLIST	50
5	E-MAILS FOR THE COURSE	51
5.1	Welcome to the course!.....	51
5.2	First class and online environments	52
5.3	In-service teachers' invitation	52
5.4	Reminder of class 2 and BYOD.....	53
5.5	In-service teachers' welcome	53
5.6	Device class reminder	54
5.7	Join the online conference.....	55
5.8	Project introduction.....	56
5.9	Post final class email	57
5.10	Course has been graded	58
5.11	Welcome to the seminar	59
5.12	Self-assessment reminder	60
5.13	Final grades updated.....	60
6	HOMEWORK ASSIGNMENTS	61
6.1	Class 1: First Designs.....	61
6.2	Class 2: Group Assignment and Planning a Class	64
6.3	Class 3: Collaborative Discussion and Online Class	66
6.4	Class 4: Online Teaching Design	70
6.5	Class 5: Games and Game Ideas	72
6.6	Final assignment: Teacher's Portfolio.....	74
7	APPENDICES	79



1 FOREWORD: WELCOME!

Well hello there!

Fake it 'till you make it is a course where *learning technologies* are less scary than you previously thought, and learning is more fun than you assumed. Unless, of course, you have already joined the choir, in which case, I shall cease my preaching.

Since you have picked these course materials up, you are either a tutor or a teacher gearing up to run a course in learning technologies, or a curious teacher or a student browsing about. In either case, let me introduce the materials to you!

Learning technologies is a course aimed at foreign language trainee teachers who have completed or are in the process of completing their teachers' studies. Many teachers today are struggling to manage with new technologies that have become a part of our everyday lives, and are quickly making their way toward being an inseparable part of our schools as well. Does this sound familiar? Not to worry! This course has been designed to help! It has been wrought in hopes of helping foreign language trainee teachers adapt to current and forthcoming technologies used in learning and teaching.

The course's emphasis is on combining technology with pedagogy. This means that the course is not meant to be a tutorial for different devices, although devices *are* a part of the course. It has been shown by studies that knowing how to use a device is secondary to pedagogical considerations in a teacher's job. In short, teachers tend not to gain the boons of technology if they lack the knowledge of how to combine the technology they are adept at with their pedagogical knowledge and classroom practices. Ah, I see I've caught your attention. For further reading on the topic, feel free to consult my master's thesis. For your comfort, I have also added a collection of interesting reads at the end of this materials package. For now, let us believe that pedagogy is more important than the bits and bobs of individual devices, shall we?

During the course, we will take a critical look at several key aspects of learning technologies, or better yet, technology in learning. We will discuss what is important in collaborative learning and how to support it, what gamification is, and how learning online is different from learning in class. By the end of the course, a good fistful of different ideas for teaching with technology will have been magically been created, and the students will have learned many a thing!

What are we waiting for?

Allons-y, said the Doctor!



Kaissa



2 USER'S GUIDE

This section defines the basics of the course, and prepares you to run the course as a tutor. Special care has been taken to try to help you smooth over the works hiccups. The actual class plans and materials related to them can be found in chapter 3 and in the appendices.

2.1 Goals and Methods of the Course

The following goals should be written down in the course description before students can sign up, together with a description of the course.

After the course a student...

- can evaluate the suitability of different technologies to their teaching, and design new ways to use them.
- can use the central tools currently in use, and has the capacity to learn to use new ones.
- can work independently and creatively with learning technologies.

A large part of the course curriculum is creating and finding tools materials suitable for foreign language learning and teaching. It is strongly recommended that you ensure that these materials remain at your students' disposal after the course, as they will help them evaluate and design tools and materials in the future. At minimum, they should save some of the best for themselves.

Several methods and activities will be used during the course.

1. Online and in-class discussions
2. Group work
3. Homework assignments
 - Creating and finding materials for specific learning and teaching purposes and thinking critically about those materials
 - Improving classes that one has already taught: how to solve problems one had, and how to improve communication in a large classroom.
4. Optional classes on using contemporary technological devices
5. Final assignment
6. Optional project on a chosen topic

During each section of the course, students are encouraged to think about how that particular section could be used for foreign language learning and teaching.

2.2 The Two Parts of the Course

The course is designed to include two parts. The main part consists of the classes and assignments, and stands on its own. It is accompanied by a secondary part that the students may elect to take as well. During the second part, the students will work on a project, using what they have learned during the main part of the course. These projects are meant to challenge the students further. One ECTS credit is worth 27 hours of work.

Main part (3 ECTS credits, 81 hours of work)

- Classes (12 hours)
- Assignments (45 hours)
- Final assignment (24 hours)

Project (2 ECTS credits, 54 hours of work)

- Design with integrated technologies and tools, topic can be freely chosen
- If it is possible, it would be beneficial for the students to work with teachers who already have some experience in teaching. It may be a good idea to contact local teachers and ask for their co-operation and possible needs for a project such as the present one. Working with in-service teachers is strongly recommended, but you can decide to make exceptions at your discretion.
- Seminar after the course

2.3 Online Learning Environments

Part of the course is online to let your students get used to working online. You can choose your own platforms, but I'll present some ideas on how to use them. The course requires two to three online platforms, depending on how you wish to use them. One of the classes should be held online, and it will require an online conference tool, but we will get to that in a bit. First, let's look at the main tool(s) you will need for the course. Originally, two different tools for this were chosen, because no single tool could handle both jobs it was required for, and to give students a chance to get to use as many different tools as possible. Without a doubt, new platforms and tools have sprung up, so feel free to choose another one.

You will need a platform to allow your students to continue their conversations outside classes, share links, information, or just chat informally. It is important that they can create their private, smaller groups using the tool without going through great lengths. Many home groups will use this tool to discuss their assignments, work together, or share materials with each other. You will also need to be able to upload files to this platform to share the class slides with them after the classes. You also need a tool for the students to turn in homework assignments, find materials uploaded by you and each other, and make their own "pages" on. There is no reason why these platforms cannot be one and the same, but they do not need to be.

To give you an idea of what you should look for, here are the platforms used previously. The first one was used for just **conversation purposes**, and sharing resources or findings in a very informal social media environment. Class materials were also posted online on it for the students to examine after each class. It was chosen because it was already used and paid for



by the university, and because the network was defined according to email domain names into communities that were closed from the public. A closed group was created for the course, and all the students were invited into it. Any other social media platform can be used in the future. However, it must not cost anything for students to use, must be easy to learn to use, and allow privacy settings to be defined by the group owner. Creating smaller groups within the group is a useful tool as well. Students cannot be forced to join a commercial service against their will. In addition, some students may be against joining social media services, especially ones with controversy around them. Thus, many services cannot be used due to their commercial use and questions of privacy. Students should be allowed to leave and delete their accounts after the course is over and grades given.

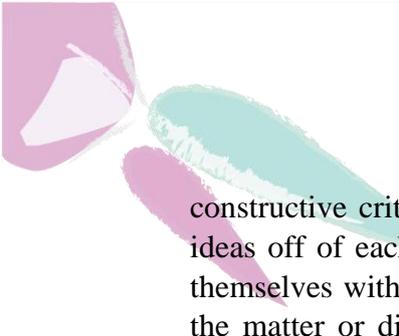
To complement the free discussion tool, another one was used for **sharing homework and group work results**. While the first tool was used mostly for informal conversation, a wiki was used for turning in homework assignments. Logistical reasons were yet again at the forefront of the decision-making, and a university maintained wiki platform was chosen. Again, any other platform can be chosen for this purpose, as long as the above restrictions apply. The platform should be easy to use, and uploading materials to it and finding what others have uploaded should be doable with moderate effort. Limiting the audience via privacy settings must be possible, as some students may not wish for their work to be automatically available to a larger audience.

Finally, the fourth class is titled *Learning online*, and to give students a chance to experience learning online first-hand by themselves, this class should be held online. Choose a **conference platform** and get to know it before the class. Prepare to invite your students to the platform, and get to know its functions. If you can, make a small tutorial on the basic functions and most common issues along with their solutions. This will save you time in the beginning of the class. The platform should have the option to divide the students into smaller discussion rooms, and it should support video, audio, and typing. Again, check your institution's tool selection; it is very probable that they already have a solution available. More discussion over conference platforms is under section 3.4.2.

2.4 Homework

Each class is followed by homework assignments, which students should complete before the next class. The assignments address and utilize the topic at hand, and prepare students for the following classes. Despite there being several assignments per class, they are often linked, and consist of both individual and group sections. As a result, they should be doable with moderate effort each week.

There are several types of homework assignments. **Search and explore** assignments require a student to find a resource or an example and apply it to their pedagogical approach. In **Design** assignments students are asked to design and prepare a class, an activity, or a method that utilizes what they have learned in the previous classes. The descriptions of these two types of assignments are left open to interpretation to allow students to focus on topics or areas they are most interested in. The freedom to choose their language and item of language learning should be allowed. **Peer feedback** assignments are meant to encourage students to get to know each other's work, and to analyze and evaluate it. This gives students a chance to re-evaluate what they have learned through their peers' eyes, share ideas, and practice giving



constructive criticism. In many cases students are encouraged to work together and bounce ideas off of each other. **Critical thinking** assignments require students to either familiarize themselves with a set topic or read background material. They are then asked to write about the matter or discuss it online. These assignments are designed to raise awareness, or ask questions outside classes. **Open discussion** is also used to encourage students to continue processing course materials and topics outside classes.

The homework assignments may be completed individually or in small groups. Whether they were originally designed to be done individually or in small groups is indicated on the class materials. Nevertheless, they can be easily changed, should it be required. For example, the assignment for *Class 3: Collaborative Learning* was originally designed to be completed in small groups over two weeks. However, should it not be feasible, it can be also be completed individually. The amount of work required may need to be adjusted, should the task be done individually or over a single week.

Feel free to decide whether to use all of the homework tasks or only some of them. Sometimes it is not possible for students to complete all the homework assignments over the time available, and it is more important to let them concentrate on fewer tasks and complete them well than try to use all of the tasks.

- Homework assignments are separated from the other materials with pink highlighting.

2.4.1 Example homework materials

Example homework materials are provided for the first few homework assignments, in which students produce materials. These example assignments aim to help students get going or give them an idea of how the assignment could have been solved. They can be uploaded to the learning platform together with the assignment itself, presented at the beginning of the next class to elicit conversation, or be uploaded to the learning platform after students have turned in theirs. Careful consideration should be made when deciding whether to show the examples before or after students' contributions. Presenting an example may rob students of the opportunity to be creative and use their own teaching ideologies.

There are sometimes two options in the example homework materials. In these cases, you may choose to use one, none, or both. If both tasks are used, students can compare them in view of pedagogical approaches, for example. If no example homework materials are used, they should still be placed in the course learning environment to give students more concrete materials to evaluate for their specific purposes.

- Example homework materials, when possible, are separated from the rest of the materials with blue highlighting.

2.5 Expert's Words

Most of the course work is done in groups, building knowledge together with others via discussions and group work. Some basic information such as vocabulary and basic concepts should be studied separately. This can be done in groups, but each class has been fitted with a short section called Expert's Words. These sections are designed to convey compressed information in the form of a short lecture. The segments are 10–20 minutes long, and should



not exceed the allotted time. Besides delivering basic concepts and information, their purpose is to raise questions and jolt your students' thinking processes along. They should be prepared beforehand, and held by an expert or a tutor. Each class plan and slideshow includes an example of Expert's Words, but prior to use, they should be updated with the latest research and information. Keep the tone of these segments light and informal to invite further conversation on the subject, and feel free to raise interesting questions outside the suggested outlines. Invite and encourage discussion, but keep the segments concise and relatively short to avoid making the class a full lecture.

In the class plans, Expert's Words are located where they are needed the most, depending on the class plan. When the segment is in the beginning or middle of the class, it is often followed by a related task, such as discussion in groups about the topics mentioned, or some activity that utilizes the terminology or information provided. Similarly, whenever the Expert's Words segment is located near the end of the class, it can be used to give the students something to mull over at home, or while working on their homework assignments.

You may choose to replace the Expert's Words segments with group work, videos, or other activities. However, keep in mind that group work often takes more time than a short lecture, and the segments are often packed with information or controversial questions. If you decide to replace them with other activities, it may be necessary to cut down the amount of content within the segment. You may feel uncertain about the information, or you may not have an expert available for the segments. However, the short lectures give your students a short break from all the talking and discussing, and many students enjoy listening to interesting talks, so using the Expert's Words segments in one form or another is recommended.

2.6 Optional Classes

During the course, separate optional classes should be provided for those who want to brush up their skills regarding one or more of the technologies currently in use in schools. They can also be used to introduce new devices and platforms to the students. Some viable candidates to cover could be, among others, mobile devices, tablets, smart boards, educational games, language labs, laptops, document cameras, or varied educational software. These classes should be scheduled with the students, or possibly according to your ability to provide or arrange them.

Please note that there are no premade materials for these classes due to the changing nature of technology and devices. A new generation of devices is introduced every few years, and old devices quickly become obsolete. Additionally, different institutions and schools use different devices. In short, whatever materials could be created to accompany this materials package would be old by the time they would make their way to you. Nevertheless, below are some pointers for your benefit on how to make stellar device-centered classes with moderate effort. It all starts with a choice.

First, you need to choose what kind of optional classes you are willing to offer. Whichever style you choose, they should be designed with pedagogical considerations and with your students' needs in mind. I would suggest one, or a combination of three choices: free-form come-and-try classes, student-centered show-and-tell, or expert-led watch-and-copy. Let's take a closer look.



2.6.1 Free-form come-and-try classes

While it is strongly suggested that this kind of a class not to be the only kind of optional class, it may be useful to some students. The come-and-try classes do not need to be planned beforehand, but rather can be available for the students to come and ask any question they feel they need to address. Your students may come in with computer problems, or with a tablet they wish to get to know better. It is, however, advisable to plan ahead at least one or two topics where, for example, the currently most used technologies are introduced. The tricky parts of these classes are advertising them and managing situations where your expertise may not be enough to answer the students' questions. I suggest making them supportive spaces where joint effort and collaboration are used to find answers and ideas for your students' benefit. Should you so desire, you can make these classes themed, and bring different devices to try each time, or have an array of devices available at all times.

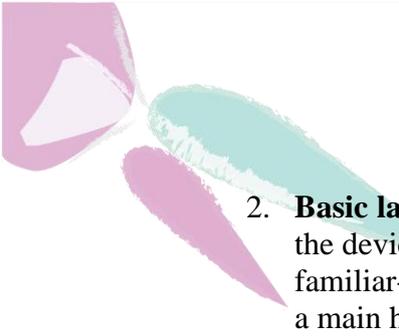
2.6.2 Student-centered show-and-tell classes

The student-centered show-and-tell classes are a short step further from the previous type. These classes are more firmly themed, and more structured than their free-form cousins above. The idea is to allow the students to get to know a device or a piece of technology (such as smart boards), and then demonstrate them to their classmates. This would allow students to become more proficient in one platform, and receive tips and ideas of the others. It would also allow the students to familiarize themselves first-hand with the limitations of the platforms, and it would teach them how to get to know a new device quickly. There are several ways of doing this: students can to get to know their device on their own time or they can spend the first class in exploration and presenting their findings the next one. It remains imperative that a time and a place are arranged, where they are physically in touch with the devices. The presentations can be tutorials or demonstrations, as long as the students have access to the devices in question.

You choose whether the students choose their own device, or whether you assign them. It would probably be a good idea to make a list of the devices available for trying as well. You must take resource availability into consideration, and find out, whether, for example, tablets and smart boards can be used for short periods at teacher training schools. There are benefits to allowing students the freedom of choice, but they may lean towards whatever platform or device is considered new and interesting at the time. This kind of bias might be avoided by assigning groups to different platforms or devices, but that may result in less enthusiastic students. In either case, the students should decide how they want to demonstrate it to the rest of the class themselves.

One way to help your students get ahead during these classes is to make them a short tutorial on how to begin getting to know a new platform or a device. You can make a step-by-step guide such as the one below. It has been designed to work with most devices currently in use, and to give the user a tour of what is usually there for any given platform. That being said, it may not suit every device or occasion. Thus, feel free to edit it to suit your array of devices or platforms.

1. **Exterior.** Get to know the physical buttons on the device. How does it turn on? What do the other buttons do?

- 
2. **Basic layout.** Turn on the device and familiarize yourself with the basic layout. Does the device have a touch screen? Do you see any familiar icons or can you activate any familiar-looking areas? Does it have a home screen, or several of them? Does it have a main hub for programs or settings (such as sound settings)? If the device has a touch screen, try to find out what gestures you can use with it.
 3. **Ports.** Go back to the device. What are the different ports on the device? If needed, you can refer to a user's manual online. What can be done with these ports?
 4. **Connectivity.** Refer to the user's manual or find the settings of the device. What other methods of connectivity does the device have, such as Wi-Fi (wlan) or Bluetooth?
 5. **Applications.** Find the applications library of the device. What kind of applications can you find? Start a couple and find out how to close them.
 6. **Getting new applications.** Find out how to get more applications for the device. Are they bought in a special store? Where can you download them?
 7. **Choose an application.** Get to know one application more thoroughly. How is it used? Could it be used for teaching purposes?
 8. **Start planning your demonstration.** Use the application you have already gotten to know, or choose another.

2.6.3 Expert-led watch-and-copy classes

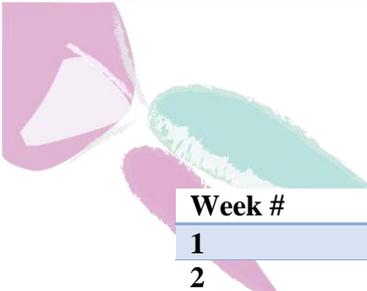
Alternatively, as a more structured option to the two learner-centered classes above, the classes can be held by an expert. This could be done by demonstration classes held by you, the tutors, by providing the students examples and tasks, or by an outside expert such as an ICT-savvy in-service teacher. The classes should, however, be kept fairly simple and down-to-Earth. The students should learn to use the chosen technology, where it is best used, what the limitations are, and how to avoid most common issues. A few tricks of the trade never hurt anyone, either. Furthermore, during the expert-led classes, the students should be challenged to contemplate what kind of use of the technology can be considered “good”, and how to ensure learning with the technology is interesting and encouraging to learners. The expert(s) should attempt to tie the optional classes into the normal classes whenever possible.

2.7 Course Schedule

The course takes seven weeks for the main classes, with an additional two to three weeks for the project and seminar meeting. The additional classes should be placed between 3rd and 5th classes. Below is a suggestion for a class schedule.

This schedule is naturally just a suggestion, and it may be useful to offer the students a working space during week 5 for their group work. You may want to discuss this with your students, and perhaps reserve a room for group work for them. Optional classes and project seminar meeting should be scheduled together with the students as they are not a part of the main curriculum. This way, more of the students who want to attend the classes can do so.

Please note! The students will have to finish both their final assignments and their projects at the same time, as their deadlines are one week apart. You may want to discuss the final assignments before the last class to make sure they are prepared to write their portfolios.



Week #	Activities
1	Class 1
2	Class 2
3	Class 3, Optional Class 1
4	Class 4, Optional Class 2, possibly discuss the final assignment
5	Individual and group work
6	Class 5, Optional Class 3
7	Class 6
8	Project work week
9	Project work week, Final assignment deadline
10	Project deadline, Project seminar

2.8 Assessment

The course is graded on a numeric scale according to the university (or other institution) standards. Each student is graded separately, and the grade is based on two key factors: attendance and assignments. Course attendance includes attendance and participation in classes and online activities during the course, such as discussions. The majority (60%) of this part of the grade is given based on whether the student is present and participating in the classes, each class being worth 10% of the grade. Discussion and group work in class are essential to students' development during the course, and being absent from any of the classes will have negative effects. Due to the nature of the course, studying it independently is not possible. The second part of the grade consists of homework assignments and the final assignment. Again, most of the grade is based on whether the assignments are turned in on time, and whether they have been done acceptably. The final assignment can be weighted more heavily than other individual assignments. Especially in the assessment of the final assignment, attention must be paid to critical thinking, effort, and care. The final survey for the course includes a self-assessment section, which can be used to help in the tutor's assessment when needed.

There are no formal requirements regarding the final assignment, but it will be further discussed in section 6.6. The students should show critical thinking, and ability to analyze their own behavior and attitudes. As both of the final assignment alternatives include a teaching philosophy regarding ICT, it is clear that if the finished assignment is too short, it cannot be considered a thorough analysis. Thus, even though there are no formal requirements, some criteria can be offered to help with the assessment. They are also required to do a self-assessment that may affect their grade.

The students can choose to take part in a part of the course yielding extra credit. This part, consisting of a project, will be mostly done after the main part of the course has ended, and can be used to improve the course grade by a maximum of 2 grade levels. The project cannot lower the overall grade. The projects are numerically graded according to how the student's effort shows throughout the project, how usable or thorough their project final product is, and how well it correlates with the original idea paper turned in (more about the project in section 3.7). If the final product is drastically different from the idea paper, the difference must be well documented and explained. If the projects are done together with an in-service teacher, the teacher's feedback may also affect the grade. The students should also assess themselves,



complete with a suggestion of a grade for the project, and give reasons for the grade they gave themselves. This can be used as a part of the assessment.

2.9 Setting Up the Course

2.9.1 Course requirements

- ✓ Online learning platform
- ✓ Course class space
- ✓ Course tutors, also for device classes
- ✓ Device classes space
- ✓ Setting up groups and pre-tasks

2.9.2 Prior to the beginning of the course

Before the first class, students will be divided into groups of three so that each group consists of students of different languages when possible. These groups should be written into the group slides (2 slides), and slides added as required. Update the slides that require updating, such as the first slide of each set. Set the dates for each class, and add your name and contact information. Get to know the slides and the class plans, and modify them to your personal preference.

Tutors should also prepare and send an email to the students, welcoming them to the first class and giving them the pre-tasks. The three pre-tasks for the students to complete before the beginning of the course are a pre-survey and keeping a technology journal for two weeks prior to the second class. The tutors should also ask the students to reflect on their experiences in using technology in their teaching. These tasks have been designed to give information to the tutors about the students' previous experiences, technological skills, hopes, needs, and expectations. They are also aimed at making the students think about their relationship with technology, as well as giving them a chance to reflect on their experiences. An example of this email can be found in chapter 5.

You should check how many copies of *Verkko-opettaja* by R. Suominen there are available in your local library, either in print (2011) or as an e-book (2013), as the book is used as a part of a homework assignment after class #3. If there are not enough books for all the students, you may want to consider making a concise handout about the main points of the book, reserve some secondhand copies to be passed around, or ask the students to find the book beforehand for personal notes. Only two chapters (1 and 3) are used, so the reading itself should not be a problem to be done in a week's time, but limited number of copies may require you to perform some logistical gymnastics to enable all students to receive a copy to read in time.

You should also decide which type of final assignment will be handed out at the end of the course. This assignment can be either a teaching philosophy, or a slightly larger portfolio. Similarly, tutors should find out whether there is an easy way to reach local in-service teachers in preparation for the project part of the course. Connecting and testing ways to communicate with these teachers may also be beneficial early on.

Set up the learning platform(s), and invite students to them if needed. If you have one platform for discussion and another for assignments, make sure to add that to platform descriptions. If possible, link the platforms to each other or write down how to find the other one. Customize your platforms. Upload pre-task descriptions to both platforms to make it easier to students to get to know the platforms. Don't forget to leave a note saying hi!



Image 1: Planning and setting up.

Image used under Creative Commons Zero - CC0. Image source:
<http://maxpixel.freegreatpicture.com/Time-Organization-Planning-Notebook-Planner-250091>



3 CLASS PLANS

The course materials have been divided into six key areas of interest. Each of the topics is covered during one self-contained class and its pre-tasks and homework units. Three of the classes consist of two hours of class time; three of them are three hours long. Each hour includes a 15-minute break. Two-hour classes are planned to be held in 90-minute blocks. Three-hour classes are designed to either be held in two approximately even chunks with a short pause in the middle. The classes should have a week between each one to make sure the students have time to finish their homework and give each other feedback. Between 4th and 5th classes, two weeks should be left for the students to finish a larger homework assignment.

The topics and class durations are:

- 1) Introduction to ICT in education, 2 hours
- 2) Everyday technologies, 3 hours
- 3) Collaborative learning, 2 hours
- 4) Learning online, 2 hours
- 5) Games and gamification, 3 hours
- 6) Language, learning and technology, 3 hours

Please note: The times provided in these class plans are suggestions only. Feel free to adjust the duration of any discussion according to the learner enthusiasm or lack of thereof.

Please note: You will find example emails and other resources after the class plans below.

3.1 Class 1: Introduction to ICT in Education, 2h

Duration of the class: 2 hours (90 minutes).

3.1.1 The Goals and Contents of the Class

Contents: The tutor(s) and the students will introduce themselves. The students will discuss their experiences and personal opinions about themselves as teachers and as users of technology. Different pedagogical approaches and points of view on technology, as well as learning and teaching, will be discussed. In addition, the course requirements and practices will be explained and the course workspace will be introduced.

Goals: The students will begin thinking about and understanding their own experiences regarding ICT. They will begin to ask questions about their possible biases, positive or negative, toward technology as an educational tool. They will get to know their home groups and get to know the whole group. Furthermore, they will engage in social interaction to learn and share knowledge, and understand that there are different learning and teaching methods, opinions, and theories, and that the differences between individuals enable further development. They will begin to attempt fitting ICT into their personal learning and teaching ideologies, and attempt to challenge the traditional idea of a classroom as a learning



environment. In addition, the students should learn what the course entails and what is required to pass it. They will begin to critically evaluate the tools available for teaching and learning languages.

3.1.2 Prior to the class

- ✓ Set up the course as described in section 2.8.
- ✓ Remember to set the dates for the optional classes!
- ✓ Update the slides to reflect your choices of deadlines, optional class dates, and online learning environments.
- ✓ Add a link to each online platform to the appropriate slide.
- ✓ Divide students into heterogeneous groups with students of multiple languages in each group. Update the home group slides with students' names.
- ✓ Do not forget to send your students the pre-tasks below. These tasks should be made available in a place, where the students already have access, and reminded via email or other messaging system available.

Pre-task 1: *Please fill in the pre-survey to the course.* This survey is aimed at giving the course instructors some information about you, your skills and needs.

Pre-task 2 (critical thinking): *Begin keeping a technology journal* about how and when you use technology in your daily life. Make sure to jot down notes every day to get a picture of your everyday usage.

Pre-task 3 (critical thinking): *Think about your previous experiences in using technology in teaching.* If you have no experiences, you can also ponder about how learning technologies could be used. Think of a concrete example. It can be a success story, an idea, or something that went terribly wrong. Come to class ready to share your experience or idea.

3.1.3 Flow of the class

3.1.3.1 Who are you? (20 minutes, slides 1-6)

The students should sit next to people they do not yet know, or people who they know as little as possible about.

(Slide 2) First things first! Give your students a one-minute blurb on why they are attending the course, and why you are there as well. Tell them briefly about yourself: who you are, what your experience is like. The slide you will be using is number 2: “Why this course?” Please answer your own question!

(Slide 3) Introduce today’s agenda very briefly. This should only take another minute or so, we are about to get to the main topic of the course, your students!

(Slides 4-5) Next, the students will form temporary groups and introduce themselves. Give them approximately ten minutes to discuss their own **language teaching** experiences prior to the course and **their goals** for the course. You can show both questions immediately, or divide the time into two portions, letting them know they have first five minutes for the first question, and five minutes for the second. Please note that this is a quick round for introductory reasons. The **pre-tasks** will be discussed later during the class.

(Slide 6) Finally, each student will introduce themselves to the whole group with names and short introductions. Bring to class a talking stick in the form of a stuffed toy or a beanbag (a



small bag filled with dry peas) to give your students an easy way to give the floor to the next. To keep the introductions short and informative, it may be useful to give the learners a list of items they should include in their introduction, such as

- who they are,
- what are they studying, and
- what kind of teachers they want to be.

3.1.3.2 Introducing the Course, Assessment, and Research (20 minutes, slides 7-16)

This section is loaded with information, but the information does not differ much from other courses in universities. Thus, this section can be moved through fairly quickly. Below are some things you may want to mention. Provide the students with information concerning how the course is graded, what is required to pass the course, and what learning and teaching methods are used. The students should be made aware of the learning goals of the course, and their personal goals and aims should also be discussed.

(Slide 7) In order to pass the course:

- The students should attend every class.
- Course activity during the classes and during the online tasks and conversation is required.
- The students should complete all tasks and homework given during the course.
- The students should complete the final task, including self-assessment.
- Should the students choose to take part in the projects, they should be completed and turned in by the deadline.

(Slides 8-10) Course goals. The course goals are partially set beforehand in the material, but some of them are individual to learners. The shared goals are discussed in slides 8-10. The students will be creating concrete learning materials and models and sharing innovations and materials with each other and with the world. You may want to mention the learning goals mentioned in the course description in section 2.1. The students' goals should be mentioned and the students should be encouraged to set their goals for themselves.

(Slides 11-14) Course schedule and online environments. Remember to mention the longer classes and their dates! Warn the students about the online class early, so they have plenty of time to prepare themselves. Discuss the dates for the optional classes and remind the students to sign up as soon as possible. Draw their attention to the deadlines of the course: the final assignment, project assignment, and the separate deadlines of each homework assignment. As the course is moderately paced, keeping an eye on the assignments is of great importance. Introduce the students to the online learning environments of the course.

(Slide 15) The course assessment

3 ECTS course (main part):

- The course will be on a numeric scale according to university standards.
- The grade is divided between:
 - course attendance and participation (online and in-class): 60%
 - homework assignments and final assignment: 40%

- The main contributor to the grade is attendance and participation (whether the student is present and participating both in-class and online, 10% per class). Regarding assignments, attention will be paid to critical thinking, effort and care, and of course, timeliness.

+2 ECTS course (project part):

- The project can be done individually or in groups of around two students.
- Working with in-service teachers is strongly recommended, but you can decide to make exceptions at your discretion.
- Completing the project may raise (but not lower) a student's overall grade by a maximum of 2 grades.

(Slide 16, optional) If you are collecting research materials, explain your research. Explain briefly how research materials will be collected, and how they will be used.

3.1.3.3 Group Discussion: Pre-task (20 minutes, slides 17-19)

(Slides 17-18, add if necessary) Home groups. Divide the students to the pre-made groups. These groups consist of a heterogenous mix of students from different major subjects. Refer to the groups as *home groups*, as they will remain the same for the duration of the course. The students will work on several course assignments in their home groups, and the groups will be used also in class. Once the students start to know their home groups better, they can more freely share ideas and discuss different topics.

(Slide 19) Discussion. The students should share their personal anecdotes about teaching with technology, or introduce their ideas if they did not have any experience. Ask the students to come up with a name for their group while they are discussing their experiences. If your students seem apprehensive about sharing their stories, you can bolster them by mentioning that their stories can be a success story, a terrible tale, or a brand new vision of how technology could be used. Below are a few more questions to help them get started:

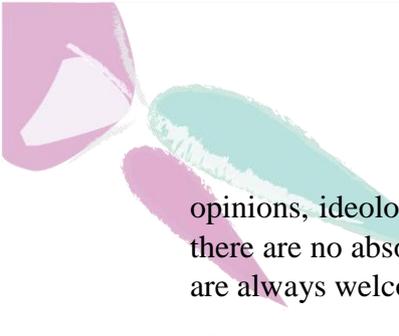
- Is your story a success story or a cautionary tale?
- Do you have hopes or fears for technology in education?
- Do you have doubts or prejudices?
- Does something make you worried about your use of technology in general?

(Return to slides 17-18) Once the discussion begins to ebb, or your time is nearing an end, remind the students about the names for their groups. Finally, use a couple minutes to replace "group 1" titles in the group slides with the group names as the students give them.

3.1.3.4 Expert's Words: Multimodal pedagogy (15-20 minutes, slides 20-21)

Unlike the other Expert's Words during this class, this section is used to discuss different approaches, beliefs, and points of views to language learning and teaching with ICT. If there are several tutors in the course, this may be a good opportunity to differentiate between their respective views, and remind the students that different opinions and approaches exist.

(Slide 20) To help you, the original slides used for this purpose can be found in the slide show. The triangle with language, learning, and technology in its corners represents the three aspects of language learning and their relation to each other. The closer one gets to each of the corners, the less important the opposing corners become. A teacher may find himself or herself moving along each face of the triangle, or within it. While teachers have different



opinions, ideologies, and approaches, they also share many. It may also be worth noting that there are no absolute truths to the topics of the course, and constructive criticism and opinions are always welcome.

(Slide 21) Key words in the triangle are multimodal pedagogy, pedagogy, meaningfulness, community, learner-centricity, and pedagogy in general. You may also discuss collaboration, openness, and sharing.

This is a great opportunity for to set up an environment where what is being taught is not necessarily what is being learned. The field of technology and language learning and teaching is wide and it has multiple schools within it, and thus the students are largely responsible for their own learning. Attempt to invoke their thirst for open discussion, critical thinking, and pedagogical ideologies.

You can either make this section a mini lecture, or if there are several tutors, a mini panel discussion. Alternatively, you can replace the Expert's Words with a learner-centered section, where similar subjects and vocabulary are discussed, researched, or debated.

3.1.3.5 What next? (10 minutes, slides 22-24)

(Slide 22) Remind your students of the online platforms available, and urge them to continue the conversation there. Suggest updating their profiles on the platforms so they have an easier time remembering each other's names. Note that they will find the class slides on the discussion platform.

Give your students their homework:

■ **Homework assignment 1 (design):** *Plan a class activity where technology is used.* This can be a full class, a part of a class, or an idea for a whole course. Make sure you give some pointers on what should be considered, and point the students to the assignment platform for further description.

■ **Homework assignment 2 (peer feedback):** *Get to know each other's plans within the home groups.* Urge your students to pay attention to what the others have concentrated on, and how their ideas differ from each other.

