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eLearning Concept for Finnish Grammar

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The purpose of this thesis is to design and describe the process of producing an interactive application to aid in the learning of the Finnish language, specifically grammar, for non-native adult learners.

The thesis is divided into different sections: the background of e-learning: the types of e-learning options currently available for the Finnish language, and finally the process of developing the application prototype.

The outcome of the process is a preliminary prototype, which could easily be used as a basis for a fully functional application. The application requirements were based on findings taken from interviews carried out with language teaching professionals, adult learners who are now fluent in Finnish and students who are currently learning Finnish.

Keywords	e-learning, Finnish, second language acquisition

Contents

1 Introduction

Q: How do you get to Carnegie Hall?
A: Practice, practice, practice. [1,335]

Mobile phones are ubiquitous. As a result, nobody seems to looks up anymore. The world is full of people who have adopted a new posture that allows them to stare at, and interact with, the screens in their hands as they distractedly drift through life. This distraction continues in the classroom: with more computing power in their pocket than it took to get Americans to the moon, many students now find it all too easy to go to the Internet when they could instead be concentrating on their studies. This thesis follows a process whereby an attempt was made to utilise the presence and power of mobile devices for e-learning, specifically for learning Finnish grammar.

The Finnish language is easy to learn. The main problem is that there is so much of it. From personal experience, Finnish language is taught to foreigners in 3-hour bursts of grammar, in a classroom setting, punctuated by coffee breaks and swapping “How did you end up in Finland?” stories. The idea is that, in the limited contact time, the teacher will explain from a book how the building blocks of grammar fit together, and then in their free time the students can work on their vocabulary, by looking up words in a dictionary. Already it is common to see that students have started to make use of mobile learning here, with most smart phone owners using multi-lingual dictionaries on their phone. Ultimately technology is a tool, and if its power can be harnessed in new ways that can supplement traditional classroom teaching and learning, then perhaps the experience of learning Finnish could be improved as a result.

The goal of this thesis was to identify elements of the Finnish language that could serve as the basis for features of an application. A user-interface would then be designed to house these features, and subsequently implemented in a prototype. The candidate language features chosen to work with were the partitive and local cases: since the partitive is integral to the Finnish language, and both are fairly simple and somewhat mechanical to learn. The basis for the requirements of the prototype stem from findings taken from interviews with people who teach Finnish to, or have learned Finnish as, adults. Chief amongst these findings is that learning a new language takes a lot of dedication, hard work, and as the old joke goes: practise, practise, practise.

2 A yearning for e-learning

2.1 From learning to e-learning

For the purposes of this text, e-learning, initially at least, can be thought of as the dissemination of structured information via electronic technological means. First, we must consider that teaching and learning has always utilised technology and tools: drawing a circle in the sand with a stick to illustrate a point is an example using a tool to teach, a pen is a technological tool, and the most widely used technology for teaching has been the book. The paper and ink of printed books are, and have been, a formidable delivery system for information and ideas. So great that the form, in the hundreds of years since its production was revolutionised by the Gutenberg press, had only one major improvement: the paperback, which made books cheaper to produce, smaller, more lightweight, and more portable [2]. Recent technological advancements, have brought new delivery systems for ideas and information, and a new update to the form that books take: eBooks. Now the content of a book can be experienced through a screen, either on a desktop or in your hand on a mobile device. Mobile technology has advanced to the point that devices can browse and access thousands of titles stored in a digital format, often not on the device itself but on a networked location, taking up practically no physical space in your life.

Teaching and learning has naturally evolved over time too, and this evolution has a rough symmetry with that of the book technology, as figure 1 illustrates. Primarily taking physical manifestation and available only to small, predominantly male, groups: an approximation of the educational ideal of Ancient Greece has been the basis of western teaching since; but just as the book left its tactile roots and became a digital asset so too has education, and this is where e-learning comes in. Initially e-learning systems were merely versions of traditional school learning, where instruction was delivered to students at a predetermined pace in a curriculum designed by teaching professionals, but now in an electronic format, either online or on physical media, such as a cd-rom. E-learning was not meant to replace traditional teaching and learning, but rather complement it, often within the framework of a larger course delivered in a traditional setting. A typical experience for the learner might be that a window opens on the computer, some information is shown, then a quiz is taken and a grade is given: a grade which would then contribute a percentage of the grade of a conventional course. The next phase for e-learning was tutor led courses, where there was some level of per-

sonal support for learners. The course contents would be posted to an online platform that would also house a course calendar, assignment submissions and news announcements etc, and a real life tutor would reply to any comments and messages from their students; Metropolia's own Tuubi portal and the popular open source platform Moodle are examples of software that can facilitate this kind of e-learning.

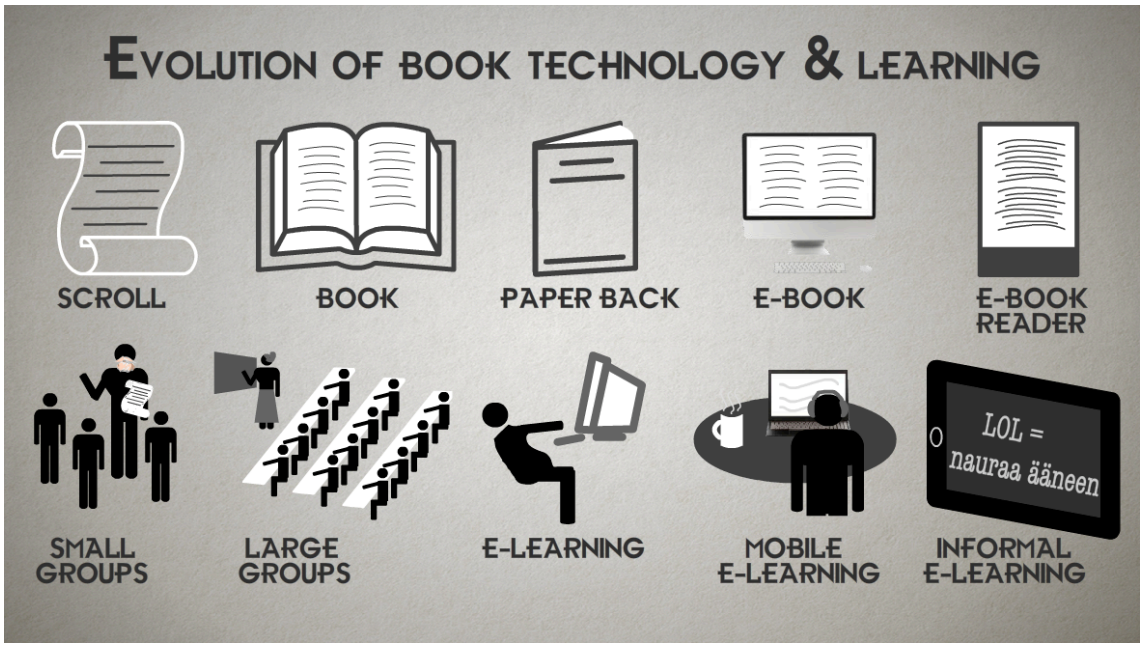

Figure 1. The evolution of book technologies and learning

The last 6 years have seen a dramatic paradigm shift in online content; from the passive viewing of static content that characterised early online activities to the so called 'Web 2.0'; which relies on user generated content and new tools to facilitate interaction and collaboration amongst users. Just as changes in book technology allowed e-learning to came into being, the new Web2.0 has brought rise to e-learning 2.0, which has been defined in the following way:

> e-learning 2.0 is the idea of learning through digital connections and peer collaboration, users / learners are empowered to search, create, and collaborate, in order to fulfil intrinsic needs to learn new information. [3]

Practically, for the learner, this means that by using Web 2.0 tools, like Social Networking Sites (SNS), blogs, wikis and video sharing sites, to create content as part of the learning process, content that is then later viewed and used by other learners, learning becomes a collaborative and social activity. Learners learn by doing in a people oriented context, as opposed to the more passive absorption of knowledge in a content

oriented context that was typically seen in early e-learning environments. Since the learners are producing their own content, it can be said that there is a distributed authorship amongst any e-learning 2.0 community; a principle feature of this is that there is an abbreviated gestation period for new content. Whereas a traditional text-book, targeted to an audience numbered in the thousands, can take a small team of people 2-3 years to produce and get published [4,5], hundreds of contributors can add comparable information to a knowledge bank in a matter of months, aimed at and tailored to different styles of learning and different sizes of audiences.

Finally, some mention must be made of the informal e-learning that mobile technology affords. This is where any learning that takes place does so under conditions that do not resemble formal learning, there is not necessarily a specific curriculum or teacher or feedback or testing; instead the learner is in control of a more varied set of circumstances in which learning takes place. Classic examples of informal learning are first language acquisition or the learning of manners and cultural norms, which seem to happen naturally in life. More recently, using a mobile device to find Swedish language phrases whilst working in a café in order to improve tips is an example of spontaneous informal e-learning. Another even more casual method of informal e-learning can be described as a kind of digital flâneurism: where your fingers take you on a journey through the Internet with no specified location or intended learning outcome; a small chunk of time spent following encyclopaedia articles or watching how-to guides on a video sharing site on subjects that you were not necessarily aware of being interested in. In these ways, more emphasis is placed on the learners role in the educational process, and ideally a students education becomes their own responsibility and to a greater extent learner led. This idea is not necessarily new, as the renowned educationalist John Holt noted in the 1980s, “Learning is not the product of teaching. Learning is the product of the activity of learners” [5]. These new technologies potentially could introduce a new phase in education, depending on the efficacy of their deployment: however, to think that these technologies represent a clean break from old formal learning styles, as the suffix ‘2.0’ suggests, seems premature since many learners, I include myself in this group, require structure and supervision when undertaking learning. Additionally it is typical that informal language e-learning for adult learners takes place alongside more traditional learning activities, like classroom learning.

These changes over time for education are to be expected, since it is generally accepted to be natural to want to learn with the media of the time. This is why people now read from tablets made of wiring and circuitry rather than from tablets made of stone.

2.2 E-learning characteristics

What follows is a discussion of the characteristics of e-learning that make it beneficial to learners and teachers, along with some analysis of the social impact that e-learning can have.

2.2.1 Location independent learning

One of the principle advantages of e-learning is the ability of different learners to gain access to the same materials but in different settings. This means that students do not have to travel to a specific place to learn, and there are no rent costs for physical classroom space.

Despite saving time and money, not going to a specific place potentially has its drawbacks. With the advent of mobile computing and ubiquitous Wi-Fi came the arrival of new problems, chiefly the absence of the tactile social aspect of e-learning. If learning takes place at home, it can be a positive if the weather is poor and the home is comfortable, but this is not always the case – for many students going to school can be a respite from a difficult home environment, or at the other extreme, the home is so comfortable that no work gets done. Secondly, despite the presence of social tools within e-learning 2.0 platforms, message boards, live chat etc, social congregation is something that cannot be fully simulated online, for example, there is something about a sense of humour that cannot be expressed properly on a message board or chat room. Talking to and sharing lunch with classmates is a huge part of scholastic life, these social connections are a way to reinforce a feeling of belonging to a group, that if otherwise lacking may lead to isolation and an increased likelihood of dropping out of a course. Although, it is also true that most social interactions in the classroom are digressive in nature, that they serve to draw attention away from the subject being studied, these social interactions remain a crucial factor in whether or not a student remains on a course [6, 35].

Figure 2. Computer users work and network in a public space [7]

Lastly, there is the anti-social aspect of e-learning, or more accurately that of mobile technology and its enabling of computing to play a role in our public lives. Even five years ago laptops were something rarely seen outside the office, but now everyone seems to have a mobile phone, a laptop, or tablet or all three. If you visit a café during the day, it is likely to be dominated by single people and all of their computing equipment, as shown in figure 2. Often they will be wearing headphones to complete the 'wired-in' look. Using a computer is isolating, immersive and distracting in a way that reading a newspaper or book in public is not. When engrossed in a virtual world presented on your screen it can make experiencing the physical reality around you difficult, like the reality of other people looking for a seat, for example. Until recently it would not have been considered socially acceptable to check your emails at a restaurant or check your phone in the cinema, but this is now the world we live in: where social networking online can take precedence over socialising with those physically nearby.

2.2.2 Time independent learning

Content can be studied at the student's convenience, not only in the sense that class starting times are no longer a factor, but that the speed of the course and when the course is offered are no longer potential barriers to learning. Practically, this means that studying can take place, as the knowledge is required, as opposed to months and months beforehand, and also outside of the normal 9-5 classroom hours.

Communication and collaboration are integral to formal e-learning [8]. However, different students working at different speeds through course material would not make good candidates for collaborative teamwork. Synchronous communication is by definition time sensitive, but neither is asynchronous communication totally free of time restrictions, for example: it would not be beneficial to answer questions or work together on a specific project if the reaction time is staggered by days or weeks. Indeed it is my experience that formal e-learning courses all seem to have concrete milestones and deadlines that exert pressure on a student's timetable. On the other hand, informal e-learning can make use of short bursts of downtime, and can help bridge the gap between formal learning and the lifestyle of the learner. One point to note here in favour of the time independent nature of e-learning is that it can be embarrassing and awkward to have to revise things you should already know in a classroom: it is valuable therefore to be in control of content and when it is being viewed. As Salman Khan, founder of the video-based educational website the Kahn Academy, has said, "The worst time to learn something, is when someone is standing over your shoulder going, 'Do you get it?'" [9]. If a student can privately view lessons in their own time, and control the speed of the lesson by rewinding and re-watching problematic sections then learning can take place at a faster rate.

2.2.3 Flexible learning content

It is easy to update electronic content; this means that new information can be quickly added to any e-learning course, ensuring that the study material is up to date. In e-learning 2.0 systems, where content can be user generated, the amount of material can multiply at a fast rate. Adaptive learning, a subsection of e-learning, also utilises the idea of flexible content, where users go through a learning path customised and personalised for themselves.

Many formal e-learning courses present a somewhat restricted set of features to use; this is because producing content is very time consuming and therefore expensive. Similarly, the production of a system that supports adaptive learning is a very complex task and therefore expensive too. If it is considered that one of the ideas behind e-learning is that it will save money when compared to traditional learning and teaching, then we can see that flexible content can be a double edged sword: potentially very powerful, but also potentially bad for business by way of its expense; and in business, if it doesn't make money it doesn't make sense. This is why e-learning 2.0 that takes

advantage of learner generated content can seem attractive, but can free content being generated by users really compare to content produced by an expert? Many believe that e-learning 2.0 suffers still from the perception that the quality of user-generated content is not of a high standard [10], though Wikipedia, an immensely popular site for informal e-learning and a user generated content encyclopaedia, has a reported accuracy level on a par with printed peer-reviewed encyclopaedias [11].