■ **Homework assignment 3 (critical thinking):** *Continue keeping your technology journal and bring it with you for next class.*

(Slide 23) Tell the students that the next class is partially a BYOD class (Bring Your Own Device), and that you will look into everyday devices used in education. This device can be a tablet computer, a laptop, a phone, a digital camera, etc.

(Slide 24) Finally, quickly remind the students that help is available on the online platforms and by emailing the tutors.

3.1.4 Homework Assignments and After the Class

Upload class slides to your conversation platform, and add one or two conversation starters for the students. This way, your students have something to do, and none of them has to take the responsibility of being the first one to talk.

For example, you can remind the students of updating their profiles with pictures, descriptions, or other things. You can also begin a story for the students to continue from their



perspectives. You may choose to do one of these first, and follow up with another a few days later.

Discussion starter 1:

Give your students the link (below) to the test *British Council's Teaching English website's What Kind of Teacher Are You?*, and ask them about their results.

The test can be found here: <https://www.teachingenglish.org.uk/tools-teachers/what-kind-teacher-are-you> (Source: British Council Teaching English)

Discussion starter 2:

Add a poll to your discussion platform, and ask your students to vote (optional):

Teaching should be technologically so much fun that the students will rush to the classes to learn. (paraphrasing Tilestone, 2011). Do you agree? Choose one.

- ❖ Yes, technology is, by default, fun, entertaining, and educational.
- ❖ Yes, the classes of a good teacher are always entertaining.
- ❖ It's a teacher's duty to strive for this.
- ❖ No, learning requires work, and it doesn't always have to be entertaining.
- ❖ No, a teacher does not need to use Facebook or the internet to be good.
- ❖ No. Technology is a distraction from learning, and should be used rarely, and never without a good reason. Mobile phones are a plague in class.

You can also encourage the students to make their own polls, should they come up with one. The results of the above poll can be further used to begin discussion on whether technology automatically makes teaching better, if there are different categories of technology suitable for teaching and learning, etc.

Upload homework assignments 1-3 (these can be found in Appendices) for this class, along with the extra materials, on the assignments platform. Add a link to the assignments platform on your discussions platform to make it easy for your students to find their way there.

If you do not want your students to see each other's works before the assignment deadline, make sure to only allow them to view them once the deadline has passed. In this case, make sure you close the turning in procedure or portal after the deadline. Remind the students to go get to know the works in their groups after closing the portal. Also point out once more that they will need to bring in a device for next class.

Send email to prospective teachers and ask them to take part in project work. An example email can be found in chapter 5. Make sure to request answers before next week's class.

Look at the results of the pre-survey and evaluate the course structure and contents against them. Make changes as you deem necessary.

3.2 Class 2: Everyday Technology, 3h

Duration of the class: 3 hours (135 minutes). This is a 3-hour class, so a 15-minute break somewhere in the middle is warmly recommended to air the classroom and allow the students to stretch and walk around, have something to drink or eat, or just relax for a moment.



3.2.1 The Goals and Contents of the Class

Contents: The students will discuss factors of good usage of ICT while designing classes. The students will discuss everyday technologies in education. The generation that grew up with the internet (The Net Generation, the Digital natives) and its challenges in foreign language learning and teaching, the differences between Web and Web 2.0, literacies, and the postindustrial mindset will be discussed in the Expert's Words. The students will get to know and discuss each other's personal devices. The tutors will explain Creative Commons licensing and its benefits.

Goals: The students will begin to recognize good use of ICT and the most common problems in designing classes using ICT. They will learn to appreciate everyday technologies in education. Furthermore, they will know more about the Net Generation, Web 2.0, and the change in mindset over the past two decades. They will be able to begin using Creative Commons licensing, and will understand the benefits of sharing their materials with a license.

3.2.2 Prior to the Class

- ✓ If you are doing research, remember to print out the permit slips before the class!
- ✓ Update the deadlines of the homework assignments in the slides.
- ✓ Open Creative Commons website so it is ready for you to show.
- ✓ Consider updating slides 7-8
- ✓ Update slide 24 to reflect your online platforms

3.2.3 Flow of the Class

3.2.3.1 Class Beginning and Research Permits (5-10 minutes, slides 1-3)

(Slide 1) Begin your class by asking your students to share one good thing and one terrible thing about their week. What worked well? What went all wrong? These silly quick questions will be used in the beginning of the classes to help the students relax and get started.

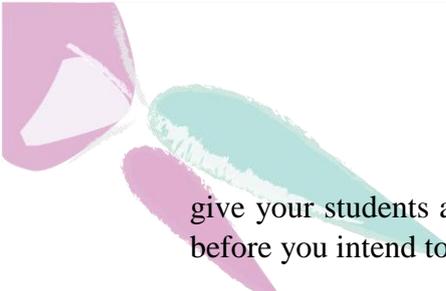
(Slide 2) After greeting the students and settling into the groove of the class, briefly go over the agenda of the class. When you get to BYOD, ask how many had remembered to bring a device. If there are few enough, consider changing the BYOD group work to a different discussion.

(Slide 3) Research Permits. **Explain your research** more closely. Tell the students how their information is used, and give the permission slips for filling in to those willing to allow their information used.

3.2.3.2 Assignment Retrospective: Design a Class (25 minutes, slides 4-5)

The purpose of this segment is to let your students consider and discuss the differences in their designs and why those differences exist. Even more importantly, they will begin to ask important questions such as whether their chosen methods support their learning goals, as well as discussing the learner's role. If the discussions are still lively after the allotted time, feel free to give them a few extra minutes.

(Slide 4) Group discussion. The students should find their home groups. They should be familiar with each other's designs already, but they should remind each other of which of the designs belonged to whom. This part of the discussion will take more time than the next. To



give your students a heads-up on the time, ask them to cap their discussions a minute or two before you intend to move on to the next part.

(Slide 5) Class discussion. Ask the groups to share some of their most interesting findings with the whole class, and spend some time discussing the designs in general. At this point you may choose to give the students a few pointers and advice on the things you may notice.

3.2.3.3 Discussion: Technology Journals (10-15 minutes, slide 6)

You may choose to keep the students in their home groups, or you can ask them to find new people to get to know. Ask the students to share their findings, and don't forget to ask them if there was anything surprising in their journals.

If you feel the students are ready to share openly, you may choose to spend a few minutes at the very end asking for their surprising finds among the whole group. For this, you will need to listen to the conversations while they are ongoing, and determine whether the students' entries are ones that they would feel comfortable sharing with the whole class.

3.2.3.4 Expert's Words: Everyday Technologies and Modern Mindsets (20 minutes, slides 7-14)

Update these slides with more contemporary versions, especially when it comes to slides 7-9. The original slides were designed by Ilona Laakkonen, a University of Jyväskylä researcher, in 2012. Since then, the social media and other services may have changed. Furthermore, the students that filled in the survey were University of Jyväskylä students, and some of the services in the word cloud reflect that.

Similar word clouds representing newer studies can be created using free tools such as <http://www.wordclouds.com/> or <http://www.wordle.net/>, uploading a file containing the raw data, and changing the visual settings on the tool. There are many tools available, and most of them will reflect the amount of times a word in a text is mentioned in the size of the word.

(Slides 7-8) Services and sites. What do your students think about the word clouds? Do they think their use is similar to that of the word clouds? Pick out the most common ones, and ask the students to vote by raising their hands.

(Slide 9-10) The Net Generation. There are several differing opinions on which generations can be called the Net Generation, and which ones are *digital natives*, those who grew up surrounded by digital devices and the internet. One such distinction can be found on this slide. The generation born in 1978 and after are called the Net Generation, and 1990 and onwards are digital natives. The jury is still out on whether these are the correct years. What is important is that these generations are the first ones to not consider the internet a new and unfamiliar thing. Due to having been born and raised in a world with the internet in it, at best these generations can be viewed as the first truly collaborative generations, as global co-operation and equality are very important to them. However, not even the digital natives are a homogeneous group, and it must be remembered at all times. There are different profiles within the generation, with different skills, strategies, and attitudes.

(Slide 10) The Net Generation and digital natives consider themselves one thing, but many members of older generations may not share those views. While the younger generations need and demand freedom of choice, transparency, and exploration, these very same demands may



be interpreted differently. There is still very little research on these new generations, and thus much of our understanding is based on visions.

(Slide 11) Change? Many things have seemingly changed, from Web 1.0 to Web 2.0, the internet has become more social and people have become more connected. Social networks are growing and mindsets are changing. But how much of this is unique change?

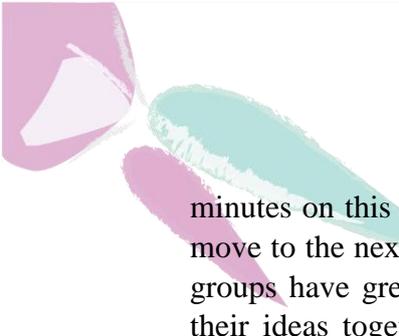
(Slide 12) Mindsets. On this slide, two different mindsets first introduced by Lankshear and Knobel in 2006 are examined. These two mindsets differ in their world views regarding things like technology, power and production. The physical-industrial mindset focuses on an individual's skills and expertise, expects physical products to be the end result of production, emphasizes the technology's value as a tool, but not much else, and believes that the world is largely unchanged when it comes to knowledge and learning. On the other hand, the cyberspatial-postindustrial mindset is based on an understanding that the world has changed, gotten more unpredictable, and that expertise and skills are largely collective and shared. These mindsets affect how people view literacies: stable or in flux, books or digital.

(Slide 13) Literacies and how different generations use them. Luukka et al. (2008) found that during their free time, teachers' and learners' views and use of literacies were further from each other (lower dotted area) than when they are in school (upper dotted area). Both move toward mindset 2 in their free time, but learners do so more drastically. Teachers largely remain in the physical-industrial mindset, while learners are constantly more leaning toward the cyberspatial-postindustrial mindset. What this means is that schools may be training learners toward the needs and literacies of an industrial society, instead of a postindustrial one. If you have trouble understanding the figure, feel free to see hidden slide (slide 30) for an edited Finnish citation from the source.

(Slide 14) This last slide should be used for taking all of the above and bringing it together. Asking and searching for answers to the questions on the slide, such as “what happens if the situation does not change?” and “Whose responsibility is it to teach literacy skills?”, is important. The answers may not exist, but the key is to attempt to find them nevertheless. In addition, it is important to note that learners may be technologically savvy, but usually they tend to use ICT for entertainment, while teachers are experts of learning, and should attempt to teach learning with ICT to the learners. ICT brings more possibilities than threats, but only if it is used correctly. It is easy to use ICT in a way that enables bad teaching. And, most of all, core content and its quality is still important in foreign language learning and teaching, whether taught via traditional methods or ICT. If you haven't yet, feel free to take a 15-minute break, and suggest that your students stretch or walk around for a moment.

3.2.3.5 Discussion: BYOD (25 minutes, slides 15-16)

(Slide 15) What is your device? After the information heavy Expert's Words, it's time to give the stage to the students. They should now bring out their devices, go back to their home groups, and begin preparing a 60-second blurb about their device: what it is, why they brought it, and how it could be used. Give the students very modest amount of time to prepare, only a couple minutes. After the initial preparation time, they should begin introducing each other to their devices. It is very likely that most of the devices are phones, tablets, or laptops, since these are the devices most commonly used by students in general. It may, then, be beneficial for the students for you to mention that it is to be expected, and that the differences in reasons and uses are what sets them apart. Let the students spend a good 10



minutes on this slide alone. If they manage to give their blurbs in a shorter time, feel free to move to the next slide, but only after all the students are done introducing their device. If the groups have great differences in their timing, suggest that the faster groups further develop their ideas together, or give each other a tour of their device's most interesting functions (photos, videos, drawing tools, applications, etc.).

(Slide 16) Free discussion. After the introductions, ask the students to discuss and contemplate their ideas with the help of the following slide. Give them time to discuss their ideas in depth. By the end of the discussion, remind them that these were the ideas they had come up with given two minutes of preparation, and that often there is more time to prepare. Personal devices can be a useful asset to classroom practices.

3.2.3.6 Creative Commons Licensing (10 minutes, slides 17-20)

(Slide 17) Creative Commons. During the course, it is recommended that the students share their materials with each other, building robust libraries for future use, and that the materials created during the course will be useful for as many of them as possible after the course. The use of Creative Commons licenses should be encouraged, and the importance of copyright laws should be mentioned. The ultimate goal is that all the materials created during the course can be used by the students in the future, and that all the material created is CC-licensed.

(Slide 18) “With the CC-licenses you can authorize others to use your materials...”

(Slide 19) “... the way YOU want them to be used.” If your students feel like their materials should not be changed, but are willing to allow them to be used freely otherwise, they can use an appropriate license. Similarly, they can allow modifications, or even commercial use. Encourage your students to use licensing to help other teachers. It seems to be an unfortunate fact that if materials can be found online, they will be used with or without permission. Licensing is one way to attempt to make sure the materials are used as intended, to help other teachers use the materials with clear conscience, and to try to keep credit of the original author with the materials.

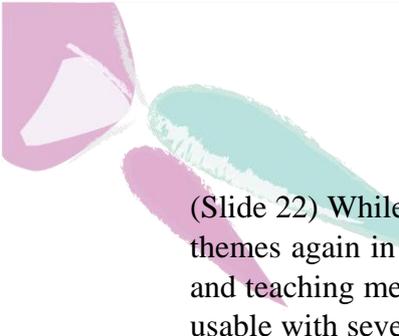
(Slide 20) Creative Commons websites. Introduce the websites to your students, and briefly go through the license picker functions.

3.2.3.7 Group Work: Everyday Tech Brainstorm (25 minutes, slides 21-23)

At this point your students are likely ready to clean some cobwebs from their brain, and some group work is welcome. You may choose to tell your students already early on that this activity will continue as a homework assignment.

You should go through all of the slides before letting the students get to work, as the information is divided on several slides. Don't worry, you can go back once you are done explaining the whole thing!

(Slide 21) The students should be working in their home groups again. Begin by explaining that this brainstorming activity should lead to an actual product, and that you will go through the whole assignment, and then return to the first slide. Ask the students to begin thinking about how the devices or technologies discussed in the class could be used in their teaching. Together, they should choose a theme or a technology from the list, or come up with one outside it. If you feel like it is needed, you can briefly explain what QR-codes are, for example. Tell the students to use internet liberally while planning.



(Slide 22) While swapping to the next slide, remind the students that you will show the list of themes again in a moment. Explain the task. They should design a foreign language learning and teaching method that utilizes everyday technology (or a combination of them). It must be usable with several different languages. This means it should be portable, and easily modified to different languages using different language resources. All materials should be included as links. This limits the plans to things that can be actually done with everyday technologies, without excessive preparation on the devices.

(Slide 23) Their methods can be BASED ON something that they, or others, have already done. It cannot be a direct copy, however, as the point of the activity is to come up with new ideas. As mentioned before, they can include materials unique to their language by using links, texts, or other materials. However, the core functionality must be portable.

Now, go back to slide 21 to give the students a chance to begin deciding which theme they want to work on. Remind them that they can come up with one of their own as well, and that they can use any resources for their work: paper, computers, post-its etc. They have until five minutes before the end of the class to work on their ideas, and they will be continued online.

3.2.3.8 Final Words and Homework Assignments (5 minutes, slides 24-29)

(Slide 24) Once there are approximately five minutes left of the class, switch to slide 24 and go through the two platforms again. The students have used both platforms before, but this reminder should help them find their bearings again after a long class. Remind the students to use tags, if your discussion platform supports them.

(Slide 25)

Homework assignment 1 (design): *Continue working in groups on your idea.* Tell the students that they should continue working on their ideas online together in their groups. They should make a finished product that they can turn in. It should include instructions for the teacher on how to use the method or material. They should also think about the style and presentation to an extent. Set the deadline of this assignment a day or two before the next class.

(Slide 26)

Homework assignment 2 (design): *Create materials to go with your previous idea, or create a new idea and materials for it.* This second assignment is an individual one to complement the efforts of the group assignment, and to give the students a chance to work on their own ideas and more personal choices. They can choose to continue working on a previous work, expanding it, or come up with a completely new idea. Previous homework assignments have been about creating ideas, now they are expected to create materials to go with their idea. They should use a Creative Commons License on their assignments as they turn them in. Set this deadline earlier during the week to leave the students time to comment on each other's work.

(Slide 27)

Homework assignment 3 (peer feedback): *Give feedback to your peers for their individual designs.* The students should get to know the individual works of the group members, and give feedback on them. They should use one of the listed roles for their feedback: Constructive critic / developer, positive peptalker, or adaptor/expander. They should swap roles for each design so that every member gets all the different types of feedback. This should be done before the next class.



(Slide 28) There are some links (in Finnish) on the slides to give some extra information about Finnish copyright law, and some advice on how to work with it. The last link especially gives good answers to hard questions.

(Slide 29) This slide includes a bibliography of the sources used in these slides, and you may want to mention that if the topics felt interesting to your students, they can read more about them in these publications.

(Slide 30) Hidden slide. This slide includes an edited citation from Luukka et al. (2008) regarding the figure on slide 13.

3.2.4 Homework Assignments and After the Class

Upload the slides to your discussion platform, and yet again remind your students about turning their assignments in to the assignments platform.

Upload homework assignments 1-3 for this class, along with the extra materials should you so choose, on the assignments platform. Add extra information about the assignments, should you want to give them further advice.

Again, if you do not want your students to see each other's works before the assignment deadline, make sure you close the turning in procedure or portal. Remind the students to go get to know each other's works in their groups after closing the portal.

If there has been anything interesting about technology and education in the news or television, feel free to **link those** on the discussion platform as conversation starters. You can also ask for opinions, or make observations in general.

Collect ideas from the in-service teachers who are willing to take part in the project work, and make a list of them. Contact the willing teachers and inform them that the students are signing up next class, and choosing their topics then. Ask for their permission to give their email address to the student(s) interested in their project idea. Make sure you keep track of their names, email addresses, and schools. Make sure you inform them of this record you are keeping to avoid any issues, and should you want to collect additional research data from the project section, send them a permission slip as well.

3.3 Class 3: Collaborative Learning, 2h

Duration of the class: 2 hours (90 minutes).

3.3.1 The Goals and Contents of the Class

Contents: Previous homework assignments are discussed and evaluated in groups and tutor-feedback is also given. Collaborative learning will be discussed and tested. A method of collaboration is tried out. Information about collaboration and its different forms is explored. The reality of collaborative learning online in school is discussed. Operational cultures are explored.

Goals: The students will become familiar with the central ideas and terminology of collaborative learning. They will be able to test their skills in collaborative learning, using the



tools they have available to them, and learn about the most common issues. They will receive and give feedback regarding assignments.

3.3.2 Before the Class

Make sure to go look at the individual and group assignments turned in. Make notes for yourself on how to develop them further, if there are any repetitive issues with them, but most importantly, what strikes you as great innovation, creative use, etc. Note the amount of effort put into the materials, how portable the designs are, and how well you believe they could be used. Update slide 7 if you want to write something down, otherwise you can delete the slide.

Make sure the additional class dates and topics are as planned on slide 2. Update homework assignment deadlines on slides 16 and 17. Also update slide 19 with the information of your online class.

Update slide 5 with the topics and ideas suggested by teachers.

3.3.3 Flow of the Class

3.3.3.1 Starting the Class and Project information (10 minutes, slides 1-5)

(Slide 1) Again, begin your class by asking your students to briefly share one good thing. However, this time ask the students to close their eyes. You will go around the room, touching a student on the shoulder to let them know it's their turn. What was the best thing about their week? Was this week better than the previous one? This short exercise is used to build a feeling of trust and togetherness, and come together as fellow individuals.

(Slide 2) Additional classes. Remind your students to sign up for the device classes. Go through each of the classes and its topic and timing to call the students' attention to them.

(Slide 3) Today's agenda. Quickly go through the agenda, noting that most of this class will be spent learning together, either discussing previous homework assignments, or building knowledge collaboratively.

(Slide 4-5) Project. Let the students know how many teachers were willing to work with them. Go through the rules for the project work. Emphasize that working with in-service teachers is very much preferred. Make sure that you underline that the projects are required to be realistic, and that they should be adaptable for other uses or languages. The students should also justify their choices, and use the knowledge they have gotten during the course. The project section also includes giving feedback and attending a final seminar, as well as filling in a self-assessment regarding the project. Once the topics have been chosen, the students should contact their in-service teacher and start drawing up a paper that they will deliver by a deadline you have chosen or agreed upon with the students.

(Slide 5) The project ideas. You can use this slide to list the ideas from the teachers, so feel free to modify the slide to your situation. There are a few open-ended ideas listed on the slide, and you can keep them or discard them, depending on your situation. This is when you should take names of the students who would be interested in certain topics, and form groups if several students are interested in the same idea. Try to upsell the ideas that do not receive initial interest, and bring at least one student for each in-service teacher. The students can sign up immediately, or at the latest on the date you have specified. The deadline for signing up should be within a few days after the class.

3.3.3.2 Homework retrospective! (20 minutes, slides 6-7)

(Slide 6) Talking about the individual homework assignments in groups. The students have given feedback to each other's works online, but now they can discuss the assignments, feedback, and other aspects freely. They should first discuss their assignments for 5-7 minutes, after which the whole class can discuss their ideas together for another 10 or so minutes. Important topics include the technologies used, aims of the materials, target groups, how well the ideas may work, if there were any common worries that came up, etc.

(Slide 7) Tutor's feedback. Give the students a 5-minute recap of their own points, added with your own observations, notes, and feedback. Keep the feedback mostly positive in tone, give constructive generic criticism, and don't forget to mention what you found positive about the assignments. If you found that the group assignments differed from the individual assignments, make sure to mention those. End on a positive note!

3.3.3.3 Group Work: Flash Research (30 minutes, slide 8)

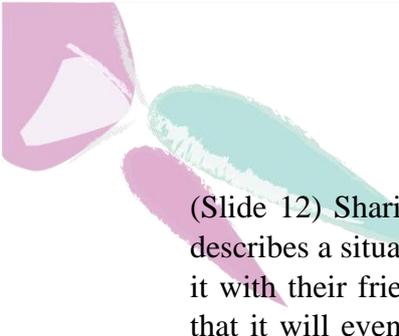
(Slide 8) Flash research. The students can either continue in home groups, or swap seats to form new groups. The slide has two questions regarding vocabulary, and one regarding the use of the methods. You can suggest using muistio.tieke.fi for notes keeping, but the groups should choose for themselves, which tools they wish to use. Make sure the students get to know all the questions before they begin working on them by reading them out loud, for example. Many of the answers to the last question may come up while researching the terminology questions.

The students should be given approximately half an hour for this part. The questions are not simple ones, and the students should be encouraged to answer fairly thoroughly. Feel free to discuss the questions with each group, and go around in the classroom while they work. You may want to spend the last five or so minutes going through their answers before moving on. The point, however, is to trust their collaborative research, instead of giving them all the answers. Ask them to upload their notes for others to see. If you have two platforms for the students, choose which platform they should use.

3.3.3.4 Expert's Words: Collaborative learning (20 minutes, slides 9-15)

(Slide 9) Discuss optimal learners with your students without showing the slide at first. For example, you can begin by asking your students to suggest attributes or behavior they think are a part of a good learner in learning networks. If the students are apprehensive, give them one or two partial examples from the list, and see if they can elaborate on them, or come up with others. Once they have listed some ideas, show them the slide, go through the list, and invite a few opinions on whether we offer learners chances and opportunities to fulfill many of these aspects. You can also discuss the effect of these attributes on the role of the teacher in a classroom, mentioned after the list.

(Slide 10-11) Collaborative learning online. It offers many promises, such as working together, coordination, commitment, and a group working together becoming more than the sum of its parts. You may choose to discuss these promises with the students, asking whether they agree, and discuss their opinions. The second half of the slide (Reality at school?) is to appear on slide 11, so you can show it after discussing the matter. They are based on research, but there is always room for discussion and opinions when talking about them.



(Slide 12) Sharing and curating information. This slide is a great conversation starter, as it describes a situation where a person shares information with his or her friends, who then share it with their friends. It claims that the information gets curated, made better, and shared, so that it will eventually be shared to the same person from several sources. Sharing will also make the information more relevant in search engines, and more reliable. The trick is that your students may not agree with this slide at all, and with good reason. This image would be the case if all the people involved did their research and were focused on making information better. However, in the real world, many people want to add to information, want to modify it to their own, neglect to do their research, and in many cases the information that is spread in a free social network may even be false.

(Slide 13) Collaborative learning continued. This slide is a collection of information about collaborative learning, starting with introducing the concept of “learning hives”. These hives often emphasize diversity, openness and equality in their functions. They often come together organically, and members come and go as they see fit. In social media, collaborative learning and collaboration in general can be seen in crowdsourcing work and resources, working together, or just a group of friends helping a friend. There are numerous examples, of which these are only a few. However, the main benefit is that an individual can give a small contribution to a joint effort, but the gain from a group or a hive working together can be significant. Collaboration is often regulated and held together by people who act as community hubs and bridge-builders. Usually these people form the hives, function in key positions within them, and largely work by negotiating with the others.

(Slide 14) Operational culture. Collaborative hives often develop an operational culture that affects the way things are done, communication, and success of the group or the hive. An operational culture consists of the forms and style of interaction, the types of dialogue, how people work together, how they participate, and ask questions. In addition, they define how curiosity is handled within the group and how curious the members are, how they share knowledge, how patient they are and how they explore new aspects. Operational culture also determines how failure is handled in a group, and what is people’s attitude toward failure: whether it is tolerated, accepted, allowed, etc. All of these aspects will create an operational culture, whether good or bad. If a culture is not created, it will grow organically. Cultivating a nurturing, successful operational culture is a conscious effort, and new learners must be trained to it. A teacher must be willing to be transparent, encouraging, and ready to explain the mode of operation to new learners to make sure they adopt a healthy operational culture.

(Slide 15) Researchers have collected different tools and applications collaborative networks use. They call them social learning environments. This is a visual representation of those lists, and includes services such as iTunes, Facebook, Skype, and YouTube. The services have been divided into different sections: microblogging, RSS feeds, podcasting, blogging, collaborating with others, communicating with others, file sharing, social bookmarking, tagging content, and social networking.

(Slide 16) However, some elements may be missing, as curating information and knowledge is not present, and since the research was done years ago, services such as Pinterest are not yet on it.

3.3.3.5 Homework Assignments and next class (10 minutes, slides 16-21)

(Slide 17)



Homework assignment 1 (search and explore/open discussion): *Share your collaboration results and find an example of collaboration or inquiry-based learning being used in education. Discuss the examples of others.* The students must share their collaboration notes on the platform of your choice. They should then get to know each other's links and notes. With all of this information they should then find an example where collaborative or inquiry-based learning has been used in education, and share it. They should justify their choice. They should then give feedback or discuss other people's choices. This conversation can continue throughout the week, as the following week similar topics are still going to be discussed.

(Slide 18)

Homework assignment 2 (critical thinking/design): *Read two chapters of Verkko-opettaja by R. Suominen and modify earlier materials or designs.* In this assignment, the students need to read two short chapters (altogether 17 pages) of a book, and then modify a part of one of the previous homework assignment designs. They should change the design so that part, or all, of it takes place online. They should modify the materials, or rewrite the idea in concrete terms, describing the activities. The book may not be available in your library in large quantities, or you may not have enough online copies of it. In this case, it may be useful to make a handout that you can collect the main points of the book chapters into. Nevertheless, it would be preferable if they could read the book themselves.

(Slide 19) Important note! There are certain things that must be taken into account when learners are working online. Anybody designing online classes must choose their tools well, and consider their learners' rights. Especially with younger learners and social media, several questions must be considered: What kind of system is used? Do learners need accounts? Do they have to surrender personal information? How about security issues? There is a link on the slide that offers some answers in Finnish.

(Slide 20) The next class will be held online at the date and time you have specified. Your students should make sure they have a working internet connection, that their sound settings are set up correctly, and that they are available at the right time. You will be sending them information via email. If they still have not received this information via email a couple days before class, ask them to contact you via email. This also serves as a failsafe for yourself: should something go wrong, you will be informed. Point out that if they are uncertain about how to connect to the service, they can come in 15-20 minutes earlier to test the procedure. Mention at this point that there may be some technical difficulties in the beginning, and to come prepared for them.

(Slide 21-22) This is another bibliography for the references used in this set of slides.

3.3.4 Homework Assignments and After the Class

Upload class slides to the learning platform.

Upload homework assignments and their extra materials, and make sure all students have shared their collaboration materials. Remind them if they have not.

Send invitations to next class via email to your students, along with a simple how-to-join manual. You may also want to include some advice on how to solve most common issues, such as sound going to the wrong device, or failing to join via the conference software. Get to know your conference software beforehand.



Again, remember to close the turning-in portal after the deadline has passed. Make sure everybody has commented on at least one link or idea, and remind the students to do this once more.

After the sign-up period for the project part of the course is over, make sure to **match students and in-service teachers** with each other. It may be best to send each “pair” or “group” an individual email introducing them that way, and suggesting they continue communicating. At this point, make sure you have permission to collect research data from both the students and the in-service teachers.

Keep an eye on the discussion platform and answer questions. You can also link articles that you find useful or interesting.

3.4 Class 4: Learning Online, 2h

Duration of the class: 2 hours (90 minutes).

3.4.1 The Goals and Contents of the Class

Contents: The class will be held using an online conference platform. Discussions will be held in text and in speech over the internet. The students will use different ways of discussing and taking notes of their discussions. They will also be given a short lecture online.

Goals: The students learn to use a conference platform that has many different features. They will use the platform in their group discussions and learn how an online class can be given. They will also familiarize themselves with some of the common concepts of online learning.

3.4.2 Prior to the Class

Make sure your conference platform is functioning (try testing it with colleagues, for example). An hour or two before the beginning of the class, check once more that everything is in order. Also, periodically check your email for distressed messages from your students.

Here is what your platform should have, and how you should prepare:

- ✓ Divide the students into smaller groups
- ✓ Show slides and video
- ✓ Students should be able to type into a common space and in smaller groups
- ✓ A built-in tool for keeping notes would be useful, but is not absolutely necessary
- ✓ You should be able to mute any student, or all students, for the periods of time when you are speaking. This is to avoid unnecessary sounds of typing etc.
- ✓ Make sure you have a working microphone, webcam, and headset
- ✓ Sign in to the conference platform 15-20 minutes early, and be ready to welcome your students as they test their connection and sound settings

Update slide 13 with possible still-free project ideas and the idea paper turn-in date. This is the final call, to make sure the students and in-service teachers both have enough time to work on their projects. Also update slide 14 with a deadline for taking the halfway point survey.



3.4.3 Flow of the Class

3.4.3.1 Setting up and Starting the Class (15-20 minutes, slides 1-2)

(Slide 1) This section of the class has been allotted extra time for sorting out problems and issues. There are only two slides, so feel free to use all but one minute in trying to solve problems. Keep checking your email throughout the class from time to time to make sure no student is left stranded. Ask the students who are already in to keep an eye on their classmates sending S.O.S. messages on the discussion platform, or their group members trying to call them. Keep reassuring your students that small bumps on the road are expected and will not disrupt the class very much.

(Slide 2) Finally, once you have things under control, go through the day's agenda. Give your students a heads-up about some confusion most likely being caused by people typing at different speeds and answering previous questions. At times, students will say similar things at the same time, and the conversation may go back and forth as comments may come in an unusual order. This is natural to working online, and should be attempted to be tolerated.

If you do not need the entire 20 minutes, all of your students are accounted for, everybody can see and hear you and can type, feel free to move on with your class!

You may also take the time to suggest that your students already get started with the final assignment at this point, depending on which type of final assignment you have decided to use.

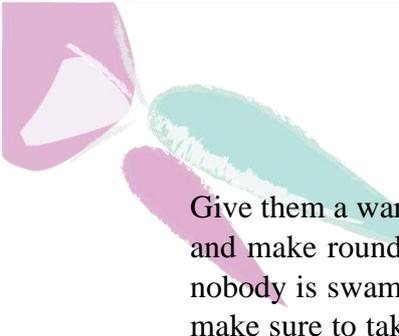
3.4.3.2 Getting into the groove (10 minutes, slide 3-4)

(Slide 3) To get your students warmed up, you could ask them if they found anything surprising in the materials they shared during homework assignment 1 for the previous class. You can also ask them what was it that, in their opinion, made a material good and useful. Was there any single factor that rises above others? You can use this very brief discussion (4-5 minutes) to get to the next slide about different ways to learn online.

(Slide 4) Give your students a short introduction to the different ways of learning online. You can mention that learning online can be separated into types by the amount of time that is used online vs. face-to-face, and whether online learning happens independently or collaboratively. Further distinctions can be made between simultaneous and asynchronous learning. Some online learning even happens in face-to-face situations. Blended learning is an approach where face-to-face environments are integrated with technology, and where online learning is used to complement face-to-face learning and teaching.

3.4.3.3 Group Chat: Experiences (10-15 minutes, slide 5)

(Slide 5) Give the students the next assignment before dividing them into smaller groups. Alternatively, you may choose to keep the whole group together still at this point. Smaller groups tend to bring out more active conversation from each student. Ask your students to share some of their experiences regarding online learning, either by typing or by speaking. They should attempt to name factors that affected their experience the most, in their opinion. These factors can be positive or negative. Warn your students that you will be popping into the chat rooms to listen in, but that it is just to make sure they have no problems. Once you have given them the assignment, you can divide them into randomized groups.



Give them a warning about a minute before you are about to call them back to the main room, and make rounds in their groups before that, making sure the conversations are flowing and nobody is swamped with problems. Once you have called everybody back to the main room, make sure to take a minute or two to recap their findings. If you take too much time here, try to make the Expert's Words section shorter, and vice versa.