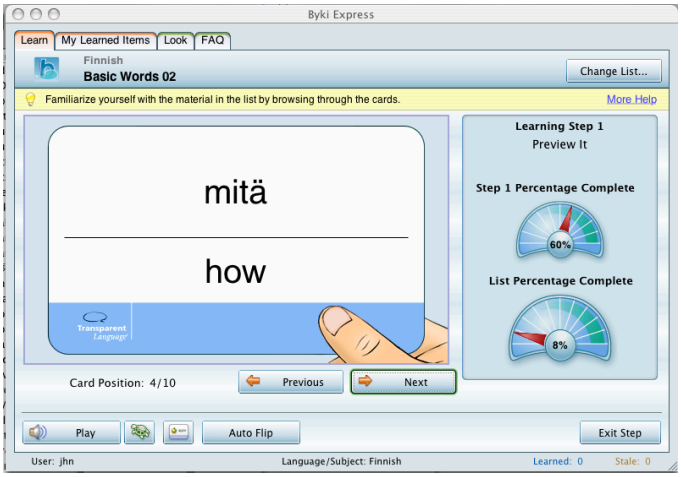

Figure 3: Screenshot of incorrect information on a peer-user generated flash card, taken from the Byki Express application.

Figure 3 illustrates a pitfall of user-generated content, that if it is produced by a fellow learner then it may contain errors or, in other cases, content can be missing or incomplete. Not so much a case of learning from your mistakes, as learning someone else's. Social media offers a remedy for this in its voting up or down of content, which then results in a ranking for the content. In the case shown in figure 3, a potential sequence of events could be that a user when noticing this mistake could then 'vote down' this set of flash cards, meaning that subsequent users would then see this negative reaction and think twice before trusting or using this content. In this way, the community present in the network can function as a safety net to ensure the trustworthiness of its content.

2.2.4 Logged learning

E-learning environments can log every move made within them, so that it is easy to track and measure a student's progress. This is a great advantage for the teacher who has tools to easily determine how a student is progressing. However, steps must be taken to ensure that answers to online testing are not posted online and that logged

users are who they say they are, otherwise all these measurements are rendered meaningless. This type of tracking and logging is a feature of formal e-learning that is not seen to the same extent in e-learning 2.0, since the content and structure is more open and less hierarchical.

2.2.5 High drop out rate

In general, e-learning courses have up to a 20% higher rate of student withdrawals compared to courses delivered by traditional means [12]. One of the contributing factors to this is that there is a lack of personal contact with other students or teachers. This is especially relevant here, since interpersonal interaction, and specifically talking is crucial to second language learning [13, 18].

People who have adopted the use of social networking in their daily lives are familiar with distanced interaction. Although not face to face in nature, social links forged online can have the same legitimacy as real world relationships, in part since they facilitate frequent and reciprocal interactions [14]. That is not to say that social networking sites necessarily lend themselves to attaining educational goals. Social networking tools are just that: social in nature, as opposed to educational. It does not follow that the adoption of social networks, or their tools and techniques, will automagically translate social networking time and vim into learning. The success of social networking sites stems from their emphasis on personal interests and activities: where a user is, what they are doing, what they are wearing and how they feel about it. Additionally, online communication is often reduced to a series of abbreviations (LOL, OMG…etc) and emoticons, suggesting a prevalence of superficiality that some consider being in contrast to educational ideals [6, 69]. This may be the case, but just like in a traditional learning environment, where the social interactions often serve to distract attention from the course material, interactions via social networking tools can bolster a student's feeling of belonging to a group, in this case the e-learning course, and reduce their risk of withdrawal from the course. Furthermore, the perceived superficiality of online modes of communication make it perfectly suited to the frequent informal learning that is cited as necessary for foreign language acquisition [15, 5]. This is in part because these superficial language elements closely reflect speech: which is full of placeholder phrases like 'umm', 'so' and "you know what I mean". These elements are usually missing from written works, making texting and online chatting a useful way to gain exposure to real life practical language.

2.2.6 Physical health

Sitting in the correct posture can combat many of the physical health problems associated with computer use over a significant length of time, however the problem of eye-strain remains.

The fact is, that reading from a screen, especially longer texts, places undue strain on the eyes. Display technologies have emerged that go some way to remedying this issue, LCD screens are now more prevalent than CRT displays and have none of the flicker or radiation of the latter, making them easier on the eyes, however it has been noted that the human eye is optimised to process natural reflected light and not artificially generated light form glossy self lit objects like computer monitors or phone screens [16]. Making reading form a device easier was the impetus behind e-book readers, tablet-like devices which display, access and store files, like books and magazines using e-ink. E-ink displays have thousands of tiny capsules of charged ‘ink’, which look dark or light depending on their charge, and thus make points of an image or text; the Amazon Kindle is the most popular device of this kind. E-ink mimics the look of paper and does not emit light and does not have a glossy screen, making e-book readers very easy to read from and placing less strain on the eyes. The Internet browsing capabilities of e-book readers is very limited, the page only refreshes when the user manually swipes or hits a button making it unsuited to dynamic modern web usage. This usually means that e-learning 2.0 and informal mobile e learning cannot effectively occur using e-book readers, since these normally rely heavily on Internet use and connectivity.

Consider for a moment the name Kindle, and the inherent violence therein. Kindle, by definition, means to begin burning: what is Amazon trying to say here? That we should burn our old books, and re-purchase them on their proprietary device? Personally I am a fan of printed books, they are tactile, user friendly and do not require batteries. Furthermore I enjoy their smell: smell is one of the strongest triggers for memory, which is essential to learning; kindles, e-books, webpages and laptops do not smell.

2.3 E-Learning Finnish

There are many digital tools available to learn languages, but Finnish has fewer than other more widely taught languages. The majority of them focus on vocabulary building and use the flash cards as a visual metaphor: what follows is a selection of the electronic resources available for learning Finnish and how they fit into the e-learning landscape previously discussed. Something of note is that some resources can easily fit into more than one category depending on usage and the learner's time investment. For example, any video content produced as part of a complete course was most likely available on video sharing sites divorced from the rest of the course material, and therefore a candidate to be repurposed for informal e-learning.

2.3.1 E-learning tools

These are an analogue to course textbooks, and can be roughly split into two categories: textbook-style content reproduced onscreen, either on a webpage or PDF, and textbook style content reproduced with supporting audio visual content.
Examples of the former include:

- Conversational Finnish Course: Structured text and audio for conversational Finnish, with exercises audio files and workbook; materials originally from the U.S Dept of State's Foreign Service Institute. This is a good example of a typical basic e-learning course, see figure 4.
  Available online at http://fsi-language-courses.org/Content.php?page=Finnish

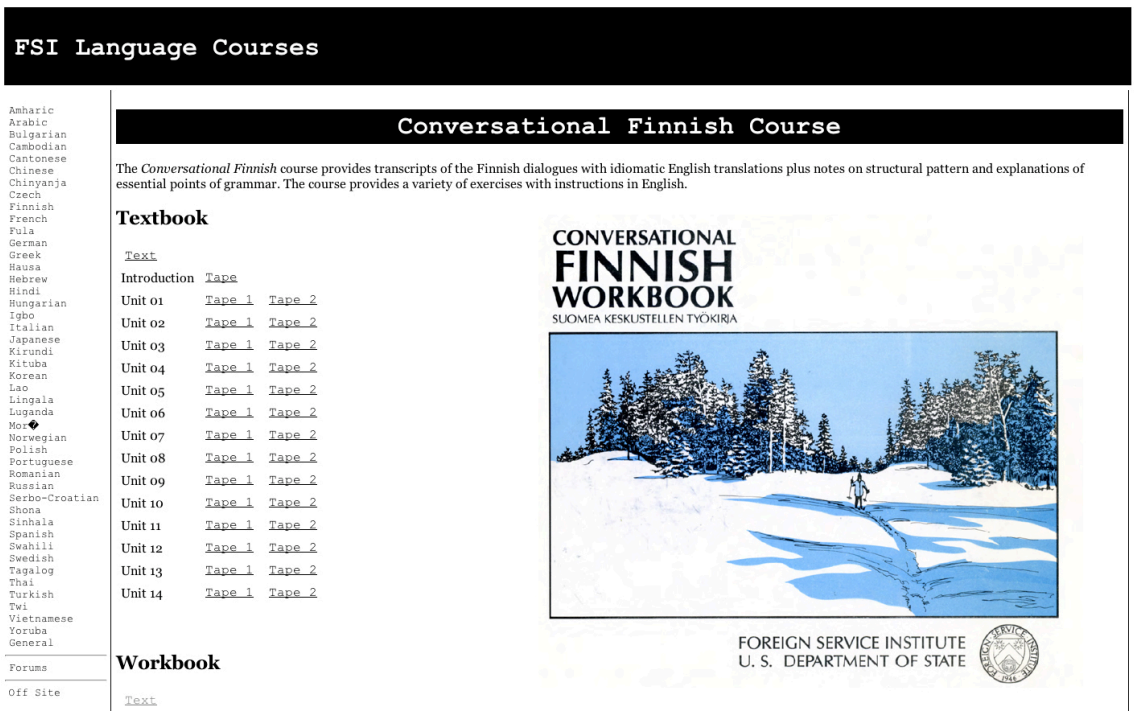

Figure 4: an example of an e-learning website, a structured course designed by teaching professionals: links go to textbook and exercise book PDFs, and associated audio files.

- Finnish for Busy People: Vocabulary lists and comprehensive structured grammar explanations and examples. Includes a no longer maintained blog, whose content merely repeats grammar lessons, for the most part.
  Available online at http://www.uusikielemme.fi

- Suomen Kielioppi: Finnish grammar explanations and examples
  Available online at users.jyu.fi/~pamakine/kieli/suomi

- Supisuomea: Grammar lessons, vocabulary, exercises, and video from a TV-series originally shown in 2003.
  Available online at http://yle.fi/vintti/yle.fi/supisuomea/index.html

- Unforgettable languages: Vocabulary builder word lists that use a link-word system to help users memorise words by linking them with images.
  Available to buy online at unforgettablelanguages.com/frames_a14.html

- Ymmärrä Suomea: comprehensive structured lessons, grammar and vocabulary audio files exercises. Includes fully inflected verb tables for all cases.
  Available online at http://www2.edu.fi/ymmarrasuomea/

Examples of the latter include:

- Oneness City, Finland: Lessons of grammar, texts, vocabulary and culture, illustrated with animations. Includes a café/forum for users to communicate with each other, that is unfortunately no longer maintained or working, and therefore this resource is categorised as an example of formal traditional e-learning, and not e-learning 2.0.
  Available online at Oneness.vu.lt

- Tavataan Taas: Structured grammar lessons and exercises with audio files.
  Available online at http://donnerwetter.kielikeskus.helsinki.fi/finnishforforeigners/

- Uuno Portal: Elementary materials aimed at foreign students coming to live and study in Finland, includes vocabulary, grammar, cultural notes, exercises and animations.

Available online at uuno.tamk.fi

A third category exists for formal e-learning, which utilises structured courses, learning management systems and incorporates Voice Over Internet Protocol (VOIP) technology, like Skype, which provides free online calls. The inclusion of VOIP to communicate might immediately seem like it makes these resources candidates for inclusion in the e-learning 2.0 category, since it is a common technology for social-networking: however the following resources do not enable the students to be co-authors and co-editors of course content, which are both hallmarks of e-learning 2.0. In these cases Internet calls are used to video chat your tutor on a one-to-one basis, proving that e-learning 2.0 is about more than just the technology utilised.

- Verbal Planet: online one-to one tutoring with language teaching professional, via Skype.
  Available online at www.verbalplanet.com

2.3.2 E-learning 2.0 tools

These examples incorporate social networking tools and allow users to generate and co-edit content whilst offering some form of forum or chat tools.

- Byki: Allows learners to collect words and phrases using flash cards. No explicit grammar is taught. Users can author their own sets of cards and get access to a community of other learners. A screenshot of a flash card can be seen in figure 3 on page 8.
  Available online at http://www.byki.com/

- Finnish Wikibook: Beginners guide to Finnish in open source wiki format, includes links to approximately 4 textbooks worth of material, with some audio examples. Layout is somewhat confusing, and some sections are incomplete or missing. Editable by users.
  Available online at en.wikibooks.org/wiki/Finnish

- How to Learn any Language: Online bulletin board and chat room community for advice and getting specific queries answered.
  Available online at how-to-learn-any-language.com/forum/default.asp

- Lingu House: Grammar and phrase lessons, with audio files, also user blogs and language exchange chat rooms.
  Available online at linguhouse.com/Dir/ChatRoom/Chat-Study_FI.html

- Live Mocha: Reportedly the world's largest online learning community, allows registered users to follow grammar and vocabulary courses, submit written & spoken exercises and have them reviewed by native speakers. Additionally offers access to private tutors and live chat. Users must grade other users content and submit their own teaching material. This is the most comprehensive e-learning 2.0 for learning Finnish, see figure 5 for a selection of features available.
  Available online at www.livemocha.com