3.4.3.4 Expert's Words (10-15 minutes, slides 6-11)

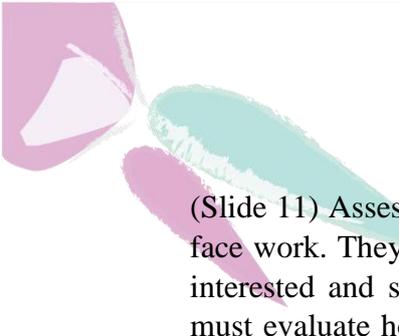
(Slide 6) It is very likely that your students already mentioned most of the points listed in this slide. Most of the factors that affected their experiences could be listed around the five generic areas here, and thus these five should be considered when designing online learning. A teacher's role affects learners' roles, and it should be carefully considered. Learner competence regarding the topic at hand or the environment used affects how well learners are capable of functioning and grasping the activities, and how much they can gain from online learning. Materials used should be inviting, interesting, and easy to start on. They should also give enough advice for learners to continue working more independently. Naturally the activities themselves affect the learning experience: boring activities are boring even when dressed in electronics. The last but not least item on the list is the feedback and assessment regarding the activities. Feedback needs to be useful, encouraging, and constructive, and assessment must be done in line with the activities and learning goals themselves. These things will be further discussed in the following slides.

(Slide 7) These roles of an online teacher are introduced in Verkko-opettaja by Suominen. You should go through them briefly, and perhaps invite some opinions from your students. Which kind of an online teacher do they find the most pleasing? Which kind do they see themselves being in the future?

(Slide 8) Learner competences. How do the learners manage the tools they are required to use? Have we taught them how to function in online environments? Do they have the learning and communication skills to manage in collaborative environments? Do they know how to ask for or find help? And most importantly, how do we as teachers support them getting these skills?

(Slide 9) Materials. The materials used must be easy to understand and follow. The materials can be authored online, in collaboration, or partially for in-class use. Blended learning offers possibilities of using the same materials in class and online. However, it is important to stop and consider the concept of learning in the materials that are being authored. Does learning happen by reading information? What is required for learning to happen, and how can it be facilitated? As a final note concerning materials, it must be asked how much work is expected of the teacher. Does everything need to be readymade, or can learners themselves produce, curate, or find learning materials for themselves?

(Slide 10) The nature of the activities. Considerations such as meaningfulness and interaction within the activities are important, as they make the activities more interesting. A common thread or a theme that the activities are built on will help keep learners aware of what is happening and avoid confusion. Furthermore, since different learners learn best doing different things, it is often necessary to allow them to choose their own paths and approaches when working online.



(Slide 11) Assessment and feedback are often needed for online work as much as for face-to-face work. They are also a part of normal interaction, and should be present to keep learners interested and striving forward. They can take multiple different forms, however, and one must evaluate how they could best support learning. Some of the important questions to ask are when should feedback be given and who should give it. Whether it is peer feedback or given by a teacher, the tone and style of the feedback must be considered as well. Regarding assessment, one must consider what kind of, and if, assessment is needed, and whether it is in line with the learning goals.

After the Expert's Words section, you may ask the students to draw parallels to face-to-face teaching. Are there any differences? You may also want to ask your students if there is any reason why these should be even more carefully considered for online learning than face-to-face learning.

3.4.3.5 Group Work: Interaction Online (25 minutes, slide 12)

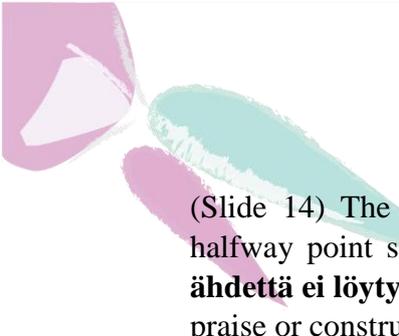
(Slide 12) The main activity of the class is done in groups with a goal in mind. Again, before you divide the students into smaller rooms, this time in their home groups, give them a run-down of the activity. They will have to choose one of the topics as a group, and then work together with their group, using what they have learned during this class and the previous, and keep notes of it. If your conference platform does not have a dedicated tool for keeping notes, feel free to suggest using another tool for this part. Once a group decides to tackle one of the topics, edit the slide to include the group's name into the (Group:) field. If you have several groups, try to divide them evenly between each of the topics. Look at the time, and leave yourself a little over 10 minutes to finish the class, but allow the students to work on this topic until then. If you have gone through the previous parts of the class faster, you can allow this part of the class take extra time. Give the students a time when they should be wrapping up to help them regulate their time consumption. Edit the time on the slide and divide the students into their groups. Ask them to share their notes with you so you can collect them later. Keep making your rounds to make sure all groups get to work without problems. In addition, remind about the time a few minutes before the allotted time draws to an end.

3.4.3.6 Project Final Call (5 minutes, slide 13)

(Slide 13) If all of your students have signed up for the project part of the course, you can use this slide to give them some information about how many teachers signed up, and what kind of projects were available, and how popular each project was. However, it is very likely that not all of your students have signed up, and it is only fair to give them one more chance to do so. List the topic still open, or ones that only have one student on them and give them some statistics on what kind of teachers are waiting for help. Urge the students to sign up, and remind them of the idea paper turn-in date.

3.4.3.7 Halfway Point Survey and Homework (5-10 minutes, slides 14-18)

Please note! You may want to briefly discuss the final assignment with your students after giving them their homework. This way they will be able to begin collecting ideas for their portfolios over time during the last weeks of the course. You may want to mention that the portfolio consists of three parts: teaching philosophy, teacher's levels, and design portfolio that has both their own best designs and their favorite designs from other students on the class.



(Slide 14) The course has passed its halfway point. You can collect feedback using the halfway point survey. An example of the survey can be found in chapter **Virhe. Viitteen ähdettä ei löytynyt.** Thank your students for the course so far, and mention that all feedback, praise or constructive criticism, is welcome.

(Slide 15)

Homework assignment 1 (design): *In your groups, design a class where the results of your group work are used. Make it big!* The students will have to reflect on their group work from class, and design a class where the results are used. They need to create materials and write instructions for the teacher and for learners. For this task, they should have two weeks before the turning in, so they have time to finish properly.

(Slide 16)

Homework assignment 2 (open discussion): *Discuss your class experience today.* The students should reflect on their class experience today, and write about it on the discussion platform. They can write anything, but there are a few questions on the slide to help them get started. They should be constructive, critical, and analytic about their experience, and attempt to use this moment of reflection to their benefit for the future. This also gives them a chance to analyze and understand their experiences together with their peers as they can read and comment on the experiences of each other. For the pilot course, it seemed to be a common consensus that attending a class with a cup of tea, favorite woolly socks, and a tuna sandwich made the conversation more relaxed and informal.

(Slide 17-18) The first slide includes a link to a Finnish website that has a collection of tips and advice on teaching online. The second slide is the bibliography, this time very short, but very important: Verkkoo-pettaja would be a useful handbook for homework assignment 1.

3.4.4 Homework Assignments and After the Class

Upload the slides to the discussion platform. Make sure the dates and other information are current.

Also **upload the homework assignments** and whatever extra material you wish to upload on the assignments platform. Remember to give the groups two weeks to turn in their assignments, as the assignment is larger than usual. However, urge the students to begin discussing their class experience immediately while it's still fresh.

Collect the students' notes and publish them on one of your platforms. Direct the students to the materials if you place them elsewhere than the discussion platform.

Send email to the in-service teachers and students **about the projects**. Tell them, what kind of idea papers you are expecting (see section 3.7 for more information). Find a suitable project deadline and seminar date and time, and add these to the email. It may be a good idea to find a few options and set them in a tool that allows the attendees to mark certain days and times suitable or impossible. Add a link to the tool to your email, and ask the attendees to mark the dates. This way, you get data of how many students and in-service teachers can attend the seminar. Set a final date for answers, and choose the time that seems the best, all things told.

Collect the feedback the students have given and if needed, address their needs and criticism in some way.



Make sure to keep an eye on the discussion over the online class, and make notes for future implementation. Once homework assignment 1 deadline has passed, close the turn-in portal, and get to know the designs. Jot down notes and suggestions to be given during the next class.

3.5 Class 5: Games and Gamification, 3h

Duration of the class: 3 hours (135 minutes). This is a 3-hour class, so a 15-minute break somewhere in the middle is warmly recommended to air the classroom and allow the students to stretch and walk around, have something to drink or eat, or just relax for a moment.

3.5.1 The Goals and Contents of the Class

Contents: The students will discuss their design homework together with the tutor, and receive some feedback on their designs. They will get to know games and gamelike elements in education, and discuss different aspects of games and gamification. They will learn some definitions for gamification, and begin innovating ways to use games and gamification in their work as teachers.

Goals: After the class, the students will be familiar with the terms game and gamification, and their most common definitions. They will be equipped to analyze the suitability of a game for learning purposes, and come up with games or gamelike designs for education.

3.5.2 Before the Class

- ✓ Update slide 3 with your notes and feedback about the design assignment. Make sure the Tutor's notes are not visible until you tap a key.
- ✓ It is recommended to update slides 5-6 with newest research.
- ✓ Update assignment deadlines on slides 37 and 38

3.5.3 Flow of the Class

3.5.3.1 Getting started (5 minutes, slides 1-2)

(Slide 1) Begin your class with yet another quick question. This time, ask your students what was the weirdest thing they experienced the previous week.

(Slide 2) Go through the agenda of the day briefly. Don't forget to ask the students how their week has been and thank them about the halfway point feedback they have given. If there was something surprising about their feedback, feel free to say a few words about how you will take their input into account in the future.

You may also take the time to remind your students to get started with the final assignment soon, depending on which type of final assignment you have decided to use.

3.5.3.2 Homework Retrospective: Designs (10 minutes, slide 3)

(Slide 3) Ask the students what they found difficult in making their concrete plans and materials. Also ask them whether the discussions and notes from the previous class affected their plans. If they did, ask how. Once the discussion begins to ebb, feel free to give your feedback. Invite some more conversation over your feedback. You can ask, whether they noticed similar things, or if they had come to think of the things you mentioned.

3.5.3.3 Games? (10 minutes, slides 4-6)

(Slide 4) Ask the students what games they play, and ask them to give you a few categories these games would fit into. Feel free to share your own gaming habits, including non-digital games. It is very likely that your students will either ask whether non-digital games count, or automatically leave non-digital games out of their lists. Once you mention a non-digital game, they might begin listing those as well.

(Slide 5) Point out that over 98% of Finns play games, and over 50% of them frequently play digital games. Point out where this information is from, and how widely the test subjects' ages ranged. Ask your students if this surprises them. Ask them why they are surprised.

(Slide 6) Next, you can point out that in general, men and women game very similar amounts, but that men play frequently more often than women. Point out that **ON AVERAGE, an active digital gamer** is 35 years old. Call your students' attention to what this means to the ages of the players in general. For each 10-year old gamer, there has to be quite a few 40-year-olds, or one 60-year-old gamer. Once again, ask them if their expectations and beliefs were different from the statistics.

3.5.3.4 Discussion: Learning Games (10 minutes, slide 7)

(Slide 7) Activate your students by asking them to share what kind of learning games they have used in their teaching. You can have a whole group discussion, or if your class is a large one, you can ask people to chat in smaller groups of 3-5 people. Non-digital games count as games. Before you move on to the next segment, if you had them discuss in groups, recap the group discussions together with the whole class by asking a few examples to be shared.

3.5.3.5 Expert's Words: Gaming Facts (20 minutes, slides 8-26)

(Slide 8) Introduce the classification of games by Amano and Nokomura. They divided games based on two factors: 1) whether they are used in education, and 2) whether they are designed with pedagogical goals. Learning games are both designed with learning goals and used in education. In addition, they are designed with educational experts. Learning games can be used as entertainment, when they are not used in education. Entertainment games are not used in education, nor do they have pedagogical goals, but they certainly CAN be used in education.

(Slide 9) Pedagogical approaches. Games can be approached from several pedagogical points of view. They can offer drill and practice, exploratory learning, or situated learning.

(Slide 10) Drill and practice approaches attempt to make repetitive tasks more fun by adding competitiveness or context or both. Pretty pictures help as well. One could refer to these kinds of games as "chocolate-covered broccoli". Wonderful picture accompanied.

(Slide 11) One of the examples of drill & practice (or drill & kill) games is Ekapeli, a group of games that aim for helping children learn basic skills such as reading, math, or writing. They have been developed at the University of Jyväskylä, in the Niilo Mäki Institute, and are based on educational research. You can refer your students to www.ekapeli.fi.

(Slide 12) Exploratory learning is based on the player working on a project, exploring his or her surroundings, and attempting to solve a mystery, for example. These games are often interdisciplinary, which means that the learning content comes from several different disciplines, which are all needed to advance in the game.



(Slide 13) Otava Media published a game called Mestarietsivä that fits this category very well. The player has to solve the mystery of a new movie's stolen master tape. The hints and tasks come in the form of Finnish language, literature, and media literacy. The game was also developed in Finland.

(Slide 14) The third approach to learning games is that of situated learning. Read the quote from James Paul Gee to the students, and then ask how this could be used in foreign language learning and teaching. If your students seem confused or uncertain, you can ask them to think of different games and their linguistic context, and what could be learned from them.

(Slide 15) Another interesting quote from James Paul Gee illustrates how schools should make learning language and words meaningful. Your students will most likely pick up on the meaning, but if they still seem uncertain, you can point out that there is a difference in learning a list of words, and running into words in their context, in an environment, with audiovisual clues and a meaningful use for the word.

(Slide 16) There are numerous definitions for games. Maroney calls them “a form of play with goals and structure,” while McGonigal claims they have “a goal, rules, a feedback system, and voluntary participation.” Whatever the definition is, they usually include the following: rules, goals, interaction (with world or other players), meaningful stories, and often a theme or a story.

(Slide 17-25) LeBlanc (2004) created a taxonomy of game pleasures. You can introduce these pleasures one by one, until you end up with all of the eight pleasures present in black text. Below are the pleasures with a little more explanation for each. The list was originally compiled by Rachel Roberie (<https://rroberie.wordpress.com/2013/03/07/game-pleasures/>), based on Greg Costikyan (<http://www.costik.com/nowords2002.pdf>), both of which are worth a read to the tutors, along with LeBlanc's original article “Eight kinds of fun”.

1. Sensation: beautiful visuals, good audio, tactile pleasure
2. Fantasy: sense of place, immersion, suspension of disbelief
3. Narrative: sense of drama, rising tension
4. Challenge: compelling struggle
5. Fellowship: shared intense experience, community
6. Discovery: exploration, revealing the hidden, variety
7. Expression: customization, self-representation
8. Masochism: submission to game structures, mutual agreement to “play”

(Slide 26) You may want to encourage your students to compare LeBlanc's taxonomy to that of Dörnyei (2001), listing ways to creating motivational assignments for education.

1. Challenge: overcoming obstacles, avoiding traps, finding hidden information, solve problems
2. Interesting content: prominent events or people from a culture close to the learner's
3. The novelty element: something about the task is new, different, unfamiliar or unexpected
4. The intriguing element: ambiguous, problematic, paradoxical, controversial, or contradictory material interest learners
5. The exotic element: learning about places and people that are unique
6. The fantasy element: learners enjoy having their imagination activated by stories and fantasies

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7. The personal element: learning something about other people's personal lives, even if they are fictional
 8. Competition: learners like competing, as long as losing isn't taken too seriously
 9. Tangible outcome: learners like to see the work they do in a physical form, which is why finished products, physical or digital, can help engage learners
 10. Humor: people like humor, and it makes learning more interesting

3.5.3.6 Group Work: Learning game (45 minutes, slides 27-28)

(Slide 27) Time to activate your students again! This time with a fairly large chunk of group work. In fact, this is the longest group work they will engage in during the course. This time you may want to ask them to move into their home groups before you explain the day's challenge. Once everybody is seated again, ask them to design a learning game. They have approximately 35 minutes to work on their design. Their game should be realistically playable, engage a minimum of two players, and it should have a theme or a story. The students should create and write down rules for their game, as well as a name. They should write down as much as they can about their game so that they can introduce it to the other groups. They should attempt to keep in mind the definition of a game, and the taxonomy of game pleasures, and be mindful of what their game taps into. But no worries! Those have all been collected on the next slide!

(Slide 28) While the students work, you can keep switching between the previous slide and this one as they need them. You can also set the slides side-by-side, or write the game requirements on a white board to make it easier for yourself. Go around in the class again, and make sure no group gets stuck without ideas or ways to advance. Again, give your students a fair warning 5 or so minutes before you plan to move on, or write a deadline up on the white board or equivalent. This way you will make sure they are not taken by surprise, and have time to wrap their game plan up before the debriefing. If you haven't yet had a pause, now would be a good time for it: take a 15-minute break, and recommend stretching and walking around before continuing.

3.5.3.7 Debriefing the Groups (20 minutes, slide 29)

(Slide 29) Ask the groups to briefly introduce their game by the name and a quick recap of the rules. Ask them to also describe the story or a theme. Depending on the class size you may need to go through the games fairly briefly to make time for everybody, but no worries, they can continue working on their game design and upload it on the assignment platform. Right now, they can get briefly acquainted with each other's plans and designs, ask questions, give instant feedback, and discuss them for a few minutes to get more material to keep working on the designs. You should spend 20 or so minutes on this part, and try to help the groups to get more of a grip on their designs. Ask questions about the goals of the game, the learning goals, problems, challenges, and how they could be overcome. Once you are done, remember to thank all the groups for all their efforts.

3.5.3.8 Expert's Words: Gamification (15 minutes, slides 30-36)

(Slide 30) Motivating games. Games can function as motivators, but one must remember that different people are motivated by different things. Frank Bartle created a taxonomy where players were divided into four types: killers, achievers, socialites and explorers. The vertical axis represents acting (up) to interacting (down), and the horizontal axis represents players (left) and world (right). Starting from the bottom-right, explorers are players who enjoy finding new things, exploring, and discovering the unknown. They can be motivated by what



is hidden and must be uncovered, or by alluring to knowledge they do not yet possess. They are interested in interacting with the world. Above them, firmly between action and world are achievers. They are the ones who must get every achievement available, and who focus on attaining status and achieving goals either quickly or completely. Next to them, in the column in the upper left corner, are killers. They want action that involves other players, and are driven by leaderboards and ranks. They want to be the best, they want to win. They can be described by their willingness to engage in direct peer-to-peer competition. Finally, in the lower left corner are the socialites, or socializers. They want interaction with people rather than the world, and are often not as interested in competition or achievement. They are defined by their focus on socializing and networking with friends and contacts. They engage in chatting, newsfeeds and friends lists, and can be motivated by the possibility of these aspects. You may want to refer to new versions about the taxonomy of Bartle, such as in the book *Even Ninjas Like to Play* by Andrzej Marczewski.

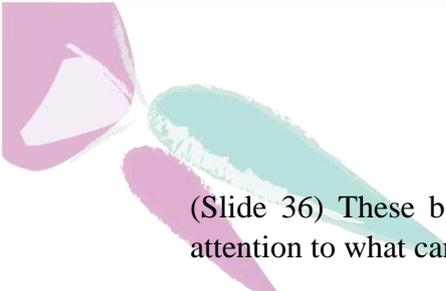
(Slide 31) Central elements of a game are meaningfulness, mastery (of a skill or the game), and autonomy (of action, order, method, or timing). These elements should be considered whenever games are designed. They are also the building blocks of game-like experiences.

(Slide 32) Games are often simplified representations of reality, and consist of rules that apply to the game world. They also often do not dictate what must be done, and give gamers a freedom of action, either real or perceived. Gamers may decide to discard some of the goals or purposes of the game to create their own experience. A player of Minecraft may, instead of playing a survival game, decide to build an ice hockey player out of wool and glass blocks, such as in the picture.

(Slide 33) That brings us to the question of whether games are mere entertainment, or if there is something that can be learned from them. Learners (or teachers) may think that learning must be boring to be effective, and if it is fun, it cannot be working. What is the concept of learning in a game? Games can naturally teach media skills and cultural knowledge, and some games can certainly help learners learn a foreign language. But is knowledge the only important thing that can be learned? You may want to discuss problem solving, communication, and learning skills with your students, along with the lessons that can be learned about failure, success, and tenacity.

(Slide 34) Gamification is the act of transferring game-like aspects into other activities, such as learning. Gamification is not the same as scoring, even though many games and game-like learning activities do keep score. Just adding scoring to a classroom activity, then, does not qualify as gamification. Previously, a similar slide was used when describing how the digitally oriented generations perceived themselves as compared to the older generations (teachers?). Now the tables have turned as the younger generation sometimes sees gamification as a cheap trick to force-feed learning to learners. Teachers, however, see gamification as building meaningful and motivating learning paths. Ask your students, if they think there is truth to either of the claims.

(Slide 35) Summarize learning by gaming and gamification using this slide. Learning by gaming includes both learning games and entertainment games used for learning purposes. Reiterate that gamification is using game elements in learning and teaching.



(Slide 36) These both are fortified by game design, and you should bring your students' attention to what can be achieved using games in foreign language learning and teaching.

3.5.3.9 End of the class and Homework (5 minutes, slides 37-39)

(Slide 37)

Homework assignment 1 (search and explore): *Find a learning game and analyze it.* Your students should search for a learning game that they could see themselves using in their teaching. They should then analyze the game and its different parts using what they have learned during this class and their previous knowledge. They can also reflect on how the game could be used, or how it should be used in education. Encourage them to share their ideas online.

(Slide 38)

Homework assignment 2 (design): *Continue working with your group to develop and finish your game design.* The students should continue working in their groups over the following week, and keep developing their game idea that they came up with in class. They should make sure their game is well defined and ready to be used. They should also make some materials, or a mock-up of them. They should then upload their game to the assignments platform.

(Slide 39) The bibliography for this class can be found here. It includes several links to literature used in the slides, including Bartle's player types and Marc LeBlanc's taxonomy of game pleasures.

3.5.4 Homework Assignments and After the Class

Upload the class slides to your discussion platform. Remind the students to share their learning games and analyses by the deadline. You can choose to link a few well-known language game websites such as Dave's ESL Café (<http://www.eslcafe.com/>) to give the students a starting point. However, encourage the students to find their own sources.

Upload the homework assignments as well as any possible extra materials to the assignments platform.

Remember to close the assignments portal after the deadline has passed.

3.6 Class 6: Language, Learning and Technology, 3h

Duration of the class: 3 hours (135 minutes). This is a 3-hour class, so a 15-minute break somewhere in the middle is warmly recommended to air the classroom and allow the students to stretch and walk around, have something to drink or eat, or just relax for a moment.

3.6.1 The Goals and Contents of the Class

Contents: Discussion and activities regarding the previous topics during the course. Most of the discussions will be done together with the whole class. The students will be taught the Fish Bowl method and it will be used to keep the discussions interesting. In some of the discussions, the students will try light role-playing to bring different points of view to the discussions.

Goals: The students have a chance to unwind, discuss what they have learned, and attempt to think outside their own perspective. They will solidify their position and opinions, and discuss them with others. They will learn to use role-play to bring out points of view that otherwise may not be present.

3.6.2 Before the Class

- ✓ Update the deadlines in slides 16 or 17, whichever type of final assignment you have chosen
- ✓ Update the dates on slide 18 for project deadlines
- ✓ Print out the roles slips for the Fish Bowl activity. If there are more students than slips, print two copies, and discard the extra slips at the end of the class. Cut the slips apart, fold them into two, and put them into a bowl, pouch, or a bucket for the students to draw theirs.

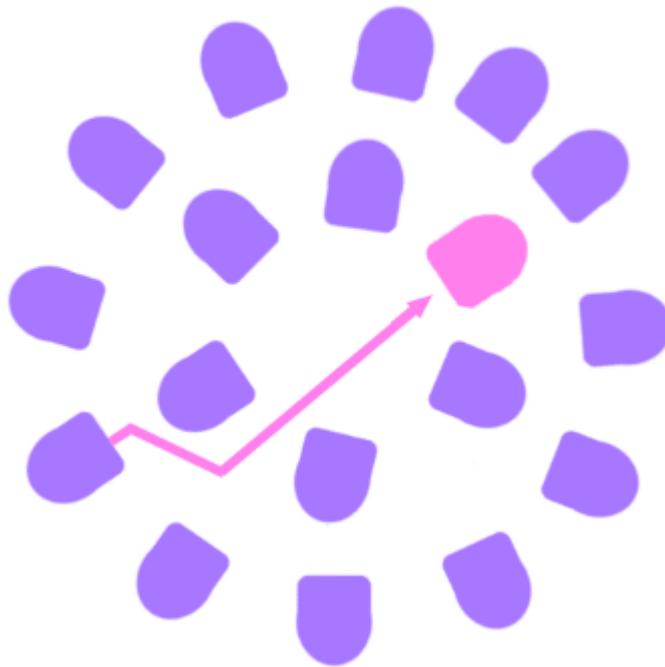


Image 2: Fish bowl chairs layout.

3.6.2.1 Fish Bowl roles slip

You are a young and aspiring teacher, eager to make changes and accept possibilities. You want to make everything great!	You have seen it all, taught them all, and frankly, none of it is ever new.	You are your school's principal and, as such, in charge of your school's functions. You sport healthy skepticism.
You are very unhappy with the direction education in Finland has taken. It must be fixed!	ICT is useless. It makes things complicated, and learners just use it for entertainment.	ICT should be used more in school. If you learned with games, so can others!
Learners must be guided through every step of the activities, otherwise they are all lost!	Learners are self-regulated, and all they need is coaching and freedom to pursue ideas.	Your job is to help teachers with ICT problems... Boy, do teachers need to be trained!
You are very strict and tolerate no nonsense in your class. You just want them to succeed.	You have seen how much gamification has helped those with learning difficulties. Why on Earth not use it?	You are friendly and easily distracted. You get easily excited, but consistency is not exactly your forte.
Not everything new is great, and not everything old is boring. If changes are made, they must be evaluated.	You use ICT for everything! Laptops, tablets, smart boards! They are all so great! Bring one, bring all!	Technology is well and good, but what about the students who already have problems learning?
ICT is fun, but it never works right. Sometimes a handful of old tricks is better than a bag full of new ones.	You have done the math, and the schools are already in trouble. Where will the money come from? Your salary?	You have tried it a few times, and your experience so far has been terrible. You're willing to try, but...
Why should a teacher be an entertainer? You have taught successfully with a book and you are not giving it up!	Classrooms and smart boards are old school. New school should be based on inquiry and exploration.	One step at a time! You just learned to use a tablet and are eager to learn more, but it needs to come in slowly.



3.6.3 Flow of the Class

3.6.3.1 Getting Started (5 minutes, slides 1-2)

(Slide 1) Ask your students what the best food they ate last week was, and whether it was because of the food or because of the company.

(Slide 2) Go through the day's agenda, and tell your students that this class is built on free discussion and analysis of the course topics and materials. Go through the tentative agenda for the day, and mention that if anybody has any questions or topics for discussion, they are welcome at any point.

3.6.3.2 Homework Retrospective (20 minutes, slide 3)

(Slide 3) Have your students form mixed groups of four or so students. If possible, ask them to have as few people from the same home group in these mixed groups as possible. This is to give them a chance to get to know as many as the game designs as possible. They should introduce their games to the other group members. They should tell the group members the name of their game, explain how the game is won and what is learned from playing the game. They should also summarize the rules of the game, and if they have any materials to show, they should do so. After each introduction, the other group members should evaluate the game for their purposes: would they use the game, why or why not, if they would change anything, and so on. In a group of four people, each game should get approximately five minutes of introduction and evaluation altogether. Make sure to go around the class and listen to some of the discussions, it will be fun!

3.6.3.3 Discussion: Fish Bowl (40 minutes, slides 4-9)

(Slide 4) Fish in a school move from the outer rim toward the center and then outside again. This is the main function of the fish bowl discussion as well. Arrange the chairs in the class into two rings, facing inward (see Image 2 for reference). The smaller ring should have 5-8 chairs in it, and it should be inside the larger ring. One of the chairs in the inner ring should be kept vacant at all times. The majority of the people in the classroom should be sitting in the outside ring. If you have 17 people in the class, have 5+1 seats in the inner circle, if there are 25 people in the class, have 6+1 chairs, and so on. The conversation will be held by the people in the inner circle. Nobody sitting in the outer ring can speak, but they ARE allowed to get up and have a seat in the vacant seat in the inner ring. Consequently, one of the people sitting in the inner ring must vacate their seat and move to the outer ring. The newcomer should be given a turn to speak as soon as whoever is currently speaking is done. If at some point nobody in the inner ring is willing to leave, you can point out whoever has been silent the longest, and ask them to move. Most of the time somebody in the inner ring will move to the outer ring on their own and return to the inner circle later on.

(Slide 5) The discussion will be done according to the students' roles. Each student will get a slip of paper that has their role on it. They should not share this role with their fellow classmates, but use it to give them something to say. Once you have set up the class, let the students draw their roles from a small bowl, bucket, or a pouch. The roles can come in many forms, and the students can take a few minutes to get to know them. Some of them are descriptions of a personality, others more of a main principle or an attitude. Most of them have to do with ICT and teaching. Explain to the students that you will take a few minutes now to think about their roles, and then move on to the topics. There are four topics altogether, but you can use as few or as many as you'd like. You should spend a good 40



minutes in discussion. If one of the topics does not seem to catch the students' attention, feel free to spend less time on that one, and longer on the others.

(Slide 6) Fish Bowl topic #1: The Net Generation does not have the patience to concentrate on school. You can begin the discussion by delivering a short controversial discussion prompt, if none of your students seem willing to be the first to speak. Your role in the discussions should mostly be that of a filler and facilitator.

(Slide 7) Fish Bowl topic #2: Schools should concentrate on learning instead of technology.

(Slide 8) Fish Bowl topic #3: Playing games improves children's learning skills.

(Slide 9) Fish Bowl topic #4: The skills teachers need have changed completely.

3.6.3.4 The Discussion Debriefing (15 minutes, slides 10-11)

(Slide 10) Discuss the previous topics. Did your students disagree with their character? Would they have said some things differently? This debriefing is meant to give your students a moment to unwind and get out of their roles. It also allows them to express their opinions without their roles. It may be worth your while to discuss why using roles may be beneficial in a classroom as well. They bring out ideas, opinions, and points of views that otherwise would not be present in a discussion or in a homogeneous group. It also gives a chance for the participators to attempt to step into somebody else's shoes for a moment, and try to see topics from an alternate angle. The next slide will serve as a method of grounding your students' emotions to make sure they can let go of their roles.

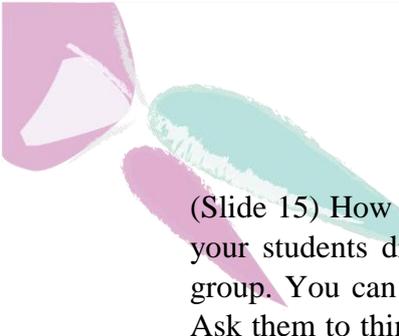
(Slide 11) Continue the discussion over the fish bowl discussion. After discussing opinions, ask how it felt like to try to form and speak opinions of another person. Did your students find it difficult to look at things from an unusual angle? Once your students have discussed their experience a few more minutes, ask them if they think this kind of activity could be done online as well. The point of this segment is to give your students a chance to let go of their roles and talk about their feelings after having been portraying somebody else for a while. Feel free to take a 15-minute pause at this point of the class, before moving on to the next segment. Once again, suggest stretching and walking around to wake up their bodies and brains.

3.6.3.5 Summary of the Course (30 minutes, slides 12-15)

(Slide 12) Once the students file back into the class, feel free to have a 2-minute stretching or exercise moment, if you feel like they need some extra activation. It is a long class that consists of mainly talking, and may get tiring without some physical movement. Then, tell them that you have some questions on the following slides.

(Slide 13) What will you take with you from this course? What have they learned? What are the most important lessons? Try to ask all your students and include everyone. The purpose of this question is to direct them to recognize the things they have learned, and what they have gained from the course in general.

(Slide 14) Do you have any questions related to the course topics you would like answered? Once your students know what they have learned, it's time to encourage them to ask any questions they may still have. If nobody seems to have any questions, feel free to remind them of the different classes and assignments as you see fit.



(Slide 15) How are you going to keep developing your skills after the course? You can have your students discuss in small groups, or keep the conversation going between the whole group. You can also divide the class in half, whichever feels appropriate for your students. Ask them to think about their future, and discuss ways to keep developing their ICT skills in the future, and make concrete plans. Suggest taking some notes, as ideas and plans quickly fade away if they are not properly recorded. Altogether these three questions should take 30 minutes.

3.6.3.6 Final Assignment: Portfolio (10 minutes, slide 16, alternatively 17)

(Slide 16)

Final assignment (design/critical thinking): *Teacher's Portfolio.*

Time to give your students their final assignment. The final assignment can be the teacher's portfolio presented here, or alternatively, the teaching philosophy assignment on the next slide.

The portfolio assignment consists of three parts: a teaching philosophy, a teacher's level evaluation, and a collection of designs. Explain each of the parts in depth to make sure the students know what is expected of them (you can read more about the assignment in section 6.6, where the final assignment is discussed in detail). Suggest that everybody should check that their earlier homework assignments are shared using Creative Commons licenses as intended, to make sure they can be used for the final assignments. Furthermore, remind everybody that they must give credit to the people whose works they are using as required by the licenses. As these assignments are deeply personal, urge everybody to send their portfolios privately. If you have a secure portal for turning in such assignments, give them the instructions to upload their portfolios there, otherwise you can use email.

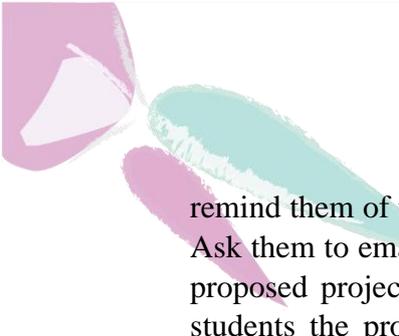
Be open about your assessment criteria. The final assignment should be personal, thorough, and well-thought-of. Tell your students that you require the portfolios to look neat and clean, and remind them to use page numbers, clear fonts, and other such settings that will make their portfolios look professional. They can use any tools that they wish to, but you must be able to open them using the most common tools (Office tools, PDF-reader, browser) without problems.