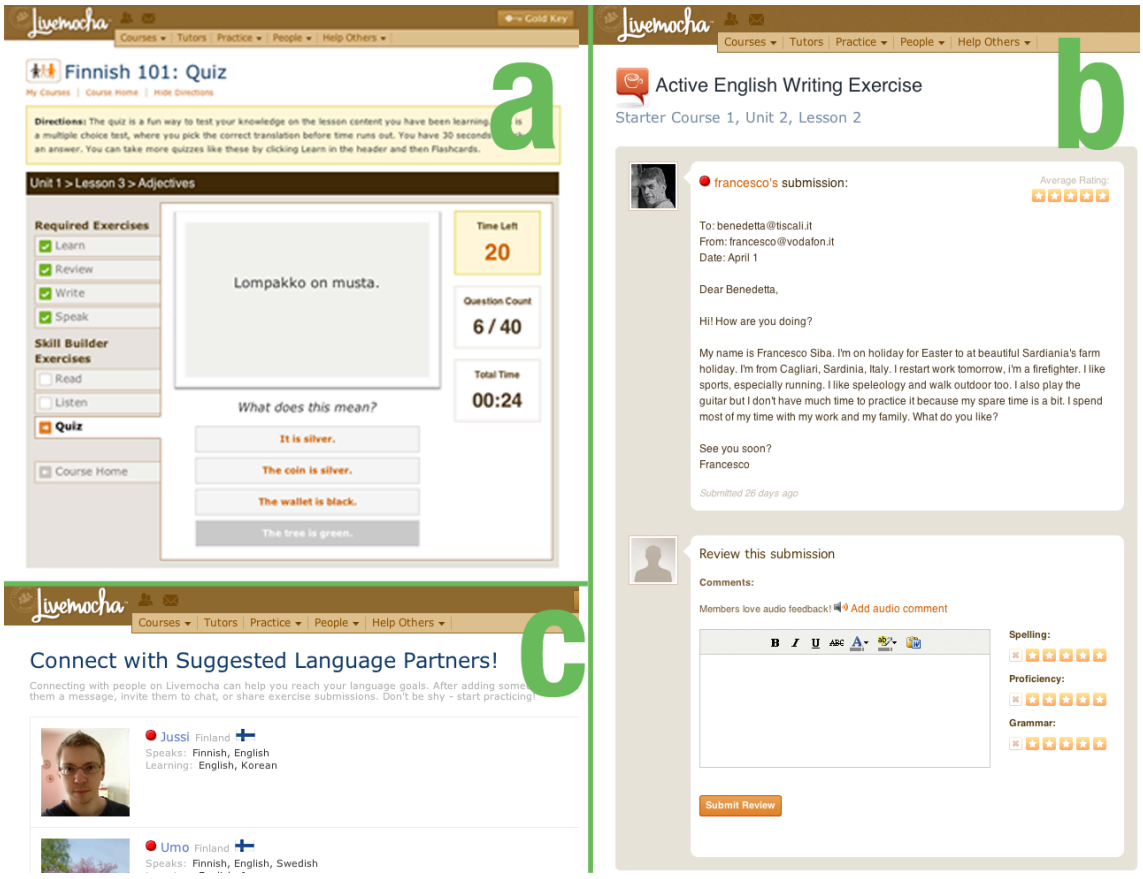

Figure 5: an example of an e-learning 2.0 service. A) A structured grammar and vocabulary course and exercises. B) Users review and comment on other users submitted exercises in their own native tongue C) Social tools like chat and video chat with native speakers of your practising language aid learning.

- Transparent Languages: Software with vocabulary flash cards, grammar lessons and exercises, as well as and live instruction and tutoring via Skype. Also includes access to interactive online communities.

Available online here: www.transparent.com

2.3.3 Informal e-learning tools

Informal language e-learning takes place outside of classroom or formal learning settings, often automatically and incidentally through exposure to language input through technological means. Learning this way is often unsystematic or unplanned, a by-product of finding out information about events or news, and even somewhat unintentional, as shown in figure 6.

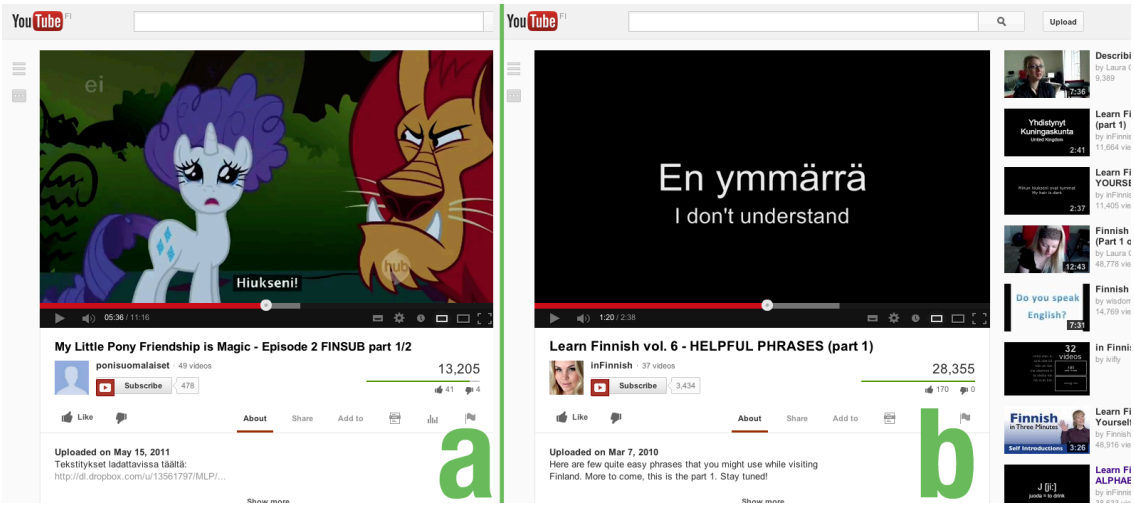

Figure 6: Two examples of an informal e-learning from a video sharing website. A) Shows unintentional informal e-learning, where subtitles on a cartoon expose the viewer to new words. B) A more intentional informal learning, where the viewer has searched and accessed an informal language lesson, short in duration, peer generated and not part of any comprehensive learning programme.

Informal learning is an effective method to learn specialised vocabulary and slang, both of which are often overlooked in more formal learning settings. For example, if a person with a baby subscribes to a blog discussing the feeding of solids to new babies (as seen in figure 7a) a whole plethora of related vocabulary is suddenly available, and because it is useful and related to the immediate interests of the person and sourced by the person a sense of autonomy is felt; in this way informal e-learning takes place chiefly because the learner made it happen.

Figure 7: Screenshots of two examples of informal e-learning of specialised vocabulary from a blog (A) and a forum (B)

So it is then, that in the case of informal e-learning, learning takes place without space or time limits applied in the form of external deadlines or even staying on a specific course material website; when a learner loses interest in a blog or video they can just move on without worrying about having to complete a certain task. A learner is exposed to their target language just by following their interests; this means the focus is more on the meaning of the words, than on the language itself as in the case of traditional language learning. Of course the learner is exposed to native grammar and spelling, but more significantly it is an easy way to learn intercultural competencies, that is the ability to communicate with people of their target language's culture: due to the fact that everyday terms and phrases on a topic of interest are acquired. A real life example of this would be that knowing how to discuss the weather, taught in every course I have attended, will not really open up a rich dialogue in a boxing gym, whereas remembering where to buy a `hammassuoja` from a forum post you may have read has a increased likelihood of opening up lines of communication.

3 Design and Implementation of the Prototype

Following the investigation into the circumstances of e-learning and the available options for Finnish therein, this thesis project is additionally composed of a prototype ap-

plication that provides a practical implementation of the ideas studied. The goal, after requirements gathering, was to create an application that would demonstrate how the building blocks of Finnish grammar fit together and serve as a technical proof-of-concept for any future development of the product. Interview was the chosen method for procuring the application requirements.

3.1 Requirement gathering interviews

In spring 2013, interviews took place with 6 people whose experience with Finnish can be classified in the following three groups: language teaching professionals, people who have acquired fluent Finnish as adults living in Finland, and people living in Finland with beginner level Finnish. The interviewee group was assembled from my social circle, and two former Finnish teachers. Of the fluent speakers, both had studied Finnish in a traditional classroom setting as part of their university studies, one spoke three other languages fluently, the other had Finnish as their second language, and both spoke mainly Finnish at home with their partners or family. Of the beginner level learners, one was currently enrolled in a ‘full-time course’, 28 hours a week, and the other had previously taken three courses of instruction: both were pursuing informal learning in their own time. One interview, with someone who had learned to fluent Finnish as an adult took place via email; the others were done face to face.

Interviews were based on a series of questions that dealt with the notion that Finnish is perceived as difficult to learn, the uses if any of e-learning in their Finnish instruction, and what were the most effective habits for language learners. The intention of these interviews was to reveal any areas of the Finnish language that were either particularly difficult to learn or areas that would be best suited to be studied using an application as well as trying to collate a collection of best practises for foreign language acquisition. A selection of the interview questions can be found in appendix 1.