Point out that they have approximately two weeks to finalize their portfolios, but also remind them that those who have chosen to work on a project will have to have their projects done in three weeks. Answer any questions that the students may have. You can also explain the end product in more detail, should you so choose. Make sure to mention that the students are required to fill in the final survey, or at least its self-assessment segment.

Alternatively: (Slide 17, hidden slide) You may choose to give your students a smaller final assignment. In this simplified assignment, the students will have to write their teaching philosophy and find their teacher's level. The collection of designs is not a required part of the smaller assignment. They may choose their tools, but the end product must open in the most common tools, such as Office tools, PDF-reader, or browser.

3.6.3.7 Project: Final words (10 minutes, slide 18)

(Slide 18) The projects should be underway at this point, but in case there are students who have not yet started, point out that they must take charge of their projects by contacting their project team. Make sure everybody has received an email including their group members (most commonly an in-service teacher and the student). Point out that their idea papers must be ready in time (within a few days), and that the final deadline will be also very soon. Also



remind them of the seminar date and time, and ask them to come prepared with their projects. Ask them to email you with any questions they may have. You may choose to go through the proposed projects and discuss their ideas during the remaining time. Make sure to tell the students the projects will be numerically graded. Also remind them that the grade of the project can only affect the overall grade positively.

3.6.3.8 Goodbyes (5 minutes, slide 19)

(Slide 19) All good things come to an end, and so have the classes for this course. Tell your students that you will upload the last set of slides to the discussion platform, and welcome everybody to share their final thoughts there as well. Also remind them that you will upload materials to the assignments platform, and once more ask them to check their earlier assignments for Creative Commons licensing. Point out that you will send everybody an email once all final assignments have been read and the course graded. Furthermore, tell them that you will send an email after the projects have been graded as well. Ask if any of the students have any questions, and finally, wish them all well. Time to let them go.

3.6.4 Homework Assignments and After the Class

Upload the slides for the class to the discussion platform. Thank your students, and encourage them to continue discussing their ideas, should they want to.

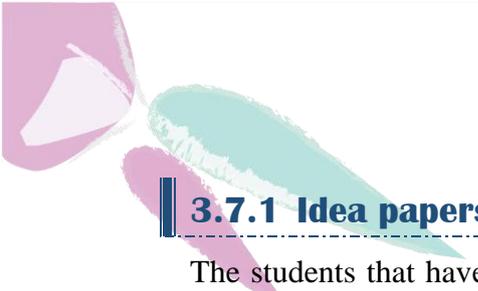
Upload the final assignment description and accompanying materials (if you wish to do so) to the assignments platform. Add your email address to the materials to make sure the students remember to deliver their assignments via email. Alternatively, if you have a secure portal that can be used, add instructions on how to turn in their portfolios there.

Send an email to all the students, thanking them for the classes, and giving them directions to the final assignment.

3.7 Project Deadline and Seminar

Once the final class is over, you should give your students approximately three weeks to finish their projects before the deadline and seminar. They have to finish their final assignment portfolios during the same time span, so make sure to send them all the emails and materials regarding the project as soon as possible, and make sure they are aware of the limited time available. Keep a close eye on the deliveries of the final assignments. If it seems that the students are struggling to meet the deadline, or if several students request extra time to deliver, consider extending the final assignment deadline, if possible, rather than risk your students managing both the final assignment and their projects poorly.

The project consists of an idea paper, a finished product based on the idea paper, and self-assessment. The idea papers and finished products will be discussed below. For the self-assessment, you should ask your students to fill in a survey after the seminar. The self-assessment survey is available in the attachments, along with a survey aimed at the in-service teachers regarding their experience participating in the project.



3.7.1 Idea papers

The students that have chosen to take part in the projects should deliver their idea papers to you a few days after the last class, at the latest. This way you will have time to read them all as they come, and you have time to give feedback and further advice. Be firm about the idea papers, and emphasize their importance as they are your main tool to keeping an eye on how the students have decided to approach the projects. If you do not receive the idea papers on time, make sure to contact the students and in-service teachers immediately. The idea paper is a part of a successfully completed project, and should contain the main points and design ideas for the finalized design or product.

The students should use their idea papers as a skeleton design for their project. The projects can be solutions, designs, or products, depending on the original project idea and topic. The product will then be demonstrated at the project seminar. The demonstrations can be posters, on laptops for people to use, slide shows, or any other ways your students can show and tell about their project product.

The idea papers should quite simply include a plan for the project, as well as a description of the final product. The idea paper should already answer all the major questions about the project. The idea paper can also serve as a tool for your students to discuss the requirements of the end product, especially if they are working with an in-service teacher. The idea paper does not need to be very long, as long as it answers the questions and is a thorough introduction to the project. An idea paper should answer at least the following questions. These questions can also be found in the sample email available in section 5.8.

1. What is your project, and what are the goals?
2. Why did you choose this project? What is the need you are catering to or the gap you are filling?
3. Who you are designing for, what is your target group?
4. How are you planning on tackling the issue, and what are the steps you will need to take?
5. What should the result look like and how should it work? This is a preliminary idea, and can be further developed, as long as changes and new design are explained.

The idea paper is a valuable tool for your students as they work on their projects. If they include a tentative schedule and division of labor in their idea paper, it will also serve as a to-do planner.

3.7.2 The Seminar and the Finished Project

The final product should follow the plan in the idea paper. If they differ greatly, the changes should be somehow explained or discussed in the product. It is very likely that there will be changes as the projects develop, but documenting the changes and their reasons is an important part of any project. You may choose to contact the groups once more before they deliver their finalized products. Ask how they are doing with the process and offer your help and support should they need it.

The final product of the project should be realistically usable for its purpose, and it should include as many of the materials for the project as possible. Whether the project is a design, a plan, or a finished product, it should be carefully considered and well documented.

Furthermore, it should be adaptable for other languages or topics. For example, if the project is a series of classes using ICT to teach pronunciation to fourth grade English learners, it should include a teacher's guide, links to voice clips or websites, other usable materials such as slideshows, and descriptions of the materials chosen. The materials should be designed to fit together visually or thematically, and they should include a tentative schedule or, alternatively, notes about the activities and their timing.

Make sure to begin organizing the seminar early: reserve a suitable space for your group for 2-3 hours. Arrange a place for the groups to hang up their posters, and if there are other methods of demonstration present, reserve the devices required. If the equipment needed is difficult to arrange, you can negotiate with your students as long as you do it early enough for them to redesign their demonstration. If none of the groups have contacted you to request for equipment a week prior to the seminar, it may be a good idea to send an extra email to the groups requesting information on the demonstration equipment required. Your students may have forgotten to inform you of the equipment needed.

Part of the project is giving feedback to other students. In the sample emails, this feedback is mentioned several times, and your students should arrive to the seminar prepared to give feedback. **Facilitate feedback-giving by, for example, preparing feedback forms, or pairing project groups to give feedback to each other.** Giving feedback to each and every project group may be exhausting for the participants, and easily leads to the students giving great feedback to the first group they see, and oversimplified feedback to the following projects. Hence it may indeed be a good idea to give each group a designated project to give feedback for. This will ensure that each group gets well-thought-of feedback for their projects. The students should give other groups feedback on the project implementation, design, usability, and on how the project was demonstrated.



Image 3: Scheduling the seminar

Image used under Creative Commons Zero - CC0. Image source:
<http://maxpixel.freegreatpicture.com/Mobile-Phone-Phone-Technology-Agenda-Screen-Social-1928419>

4 TUTOR'S CHECKLIST

Segment	Task	Planned date	Done
Before classes	Email sent – welcome to the course!		
	Dates set - device classes		
CLASS 1: Introductions	Class slides uploaded – class 1		
	Assignments uploaded – class 1		
	Email sent - first class and online environments		
	Email sent - in-service teachers' invitation		
	Assignment portal closed (if applicable)		
	Email sent - Reminder of class 2 and BYOD		
CLASS 2: Everyday Technology	Class slides uploaded – class 2		
	Assignment uploaded – class 2		
	Email sent - in-service teachers' welcome		
	Email sent - device class reminder (if applicable)		
	Assignment portal closed (if applicable)		
CLASS 3: Collaborative Learning	Class slides uploaded – class 3		
	Assignments uploaded – class 3		
	Email sent - join the online conference		
	Invitations to online class (if applicable)		
	Assignment portal closed (if applicable)		
	Deadline set - project and seminar		
	Email sent - project introduction		
CLASS 4: Learning Online	Class slides uploaded – class 4		
	Assignments uploaded – class 4		
	Assignment portal closed (if applicable)		
CLASS 5: Games and Gamification	Looked at designs, updated slide 3 for next class		
	Class slides uploaded – class 5		
	Assignment uploaded – class 5		
	Assignment portal closed (if applicable)		
CLASS 6: Language, Learning and Technology	Class slides uploaded – class 6		
	Assignment uploaded – class 6		
	Email sent - final class over		
	Final Assignment portal closed (if applicable)		
	Final Assignments graded		
	Course graded		
	Email sent - course has been graded		
Projects	Email sent – welcome to the seminar		
	Seminar held and email sent: self-assessment reminder		
	Projects portal closed		
	Projects graded		
	Grades updated to reflect project grades		
	Email sent - final grades updated		



5 E-MAILS FOR THE COURSE

Below are some examples of the emails you will need to send during the course. These are examples only, and you are welcome to write your own. Each email includes some pieces of information that you will need to alter to reflect your course. They have been colored red for your convenience.

5.1 Welcome to the course!

Recipients: All course students

Notable: If there are several tutors for the course, the sample email must be altered to reflect that.

Sample text:

Dear students!

Welcome to the **Learning Technologies** course. It is great to see so many of you are interested in learning more about ICT in language learning and teaching. I look forward to meeting you all, and getting to work with you.

In preparation for the course, before the first class, I would like to ask you all to complete two pre-tasks. No worries! The tasks do not require any previous knowledge of ICT, and there are no wrong ways to finish them!

- 1) **Pre-task 1: Take a short survey regarding the course topics.** Your answers will give me some information about you as a student, and help me make some final choices regarding the course materials. (In addition, if you would like to allow your answers to surveys during the course to be used in my research, feel free to indicate this in the survey. I will provide more information about the research during the first and second class.)
- 2) **Pre-task 2: Begin keeping an ICT journal.** To get a clear picture of how and when you use technology in your everyday life, begin keeping a journal. In your journal, jot down the times and ways you use ICT or other technology. You can also note how you felt about them, and what your purpose was, should you choose to do so. Make sure to write down something every day. You can write on your phone, laptop, notebook, or post-its. The choice is yours, as long as you write something!
- 3) **Pre-task 3: Think back on your experience with ICT in education.** Have you used technology in your teaching? What kind of an experience was it? What happened? If you have not yet taught using ICT, you can look back on your own experiences as a student or even as a learner: Have you been to a class where ICT was used? Think about your experiences and come to the first class prepared to discuss them.

Our first class is on **dd.mm** in classroom **xx**. I will see you all there! Have a great week!

Best regards,

Tutor A

5.2 First class and online environments

Recipients: All course students

Notable: Make sure to change the links and procedure description to match your chosen platforms. Also change the group names as necessary. If course sign-ups happen via university administration website, make sure to add a link.

Sample text:

Dear students!

Thank you for joining us for the first class and for participating in the discussions with enthusiasm. Hopefully the conversations will continue as fruitfully online on **our discussion platform**.

We introduced our online platforms during the class, and the slides can be found on **our discussion platform**. Here are some tips on how to get started setting them up for your learning.

- 1) Communication will happen on **our communication platform**.
 - a. Sign up with your university credentials at **www.chosen-communication-platform.fi**
 - b. Join group **Learning Technologies**
 - c. Check and update your personal settings and upload a picture of yourself
 - d. Feel free to say something!
- 2) Assignments will be turned in via our assignment platform.
 - a. Sign up with your university credentials at **www.chosen-assignment-platform.fi**
 - b. Find page Learning Technologies and favorite it
 - c. Check this week's assignments.

Don't forget our optional classes! Sign up now at **university administration website!**

Best regards,

Tutor A

5.3 In-service teachers' invitation

Recipients: Local teachers via teachers' association or schools

Notable: It may be useful to find a trusted person whose name local teachers will already recognize to send this email for you. You should give your email an informative subject line such as the one below:

Subject: Personal support with ICT for language teachers in a university project

Sample text:

Dear language teacher!

Do you want to use technology, but are lacking the time or skill? Would you like to work side-by-side with an ICT-savvy trainee teacher?



We are currently running a course in ICT in education called Learning Technologies. We are getting to know numerous technologies that can be used in language learning and teaching. We are closing the gap between theory and practice, and designing teaching where languages and ICT are working for us.

What do we offer you? Our students are working on projects with open topics. A project can be a series of sixth grade classes that square in on media literacies in English, a ninth grade video journal project, or a topic YOU have been struggling with.

What do we need from you? Your ideas and needs, and a few hours of your time. Our students (individually or in small groups) would like to meet you and discuss your wishes and thoughts. While working on their projects they will most likely ask you for your input and feedback to make sure that you are getting the tools and designs you need. This is a part of the course worth two (2) ECTS credits that is planned to be done by **dd.mm**.

Join us for ideas and tools! Contact Tutor A by **dd.mm**. (contact information below). If you have any questions, feel free to contact me!

Best regards,

Tutor A

tutora@tutor.net

5.4 Reminder of class 2 and BYOD

Recipients: All course students

Sample text:

Dear students!

Thank you for being so active online. If you still haven't turned in the assignments, please do so as soon as possible.

I wanted to remind you all about the next class. Remember to take your own device with you. If you have anything else than your smart phone, bring that one. Otherwise we will have a class full of smart phones!

See you there!

Best regards,

Tutor A

5.5 In-service teachers' welcome

Recipients: The teachers who signed up for the projects

Notable: Take every precaution to keep teachers' email addresses private when sending your emails. They may be using their private email addresses, and may not wish to use them publicly.



Sample text:

Dear teachers!

Thank you for the interest you have shown regarding working together with trainee teachers and language students on ICT-related projects. This is an email to welcome you to the projects.

Within the next week, I will bring your project suggestions to the students, and groups will be formed to tackle your ideas. Groups may consist of individuals or several students. Once the groups have been formed, I will email you all with the students' information. If you would like me to give them a different email address than the one you have been using so far, please let me know as soon as possible! Your addresses will be given only to the students interested in your project idea.

I have had discussions with most of you already, but if there is anything you would still like to discuss, please contact me. In any case, you can expect to hear from me about the groups **within the next two weeks**.

All projects consist of an idea paper, a final product or design, and a seminar. Most of the work on the project should be done by the students. You should prepare for a meeting or two, and be willing to answer questions via email or phone, whichever you choose with the students. The final seminar is on **dd.mm. at 00:00**, and the location is **xxx**. The projects are due two days prior. The idea papers should be delivered on **dd.mm.** It is very likely that the students will be most active with details for a week or so prior to the deadlines.

Once again, welcome to working with our students!

Best regards,

Tutor A

5.6 Device class reminder

Recipients: All course students

Sample text:

Hi all!

Don't forget our optional device classes. These classes will give you a more hands-on experience on the course topics. You can expect them to be creative and fun.

Class 1: dd.mm. at 00:00, device: smart boards

Class 2: dd.mm. at 00:00, device: tablet computers

Class 3: dd.mm. at 00:00, device: language labs

If you haven't signed up yet, now is your last chance! See you all there!

Best regards,

Tutor A

5.7 Join the online conference

Recipients: All course students

Notable: If there are several tutors for the course, the sample email must be altered to reflect that. This email will need to be rewritten depending on the conference platform you have chosen.

Sample text:

Dear students!

As mentioned in class, the next class will be held online! We will begin **on dd.mm at 00:00**.

I have decided to use platform **XX** for the class, and you can sign in **with your university credentials**. Here is a link to the platform: **www.platform-of-choice.com**. You can join the class by **clicking this link: www.platform-of-choice.com/session**.

There is no need to download anything prior to joining, but you may want to check your sound settings, and perhaps even try a voice call to a friend or a classmate if you have not used your system for voice calls before.

If you haven't used the platform before, you can join 15-20 minutes prior to the class beginning, and try it out. I will set the session up around 00:00, and I will be available for troubleshooting. **You can also find answers to most common questions at www.platform-of-choice.com/faq!**

Below is a collection of most common issues with some possible fixes.

Problem: *I can't hear anything.*

Solutions:

- 1) Check that you have plugged your speakers, microphone, or headset in the right jacks. Make sure your headset is turned on. If there is a volume control button or wheel on the cord of your headset, make sure it's not turned down or off.
- 2) Check your sound settings. Make sure to run any automatic setup sessions your operating system may have.
- 3) Try playing something online, such as a YouTube video, to make sure you can hear sounds. If you can, re-join the conference session after you have checked your sound settings.

Problem: *I can't join the conference call. OR I can't get to the website.*

Solutions:

- 1) Make sure your computer has a working internet connection. Check your wires, or your wireless connection. Go to any website, such as a newspaper website, and make sure your connection works.
- 2) Try again with a different browser. Although all browsers should work with the chosen platform, your browser may have add-ons or may be customized to not allow it to work. Make sure you pay attention to the error message or feedback that the service gives you when you can't join.
- 3) Try restarting your computer. Then, before starting any other programs, try joining the conference call. Make sure the website or the session number has not been misspelled. Does the service website work at all?

Problem: Sound quality is terrible or sound keeps cutting or stuttering.

Solutions:

- 
- 1) Make sure nothing else is running on your computer that would affect your internet bandwidth or your computer's performance. Turn off other video services, downloads, or backup runs.
 - 2) Check if other services such as YouTube also cut and stutter. If they do, something may be wrong with your internet bandwidth. If you are using a wireless connection, make sure you are located in a place where your connection is not obstructed.
 - 3) Are there other users using your internet service? They may be using the bandwidth. Ask them politely to postpone whatever they are doing for a couple hours.

I will be watching my emails and our discussion board closely prior to and during the class, and you can email me if you run into trouble. Feel free to use each other and other services to reach the other students if you need urgent help.

If you can't join immediately, or you have technical problems, don't fret. Contact me and I will help you fix the problem, or ask your classmates for help. See you there!

Best regards,

Tutor A

5.8 Project introduction

Recipients: Project groups individually

Notable: Make sure all students and teachers have given you permission to give their email to the other group members or that you have made it clear to them that you will do so. Make sure to change how the idea paper should be delivered according to your specifications.

Sample text:

Hi all!

This is an email sent to your group members alone. All recipients in this email are a part of your group. Contact each other as soon as possible and come to an agreement of your working methods and schedules as soon as possible!

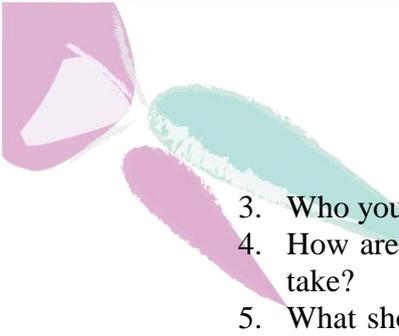
Your topic: **topic description**

Your group members: **name1 email1, name2 email2, name3 email3**

The project is a separate part of the course where your group will work together to come up with a solution or a design for your topic. There are two parts to the project: idea paper and the actual design based on the idea paper. The idea papers are due soon (date below), and the projects are due two days before the project seminar, where they will be demonstrated. The demonstrations can be in the form of a poster, a laptop for people to use, a slide show, or any other way you can show and tell about your project product.

Your idea paper should include a plan of how you are going to tackle your topic, and what the end result will look like. Answer at least the following questions:

1. What your project is and what are the goals?
2. Why did you choose this project? What is the need you are catering to or the gap you are filling?

- 
3. Who you are designing for, what is your target group?
 4. How are you planning on tackling the issue, and what are the steps you will need to take?
 5. What should the result look like and how should it work? This is a preliminary idea, and can be further developed, as long as changes and new design are explained.

The purpose of the idea paper is to work as a plan for your work. It can also serve as a tool for you to discuss the requirements of the end product, especially if you are working with an in-service teacher. The idea paper does not need to be a very long one, as long as it answers the questions and is a thorough introduction to your project.

Your idea papers should be delivered by **dd.mm. via email / through the secure portal**. I will read them and give you some feedback regarding them.

Your projects should be finished on **dd.mm.**, two days before the seminar. The seminar will be held on **dd.mm. at 00:00 in place xx**. Please contact me immediately if this date is not suitable for you. Also contact me if you are planning on using special equipment for your demonstration and need something specific for it. I will do my best to accommodate your needs and/or request suitable equipment for the space. Prepare to get to know other projects demonstrated and give feedback on them.

After the seminar, all participating students should fill in a self-assessment survey for course credit. There is also a very short survey for in-service teachers regarding your experience participating in the project. Both of these surveys will be available after the seminar.

Good luck! If you have any questions, please let me know!

Best regards,

Tutor A

tutora@tutor.net

5.9 Post final class email

Recipients: All course students

Notable: This email has been written with the full portfolio final assignment in mind. If you have chosen a different kind of final assignment, rewrite this email accordingly.

Sample text:

Dear students!

That's it! All the classes are now over, and the official part of the course is done. Slides will be updated to **our conversation platform**, and final assignment materials can be also found on **our assignment platform**.

Thank you all for a wonderful course, working with you has been wonderful. Now all that remains is the final assignment, plus the project for those of you who have chosen to do it.



Make sure you take the final course survey, and give us your feedback! The survey contains a self-evaluation segment that will be taken into account in assessment. However, your feedback about the course will not affect your course grade.

I will send another email to all of you once all portfolios have been graded and grades have been given for the course.

Our course platforms will remain open for everybody, but remember to save any interesting materials, nevertheless.

Before saying goodbye, I'd like to add a few words about the final assignment for all of you. As discussed during the last class, the final assignment consists of three parts: your teaching philosophy, ope.fi skill levels, and your materials portfolio. I have uploaded the final assignment description online, and this information has been included.

- There is no formal requirement of what your final assignment should look like, other than it should work as your portfolio. This means that you can have your portfolio arranged in any way, shape, or form you'd like, as long as it can be opened using common tools such as office tools or PDF reader.
- Please note, however, that your teaching philosophy should be a cohesive, complete piece of writing with you as a teacher, and your relationship with ICT in education, at the center. You should consider yourself and your values as a teacher, as well as what kind of a teacher you are aiming to be. It should revolve around your thoughts on ICT in language learning and teaching, your ideologies and approaches, and it should give an idea of what you are willing to do in the future to keep developing your relationship with ICT.
- You can incorporate ope.fi levels in your teaching philosophy, as long as they are present. Your design portfolio can be a separate part of your portfolio, or you can incorporate that in a way you see fit. As mentioned above, the style and design is up to you!

Don't forget to fill in the final survey, especially the self-assessment part of it! It will be used in the assessment of the course.

Once again, thank you for the past six classes, and good luck with your portfolios! If you have any questions, don't hesitate to contact [me / us](#).

Best regards,

Tutor A

5.10 Course has been graded

Recipients: All course students

Notable: Make sure to only choose a few main points of the feedback to keep this message concise.

Sample text:

Dear students!



Thank you once again for being a part of the course! The course has concluded, and all grades have been assigned. If you have any questions about your grade, feel free to contact me. Also if you do not see your grade within the next few days, please let me know. Please remember that for those of you who have chosen to do the project, the final grade can still be improved.

We asked you to give us some feedback. After taking it into account, here are some of the key items:

- Positives things
- Negative things

Thank you very much for the feedback. It will be used in the future to improve the course.

Thank you again for your active participation, your great conversations, and your enthusiasm. You all **showed great interest and professionalism during the course. Many of you also kept your future needs in mind, and planned for your careers.** Good luck with your future studies and careers!

Best regards,

Tutor A

5.11 Welcome to the seminar

Recipients: All project participants

Sample text:

Dear project participants!

Thank you for taking part in our projects, and thank you for all your exciting, interesting, and challenging project ideas! Your idea papers have been read and I have sent you feedback and suggestions regarding them. You may choose to incorporate them as you see fit.

The seminar will be held on **dd.mm. at 00:00** in **university space xx**. Please come in a few minutes early to have time to set up and get ready. If you need anything specific for your demonstration that you have not yet specified, email me as soon as possible!

Please note that your projects should be ready two days before the seminar, and that you should deliver any materials that you need to show online by then. The two days will also allow for you to test your final product and fix any issues that may present themselves.

Please note that for your project grades, you should fill a short self-assessment form. This self-assessment is required for a full credit, and it will be open shortly after the end of the seminar.

I am looking forward to seeing you all in the seminar!

Best regards,

Tutor A

5.12 Self-assessment reminder

Recipients: All project participants

Sample text:

Dear all!

Thank you very much for a delightful seminar and fascinating projects. I hope you enjoyed seeing each other's projects as much as I enjoyed seeing them. Thank you all for the time and effort!

I would like to take the time to remind all the students participating in the projects to fill the self-assessment form online, it has now been opened. **The self-assessment is required for you to get your grade!**

Special thank you to all our wonderful in-service teachers! Please let us know what you thought of the project work by taking a short survey. The survey is available for the next 5 working days, and it should only take approximately 5-10 minutes of your time: www.link-to-the-survey.fi

Thank you all once again!

Best regards,

Tutor A

5.13 Final grades updated

Recipients: All course students

Notable: Make sure to give some feedback on the projects.

Sample text:

Dear students!

The projects have now been finished and your products have been graded. Final grades have been given.

The project grades improved the overall grade of the course with **XX%** of the students who took the course. The rest of you, who participated in the project, were granted extra credit for your participation. If you have any questions, please email me.

All the projects were **interesting and well done, and it was delightful to see all the solutions and designs**. I have given you individual feedback on your projects, but **in general I must say that I was impressed by your work**. Keep it up!

Good luck in the future and thank you for this course!

Best regards,

Tutor A

6 HOMEWORK ASSIGNMENTS

Homework assignment number (type): *Short description.*

The homework assignments are highlighted in pink. You should upload these more thorough assignment descriptions on your assignment platform immediately after each class. Make sure to add deadlines to the assignments, or indicate them in a calendar, for example. The assignments come in five different types that are indicated in the headline. These types are:

- Design
- Search and explore
- Peer feedback
- Critical thinking
- Open discussion

The homework types are discussed more thoroughly in chapter 2.4 (Homework). The homework assignment type indicator is followed by a short description in *italics*. More thorough instructions are below the headline.

Homework design examples

The example solutions to homework assignments have been highlighted in blue. To help you and your students grasp the assignments, several examples have been given throughout the following sections. You can freely use these examples to help your students get started, to give them some ideas if they seem to be struggling with them, or simply to give them one more design to work with. It may be useful to give your students the premade designs only after they have delivered theirs, unless they seem completely stuck with the assignments. All of the examples are shared under Creative Commons licenses in order to encourage your students to use them as well. The licensing information must not be removed.

Please note! The first example is a design template to help your students get started, and you may want to make it available as soon as you upload the first assignments. It has been designed to give your students something to build their designs around, and to make them consider the various questions related to class plans and designs. They are free to modify or further develop the template to fit their designs, it is only meant to serve as a tool to get started.

For pre-classes assignments, see section Prior to the beginning of the course 3.1.2.

6.1 Class 1: First Designs

Upload these assignment descriptions, or create your own. You may also change any of the details, just remember to update the slides to match!

Assignment 1 (design): *Plan a class activity where technology is used.*

Your design can be a full class, a part of a class, or an idea for a whole course. At this stage, you do not need to produce all the materials for the class, as long as you have a class plan that you can produce materials for at a later date. Make sure to think about what is being taught and to whom, how long it will take, what are the aims, and what are the

possible problems you may encounter. There is an activity design template available to help you get started, should you need it, but you may also come up with your own way of explaining your design.

This design can also be something you have already tried and used. If that is the case, include some information about how it worked and how you would further develop it.

Assignment 2 (peer feedback): *Get to know the plans your group has designed.*

After the homework assignment deadline, make sure to get to know the designs others have uploaded. Prepare to discuss the designs next class. Pay attention to things such as goals, methods, and roles of the people involved.

Questions you may want to consider: What seems like it would work well? What would you do differently? Did the technology chosen feel like a good choice?

Assignment 3 (critical thinking): *Continue keeping your technology journal and bring it with you for next class.*

Make sure to jot down something every day, even if very briefly! What did you use and for what purpose? We will discuss your journals next class.

6.1.1 Design template

You can give your students this template to help them get started with their assignments. It will fit most ideas they may have, and your students can easily modify it to fit their designs.

Design Template

This page is an **example** of what kind of things your plan can include. Your plan can be arranged differently (timewise, for example) or consist of different things.

This example is a class plan. However, your plan can be anything from a learning moment to a class or a whole course. It can also be a part of a larger idea.

Topic: The topic of your plan. Be as specific as you can. Don't forget to mention learners' skill level or age.

Duration of the class or activity: Duration in minutes or in hours. You can also add how many classes there are in your design

The roles and aims of the teacher: What is the teacher's role in the activity/design? What are his or her aims?

The aims for the learners: What do you want your learners to learn? Do you want to make them think? What should the result be, and what should they strive for?

Tools, devices, or platforms in short: Briefly introduce your tools or devices. Why have you chosen them, and how are they used?

Links to the tools: Add links, if there are any.

Contents and flow of your plan: Explain your plan briefly. Give reasons for your choices, and explain what the purpose of each step is. Indicate how long the teacher should use for each part of the class. Explain how the teacher should advise learners for the activity, and each part of it.

Challenges: Discuss possible challenges or problems that the teacher or learners may encounter. Give some solutions as well.



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6.1.2 Example of a class activity (Assignment 1)

You may want to make this and the following example designs available for your students only after they have delivered theirs. If they have not delivered any class plans when there are only a few days left before the deadline, you may want to inquire how your students are doing via the discussion platform. If your students seem confused or stuck with their ideas, or show signs of distress, you can then make this example available for them. Otherwise, you can use this piece as a discussion starter next class, or just leave it unused.

QR Treasure Hunt - What's that plant?

Topic: Learning names of different trees and flowers in English. Best used with grades 7-9.

Duration of the class or activity: Approximately 45 minutes (one class).

The roles and aims of the teacher: The teacher will give good enough instructions in the beginning of the class so that the learners can function on their own for the rest of the class. The teacher will also make sure the QR treasure hunt will go smoothly and safely, and provide hints and clues if the learners get stuck or lost.

The aims for the learners: The learners will learn the names of different plants in English. Additionally they will get other information and vegetation-related words. They will also practice directions and clues in English.

Tools, devices, or platforms in short: QR-codes printed and placed outside. QR-codes include links or brief information. The learners must have phones or tablet computers that can be taken outside to scan the codes. Question sheets printed or in digital form are also needed. A treasure map, some photographs, or a list of clues on where the QR-codes can be found should be available for the learners either in print or in digital form.

Contents and flow of your plan:

1. The teacher will prepare the class beforehand by placing QR-codes outside near plants (trees, flowers, other vegetation) surrounding the school. The QR-codes will take the learners to websites with some information about the plants, or offer brief answers or keywords for searching for more information. There is a questionnaire or a question sheet either printed or on the learners' devices where there are questions such as "What is the name of the plant in place number 7?", "How tall can this plant grow?" etc. The learners should be given a list of clues, some photographs, or a treasure map to track the locations of the QR-codes.
2. The teacher should first bring the whole class inside, or agree to meet at a predetermined location at the beginning of the class.
3. The teacher should then explain the activity, including the time available. The class can agree to meet ten minutes before the end of the class in the classroom, for example.
4. Only after everybody knows where to meet and when, should the teacher hand out the tools for the activity. At this point, only 5-10 minutes should have passed.
5. The learners will roam the school grounds, looking for plants and finding out information about them. This should take about 30 minutes.
6. The class will meet before the end of the class, and discuss their findings. The teacher should discuss the different plants and check some of the answers. The rest of the answers can be checked at the beginning of the next class, so the answer sheets should be saved on the tablets or kept somewhere safe. This should take 5-10 minutes, until the class is over.

Challenges:

- a) QR-code readers don't work. In this case the treasure hunt can be done at another date, and the class can work on something else instead. Alternatively, the learners can bring a picture of the location to the teacher, who can then give the link to the learners.
- b) Learners cannot find the locations. The teacher can provide further clues and directions, as well as mark the locations to a map for the learners who are having trouble.



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6.2 Class 2: Group Assignment and Planning a Class

Upload these assignment descriptions, or create your own. You may also change any of the details, just remember to update the slides to match!

Assignment 1 (design): *Continue working on the group assignment you started.*

You began working on an idea during the class. You should continue developing that idea, and create materials for it. Your materials should include instructions for the teacher on how to use the method or materials, as well as the materials intended for use with the learners. Pay attention to the style and presentation of your materials. Upload your materials to the wiki.

Assignment 2 (design): *Create materials to go with your previous idea, or create a new idea and materials for it.*

This is an individual assignment to accompany the group assignment (assignment 1). Plan a class, a workshop, or a course, where you use technology as a part of the education. You can continue your design or plan from last week, or you can create a completely new idea. This time, create materials to accompany your design, so that the plan is ready to be used. You can embed, upload, or link your materials to the wiki.

Remember to attach a Creative Commons license to your work, so it will be available for others to use as well. Attach a license to your design from last week as well. Your designs will be used in portfolios at the end of the course.

Please note the deadline of this assignment. Finish early rather than late, your peers are eager to get to know your design!

Assignment 3 (peer feedback): *Get to know each others' individual designs and give feedback.*

Within your group, get to know the individual designs of your peers. You should each give feedback to everybody else in your group. Choose a new role for each of the designs you comment on. You can be a constructive critic/developer, a positive peptalker, or an adaptor and expander. You can indicate the role you have chosen (in parenthesis) in the beginning of your feedback so your peers can see which ones are already taken. In any case, make your feedback concise and useful. In larger groups, make sure each one of your group members gets every kind of feedback before choosing the same role again.