3.1.1 Interview findings

Interviewees considered and explained their thoughts on what contributes to successful language acquisition and what elements of the Finnish language were barriers to learning success. A basis for this e-learning concept, that will guide the design of the proto-

type, was garnered from any common elements in the interview responses, the foremost of which are presented below.

The thing that makes Finnish difficult to learn was either ‘the words’ or that it was ‘different, not difficult’; different in the sense that it does not belong to the Indo-European language family, like English, which all the interviewees spoke fluently. Finnish belongs to the Finno-Ugric language family, alongside Estonian and Hungarian, though surprisingly this does not necessarily mean that Hungarian speakers learn Finnish any quicker than people of other nationalities or from different linguistic backgrounds. The explanation for this is that people have learned to learn Indo-European languages. As a result, the base vocabulary for Finnish cannot be easily guessed, since the words bear no relation to other more widely taught languages like Spanish, French or German.

Two of the interviewees had a background in learning computer languages, which they found easier than learning real world languages, since there is a reduced set of words and phrases, there is no need to converse in computer languages and software development environments include a grammar checking tools, that mean that a program will not compile if there is an error in the syntax and that any errors are immediately highlighted.

The partitive case was highlighted as a particularly difficult concept to grasp for Finnish learners: the partitive is used in a variety of cases to denote indefinite quantity and is usually employed when ‘some’ or ‘a few’ could be used in English (Kahvi = coffee, whereas in the partitive form: kahvia = some coffee). The difficulty arises because there is no equivalent case in Indo-European languages and it is difficult to think that, for example, when there is more than one of an object that the noun takes the partitive and not the plural form (5 books [plural form of book], but 5 kirjaa [partitive form of kirja; book]). Several different Finnish courses introduced the partitive case straight away after teaching common greetings, this is perhaps why it is remembered in such negative terms, since it is the first unusual or difficult language element introduced to learners. The most effective strategy for dealing with this case was to practise it over and over, and just accept the fact that it is necessary for learning Finnish.

The propensity for adult learners of Finnish to complain about how the grammar fits together instead of just learning to use it was noted to be a huge waste of energy; this

was particularly prevalent for learners for whom Finnish would be only their second language, and learners from Britain or other English speaking backgrounds. The need to know why certain grammatical elements worked the way they did, and teachers explaining historical reasons for grammatical inflection was a source of much wasted time in class: whereas accepting and learning how the inflection worked sped up the learning process. This made completing homework tasks frustrating for some students, since usually asking a native Finnish speaker would not yield a satisfying answer as to why certain parts of the language worked the way they did, and they would then focus on this rather than getting on with their homework tasks.

Practising speaking with a native speaker was the one task that was considered key by all interviewees in attainment of a second language, though the beginner level learners found it difficult switch to Finnish in their daily lives since most of their relationships with Finnish people had originally developed in English, and it was frustrating for conversations to regress to a level that would accommodate their lower comprehension of Finnish. For example if a student talks to their friends in English about work or technical computer issues, but then when the same group speak in Finnish they can only discuss the weather or the tram journey because this is the common level of comprehension and vocabulary, then some measure of frustration is bound to be felt. Additionally it was common to all learners that early attempts to converse in Finnish were met with responses in English, or explanations of what they had said incorrectly, sometimes mocking laughter if a glaring vocabulary error was made. One reason presented for this was that Finns were not historically accustomed to hearing bad Finnish, since it has been relatively recent phenomenon that foreigners are learning Finnish. It was also noted however, that similar reactions were found when learning other languages too.

Three common elements were identified as important reasons for learning Finnish as a foreigner, improved job prospects, to facilitate integration, and to understand the wider culture. These were important in making foreigners feel more at home in Finland and maintaining good mental health, which can be a real issue for students especially during the cold dark winter months.

E-learning never took place in the classroom during class time, though supplementing face-to-face learning with external e-learning resources was sometimes encouraged. The e-learning activities for Finnish were limited to watching videos online and television shows and using online translators, and dictionaries. Despite being aware of social

e-learning tools and courses, it was expressed that they seemed too time intensive to fit in with learners' current schedules and that informal learning was easier to accommodate: one interviewee changed the language on her phone and computer to 'learn for free', that is doing a necessary task and getting the benefit of Finnish at the same time. Music and translating phrases in song lyrics was reported to be an important part in learning a second language, especially English, but was less of a factor in learning Finnish, owing to a perceived lack of attractive music available in the Finnish language. Watching foreign language TV shows or films with Finnish subtitles was the number one most popular method of e-learning for Finnish learners; the ability to learn slang words or swearing phrases was highlighted as desirable and useful for real world situations.

The beginner students considered the use of English as a support language for their Finnish learning to be extremely helpful, the immersive language bath teaching style where only Finnish is spoken in the classroom and the textbooks were exclusively in Finnish was considered a little overwhelming, even though it was ultimately accepted as an effective way to learn a language. Even after translating homework instructions word for word, students were often bemused as to what the task was asking: this is because of the way that the stem and inflected versions of a word is different from the basic form that is found in the dictionary, so if the homework question was asked in English, the tasks would have been made easier.

All learners of Finnish had at some point listened to the ‘slow news’ at some point, where the news is read slowly and in simplified vocabulary on the radio, though half found the content un-engaging and thought that people in real life would never talk like that. Translating news items from the free newspapers was a highly regarded method for learning new words. The task that really pushed Finnish language comprehension and spoken ability up for the now fluent adult learners was the difficult step of starting to speak Finnish at home, a step that was also often difficult for the Finnish partner or Finnish speaking flatmate too.

The teachers of Finnish, and those who had learned Finnish fluently as adults stressed the importance of hard work in its acquisition. Although the mother tongue comes ‘for free’ and is learned to an early functional level without having to sit and study it, and also English to an extent includes some ‘free content’, in the form of background noise from the proliferation of English language TV shows and other media, Finnish for for-

eigners, on the whole, has no such base of complimentary subject matter and must be learned brick-by-brick from the foundations up. Repetition and perseverance through often boring mechanical grammar tasks were identified and keys to success: learning Finnish is not a game, it is hard work and ‘only children learn by playing.’

3.1.2 Requirements and concept

Vocabulary is easier than grammar to learn, and the Finnish e-learning market is saturated with flash cards and vocabulary builders: accordingly grammar is the target teaching material. The partitive case was identified by half of the interviewees as somewhat challenging to comprehend. The local cases, which are the Finnish equivalent of the English prepositions to, on, into, off of etc, were also proposed as a possible candidate for teaching materials.

E-learning is a desirable supplemental activity to classroom learning, but formal and e-learning 2.0 activities are sometimes considered too demanding in terms of time for learners, especially if they are studying another subject fulltime somewhere else or are engaged in fulltime Finnish contact courses with homework; so instead informal learning was chosen as the method for delivery of grammatical subject matter.

The e-learning identified as the most useful was videos, since they could be checked over and over again at the learners’ convenience and the appearance and movement of different textual elements of a word or phrase made it clear how the words changed and how the different case endings were added. Video or animation of how grammar builds a word would be used as the way to illustrate grammatical teachings, with English being used as a support language to explain what was going on. Another point made was that setting up accounts or logging-in to use a service can steal valuable learning time away from any informal learning sessions; this was especially true of mobile based applications, where it was not considered enjoyable or convenient to type on the devices.