Make sure you have given feedback to your peers before the next class!

6.2.1 Example design for the individual design (Assignment 2)

You can upload this example assignment once the students have delivered theirs, or use it as a discussion starter at the beginning of a conversation.

Greetings by a Translations Device!

Topic: Grade 3. Greetings and names of the days.

Duration: 15 min

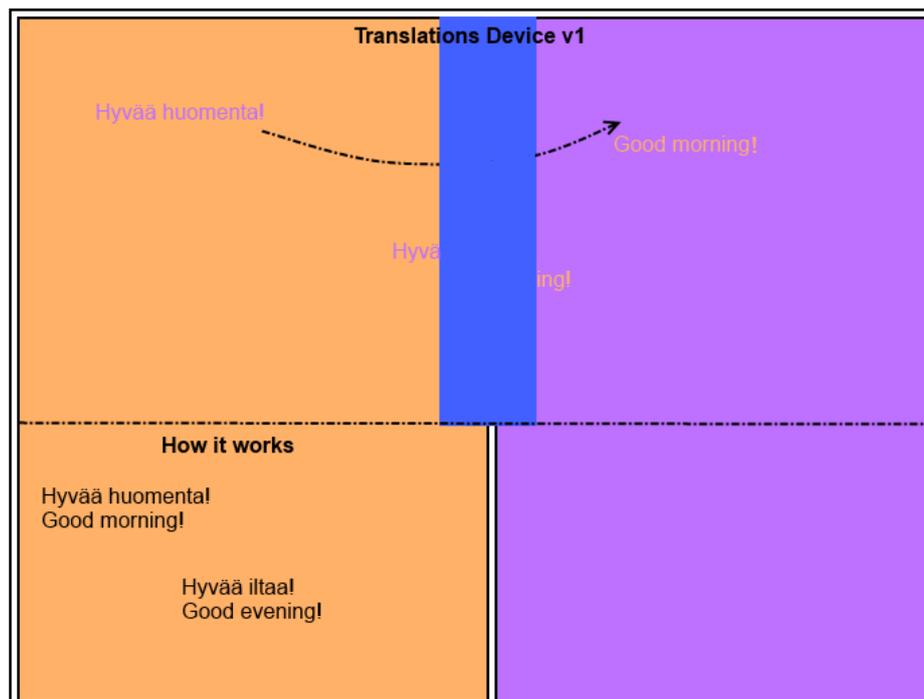
Previous knowledge required: You should learn different greetings and the names of the days of the week during previous classes. This class is meant to go through them again in a fun way. This should serve as the first activity of the class.

Role and goals of the teacher: Making learners interested and activate them for the following class. Making learners speak English and try out pronunciation. Teacher should strive to amuse and amaze the learners with a fancy translation device, perhaps even bring some magic into learning.

Goals for the learners: The learners should remember different greetings and week days and attempt to answer the teacher's questions. They should get excited about learning, laughing and squealing out answers is much appreciated.

Short introduction to the tools: Teacher should be present and prepared to inspire the learners. A translations device should be created on a SMARTboard or a video projector (picture below). If required, space for the learners to walk around and chat.

The tool consists of two halves of the screen in different colors, separated by a bar of a different color. The bar should be brought to the foreground so that every other element must pass below it. The two languages are in fact both present at all times, but they are colored so that one is invisible on one side, the other on other side (see picture). All the required words are placed on the left, where they are visible in Finnish.





Picture above: Translations machine v1, Kaisa Hirvonen. Original idea by Anna Laukkarinen.

Flow of the class:

1. Greet your learners with a proper English greeting. Ask them to sit down and tell them it is <weekday> and that it is <time> o'clock.
2. Ask your learners what day it is tomorrow, and which days they have their English classes. Proceed to inquire on which day they are allowed to have candy, which day is the best day, and on which days they are allowed to sleep the longest. Do they perhaps have a favorite day of the week?
3. Ask your learners to read the words on the translations device with their partner, and try to remember what they are in English. Give your learners a moment. Then ask them to say the words in English as they remember it, either individually or all together. Ask them to show hands or choose the learners yourself. As they give their answer, make drum roll or other expectancy-raising noises and move the phrase or word in question to the right, where it is magically translated. See if their answer was correct, and ask your learners to say the phrase or word again. Use the following words/phrases, and their translations: hi, hello, bye-bye, good morning, good afternoon, good evening, good night, Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday. Make sure you mix them up: good morning after Tuesday, hi after Saturday, etc.
4. Once all the words have been “translated”, ask your learners to walk around in the class and greet each other. They can also say their name, what day it is, or mention their favorite day of the week. They can use different greetings, and the other person has to answer accordingly. They should change partners after each short discussion.

Possible problems and their solutions:

- a) The translations device does not work. The “translations” can also be done without the device, out loud. In this case, the written form should be checked at a later date.
- b) The learners do not remember the words. If this is the case, you can allow the learners to keep their books open for checking.



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6.3 Class 3: Collaborative Discussion and Online Class

Upload these assignment descriptions, or create your own. You may also change any of the details, just remember to update the slides to match!

Assignment 1 (search and explore/open discussion): *Share your collaboration results and find an example of collaboration or inquiry-based learning being used in education. Discuss the examples of others.*

Share your notes on our discussion platform within the next day or two. You can choose one member of your group to do the sharing, but everybody should participate in making sure the notes are correct. Make sure to check all the possible links in your notes to make sure they work once delivered. Next, familiarize yourself with the links and materials your peers have shared. With all of this information in mind, you should then find an example of collaborative or inquiry-based learning has been used in education. Share your example



with others on the discussion platform, and explain your choice. Finally, discuss and comment on the choices of others.

Despite this assignment's deadline, you can keep discussing your examples and notes until our next class. We will continue the discussion with similar topics in class.

Assignment 2 (critical thinking/design): *Read chapters 1 and 3 from the book Verkkopettaja by R. Suominen and modify one of the earlier designs or materials.*

Find the book Verkkopettaja by R. Suominen, and read chapters 1 and 3 (17 pages).

Make sure to return the book to the library to give others a chance to borrow it, or hand the books forward in your groups. Feel free to use the discussion platform for coordination. If you cannot find the book, contact me via email.

Next, modify an earlier design, or a part of it, so that it takes place online. Keep in mind the book's advice regarding online learning and teaching. Modify the materials as required. Make sure to describe the changes in concrete terms. Describe the new activities thoroughly. What needs to be done differently? How does the design change? What exactly will be done?

6.3.1 Example of collaborative activity (Assignment 1)

This is only one way of utilizing learner collaboration. As your students will surely come up with very different activities, feel free to only upload this example if it is needed, or after your students have already delivered theirs.

Comical Greetings

Topic: Greetings

Duration of the class or activity: 30 minutes

The roles and aims of the teacher: The teacher will be giving instructions, as well as guiding, tutoring, and, when needed, offering assistance with the learners' work.

The aims for the learners: The learners will practice greetings that have already been learned at an earlier date. They will attempt to use greetings in their creative product. They will solidify the spelling of the greetings, and possibly discovering different alternatives for their comics. Advanced learners can create more elaborate comics with more demanding vocabulary.

Tools, devices, or platforms in short: The main tool for the activity is a comic generator. To use the generator, the learners will need laptop or tablet computers, one device per a pair of learners. Alternatively, the teacher can create a comic and print it, although this is not recommended. Video projector is recommended as it will make it easier to explain the activity to the learners, as well as looking at the different results.

Links to the tools: <http://www.pixton.com/> (a license is required for use of this tool) or <http://www.makebeliefscomix.com/> (free to use for everybody tool). Any other comic creation tool can be used as well. In this example, MakeBeliefsComics has been used.



Picture above: www.makebeliefscomix.com, the comic created by Kaisa Hirvonen

Contents and flow of your plan:

1. Show and explain the activity to the learners before giving them the devices or forming groups. The purpose of the activity is to create a 3-4 frame long comic of how two friends meet, and what they say when they do. There is one laptop or tablet computer for each pair of learners, so sharing responsibility for using the device is a part of the exercise.
2. Once you have explained the activity, have the learners find a partner and take a device. Tell them they have 15 minutes to finish their comic. Ask them to use different greetings for their comic, and suggest that they make their comic funny. Do not give them any other requirements.
3. Be available for help, and go around in the classroom making sure your learners are making progress. Once there are 2-3 minutes left, let your students know that they have only a couple minutes left to finish.
4. Once the time is up, have your learners either send you a link to their comic or send you their comic as a picture. Show the comics on a projector if possible, and ask the learners to act them out. Alternatively, if you only have limited time, you can ask the learners to show their comic to another pair, and act out the exchange using funny voices.
5. Finally, you can show a comic you have made yourself. You can all read that out loud. If there is time, you can act out some of the more challenging greetings.

Challenges:



a) In case of a technical failure, you may want to print out some premade comics with the characters and speech bubbles already placed. You may also want to have the comic you have made in print.



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6.3.2 Example of a modified design (Assignment 2)

QR Treasure Hunt PLUS Online - What's that plant?

Topic: Learning names of different trees and flowers in English. Best used with grades 7-9. Added online homework, as most of the work is already done partially online.

This activity can also be a shared project with biology classes, for example. In this case, the same plants could be discussed in biology classes, and small dictionaries made during English classes before this activity. In biology, the learners could also take pictures and get to know different plant parts, or even cells using a microscope.

Duration of the class or activity: Approximately 45 minutes (one class).

The roles and aims of the teacher: The teacher will give good enough instructions at the beginning of the class so that the learners can function on their own for the rest of the class. The teacher will also make sure the QR treasure hunt will go smoothly and safely, and provide hints and clues if the learners get stuck or lost.

The aims for the learners: The learners will learn the names of different plants in English. Additionally they will get other information and vegetation-related words. They will also practice directions and clues in English.

Tools, devices, or platforms in short: QR-codes printed and placed outside. QR-codes include links or brief information. The learners must have phones or tablet computers that can be taken outside to scan the codes. Question sheets printed or in digital form are also needed. A treasure map, some photographs, or a list of clues on where the QR-codes can be found should be available for the learners either in print or in digital form.

Contents and flow of your plan:

1. The teacher will prepare the class beforehand by placing QR-codes outside near plants (trees, flowers, other vegetation) surrounding the school. The QR-codes will take the learners to websites with some information about the plants, or offer brief answers or keywords for searching for more information. There is a questionnaire or a question sheet either printed or on the learners' devices where there are questions such as "What is the name of the plant in place number 7?", "How tall can this plant grow?" etc. The learners should be given a list of clues, some photographs, or a treasure map to track the locations of the QR-codes. Then the teacher prepares a wiki-page for the learners to go to that has the class instructions and homework. Homework will only be shown after the class is finished, and it will have a separate section for each learner. Each learner has a separate plant (tree, flower, fungus) that they have to introduce by updating the wiki-page.
2. The teacher should first bring the whole class inside, or agree to meet at a predetermined location at the beginning of the class.
3. The group agrees when they will come back to the class or to the starting point. This will be updated on the wiki-page.

- 
4. The teacher should then ask everybody to surf to the wiki-page, where they will read the instructions. The teacher can now hand out the extra tools for the activity, such as a map. Most of the instructions are online. At this point, only 5-10 minutes should have passed.
 5. The learners will roam the school grounds, looking for plants and finding out information about them. This should take about 30 minutes.
 6. The class will meet before the end of the class, and discuss their answers to the questions. The teacher should discuss the different plants and check some of the answers. The teacher will make the homework available for everybody, and makes sure all learners can see the homework assignments, and access their own section. This should take 5-10 minutes, until the class is over.
 7. The learners access the homework at home or at the library, and use the internet to find answers to the questions related to the vegetation, such as the name, height, habitat and how the plant looks like.
 8. The homework will be checked during the next class. The pages can also be updated.

Challenges:

- a) QR-code readers are not working. In this case the treasure hunt can be done at another date, and the class can work on something else instead. Alternatively, the learners can bring a picture of the location to the teacher, who can then give the link to the learners.
- b) Learners cannot find the locations. The teacher can provide further clues and directions, as well as mark the locations to a map for the learners who are having trouble.



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6.4 Class 4: Online Teaching Design

Assignment 1 (design): *In your groups, reflecting on your conversations today, design a class plan and the materials required for it. Make it big!*

Use what you learned during the class in creating a class plan and materials. You can choose the topic and the target group, but make sure you implement the results of the class and your own discussions and research. While you create the materials, make sure to also write instructions for the teacher using them.

You have two weeks, and there are several people in your group. Make sure to divide the workload and show your effort!

Assignment 2 (open discussion): *Consider today's class and write about it on our discussion board.*

Reflect on your experience of the class and write a post about it on our discussion platform. Be constructive, critical, and analyze your feelings and actions. How could you use this experience in your work in the future?

You can discuss the following, for example: How did it differ from the rest of the course? How did the online learning solutions chosen work for you? What would you have done differently? What was good about the experience?

Feel free to comment on each others' experiences!

6.4.1 Example design: encouraging searching information (Assignment 1)

California Quest BYOD - looking for some information

Topic: Searching information from different sources. Knowledge of the USA. This is a competition for the right information, where your sources matter. The Quest is geared toward grades 8-9, and requires quick wits and fast fingers.

Duration of the class or activity: 45 minutes (1 class)

Description of the activity: In this competition (you can also omit the competition part, if your class dislikes competitions) using the right sources is important. The tools used are mobile phones, school books, other books, and to an extent, the learners' personal information. Depending on the level of the learners, the importance of reliable sources should be either emphasized or first introduced. Some of the questions are based on English study book called Key 8, which deal with the USA and, more specifically, California. You can use California Quest either as an introduction to the topic, or after you have already gone through the topics. You can also use the Quest to accompany any US-related topic, as long as you make sure the correct answers can be found easily enough for the level of your learners.

Please note! You can reward your learners with small prizes, if you want to make the competition even more enticing.

Tools, devices, or platforms in short: Ask your learners to bring in their own devices such as mobile phones to class (Bring Your Own Device). You can also provide the learners with tablet or laptop computers for the duration of the class, if those are available in your school. Print out the competition handouts beforehand, or upload them for your learners to download to their tablets or laptops, if available. Make sure you have the correct answers available for yourself. Additionally, your learners can use their study books or library materials, if available.

Contents and flow of your plan:

1. Define the available time to the students (30 minutes, for example). Tell them this is a competition, and how to win the competition. They must keep track of how they found their information, and once they think they have all the correct answers, they can all raise their hands and announce they are ready. You will then check their answers. Does the competition have second- or third-place winners? You decide!
2. Check that all the learners using their personal devices have unlimited internet connection at their disposal to avoid network bills. You can ask whether they use the internet on their phone on their free time, for example. If your school has Wi-Fi available for the learners, make sure they know how to connect to it. Your learners can also use the school library, computer lab, books, or tablet computers for information gathering.
3. Remind your learners about the importance of sources and marking them. Make sure they understand that answers without their sources marked are invalid and will be disqualified. Meanwhile, tell them whether they all must fill their own answer sheets, or if they are allowed to distribute the questions between them.
4. Assign the learners into groups and give them the handouts or links to downloading the question sheet. Make sure everybody starts at the same time.
5. After the competition is over, check the answers with the learners. Invite open conversation about sources and possible extra information, tidbits and fun facts that the



learners may have found. You can bring your own fun facts to class as well. Show your learners the maps of the USA and California, if there is time. The map of Los Angeles may also interest them.

After the competition you can all discuss good vs. bad sources, and how to recognize reliable information. You can discuss whether to trust an official source vs. Wikipedia, for example.

The questions sheet can be found in the attachments, as well as the answer sheet and the maps of the USA and California. For the map of Los Angeles, you may use the most recent one on Google Maps, for example.

Have a great competition!

Appendix: California Quest Learner Handout, California Quest Answers Sheet

Challenges:

a) Learners cannot access the internet. You can also discuss the questions and invite best guesses. Alternatively, you can do California Quest another day when the internet is available again.

b) Learners have difficulty understanding the questions. You may go through the questions one by one before allowing your learners to begin the competition. However, if they have trouble understanding the questions, they may have trouble finding or understanding the answers, as well. Make sure your learners have the skill level required.



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6.5 Class 5: Games and Game Ideas

Assignment 1 (search and explore): *Find a learning game that you could use in your teaching and analyze it.*

Find a learning game online that you could use in your own teaching. Keeping in mind what you have learned in class, analyze its pedagogical usability. Base your analysis on the course materials and your previous knowledge. Reflect also on how the game could or should be used in education. Be thorough and pay attention to the different parts of the game, such as story, functions, goals, etc.

Feel free to find teacher communities online and share your tips there.

Assignment 2 (design): *Continue developing the game idea you started in groups. Create a finished design.*

You started working on a game idea with your group in class. Continue working on your idea. You should describe the rules of your game and make sure it's ready to be used and well defined. Make some materials for your game, or a mock-up of them. Upload your game to the assignment platform.

6.5.1 Example of a learning game used in teaching (Assignment 1)

Directions Game

Link to game: <http://www.bbc.co.uk/skillswise/english/games>

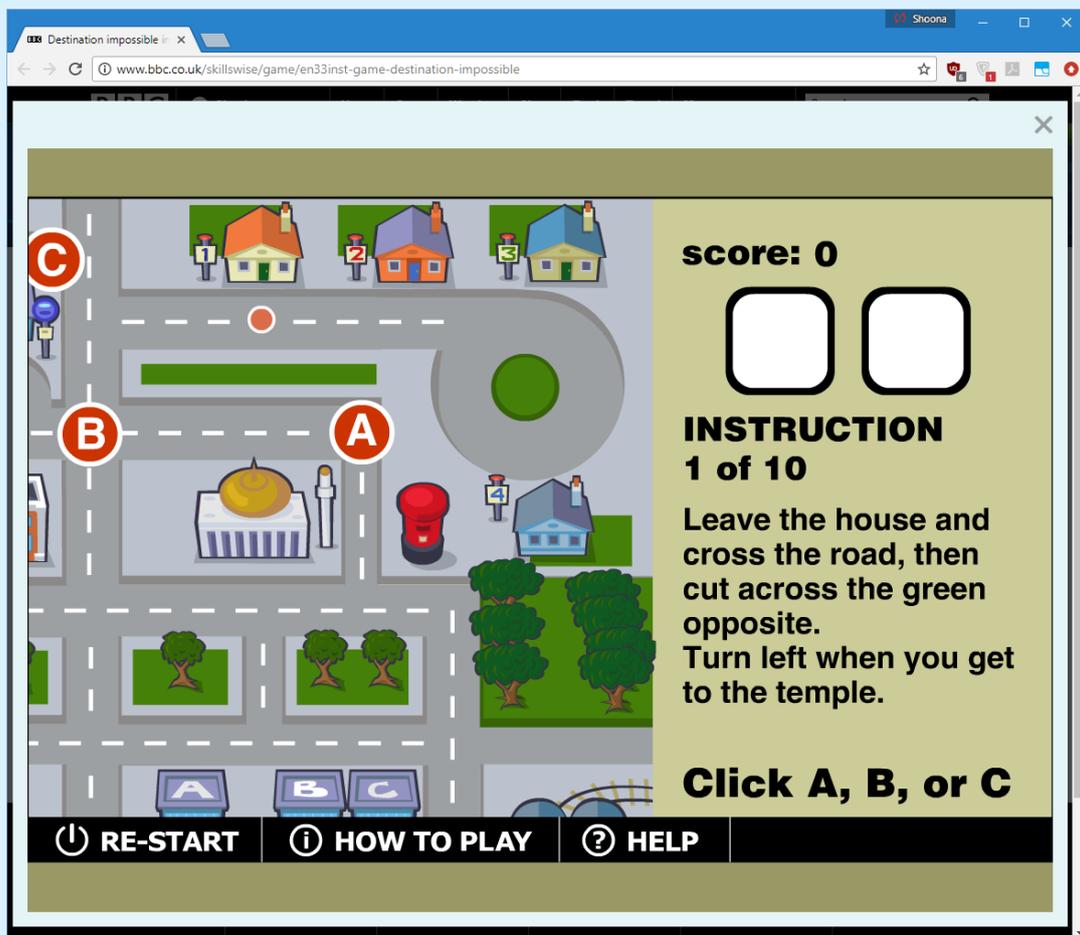
Topic and purpose of the game: Practicing directions and the vocabulary related to them, as well as a few different pieces of clothing and other accessories, clothes sizes, and materials.

Description of gameplay: The game asks the player to help different characters with their daily functions. The player needs to read or listen to a set of instructions, and choose the correct point on a map to help the game character get through their trip. Each of the characters has a different route through the map, and each one of them will need to make a couple of short stops to fetch or drop off something. Each of the character has a different short story of why they need to travel the way they do.

The instructions are given in chunks such as “Leave the house and cross the road, then cut across the green opposite. Turn left when you get to the temple.” The player must then choose the correct alternative on the map (A, B, or C) to proceed to the correct spot according to the instructions.

The game can be played with or without a timer, and each correct choice will give points to the player.

Fun fact: The map is of an English town, so it may be worthwhile for the learners to note that the “characters” go through the roundabouts backwards due to left-side traffic.



What the game could be used for: The game could be used during a class where the learners are learning about directions. They should already know some vocabulary regarding directions, as well as syntax related to giving directions. The game may also work as a tool for practicing negotiation skills if two or more learners are playing the game at the same time. The stories are somewhat interesting and the instructions are



clear and precise. The language used feels natural, and the voice acting seems believable.

Criticism: The characters and their “stories” seem very stereotypical or even sexist. A man of Indian descent called Raj has a client to meet and a mother to pick up from the hospital. A middle-aged woman has to drop off her children and wants to read her star sign. A business woman has to find tights and lipstick, and a black man is about to try out for a rugby team just as long as he makes it to the church. These stereotypes should be brought up with the learners, and they should be discussed in order to teach them media literacy skills.

Additionally, the language used is fairly complex and advanced for weaker learners, but the game is simple and the stories are short for more advanced or adult/teenage players. The game can work well in a classroom, but the teacher should consider finding something else for the more advanced learners to do once they get bored of the game.



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6.6 Final assignment: Teacher’s Portfolio

There is no homework for class 6 as it is the last class of the course. Instead, you should give your students thorough instructions regarding how the final assignment of the course should be completed, and what is expected of them. Make sure to fully enclose your assessment criteria. Prior to working on their portfolios, the students should check their previous designs, and make sure they are properly equipped with Creative Commons licenses of their choice to make part 3 of the final assignment possible.

The final assignment is designed to make the students look back at the course topics once more, to assess what they have learned, and how that has changed their relationship with ICT in education. They should consider their attitudes and expectations toward technology in the classroom, and write about their opinions regarding how ICT should be used. The assignment consists of three parts, each of which is aimed to explore the student’s view of ICT from a different angle: teaching philosophy regarding ICT, teacher’s level, and design portfolio. Below these parts have been further explained. There are also some tips on how to assess the final assignment.

Unlike the previous homework assignments, the portfolios are extremely personal. They should be delivered via a safe method, such as email or a secure portal. In addition to delivering a portfolio, the students are expected to fill out a self-assessment survey online.

6.6.1 Final assignment criteria

Please note! There is no official requirement for the portfolio to be in written form. However, it is the most common form and most of the students will use it. If your students request permission to do the final assignment in video format, the decision is yours. You may also require the portfolios to be in writing. The below criteria is geared toward written portfolios, but can be easily modified to cover also portfolios done in video.

- The final assignment must function as a portfolio of who you are and who you want to be as a teacher using ICT

- All three parts must be represented in the portfolio: teaching philosophy, teacher's levels, and design portfolio (personal designs and others' designs)
- Each of the parts should be discussed sufficiently
- The portfolio as a whole should be cohesive and neatly arranged
- When citing another student's work, proper licensing and citation must be used
- Each design should be introduced and briefly discussed from the point of view of your choice (criticism, further development, functionality, positive sides, etc.) or a combination of them
- Style, language, visual design, and technical implementation will affect the grade
 - The portfolios should look neat and clean, and use proper page numbers and clear fonts
- Any tool or method can be used, but it must be possible to open the portfolio using common tools (PDF-reader, office tools, browser, video player)

6.6.2 Part 1: A Teaching Philosophy regarding ICT

Portfolio part 1: Your Teaching (with ICT) Philosophy

Please note! Before working on your portfolio, read the instructions for ALL THREE (3) parts of the portfolio carefully. There is no formal requirement on length or format of your portfolio, but all three parts must be present in it. Your portfolio must also be viewable with common PC tools such as a PDF-reader, office tools, browser, or video player.

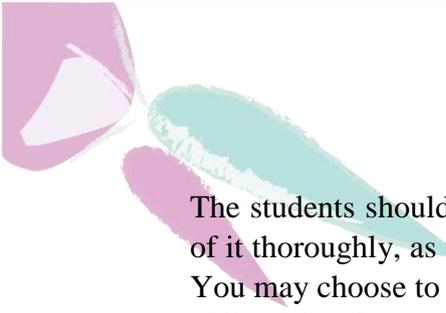
Write your teaching philosophy, where you consider the following things **regarding ICT**:

- what and how you teach,
- what your professional goals are,
- what you consider good learning,
- who you strive to be as a teacher, and
- how you plan to keep growing professionally.

Make sure to discuss your strengths and weaknesses, as well as your relationship with ICT. You may continue or update an existing teaching philosophy. Your philosophy should be personal and thorough, and it should include all the parts mentioned above. There is no formal length requirement, but please keep in mind that a very short teaching philosophy is rarely a thorough one.

Many of your students may have already written a teaching philosophy during their teacher education. In it, they explore their personal views and beliefs regarding learning and teaching in general, and describe themselves as teachers. This will come in handy when they apply for positions in education. A good philosophy includes information on who your students are as teachers, what they teach, what their goals are professionally, who they want to be in the future, and how they plan to keep developing. Furthermore, they should explain in depth what they consider good learning, and how it can be achieved.

In this part of the final assignment, they are asked to either update their previous teaching philosophy with their thoughts regarding ICT, or write a completely new teaching philosophy focused on teaching and learning with ICT. There are no formal requirements for their teaching philosophy, but it must contain several different segments and discuss them in depth. The philosophy itself can be in the form of prose, images, short excerpts with pictures, or other texts. Most commonly, a teaching philosophy is an essay with a paragraph dedicated to each of the areas of interest.



The students should strive to make their philosophy personal and consider the different parts of it thoroughly, as they may use their teaching philosophy in applying for work in the future. You may choose to upload separate, more thorough instructions about how to write a teaching philosophy for your students if you suspect they may not have written a philosophy previously. Make sure to communicate clearly what your criteria are, and what you will be paying attention to in your assessment. Overall, your assessment should be based on how thorough the philosophies are. They should include the different parts and be well arranged. The philosophies should always be personal and contain a level of introspection.

6.6.3 Part 2: Teacher's Level

Portfolio part 2: Teacher's Level

Get to know Ope.fi's teacher skill levels at <https://opefi.wikispaces.com/>

Familiarize yourself with the three different levels, and find which one of them describes you the best. Give reasons for your choice, and explain why you belong to that level. Also consider different ways to move to the next level, and your willingness to do so. What is required for the next level?

Please note: If your students do not speak Finnish, this part of the final assignment should be redesigned, or the materials translated, as the website and the level descriptions are in Finnish.

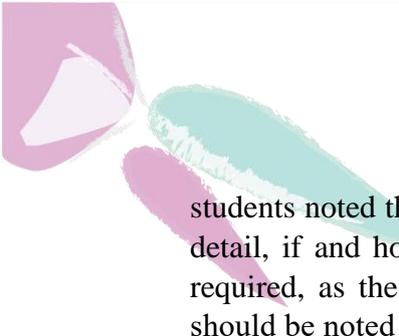
Ope.fi is a project with its roots in the Ministry of Education and Culture's memo for education in Finland in 2020. The project is crowdsourced, and its goal is to describe a teacher's ICT in skill in education at basic, advanced, and expert levels (I-III). They are based on a teacher's individual ICT-related civic skills, including multiliteracy, information search capability, device and service usage, and information security, for example. Below are short descriptions of what each of the levels may consist of. These descriptions are not exhaustive or thorough, and more comprehensive descriptions are available on the project website.

Level I - At level I, the teacher has acquired basic ICT skills required to operate at school level, restructure local operational and educational culture, and share and construct knowledge locally. With level I skills, the teacher should be capable of supporting innovative teaching and learning in their home organization, and able to use most common devices and software in education.

Level II - At level II, the teacher should be capable of operating in developmental organizations on a national or regional level. He or she should be able to use a wide range of digital services, including virtual worlds and online communities. Additionally, the teacher should be able to use new models in learning and teaching, such as inquisitive learning, personalized learning paths, and coaching.

Level III - Upon reaching Level III, a teacher should be able to operate fully in international networks, and should have expert skills in developing shared knowledge. They should be familiar with a variety of pedagogical frameworks and are capable of managing larger scale projects at an international level. Moreover, they should be able to use such technologies as robotics, 3D-printing, and Big Data in education.

Your students should get to know the levels thoroughly, and then place themselves on a level that best describes them as teachers at the moment. They should give reasons for their choice, and explain why they belong at the level they have chosen. It would be preferable if the



students noted their future in this part of the final assignment, and mentioned, in general or in detail, if and how they are planning on moving forward. However, this step should not be required, as they already have to write about their aims and goals in the previous part. It should be noted that the teacher's level can be a part of the teaching philosophy as opposed to a separate part. The level and reasoning must, nevertheless, be present. If you want your students to summarize the level they fit in and discuss the skills further, make sure to mention it. This segment should be assessed according to how well the students have discussed their position, and how thorough they are.

Source <https://opefi.wikispaces.com/> used under Creative Commons license CC BY-SA 3.0 (<https://creativecommons.org/licenses/by-sa/3.0/>).

6.6.4 Part 3: Design portfolio

Portfolio part 3: Design portfolio

There are two sub-sections to this part of your portfolio. Make sure to have them both in your portfolio, either separate or combined.

First, choose 3-5 of **your best designs** during this course. Attach them to your portfolio and discuss them each **briefly**. You can answer the following questions, for example:

- Why did you choose this design to be a part of your portfolio?
- What is good about the design?
- Do you think the design would work well in use? Why?
- How would the design be best used? Why?
- What problems may there be with the design?
- How could the design be further developed?

Next, choose 2-5 of **the best designs from your peers**. You can find them on the wiki page. Attach them, along with their Creative Commons licenses and proper references, to your portfolio. Again, discuss your choices, and explain the designs **briefly**. You can answer the same questions as you did with your own designs.

You can also place your choices for portfolio within your teaching philosophy, should you decide to do so.

The third part of the final assignment is collecting a design portfolio. Your students have been working hard for several weeks to plan, design, and detail materials that can be used in their work in the future. It would be a shame if all that work was just for one course. Additionally, your students may not have had the time or energy to get to know each others' work. The design portfolio is meant to bring your students to review the designs they have done personally, and get to know the designs their classmates have come up with, and choose a handful of the best ones for their portfolio. Simultaneously, they will have to use Creative Commons licensing and learn more about it. Before parting with your students, make sure to remind them to check their work on the wiki and add Creative Commons licenses wherever possible.

The first part of the design portfolio is a personal portfolio of the designs that your students have been personally involved in creating. Your students should review their own work and choose 3-5 of their best ideas or designs from the course, and introduce them on their portfolios. They should discuss the designs shortly from a point of view of their choice. They

can explain how the design would be best used, what problems there may be, or how the design could be further developed, for example. Being critical of one's own work is crucial, but recognizing a working solution is also important. If your students have no criticism, they can point out what is good about the design, and why it works.

The second part of the design portfolio consists of the works of the other students in the class. Your students should be familiar with each others' designs at this point, to some extent. Many of the homework assignments during the course have included giving feedback to fellow students. They should now go back to the designs others have done, and choose 2-5 of the designs that they find best, and introduce and analyze them similarly to their own work. They should also make sure to only use the materials that are available to them according to Creative Commons licensing, which they should use correctly while borrowing the material. Naturally they should refer to the original source and use the licensing correctly. This part of the assignment encourages your students to look at how other people have solved similar questions, and teach them to use materials that already exist to their advantage.

The assessment of the final assignment should be based on first and foremost on the contents of the portfolio. You should pay attention to how thoroughly your students have discussed different aspects of the three segments, and how well they have used the source material to their advantage. The finished portfolios should be well arranged and they should express who the student is and who they aspire to be. You should also look at the style, language, and expression, although they are subsequent to the actual material. Finishing touches, such as technical and stylistic choices should also play a part in the numeric assessment, but they should never be a reason for the students not passing the course. Pay attention to your assessment transparency, and give your students clear criteria for the final assessment, for example using the above. Make sure to give some written feedback on the portfolios if it can be done with your tools.



Image 4: A convenient working space

Image used under Creative Commons Zero - CC0. Image source:
<http://maxpixel.freegreatpicture.com/Business-Office-Home-Office-Workstation-Notebook-336373>



7 APPENDICES

Homework Examples

California Quest Learner Handout

California Quest Answers Sheet

PowerPoint Slideshows

Class 1: Introductions, 24 slides

Class 2: Everyday Technologies, 30 slides (1 hidden)

Class 3: Collaborative Learning, 22 slides

Class 4: Learning Online, 18 slides

Class 5: Games and Gamification, 39 slides

Class 6: Language, Learning and Technology, 19 slides (1 hidden)

Surveys

Pre-course Survey

Halfway Point Survey

Self-assessment and Final Feedback

Project Self-assessment

Project In-service Teacher's Feedback

California Quest

Löydätkö vastaukset näihin kysymyksiin kirjasta, netistä tai muulla tavalla? Kirjoita myös, mistä löysit tiedon! Jos teet tehtävän ryhmässä, kerro lähde muillekin.

Voit vastata suomeksi. Lisähaastetta saat vastaamalla englanniksi.

How many **stars** are there in the current American Flag? What do they **stand for** (*mitä ne merkitsevät*)?