Two key phrases that emerged from the interviews were: that ‘only children learn by playing’, meaning that for adults language learning is a long arduous process, and that Finnish must be learned ‘brick-by-brick’ since it was not typically easy to guess words owing to the fact that Finnish is not related to other more commonly spoken and taught languages. Figure 8 illustrates one way that a child can learn by playing, by using let-

tered bricks to build and inflect a word, in this case *sinulle:* meaning 'to you'. Sinä is the second person pronoun, whose stem *sinu-* is given the allative case ending *-lle.*

Figure 8: A child's lettered blocks used to build a Finnish word

It is helpful for the child to see how a word is written and to sound out the different parts. Since beginners learning a new language start with a comprehension level similar to that of a young child, this would then become the concept for the application, lettered blocks building words to demonstrate grammatical points.

Additionally, if any application is to compete with other distractions online it must look good and be enjoyable to use. Attractive applications are easier to enjoy than dull or ugly ones. Design is an important aspect of any programme or application, but it is also important not to over design things; too much clutter or too many effects can be irritating to a user. However some animated details could be included to add personality to the design: if deployed properly little details can add a layer of character to a design, and generate a positive emotional response when using the application, thereby making it more likely to be used again in the future [17]. The application must be simple and intuitive to use, if informal e-learning is to be targeted then at most only basic instructions should be required; users are lazy when it comes to reading manuals and instructions and do not want to have to spend time learning how to use a new application.

3.2 Production of the preliminary prototype

Creating the application prototype had three distinct phases. First of all the grammar elements to be deployed had to be chosen. This entailed further research into all the different inflection variations for each candidate element, and which parts of which elements should be selected for implementation; this was important since the sheer scope and scale of Finnish grammar is formidable, naturally, since it is a language and languages are means to describe the world.

Secondly, the interface had to be planned and designed to consistently follow design conventions; this was of particular significance since adhering to conventions would facilitate ease of use for learners and allow onscreen instructions to be kept to a minimum.

Thirdly the design had to be implemented. A platform had to be chosen for the prototype, and then coded. In the end this turned out to be quite a mechanical task, since the tasks involved in the prototype were fairly simple and the data manipulation requirements were minimal.

3.2.1 Grammatical content

From the requirement gathering interviews, the candidate pieces of grammar to be used as content for the prototype were the partitive case, and the local cases. Both of these parts of grammar rely and build upon being able to take the basic form of a word and make the stem to which case endings are added, though the partitive and local cases build on sometimes different stems. See figure 9 for an illustration of how the partitive singular is formed. There are five different partitive endings and seven different sets of circumstances, depending on the stem, to which the different endings are added. On top of this, there are nine distinct conditions in which the partitive singular case is used. Vowel harmony must also be taken into account when inflecting: there are three classes of vowels in Finnish, two that cannot mix (A,U,O & Ä,Y,Ö) and a third that can go with either (E & I). This is why there are two options given in figure 9 for each of the partitive endings, to accommodate the vowel harmony rules. Additionally, certain consonants or groups of consonants undergo gradation when they are inflected. For example, the word ‘pankki’ has a stem of ‘panki-‘ where the ‘kk’

has undergone gradation to 'k', therefore to say 'in the bank'; the inessive local case ending is added so that finally we have 'pankissa'. The point is that by selecting one part of language you are working with many many others, and that each individual element is itself complex. [18]

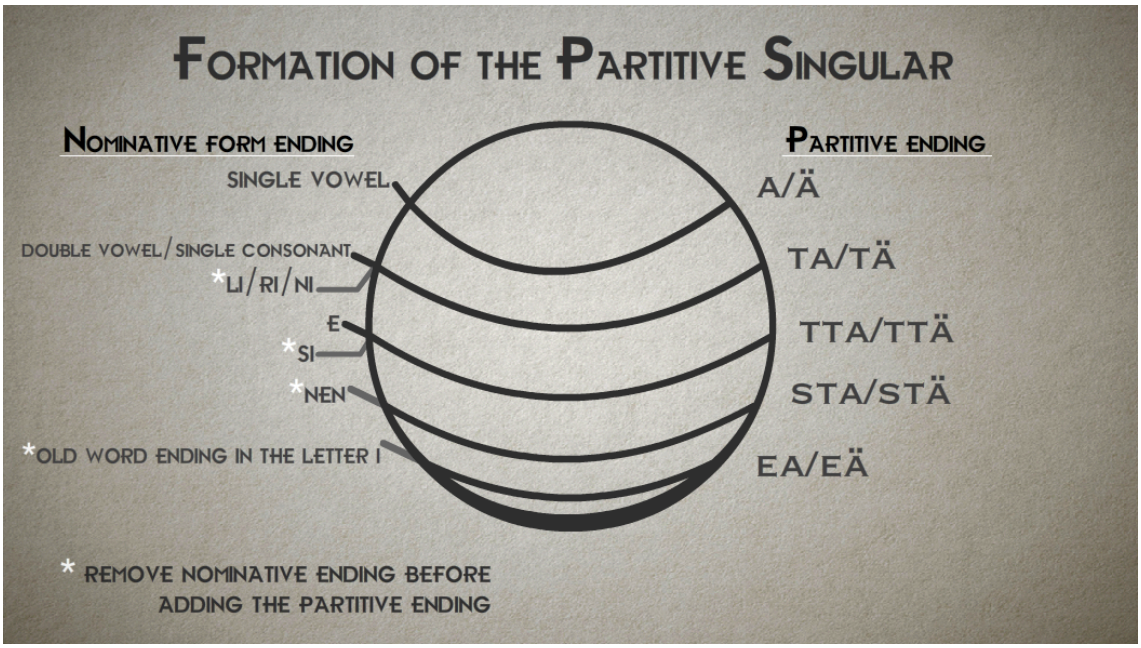

Figure 9: The formation of the partitive singular, (based on [19].)

With regards to this and to limit the scope of the prototype, the formation of grammar and not the conditions in which it is used would be concentrated on. Moreover, the partitive singular case and the illative local case, meaning 'into' or 'until', if time is being discussed, would be the grammar elements initially dealt with.

3.2.2 Designing the interface

This design process basically defines the blueprint for the prototype and had three distinct phases: flow chart design, layout design and interaction storyboard design.

A flowchart is an easy to understand graphical representation of how processes work, in this case a visual presentation of the sequence in which a user could visit different parts of the prototype. The flowchart in figure 10 defines the structure of the prototype, and in doing so clarifies the types and number of screens needed to be implemented. The benefit of using a flowchart like this is that key elements of the design structure became apparent, such as the need for the instructional demo to be available for view-

ing from not just the main menu but also from partitive and local cases screens: which are the main task screens of the application where the user would move word blocks around to inflect the case endings.

Figure 10: A high-level simplified flowchart for the prototype

Once the major sections had been defined in the flowchart their visual layout was then sketched, using pen and paper then subsequently graphics editing software. A typical early result of this is shown in figure 11, where the pen sketch of the title screen had been transferred to the computer for easier editing. At this level of development the colour scheme, logo and title text had yet to be decided on and so the sketch used only one colour and placeholders for the logo and title; the main point of these sketches was to consider the placement of some major layout elements on the graphical user interface. Present however was the idea that stylised birch trees would be used to represent something characteristically Finnish: other possible options considered were the fir tree, a sauna, a lake, a snow scene or the Northern lights; however birch trees in the end were just better looking when reduced to simple shapes. The title page is a vital part of any application since it must establish the visual language of the subsequent pages, and show clearly the title of the application. The final prototype version, much changed from this sketch can be seen in figure 14 on page 30. There were several more iterations between figures 11 and 14, incorporating the designs of elements that appear across other screens, like the logo, and some behaviour description annotations that were then used as the basis of the interaction storyboards.