How many **stripes** are there in the current American Flag? What do they **stand for**?

Name (*nimeä*) **at least two** areas (*alue*) in Los Angeles city:

What is Six Flags Magic Mountain? **Where** is it?

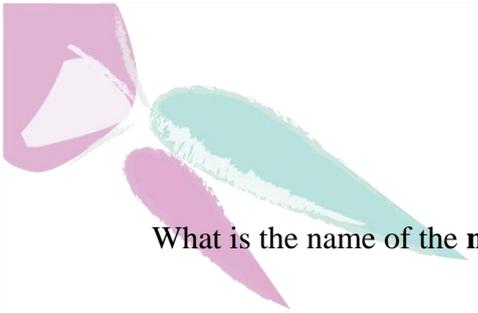
What is the **population** of Los Angeles? (How many people live in Los Angeles?)



Image: Koch / MSC.

Image used under Creative Commons Attribution 3.0 Germany

What does this man have to do **with California**? *Mitä tekemistä tällä miehellä on Kalifornian kanssa?*



What is the name of the **national anthem** of the U.S.A.?

What is **the largest** American football event (*tapahtuma*) **called**? **When** was it last (*viimeksi*) held in California?

What is the Chinese Theater **famous for**? **Where** is it located?

When, and where, was the Coca-Cola Company found (*perustaa*)?

What were **carhops** (at the McDonald's)?

What is Alcatraz Island **famous for**?

California is a coastal state (*rannikko-osavaltio*). What is **the ocean** called?

What is the most famous **bridge** in San Francisco called?

Where in Los Angeles can you **find the most celebrities** (*löytää eniten julkkiksia*)?

What is the **capitol city** (*pääkaupunki*) of **California**?

EXTRA: Where did the Hollywood sign come from? What did it say in the past?

Name three counties (*lääni*) in California:

California Quest Answers Sheet

Löydätkö vastaukset näihin kysymyksiin kirjasta, netistä tai muulla tavalla? Kirjoita myös, mistä löysit tiedon! Jos teet tehtävän ryhmässä, kerro lähde muillekin.

Voit vastata suomeksi. Lisähaastetta saat vastaamalla englanniksi.

How many **stars** are there in the current American Flag? What do they **stand for** (*mitä ne merkitsevät*)?

There are 50 stars in the flag. They stand for the current amount of states in the USA.

How many **stripes** are there in the current American Flag? What do they **stand for**?

There are 13 stripes. They stand for the British colonies that declared independence from the UK.

Name (*nimeä*) **at least two** areas (*alue*) in Los Angeles city:

Usual answers: Hollywood, Beverly Hills, Bel Air, Chinatown, Downtown, Santa Monica, Hyde Park, Koreatown, Little Tokyo, Melrose Hill, Venice (Beach), South Park (not the animation series city). Full lists can be found online, e.g. on Wikipedia.

What is Six Flags Magic Mountain? **Where** is it?

It is an amusement park, theme park. It is located in Valencia, Santa Clarita, California. Other directions: “North of Los Angeles”, “A couple hours’ drive from LA”, address, coordinates.

What is the **population** of Los Angeles? (How many people live in Los Angeles?)

Make sure to check the current number, or accept estimates: 3,800,000



Image: Koch / MSC.

Image used under Creative Commons Attribution 3.0 Germany

What does this man have to do **with California**? *Mitä tekemistä tällä miehellä on Californian kanssa?*

Arnold Schwarzenegger, an actor and politician who lives in Los Angeles. Was the governor of California 2003-2010. He was called “The Governator” because of the Terminator movies.



What is the name of the **national anthem** of the U.S.A.?

The Star-Spangled Banner. You may want to elicit what it means also.

What is **the largest** American football event (*tapahtuma*) **called**? **When** was it last (*viimeksi*) held in California?

The Super Bowl, the championship final of National Football League. Note that the American word for European football is soccer. It was last held in California in San Diego 2003. It will be held in Santa Clara, CA in 2016. You may want to elicit other stadiums that have held the games.

What is the Chinese Theater **famous for**? **Where** is it located?

Grauman's Chinese Theater is famous for the footprints of celebrities in the court yard. It is located in Hollywood, on 6925 Hollywood Boulevard, LA.

When, and where, was the Coca-Cola Company found (*perustaa*)?

There are a couple contested answers for this. The simple answer is considering the date and place where the product itself was invented: 1886 in Columbus, Georgia. You may also want to accept other answers: Coca-Cola was incorporated in 1892 in Atlanta, Georgia (also current headquarters). Registered trademark in 1944.

What were **carhops** (at the McDonald's)?

Carhops were originally rollerblading waiters/waitresses in the McDonald Drive through. They can also go on foot. The name comes from the waiter/waitress hopping onto a moving car's running board to claim the car as his or her client for tips.

What is Alcatraz Island **famous for**?

Originally a Civil War fortress, first lighthouse on the West Coasts, later federal prison, nowadays a national park.

California is a coastal state (*rannikko-osavaltio*). What is **the ocean** called?

The Pacific Ocean

What is the most famous **bridge** in San Francisco called?

The Golden Gate Bridge

Where in Los Angeles can you **find the most celebrities** (*löytää eniten julkkiksia*)?

In Hollywood. Other possible answers: In Beverly Hills, or Santa Monica, Malibu. Feel free to accept one of the famous coffee shops or restaurants at your leisure.

What is the **capitol city** (*pääkaupunki*) of **California**?

Sacramento. Previous capitols have been for example San Jose, Vallejo, and Benicia.

EXTRA: Where did the Hollywood sign come from? What did it say in the past?

Originally the sign was an advertisement for a new housing area. It originally said “Hollywoodland”.

Name three counties (lääni) in California:

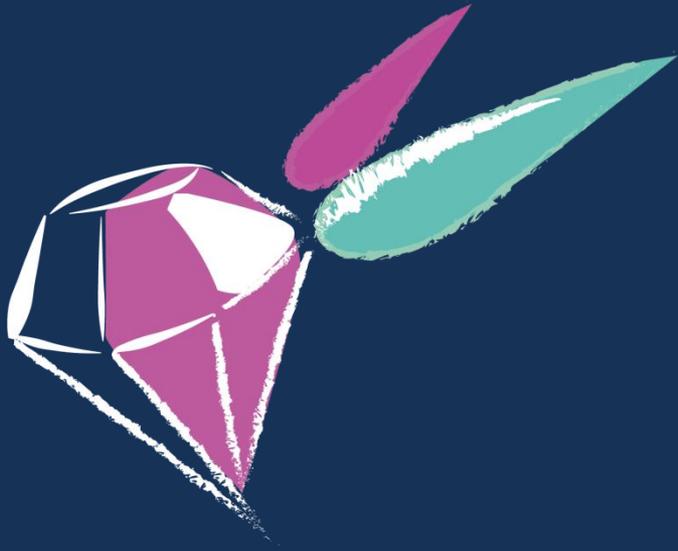
See the map below

Map of California Counties



Map of the USA States





Learning Technologies

First class dd-mm-yyyy

Original slides by Kaisa Hirvonen, Ilona Luukkonen, Tanja Välisalo
Final editing Kaisa Hirvonen

Why this course?



Today's Agenda

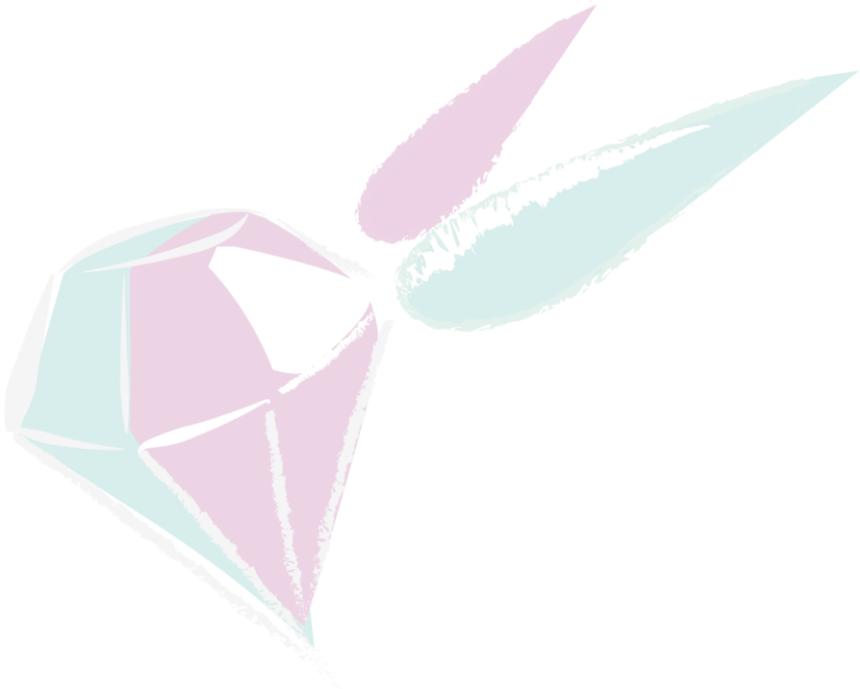
- Discussion: Goals and experiences
- Introduction
 - Who are you?
 - How to pass the course?
- Course schedule, platforms and groups
- Expert's Words: Language, learning and technology
- Homework assignments

Discussion

What is your experience with language teaching?



**What are your goals
for this course?**



Introductions

- Who are you?
- What do you study?
- Who do you want to be as a teacher?



How to pass the course

- 3 ECTS
 - Attendance and participation in the classes
 - Individual and group assignments
 - Self-assessment and final assignment
- + 2 ECTS
 - Project and seminar
 - Working with in-service teachers
 - Projects begin dd-mm
 - Sign up by dd-mm

Course Goals

- **Shared and individual goals**



Course Goals

- Shared and individual goals
- **Create concrete learning materials and models**



Course Goals

- Shared and individual goals
- Create concrete learning materials and models
- **Give opportunities to share innovations and materials**
 - With other students on the course
 - With the whole world

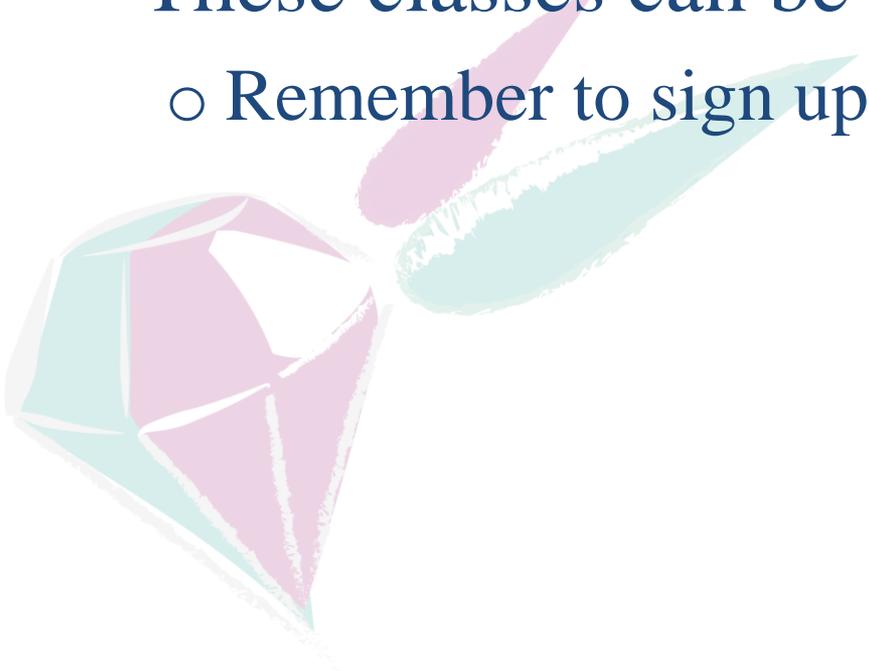
Course Schedule 1/3

- Classes

1. Introductions
2. Everyday technologies (Note: 3 hours!)
3. Collaborative learning
4. Learning online (held online)
5. Games and gamification (Note: 3 hours!)
6. Language, learning and ICT (Note: 3 hours!)

Course Schedule 2/3

- Optional classes
 - **Devices 1: dd-mm at 00:00**
 - **Devices 2: dd-mm at 00:00**
- These classes can be rescheduled as required
 - Remember to sign up!



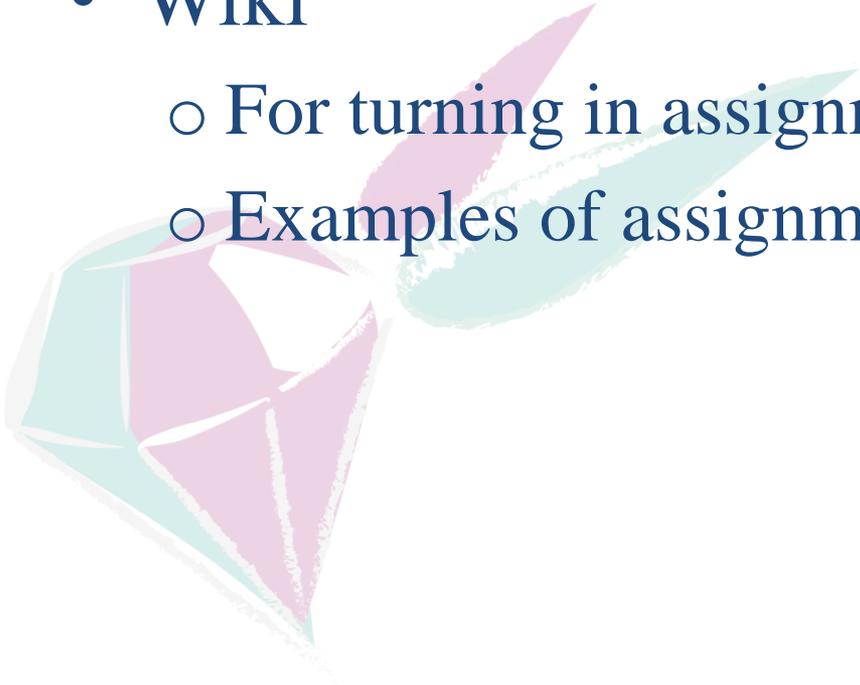
Course Schedule 3/3

- Each assignment has a separate deadline
 - Usually before the next class
- Final assignment to be delivered **dd-mm**
- Project assignments to be delivered **dd-mm**
 - Seminar date to be decided



Online Learning Environments

- **Yammer**
 - For conversation, links, tips, questions
 - Course materials will be posted after each class
- **Wiki**
 - For turning in assignments
 - Examples of assignments, resources



Assessment

- 3 ECTS
 - Attendance and participation 60%
 - Class attendance
 - Online participation
 - Assignments 40%
- +2 ECTS
 - A good grade on the project can improve overall grade

Collecting Research Material

- To further develop the course and to make it available for a wider audience, research material will be collected during the course
- More research information and research permit details next class



Home Groups 1/2

Group 1

- Name
- Name
- Name
- Name

Group 2

- Name
- Name
- Name
- Name



Home Groups 2/2

Group 3

- Name
- Name
- Name
- Name

Group 4

- Name
- Name
- Name
- Name

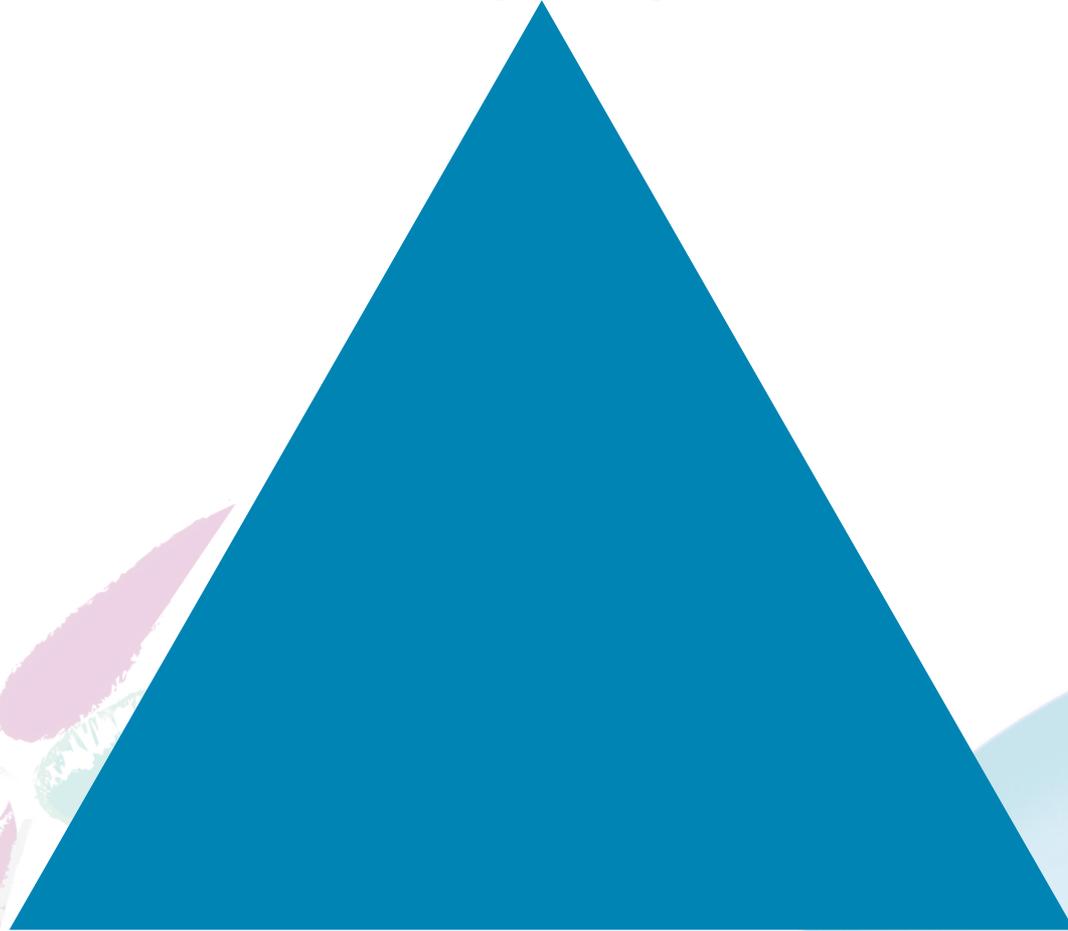


Pre-task

- Share a personal anecdote about how you used technology in teaching, or an idea for how it could be used
- Come up with a name for your home group!

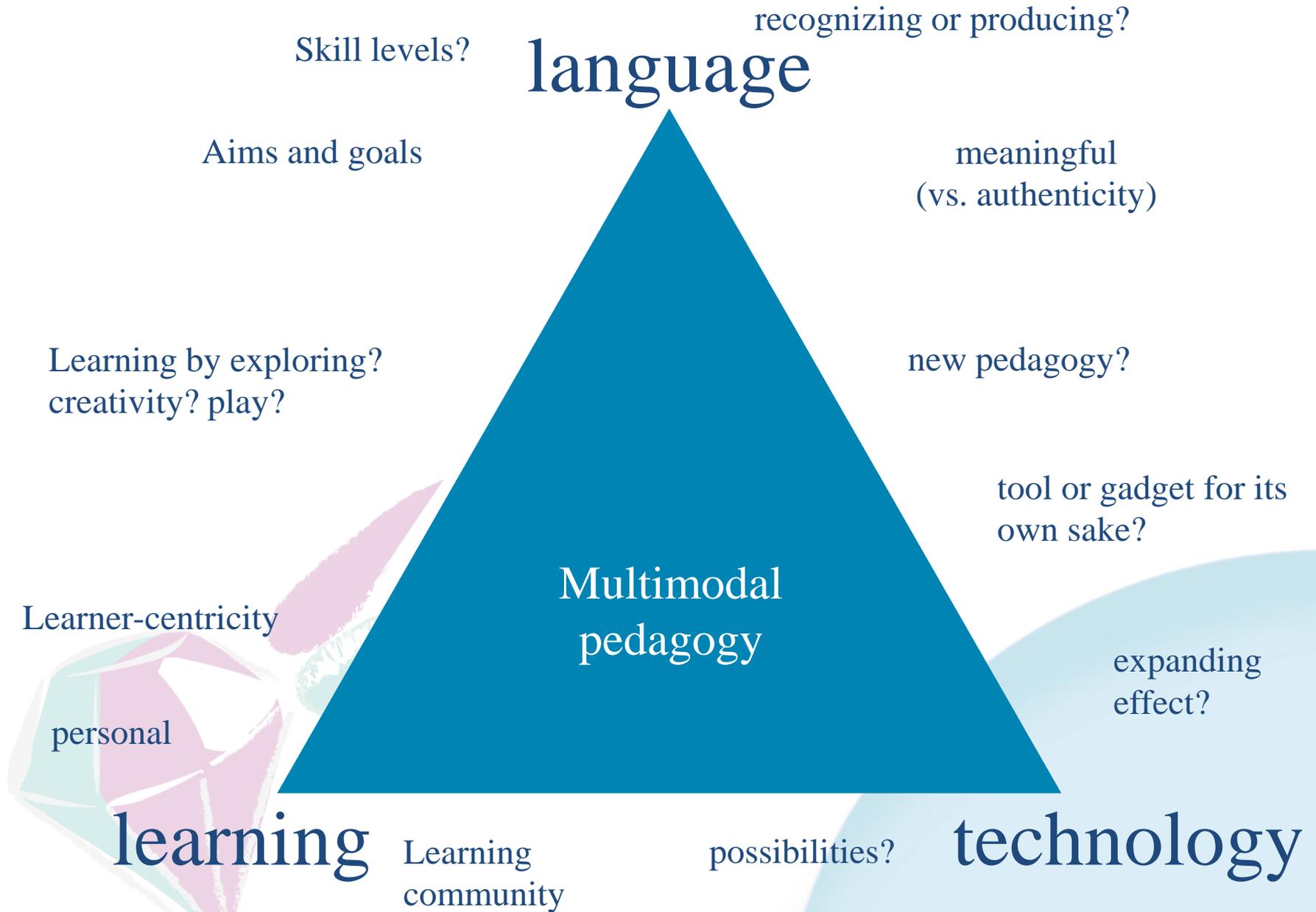


language



learning

technology



What next?

- More thorough instructions online
- Homework assignments:
 - 1. Plan a class activity** where technology is used
 - Delivery on Mon **dd-mm**
 - Can be a class, a part of a class, or a course
 - 2. Get to know** the plans your group has designed
 - 3. Continue keeping your technology journal and bring it with you** for next class

What next?

- More thorough instructions on Year 1er
- Homework assignment

1. Plan a class activity

- Delivery on Monday
- Can be a class, a

2. Get to know the plans

3. Continue keeping your tech bring it with you for next class

**P.S. Bring Your
Own Device
to next class!**

Questions?

- Ask on **Yammer** or via email
 - **Tutor A: tutora@tutor.net**
 - ✓ In charge of course administration and attendance
 - **Tutor B: tutorb@tutor.net**
- Support also available online from your peers on **Yammer**
- Support for **Yammer** and wiki is available in extra classes! Sign up ASAP!



Everyday Technologies

Second class dd-mm-yyyy

Original slides by Kaisa Hirvonen, Ilona Luukkonen, Tanja Välisalo
Final editing Kaisa Hirvonen

Today's Agenda

- Research permits
- A look into the design assignment
- Discussion: Technology journals
- Expert's Words: Everyday technologies
- Group work
 - BYOD
 - Method development
- Creative Commons licensing
- Homework assignments

Research Permits

- Research data is collected to help future development of the course
- Your participation is greatly appreciated
- You can give your permission
 - by having already checked “yes” on the pre-course survey
 - by filling in a permission slip (available from the tutors now or after the class)

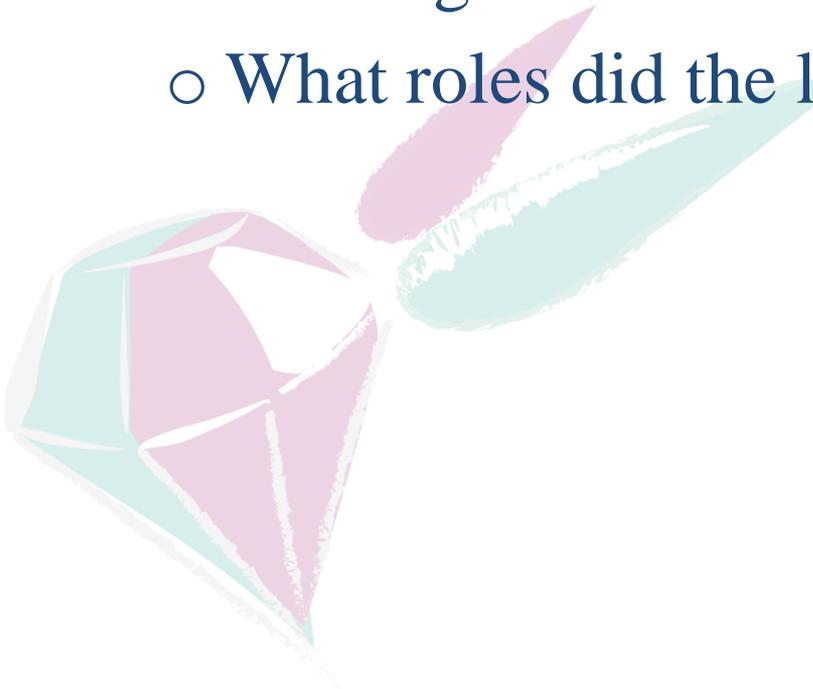
***“Design a class”* - Assignment**

Group Retrospective

- You have already familiarized yourselves with each others’ designs
- Discussion:
 - Do the chosen methods support the learning goals?
 - What is the role of the learner?
 - What is the greatest challenge of the design? How can one solve it or minimize its effect?

Discussion: Common challenges

- Share your group's most interesting findings
 - What were the most common challenges?
 - How well did the chosen methods support learning?
 - What roles did the learner have?



Technology Journals

- What did you write about? Share!
- How do you use technology...
 - in your free time?
 - in your studies?
 - at work?
- Did you discover anything surprising while keeping your journal?

The Net Generation?

- The Net Generation (Tapscott, 2009) or digital natives (Prensky, 2001), born 1978-, 1990 ->
- Born to a world of the internet: not a separate and mythical world
- Globalization and international co-operation are also nothing new
- Keywords: equality and healthy skepticism
- Not a homogeneous group
 - Self-regulation and a sense of community at the forefront
 - Different profiles
 - Different skills, strategies, attitudes
 - Depends on age?

How about that net generation?

Visions, approaches and experiences, but a limited amount of research



We want freedom and choice, transparency, ethical choices and openness. We work together.

We expect learning and work to be fun and comfortable.

We are quick, creative and innovative. We are well suited for knowledge-based work and exploration.



The net generation is hapless and lazy. They lack social skills because all they do is sit online.

They do not care about immaterial rights on P2P networks, and the internet is full of bullies. Social media invites narcissism and addiction.

Their information processing is superficial. They don't have the patience to read books.

Change?

Web1.0 → Web 2.0

Britannica Online → *Wikipedia*

Personal websites → *blogging*

Publishing → *participation*

Content management → *wikis*

Directories (taxonomy) → *tagging*
(folksonomy)

(O'Reilly 2005)

Facebook, Google+, Google docs...

“a transition from isolation to interconnectedness”
(Solomon & Schrum 2007, 13)

Learners as producers,
cobuilders, creators,
contributors (vs. consumers in
the educational community)
(Sykes & al 2008)

Mindsets: how is the world
interpreted?
(Lankshear & Knobel 2006)

“the fostering of social networks and communities, the emphasis on creation rather than consumption, and the decentralisation of content and control.”
Downes (2007, 19)

Mindsets: How is the world interpreted?

Lankshear & Knobel 2006

Mindset 1:

physical-industrial

Mindset 2

cyberspatial-postindustrial

value as a tool	TECHNOLOGY	technological development has altered the world
the idea of knowledge and learning largely untouched	THE WORLD	change and unpredictability
material	PRODUCTION	services and enabling
individual knowledge and skills	SKILLS	knowledge and skills of the collective
expertise within individuals and expertise in institutions	EXPERTISE	shared expertise
control	POWER	openness
“social relations of bookspace; a stable textual order”	TEXTS	“social relations of emerging digital media space; texts in change”



Literacies of teachers and learners

(Luukka et al. 2008)

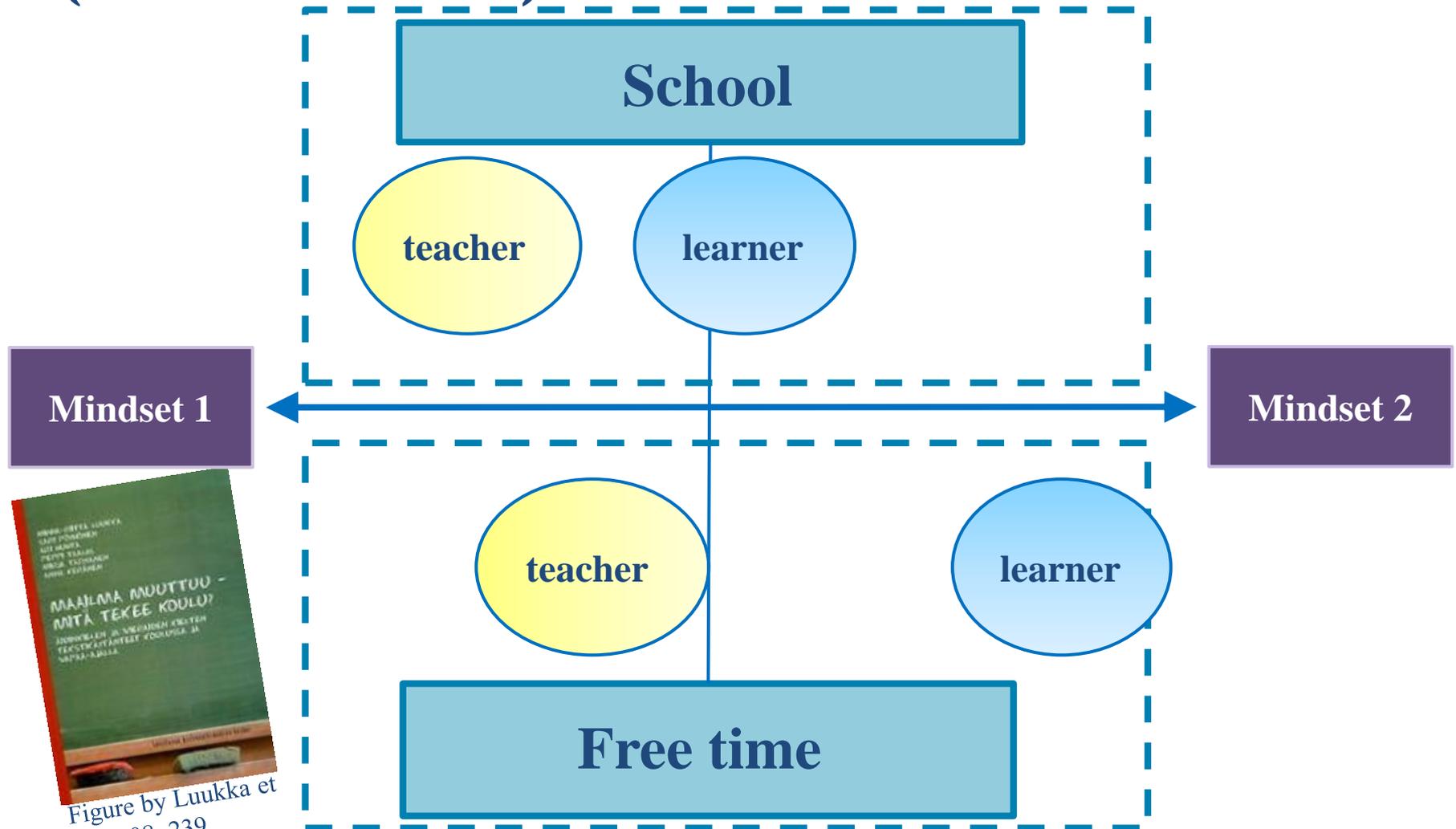


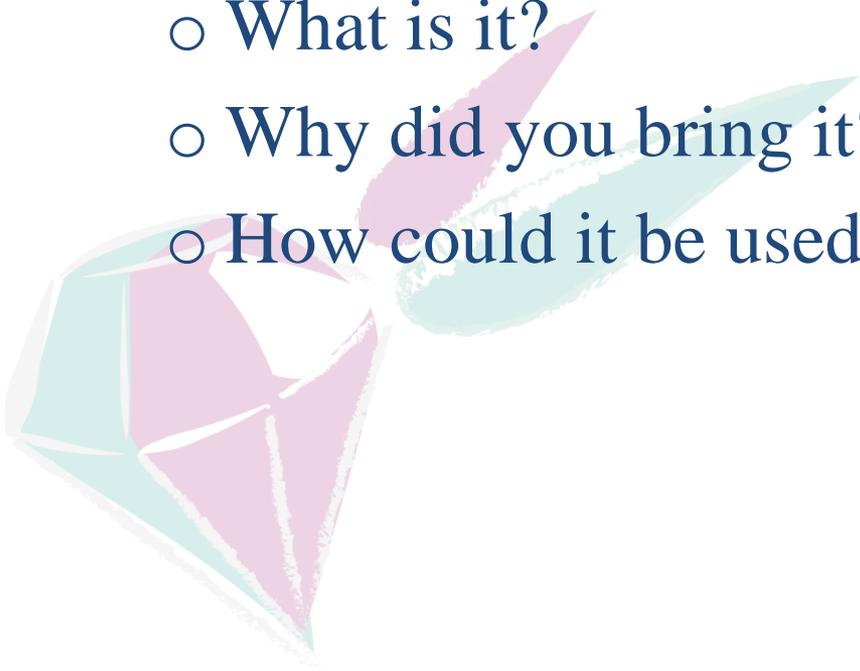
Figure by Luukka et al. 2008: 239
Dotted lines added by Kaisa Hirvonen

Then what?

- What happens if the situation does not change?
- Teaching literacies is important for our future – whose responsibility?
- Learners are adept at use for entertainment, teachers are experts of learning
- There are more possibilities than threats
- Core content is still important!

Discussion: BYOD

- Move to home groups
- Prepare on your own for 2 minutes
- Give each other a 60 second blurb
 - What is it?
 - Why did you bring it?
 - How could it be used in language learning?



Discussion: BYOD

- Contemplate your ideas as a group
 - Can you see the device being used as suggested?
 - If you had the same device, how different were your ideas?
 - Questions?
 - Other ideas?
- These are the ideas with 2 minutes of preparation
 - What can be done with 20 minutes of preparation?

Sharing materials: Creative Commons

WE ♥ CREATIVE COMMONS



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Using characters from Big Buck Bunny
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Sharing materials: Creative Commons

With CC-licenses
you can authorize
others to use your
materials...



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With CC-licenses
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- as they are
- modified
- commercially?



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Creative Commons licenses

- Creative Commons
 - International website
- Creative Commons Finland
 - Finnish website
- Both websites have a license picker available
 1. Choose Features
 2. Optional info
 3. Get license

Group Work: Everyday Tech Brainstorm

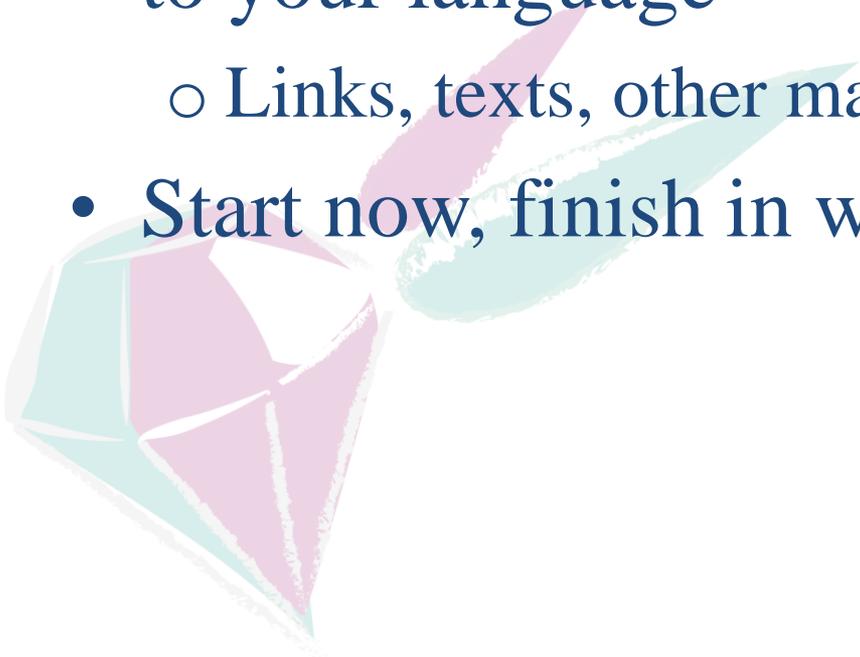
- **How could you use the everyday technologies that we have discussed today in your teaching?**
- Pick a theme or technology, for example :
 - Producing in a community
 - Giving feedback
 - Searching for information, building knowledge, curating
 - QR-codes
 - Mobile photos
 - Mobile videos
 - Individual learning paths

Group Work: Everyday Tech Brainstorm

- **Design a learning and teaching method that utilizes everyday technology**
- Your method should be usable by all language teachers in this course
- While the method should be portable, you can include resources and materials that are unique to your language
 - Links to materials

Group Work: Everyday Tech Brainstorm

- Your method can be based on something that has already been done
- It can include a portable core and parts unique to your language
 - Links, texts, other materials
- **Start now, finish in wiki!**



Remember!

- **Yammer**

- PowerPoint slides after class
- Homework assignment instructions
- Free discussion
- Use tags!

- **Wiki**

- Turn in assignments
- Example works to get creative juices flowing

Homework assignment 1/3

- Continue working on the group assignment you started
- Finished product
 - Instructions for teacher
 - Style
- **Deadline dd-mm**
- Upload to wiki

Homework assignment 2/3

- Individual assignment
- **Plan a class, a workshop, or a course, where you use technology.** Continue your previous individual work or create a completely new idea
- **This time create finished materials for the class.**
 - Embed, upload, or link to wiki!
- Feel free to try using a CC-license to share your ideas!
- **Deadline dd-mm**

Homework assignment 3/3

- You guessed it! Get to know each others' designs within your group.
- In your group, choose roles for your feedback:
 - Constructive critic / Developer
 - Positive peptalker
 - Adaptor and expander
 - Rotate roles for each design!

Final Word about Copyright

Kopiraitti – information about copyrights by copyright associations (In Finnish)

Operight – information about copyrights for teachers (In Finnish)

Opettajan tekijänoikeus – website and blog by Tarmo Toikkanen, among other things answers to difficult questions (In Finnish)

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Hidden Slide: Slide 13 Help

- Luukka et al. 2008: 238-239: “Kuviosta käy ilmi, että opettajien ja oppilaiden käytänteet eroavat toisistaan varsin selkeästi vapaa-ajalla, kun taas koulussa oppilaiden käytänteet ovat lähempänä opettajien käytänteitä ja myötäilevät teollisen yhteiskunnan ajattelutapaa. Huomattavaa niin ikään on, että opettajien käytänteet pysyttelevät teollisen yhteiskunnan ajattelutavassa. -- ... pahimmillaan johtaa tilanteeseen, jossa toimijat eivät ymmärrä toistensa näkökulmia siitä, miten ja mssä kieliä ja tekstitaitoja opitaan ja tarvitaan. -- ... on hyvin todennäköistä, että koulu sosiaalistaa oppilaita teollisen yhteiskunnan tarpeisiin jälkiteollisen sijaan.”



Collaborative Learning

Third class dd-mm-yyyy

Original slides by Kaisa Hirvonen, Ilona Luukkonen, Tanja Välisalo
Final editing Kaisa Hirvonen

Logo: Liisa Salonen

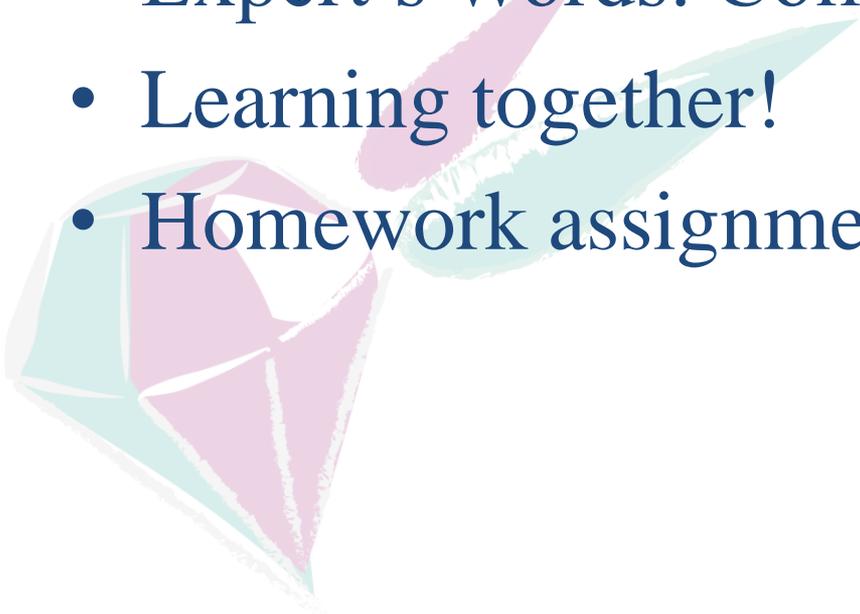
Additional Classes

- Sign up for device classes!
- Available dates:
 - Dd-mm at 00:00, smart boards
 - Dd-mm at 00:00, tablets
 -



Today's Agenda

- Project information
- Homework Retrospective
- Flash Research: Learning in communities
- Expert's Words: Collaborative learning
- Learning together!
- Homework assignments



Project

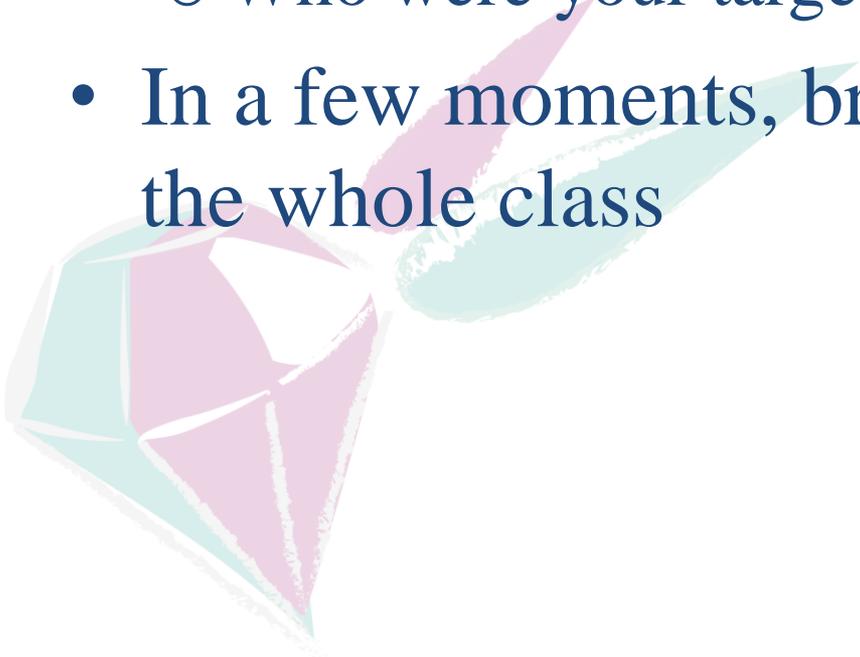
- + 2 ECTS to the course
- You can pick one of the topics supplied by the teachers
 - In special cases, you can choose your topic
 - Working with teachers is probably more fun!
- The idea must be realistic and adaptable to learning and teaching
- Justify the choices you make in your project
- Includes peer-feedback in a final seminar
 - Self-assessment
- Deliver your paper on wiki by **dd-mm**

Project Ideas

- Ideas from the teachers
- These are all examples, feel free to make your own
 - An area of development in teaching
 - A topic where a new structure or method is needed
 - Skills that should be learned while learning a language
- Sign up now, or at the latest **dd-mm!**

Homework retrospective!

- In groups, discuss your individual assignments
 - What kind of technologies did you use?
 - What were the aims of your materials?
 - Who were your target group?
- In a few moments, bring up a couple ideas to the whole class



Group assignments: Feedback

- [Collect your constructive criticism here]
- ...
- [Collect your positive feedback here]
- ...
- [Anything else?]
- [Add a final note about the assignments in general]

Group Work: Flash Research

- What does collaborative learning mean?
- What is inquiry-based learning?
- When a method is used at school, what needs to be considered...
 - In goal setting?
 - When guiding learners' actions?
 - In working methods?
 - In choosing tools and devices?
- Make sure to save your notes!

Try this!

muistio.tieke.fi

Optimal learners in networks...

- solve complex problems and produce conceptually well organized works
- form beliefs, theories, explanations, and questions that demand explanation
- acquire and generate information that they use to understand larger concepts
- share phases of their learning and working processes with others in the community
- navigate and regulate their individual and shared learning, motivation, and emotions
- are tenacious, tolerate incomplete projects and information, and do not consume predigested information

Teacher as a guide for the process, a supporter of intellectual effort, and as a builder of bridges

→ *Do we offer opportunities for this?*

(Hakkarainen et al., 2008; Järvelä et al., 2011)

Collaborative Learning Online

Promises

- Crossing boundaries of intrinsic resources with the help of the community, shared expertise is greater than the sum of its parts
- Externalizing complex thinking processes, the network as a part of the memory
- Coordinated collaborative work
- Committing to shared objectives, assessment, and regulation

Reality at school?

Arvaja, 2007; Arvaja & Pöysä-Tarhonen, 2013; Arvaja, Salovaara, Häkkinen, & Järvelä, 2007; Häkkinen & Järvelä, 2006; Häkkinen, Arvaja, Hämäläinen, & Pöysä, 2010; Hämäläinen, 2008; Hämäläinen & Arvaja, 2009; Hämäläinen & Häkkinen, 2010

Collaborative Learning Online

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Reality at school?

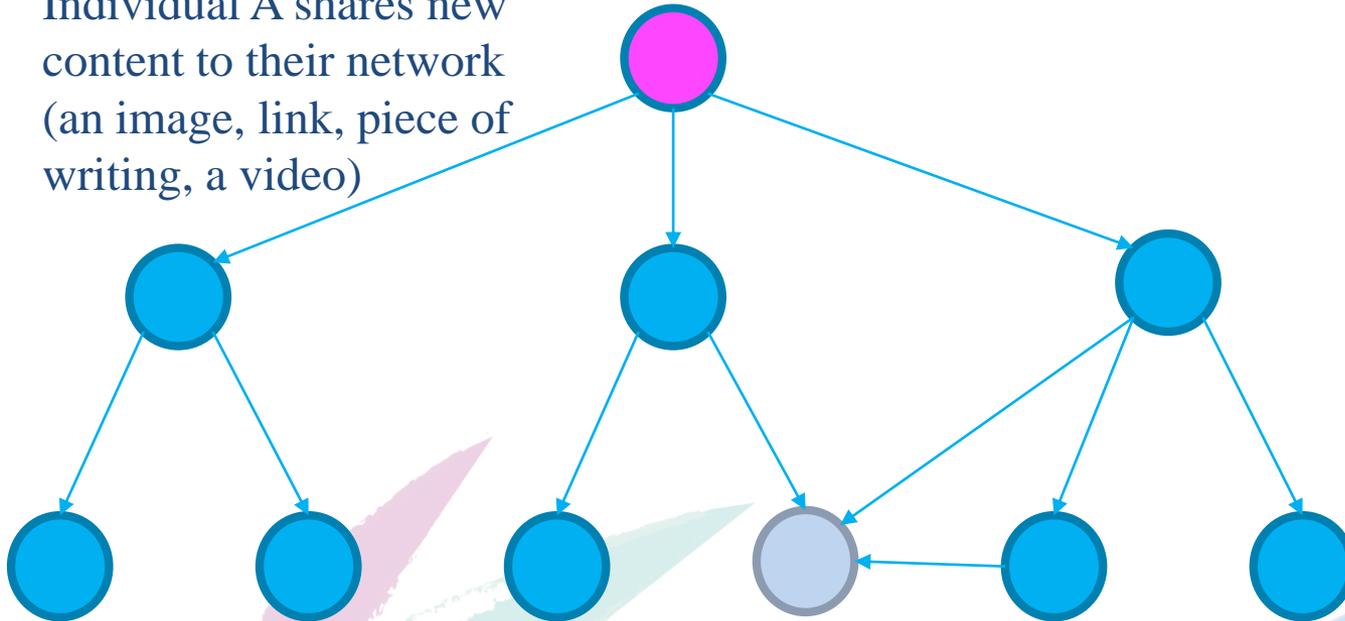
- Freeloaders
- Cliqueing around assignments
- Short and shallow discussions
- Facts over explanations
- Difficulty of asking and conceptualizing
- Difficulty of creating common ground
- Informal and anecdotal knowledge goes largely ignored
- No real need to work together, no real group work

Arvaja, 2007; Arvaja & Pöysä-Tarhonen, 2013; Arvaja, Salovaara, Häkkinen, & Järvelä, 2007; Häkkinen & Järvelä, 2006; Häkkinen, Arvaja, Hämäläinen, & Pöysä, 2010; Hämäläinen, 2008; Hämäläinen & Arvaja, 2009; Hämäläinen & Häkkinen, 2010

Information spreads in a network

Individual A shares new content to their network (an image, link, piece of writing, a video)

There is plenty here you can disagree with...



- Each user evaluates and filters the information
- The more people share the same content, the better the content becomes
- The more people link or like the content, the more popular it becomes in search engines, for example

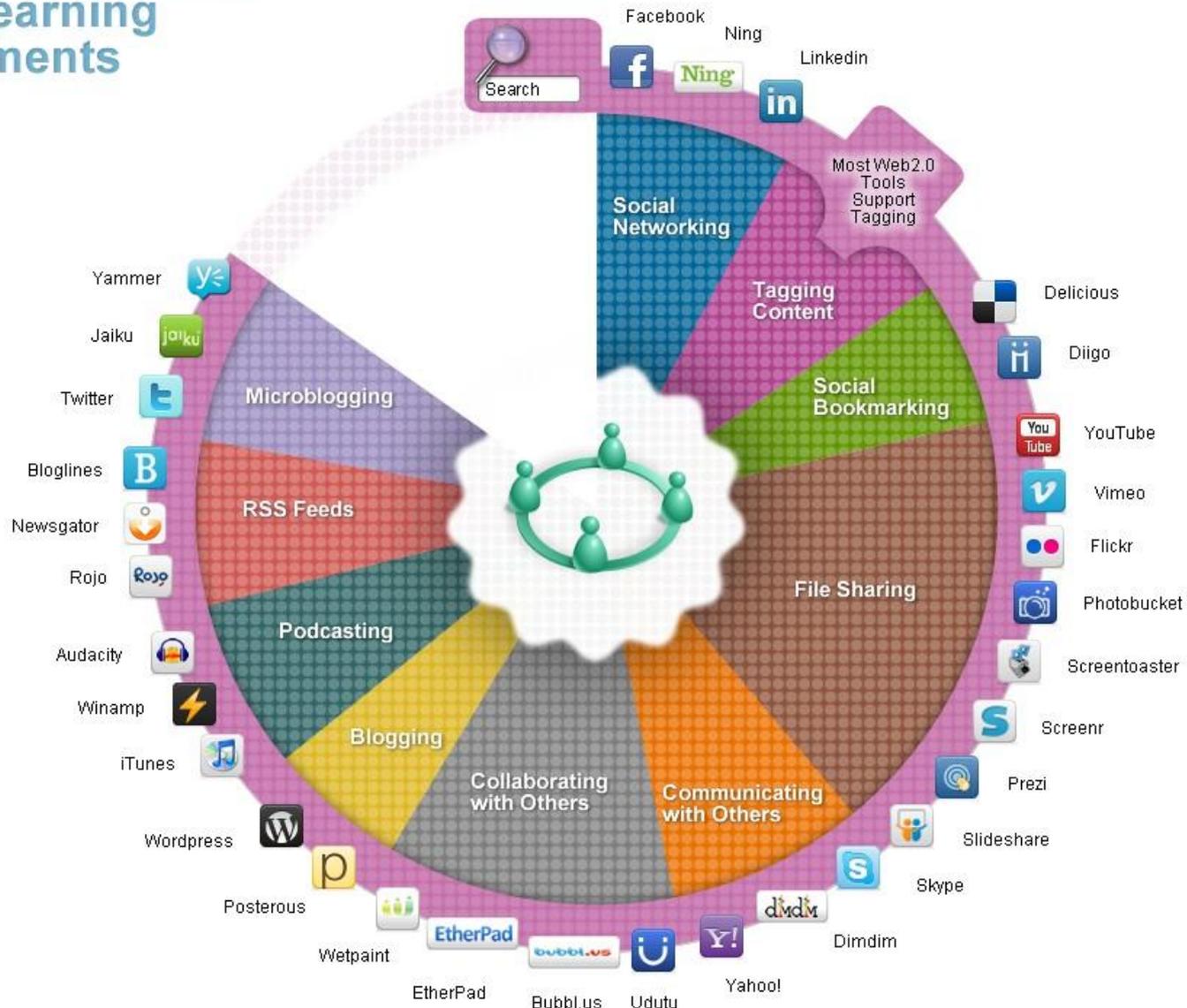
Collaborative Learning Continued

- Instead of fixed **groups**, situational **hives** form (diversity, openness, equality)
- In social media: crowdsourcing, working together, helping a friend, etc.
- Individual effort is small, but the potential gain for a community or another individual can be significant
- People acting as community hubs and bridge-builders are in key positions: quick to form hives to solve complex issues, work by negotiating

Creating an Operational Culture

- Interaction, dialogue, working together, participation, asking questions, attitudes toward failure?, curiosity, knowledge-sharing, patience, exploration, learner-centricity
 - the mode of operation may be new to learners. Transparency, encouragement, explaining the mode of operation are necessary!

Elements for Constructing Social Learning Environments



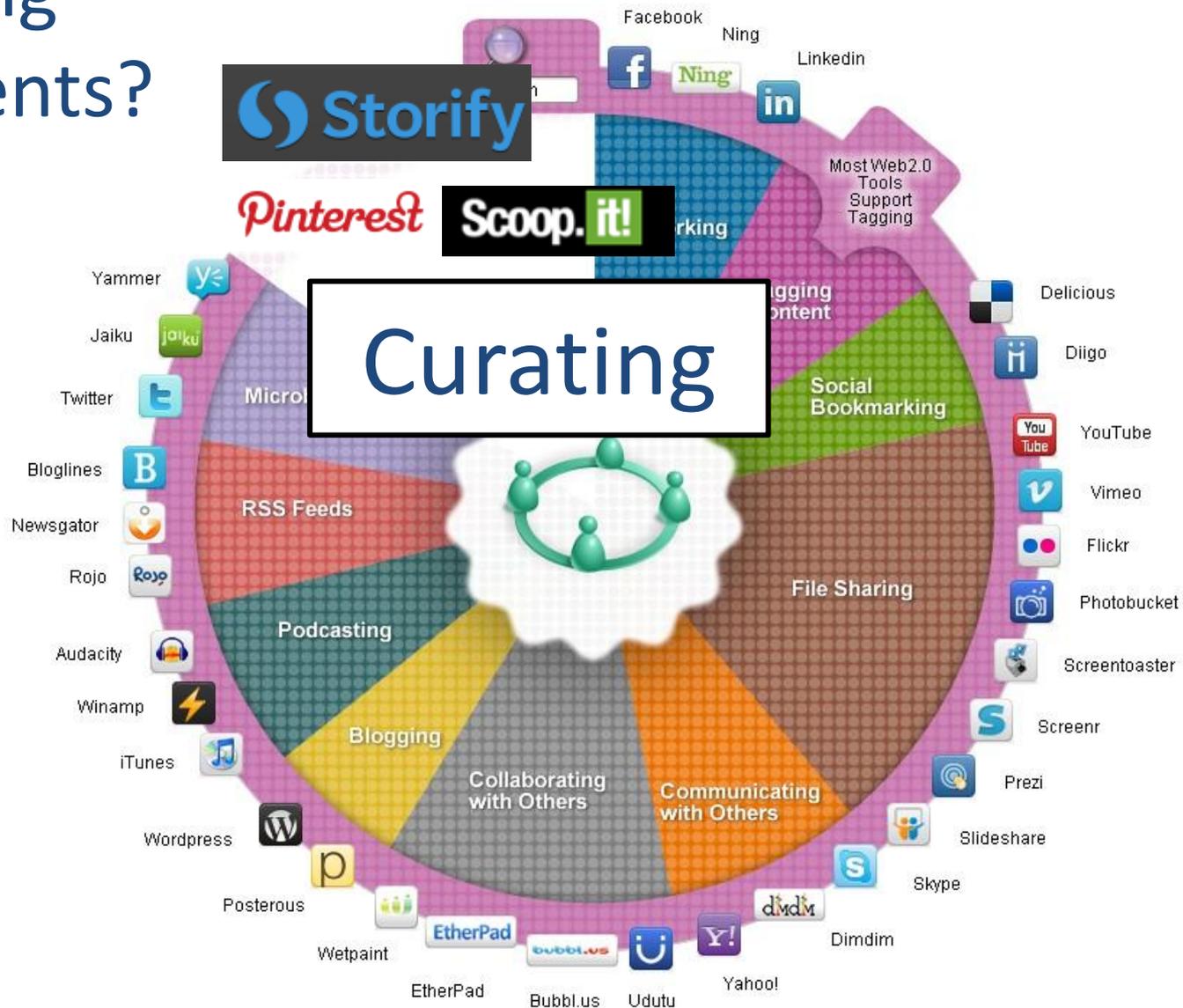
<https://www.upsidelearning.com/blog/index.php/2010/03/10/elements-for-constructing-social-learning-environments/>

Slide by Iiona Laakkonen



Licensed under Creative Commons

Missing elements?



Homework assignment 1/2

- Remember to share your collaboration notes!
- Familiarize yourself with links and materials shared by others regarding collaborative / inquiry-based learning and teaching
- Search and explore: Find a concrete example of how collaborative / inquiry-based learning can be used in education, and share it on Yammer
 - Give reasons for your choice
- Deadline **dd-mm**
- Give feedback on others' examples
- We will continue working on this topic in groups next week!

Homework assignment 2/2

- Read Chapters 1 and 3 from the book Verkko-opettaja by Suominen, R. (In Finnish)
 - pp. 13-20, 31-41
 - Available as an e-book (2013) or a hard copy (2011) from the library
 - Limited number of copies available, please return book or e-book after reading
 - Or read a reading room copy – you are allowed to take copies or photograph pages for your personal use
- Using the book's advice, modify an earlier idea or a design (or part of it) so that it takes place online
- **Be concrete!** What exactly will be done?
- Deadline **dd-mm**

Note! Social Media in Education

- Will you use “official” systems provided by the school, or third-party systems?
- Are individual accounts required for use?
 - Security and individual’s rights?
 - Permissions?
- Does the user have to surrender personal information?
- Help can be found here:
http://www.edu.fi/tvt_opetuksessa/sosiaalinen_media (In Finnish)

Next Class

- **Dd-mm** at **00:00**
- **Online!**
- Make sure you have a working internet connection
- More information will be sent via email prior to the class
- If you are uncertain, come 15-20 minutes early to test your access

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- Arvaja, M. & Pöysä-Tarhonen, J. (2013). Tracing discursive processes of shared knowledge construction in a technology-enhanced higher education setting. *Interactive Learning Environments* 21(4). 321-337.
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- <http://www.slideshare.net/hponka/kuopio-sosiaalinen-mediaopetuksentukena>



Learning Online

Fourth class dd-mm-yyyy

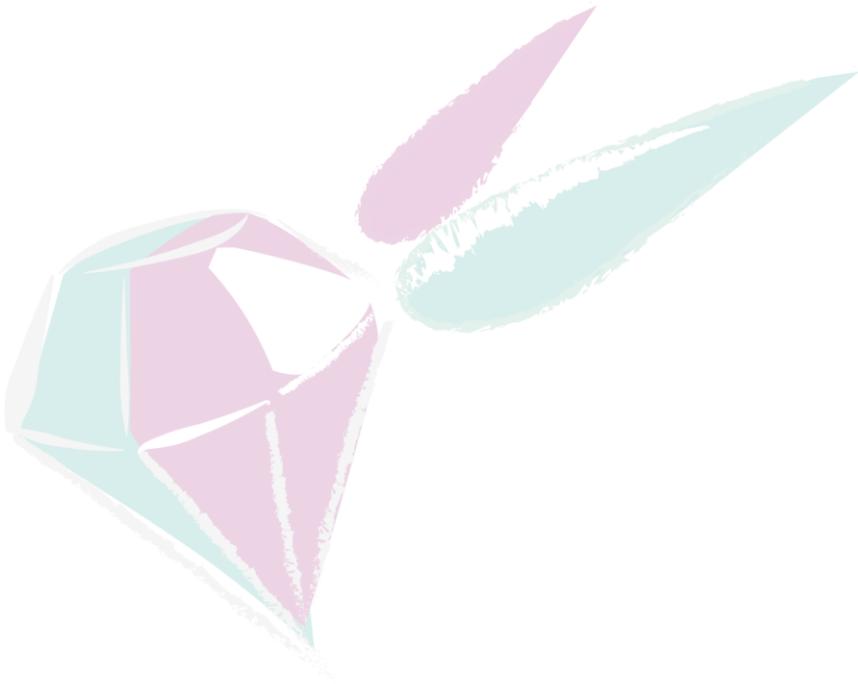
Original slides by Kaisa Hirvonen, Ilona Luukkonen, Tanja Välisalo
Final editing Kaisa Hirvonen

Today's Agenda

- Bits and bobs of learning online
- Discussion: Chat groups
- Learning, materials, and competences
- Group work: Interaction online
- Project information
- Halfway point survey
- Homework assignments

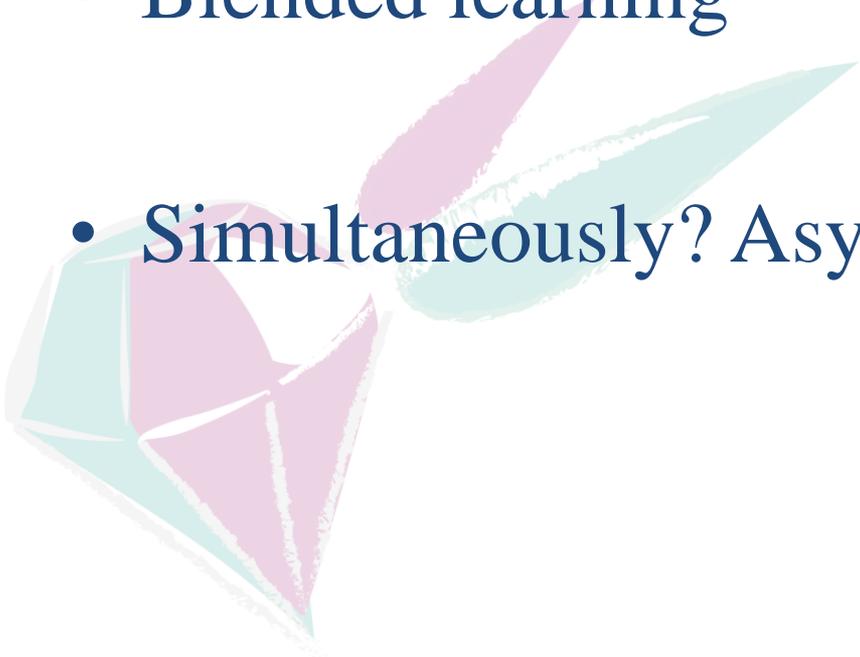
Homework retrospective!

- Did you run into any surprising materials shared?
- What made a material good?



Different Ways to Learn Online

- Online learning
 - Completely independently
 - Collaboratively, in a community
- Blended learning
- Simultaneously? Asynchronously?



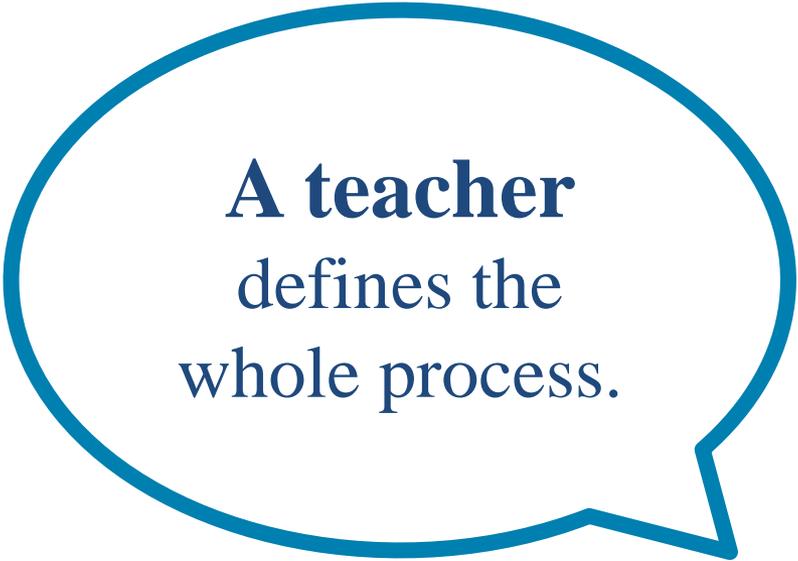
Chat in Groups: Experiences

- What kind of experiences do you have of online learning?
- What were the factors, in your opinion, that most affected your experience negatively or positively?

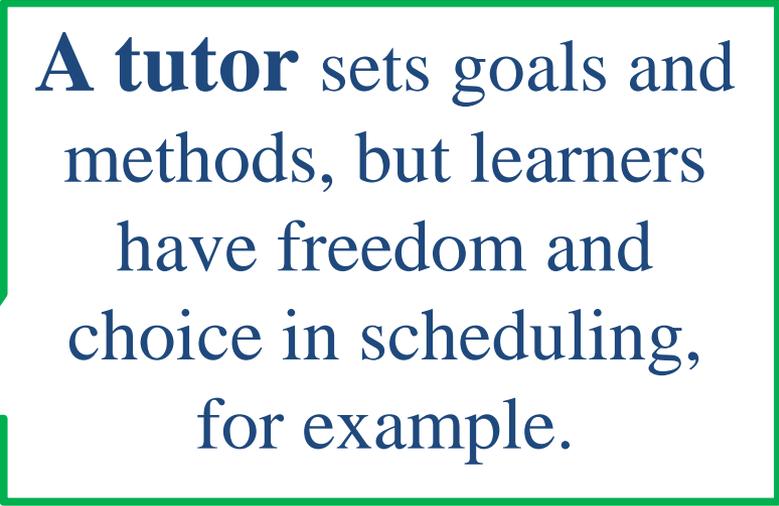
Considerations for Online Learning

- Teacher's role
- Learner competence
- Materials used
- Nature of the activities
- Feedback and assessment

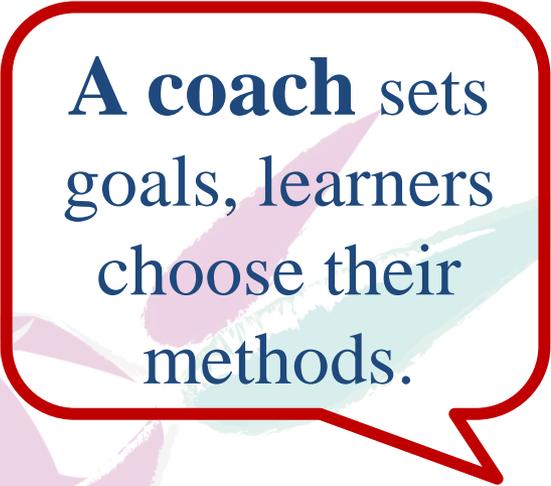




A teacher defines the whole process.



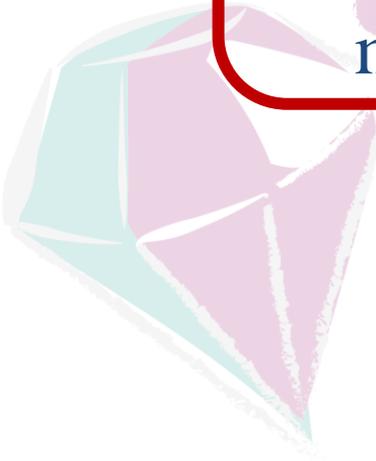
A tutor sets goals and methods, but learners have freedom and choice in scheduling, for example.



A coach sets goals, learners choose their methods.



A mentor is available for help and advice, learners define the process.



The roles of an online teacher
(Suominen, R., *Verkko-opettaja*)

Learner Competences

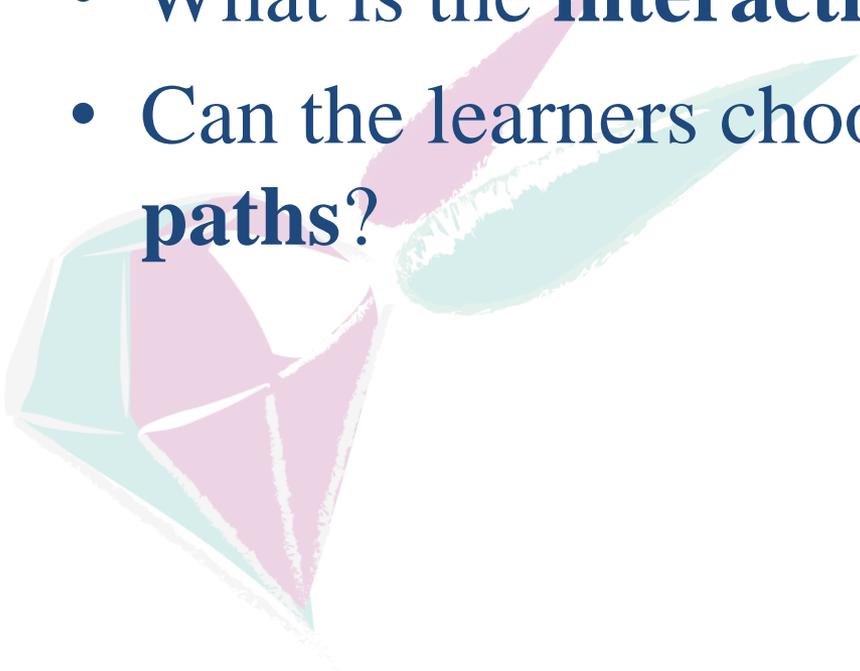
- Can the learners use the tools chosen?
(technical competence)
- Do the learners have the online working skills?
(learning skills, communication skills)
- **How do we support the acquisition of these skills?**

Materials

- How to make easily understandable materials?
 - Online authoring
 - The possibilities of blended learning
 - Must know – good to know – nice to know
- What is our concept of learning in the materials?
- Do we need to pick and choose everything? How could we utilize online resources? Could the learners find, choose, and share a part of the materials?

The Nature of the Activities

- Are the activities **meaningful**?
- Do the activities have a **common thread** or a theme?
- What is the **interaction** like? With whom?
- Can the learners choose their own **learning paths**?



Assessment and Feedback

- ... are a part of the interaction
- How does the feedback **support learning**?
- **When** do you give feedback?
- **Who** give(s) feedback?
- What kind of assessment is needed?
 - Is it needed?
- Is the assessment in line with the goals?

Group Work: Interaction online

- Pick one of the following themes:
 - How to execute a good online conversation? (Group:)
 - How to support doing a group assignment online? (Group:)
 - How to support self-motivated information searching and sharing? (Group:)
- We will divide you into separate rooms using the conference platform. Type your ideas to the Notes-window.
- Return to the shared space at **00:00**

Project (+ 2 ECTS) last minute!

- Teachers have sent in their topics
- **XX** teachers of English, **XX** teachers of German, **XX** teachers of Swedish
 - Topic 1 (language)
 - Topic 2 (language)
 - Topic 3 (language)
 - ...
- Sign up today! Last call!
- Upload your paper to the wiki on **dd-mm**

Halfway Point Survey

- We are at halfway point of the course
- Give your feedback
- Take the anonymous survey by **dd-mm**



Homework Assignment 1/2

- In your home group, reflecting on your conversation today, make a concrete teaching design
 - Create the materials (or an example of them)
 - Write instructions
- Deadline **dd-mm** (TWO weeks from now!)
- Think bigger than usual: you have two weeks and there are multiple members in your group!
Collaborate!

Homework Assignment 2/2

- Consider today's class and write about it on Yammer. For example:
 - How did this class differ from other classes during this course?
 - How did the online learning solutions work out?
 - What would you have done differently?



Further Reading

- Verkko-opettajan ABC

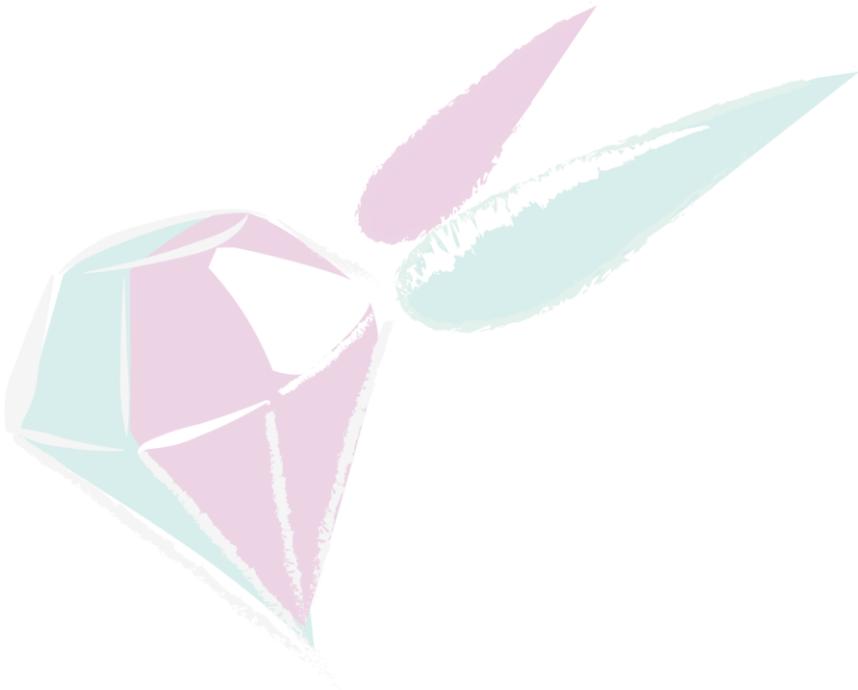
https://publications.theseus.fi/bitstream/handle/10024/41505/Haavisto_Kivipensas_Tervo.pdf?sequence=1 (In Finnish)

- More advice and tips on teaching online



Bibliography

- Suominen, R. (2011) *Verkko-opettaja*.
 - Ebook (2013)





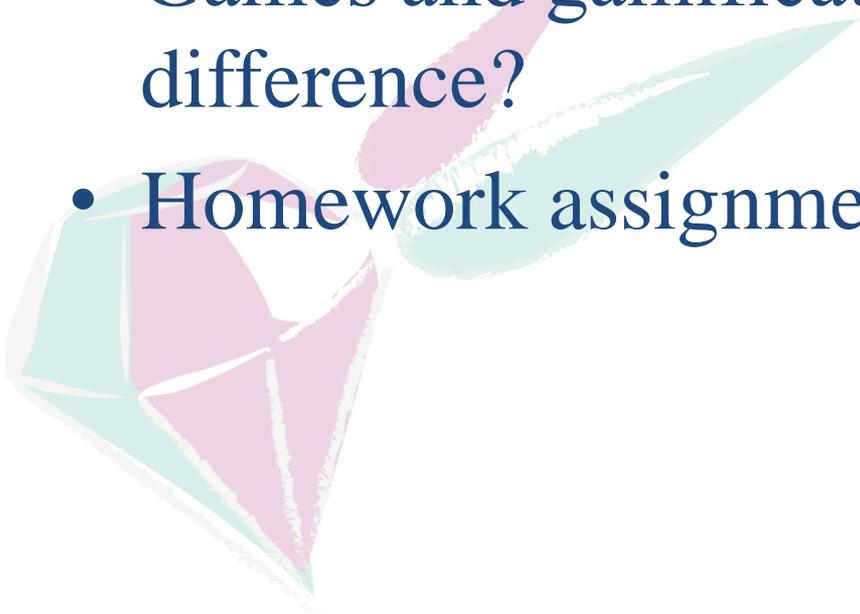
Games and Gamification

Fifth class dd-mm-yyyy

Original slides by Kaisa Hirvonen, Ilona Luukkonen, Tanja Välisalo
Final editing Kaisa Hirvonen

Today's Agenda

- Discussion: Game experiences
- Expert's words: Game facts!
- Group work: Learning game
- Games and gamification? What's the difference?
- Homework assignments

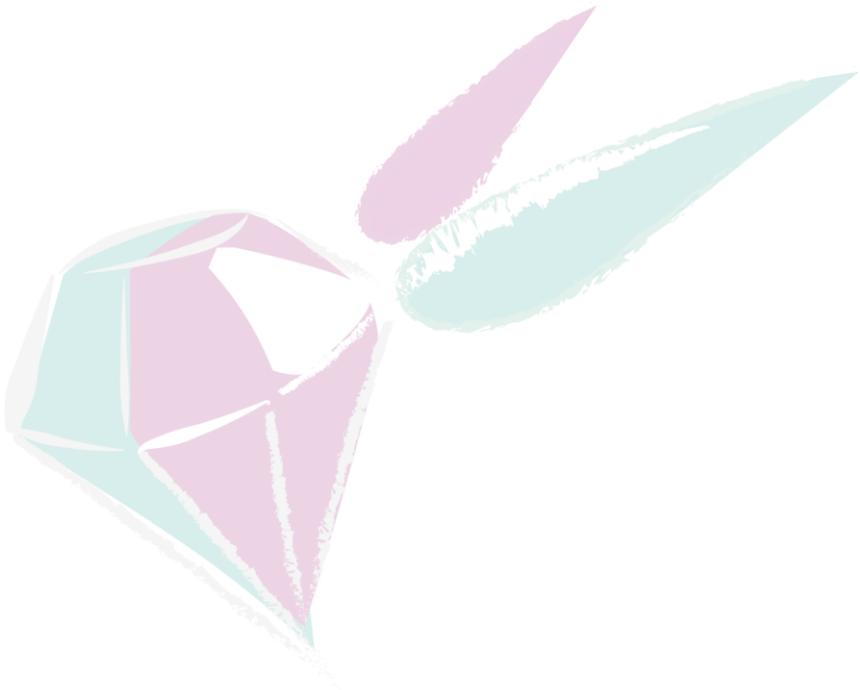


Homework Designs Checked

- Concrete plans
 - What was difficult? What was easy?
 - How did your discussion affect your plan?
- Tutor's notes:



What games do you play?



Did you know that...

- 98.5% of Finns play in some quantity
- more than half (52.5%) play **digital games** frequently

Source: Pelaajabarometri 2013. Target group 10 – 75 –year olds, n = 972.

Who Are the Players?

- Men and women play nearly equally in general (99% vs. 98%)
- Slightly larger percentage of men play frequently (92,8% vs. 84%)
- An active digital gamer is **35 years old on average**

Source: Pelaajabarometri 2013. Target group 10 – 75 –year olds, n = 972.

What kind of learning games have you used in your teaching or played yourself?



→ Digital games or other

Classification of Games Based on Use

Used in education

Designed with pedagogical goals

	YES	NO
YES	Learning games*	Learning games as entertainment
NO	Entertainment games in education	Entertainment games

*Designed together with experts of education

Amano & Nokomura (2012)

Slide by Tanja Välisalo

English editing by Kaisa Hirvonen 8

Pedagogical Approaches

1. Drill and practice
2. Exploratory learning
3. Situated learning



Drill and Practice

- Based on repetition
- Motivating with competition and the game context in general
- “chocolate-covered broccoli”



An Example: Ekapeli

- A group of games for learning basic skills in math, reading and writing
- Developed at the University of Jyväskylä, the Niilo Mäki Institute
- Based on educational research

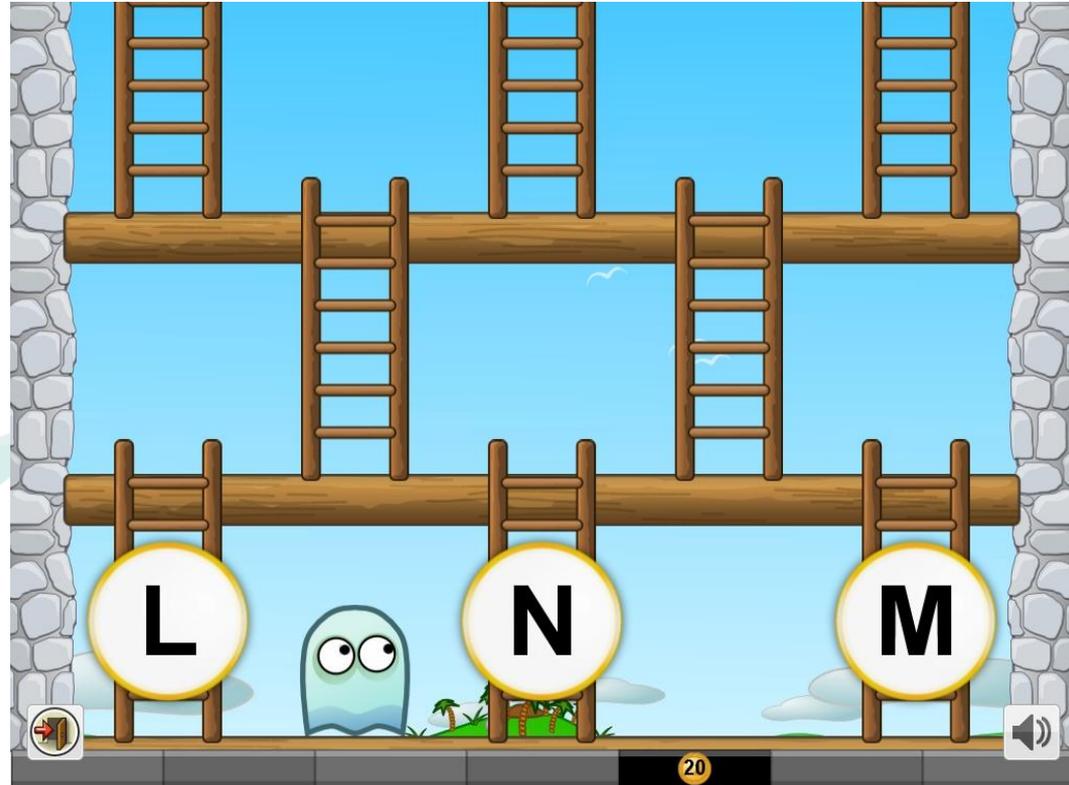


Image: [Ekapeli](#)

Exploratory Learning

- Based on exploration, player is working on a “project”
- Often interdisciplinary e.g. the learning content comes from several different disciplines



An Example: Mediaetsivä (Otava 2008)

- A master tape of a new movie has been stolen
- Player character has to solve the case
- Finnish, literature, media literacy
- Developed in Finland



Situated Learning

“Language is always used from a perspective and always occurs within a context. There is no “neutral” use of language. Meaning is socially-constructed within Discourse communities.”

- James Paul Gee

How could this be used in learning and teaching?

“Games always situate the meanings of words in terms of the actions, images, and dialogues they relate to, and show how they vary across different actions, images and dialogues. They don’t just offer words for words. School shouldn’t either.”

- James Paul Gee

Numerous Definitions for Games

“A game is a form of play with goals and structure.”

- Kevin J. Maroney

“When you strip away the genre differences and the technological complexities, all games share four defining traits: a goal, rules, a feedback system, and voluntary participation.”

- Jane McGonigal

... but they all include:

- Rules
- Goal
- Interaction
- Meaningful choices
- Theme/story

Why Do We Play Games?

Taxonomy of game pleasures (LeBlanc 2004)

1. Sensation



Why Do We Play Games?

Taxonomy of game pleasures (LeBlanc 2004)

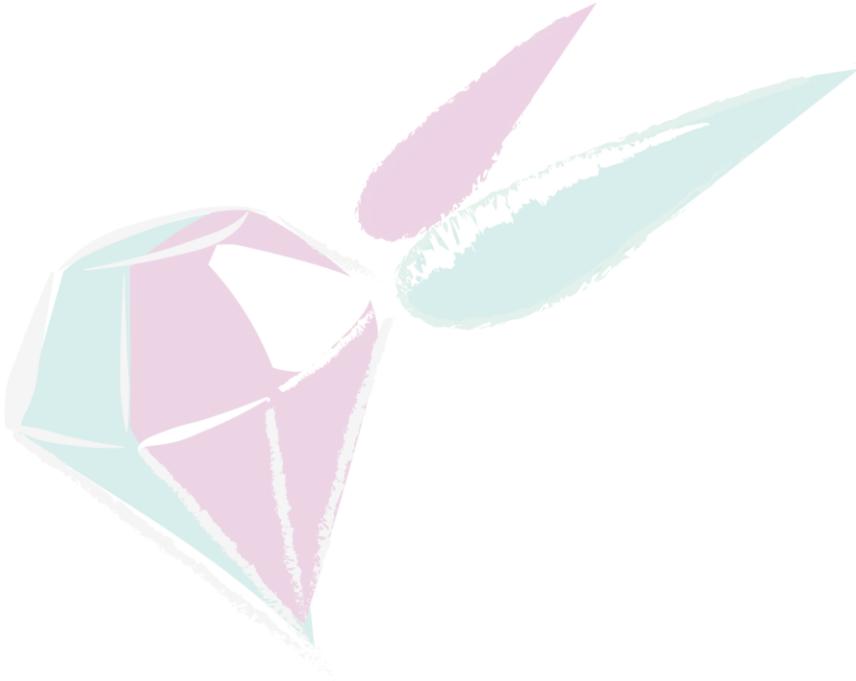
1. Sensation
2. Fantasy



Why Do We Play Games?

Taxonomy of game pleasures (LeBlanc 2004)

1. Sensation
2. Fantasy
3. Narrative



Why Do We Play Games?

Taxonomy of game pleasures (LeBlanc 2004)

1. Sensation
2. Fantasy
3. Narrative
4. Challenge



Why Do We Play Games?

Taxonomy of game pleasures (LeBlanc 2004)

1. Sensation
2. Fantasy
3. Narrative
4. Challenge
5. Fellowship

Why Do We Play Games?

Taxonomy of game pleasures (LeBlanc 2004)

1. Sensation
2. Fantasy
3. Narrative
4. Challenge
5. Fellowship
6. **Discovery**

Why Do We Play Games?

Taxonomy of game pleasures (LeBlanc 2004)

1. Sensation
2. Fantasy
3. Narrative
4. Challenge
5. Fellowship
6. Discovery
7. Expression

Why Do We Play Games?

Taxonomy of game pleasures (LeBlanc 2004)

1. Sensation
2. Fantasy
3. Narrative
4. Challenge
5. Fellowship
6. Discovery
7. Expression
8. **Masochism**

Why Do We Play Games?

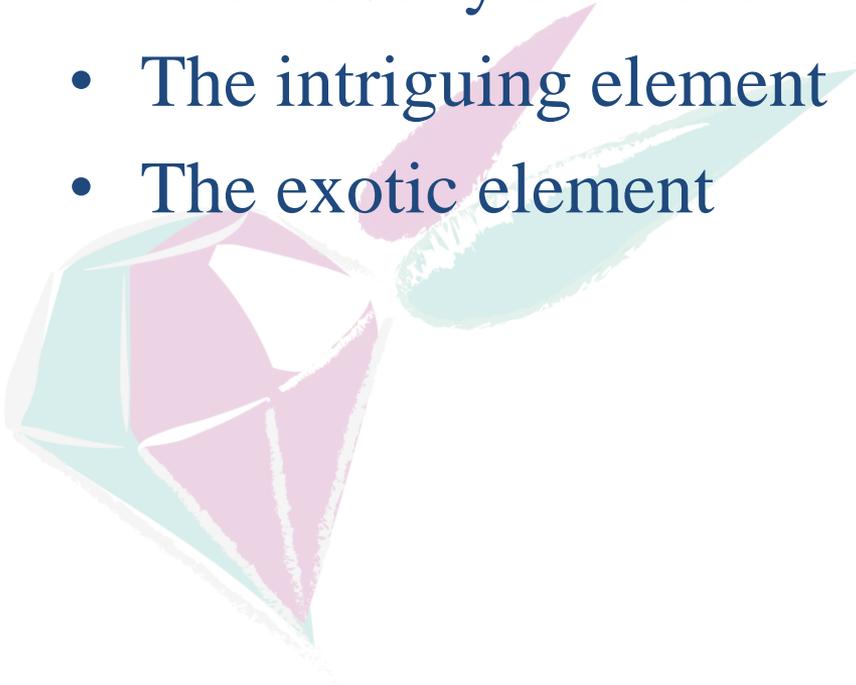
Taxonomy of game pleasures (LeBlanc 2004)

1. Sensation
2. Fantasy
3. Narrative
4. Challenge
5. Fellowship
6. Discovery
7. Expression
8. Masochism

Compare: Creating Motivating Assignments (Dörnyei 2001)

Motivating features:

- Challenge
- Interesting content
- The novelty element
- The intriguing element
- The exotic element
- The fantasy element
- The personal element
- Competition
- Tangible outcome
- Humor



Group Work: Learning game

- **Design a learning game** (**XX** min to complete) that meets all of the following criteria:
 - Can be realistically done
 - Minimum of two players
 - Has a theme or a story
- Create rules for your game
- Come up with a name
- Keep in mind the **definition of a game and the taxonomy of game pleasures**

In Short: Definition and Taxonomy

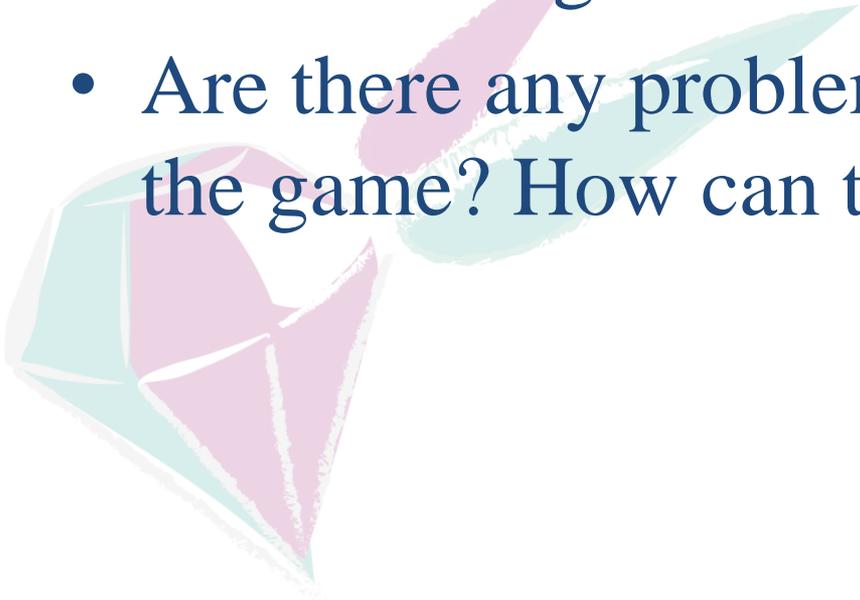
- Rules
- Goal
- Interaction
- Meaningful choices
- Theme/story

1. Sensation
2. Fantasy
3. Narrative
4. Challenge
5. Fellowship
6. Discovery
7. Expression
8. Masochism



Group Work: Debrief

- Introduce your game: name, theme, and rules
- Describe the progression of the game
- What is the goal?
- Are there any problems or challenges in using the game? How can those be overcome?



Games as motivators?



Killers

Defined by:
A focus on winning, rank, and direct peer-to-peer competition.

Engaged by:
Leaderboards, Ranks



Achievers

Defined by:
A focus on attaining status and achieving preset goals quickly and/or completely.

Engaged by:
Achievements



Socialites

Defined by:
A focus on socializing and a drive to develop a network of friends and contacts.

Engaged by:
Newsfeeds, Friends Lists, Chat



Explorers

Defined by:
A focus on exploring and a drive to discover the unknown.

Engaged by:
Obfuscated Achievements

The Central Elements of a Game

Meaningfulness

Mastery

Autonomy



Simplified Reality and Freedom of Action



Gaming – only entertainment?

- Media skills and cultural knowledge
- Concept of learning
- Content of learning: only knowledge is important?



Useful, boring and important



Fun waste of time

What is gamification?

Bah! A cheap trick to make people do things they do not want to do.

I think it's more like building a meaningful and motivating learning path.



Easy or essential?

Gamification \neq scoring



Summary

Learning by gaming

Learning
games

Entertainment
games

Gamification

Using game elements
in learning and
teaching



Summary

Learning by gaming

Learning
games

Entertainment
games

Gamification

Using game elements
in learning and
teaching

Game design
as a means of
learning

Homework assignment 1/2

- Search and explore: Find a learning game that you could use in your teaching
- Analyze its pedagogical usability. Base your analysis on the course materials and your previous knowledge. Reflect also on **how** the game could or should be used in education.
- Deadline on **dd-mm**

Homework assignment 2/2

- Continue developing the game idea you started in groups today
- Make sure it is ready to be used and well defined
- Deadline on **dd-mm**



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- Gee, James Paul. Good video games and good learning.
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Language, learning and technology

Sixth class dd-mm-yyyy

Original slides by Kaisa Hirvonen, Ilona Luukkonen, Tanja Välisalo
Final editing Kaisa Hirvonen

Today's Agenda

- Homework Retrospective
- Fish bowl + debrief
- Summary of the course
 - Discussion
 - Questions answered
 - Future?
- Final assignment
- Project

Homework Retrospective: Games!

- In mixed groups, give the other group members a short introduction to your game
 - Name of the game
 - Aims: how to win? What is learned?
 - Quick-and-dirty rules summary
- Could you use these games in your own teaching?

Discussion: Fish bowl

- Chairs will be arranged into two concentric circles
- The people sitting in the inner circle will hold a conversation
- **One chair is always kept vacant**
- When somebody in the outer circle has something to say, they will sit down in the vacant chair
 - Consequently, one already in the inner circle must vacate to the outer circle

Discussion: Fish bowl - characters

- Pre-prepared characters will be handed out on paper slips
 - Do not show your role to others
 - Prepare to play your role in the discussions
- Topics will be given on the following slides
 - We will take a few minutes to prepare for each
 - Remember to think about your character and what they would say

Fish bowl topic # 1

The net generation does not
have the patience to concentrate
on school



Fish bowl topic #2

Schools should concentrate on learning instead of technology



Fish bowl topic #3

Playing games improves
children's learning skills



Fish bowl topic #4

The skills teachers need have
changed completely



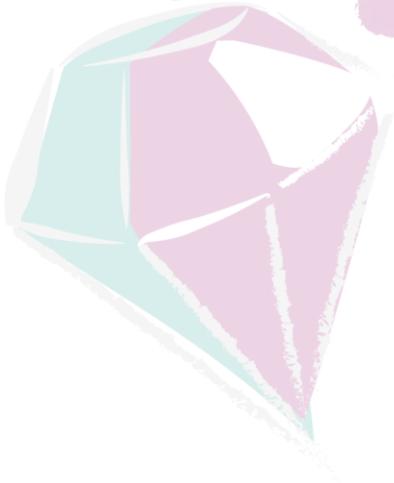
Discussion: Debriefing the Fish bowl

- What did you and your character disagree on?
- Would you have said something differently?



Discussion: Debriefing the Fish bowl

- How did you feel about this kind of discussion while playing a role?
- Did playing the devil's advocate raise unexpected feelings or epiphanies?
- Could this also be done online?



Summary – All kinds together



**What will you take with you
from this course?**



**Do you have any questions
related to the course topics
you would like answered?**



**How are you going to keep
developing your skills after
the course?**



Final assignment: Portfolio

- Create a teacher's portfolio that consists of three parts
 1. Teacher's philosophy regarding your relationship with technology
 - You can continue one created for earlier studies
 2. Ope.fi levels
 - Find your level at opefi.wikispaces.com
 3. A collection of your best designs for this course, combined with some of your favorites from the others
 - Remember copyrights! Check for CC-licenses!
 - Minimum of five altogether
 - Use links where necessary, but take screenshots and explain your choices!
- **Deadline dd-mm**, deliver via email to tutora@tutor.net
- Fill in the final survey, especially the self-assessment segment!

Hidden Slide: Final assignment (option 2): Teacher's Philosophy

- Write your personal teacher's philosophy regarding your relationship with technology
- You can continue one written for previous studies
- Familiarize yourself with teacher's levels on opefi.wikispaces.com and place yourself on a suitable level
- Fill in the final survey online! At least self-assessment is required.
- Deadline **dd-mm**
- Deliver via email to **tutora@tutor.net**

Project

- Get in contact with your project team if you haven't yet
- Work on your idea paper, deadline **dd-mm**
- Final deadline **dd-mm**
- Come to the seminar on **dd-mm** at **00:00**
- If you have any questions, contact **tutora@tutor.net**

**Thank you all for the
course!
Good luck in the future!**



Pre-course Survey

1 Expectations

What do you want to learn during the course?

Write your answer here

What are you most looking forward to?

Write your answer here

2 Previous experience

What kind of experience do you have of the following technological tools, devices or working methods? You can check several boxes.

	I have never used this tool or method.	I have tried this.	I use this regularly.	I use this, and I am proficient in it.	I have used this in teaching.
language studio	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
smart boards	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
mobile devices (phone, tablet)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ICT studio / laptops in classroom	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
co-authoring tools (e. g. Google Drive)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
online learning materials	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
online videos	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
my personal website	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
internet search engines / searching information online	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
online discussion boards or chats	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
wiki authoring	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
writing a blog	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
other social media applications, what?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Write your answer here and check the box(es) applicable

Which tools or devices do you especially hope to get technical skills in?

Write your answer here

3 The use of your answers to surveys during this course

yes no

I accept that my answers to surveys during the course can be used for research purposes.

Halfway Point Survey

1 Highlights

What do you consider the most important thing you have learned or experienced during the course so far?

Write your answer here

2 Points of development

In your opinion, how could the course be further developed?

Write your answer here

3 Positive elements

What have you been satisfied with during the course so far?

Write your answer here

Self-assessment and Course Feedback

1 Self-assessment

How would you grade yourself for this course?

Choose one.

Elaborate on the reasons for your choice of this grade in particular.

Write your answer here

What would you do differently if you could start the course over again?

Write your answer here

2 Course methods and activities

How do you feel about the following statements? Choose the most suitable answer.

	Fully agree	Agree	Disagree	Fully disagree	Undecided
The instructions to assignments were sufficient and clear.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
The level of the assignments was suitable for a course of this level.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Finishing the assignments helped me process course topics and promoted learning.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Wiki space was a functional learning environment, and its use was easy and pleasant.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Yammer was a functional learning environment, and its use was easy and pleasant.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

Would you like to give further feedback on the course methods and activities? You can also further explain your choices to the multiple choice statements above.

Write your answer here.

3 The course as a whole

How do you feel about the following statements? Choose the most suitable answer.

	Fully agree	Agree	Disagree	Fully disagree	Undecided
My interest in the topics discussed during the course has increased.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
I believe that this course will be useful for my future career or studies.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

As a whole, I am satisfied with the course.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
The ECTS yielded by the course were in line with the amount of work required.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
The course pace suited me fine.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

What was good about the course as a whole?

Write your answer here

How would you further develop the course?

Write your answer here

Self-assessment for the Project

1 Self-assessment

How would you grade yourself for this part of the course?

Choose one.

Elaborate on the reasons for your choice of this grade in particular.

Write your answer here

What would you do differently if you could start the project over again?

Write your answer here

2 Project participation

How do you feel about the following statements? Choose the most suitable answer.

	Fully agree	Agree	Disagree	Fully disagree	Undecided
I understood the project instructions or asked for clarification.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
My group worked well together.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
The work was evenly distributed between all student participants.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
I feel like I did at least my share of the work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Our in-service teacher answered questions and described his or her needs. (Undecided if not applicable.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
I received sufficient help and support from the tutors and my group members.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

Would you like to comment your project further? You can also further explain your choices to the multiple choice statements above.

Write your answer here.

In-Service Teacher's Feedback

1 General feedback

On a scale from 1-5, how would you grade your experience participating your project?

Choose one.

Elaborate on the reasons for your choice of this grade in particular.

Write your answer here

In your own words, how would you describe the students working on your project?

Write your answer here

2 Usefulness and ease of participation

How do you feel about the following statements? Choose the most suitable answer.

	Fully agree	Agree	Disagree	Fully disagree	Undecided
The project was useful and gave me what I had hoped for.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
The student(s) working on my problem got to know my idea thoroughly.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
The project group worked well together.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
The student(s) made it easy for me to answer their questions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
I feel like I gave the student(s) all the answers and clarification they requested.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
I would be interested in participating a similar project again.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Participating in the project was easy and did not require too much of my time.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

Would you like to give further feedback on the project? You can also further explain your choices to the multiple choice statements above.

Write your answer here.