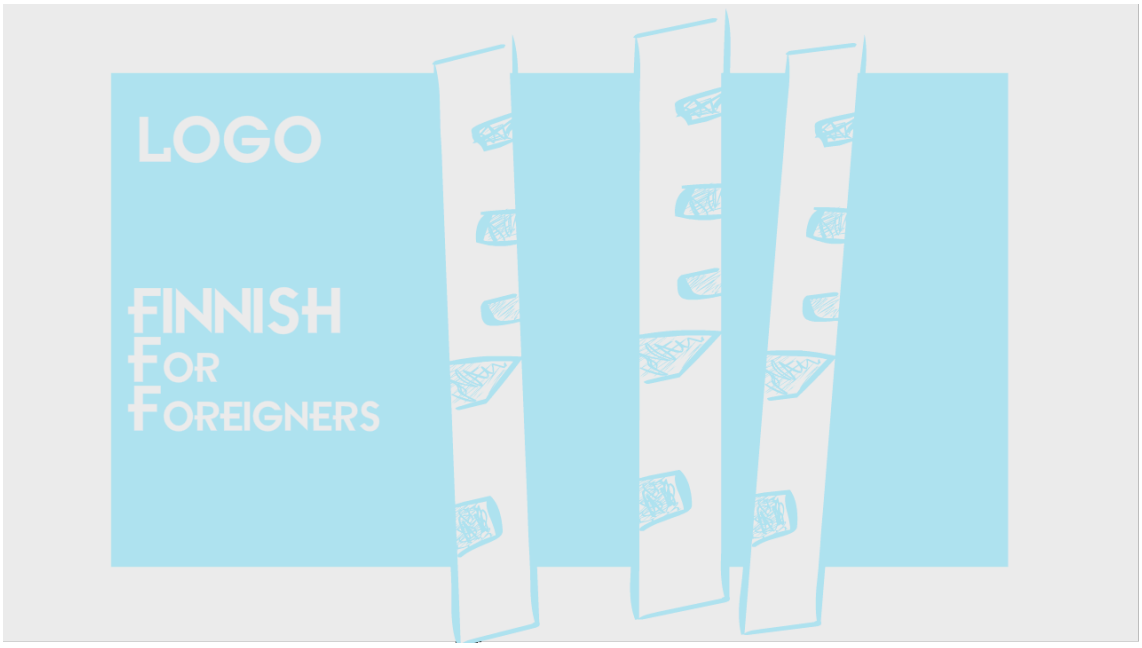

Figure 11. Early version of title screen layout sketch

Like the flowchart and the layout sketches a storyboard takes the role of a process tool, meaning that the process of creating these items assists in imagining the look and feel of the resulting prototype. Storyboards, like the one seen in figure 12, allow for the planning of the sequence of events that are triggered by user interaction. The storyboard is a type of guide for the production, so that time is not wasted at the computer during production wondering how the fundamental features of the application should operate. As before with the layout sketches, no finalised graphics or colour scheme is present in the storyboard: instead place holder graphics are used, so as to not distract from the task at hand; which is to define behaviour resulting from user manipulation of onscreen components. Storyboards were produced for all the major sections of the application as defined in the flowchart, and were created using presentation software. Elements that change or that can be interacted with are numbered and accompanied by a text description the key outcomes of any user interaction. The benefit of using this approach is that the essential details of each animation and feedback from the application are clearly and simply presented for reference when the implementation of the design is started.

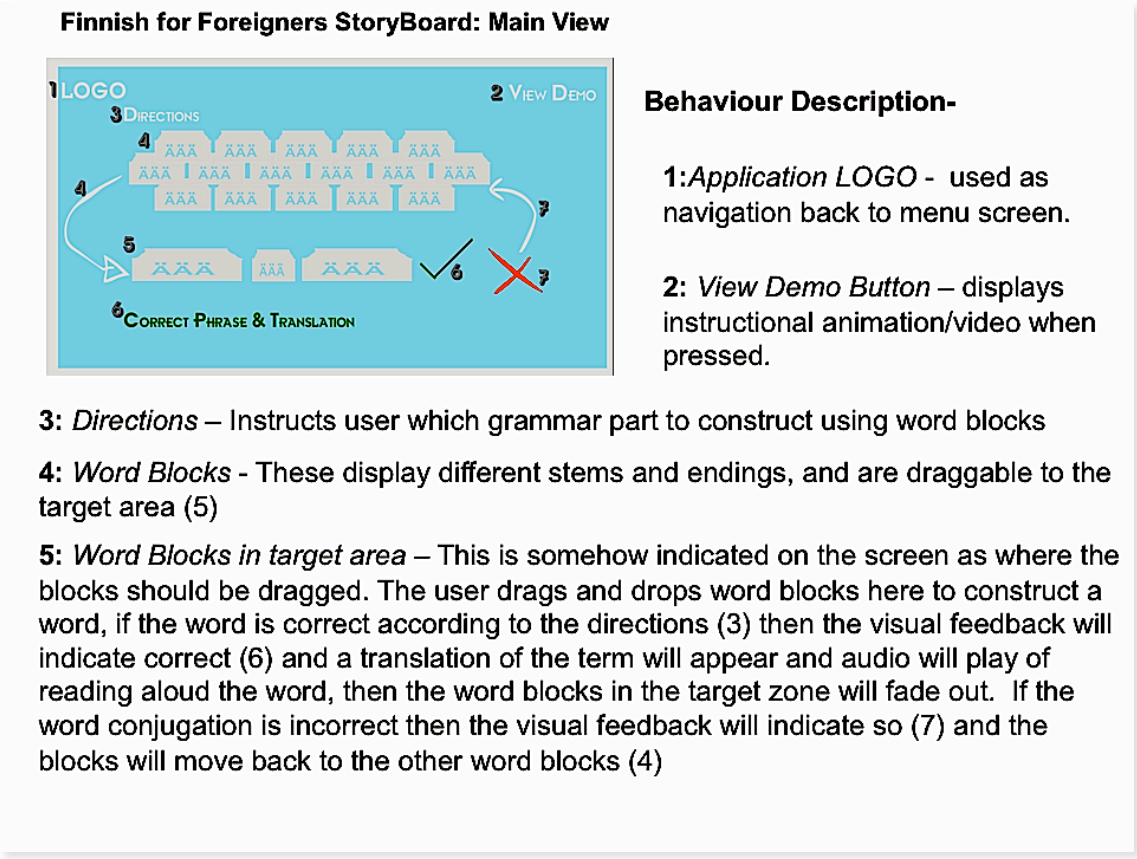

Figure 12. Storyboard for main task screens' interaction behaviours

3.2.3 Implementing the design

Initially the application was imagined to be targeted to mobile devices, this however does not mean exclusively mobile phones. Since there are two main competing development platforms for what together constitutes the majority of smart phones and tablets: the Google Android platform and the Apple iOS platform, this would mean selecting one and learning to code in its development environment. However, when mention is made of mobile technology, at least in this paper, laptops must also be included, which means that choosing Android or iOS would not be suitable candidates for application development, since generally speaking very few laptops run on these systems. In the first instance HTML5 and CSS3 were imagined as the base on which to build the application prototype. The HTML5 canvas element, when combined with CSS3 animations has the potential to add pleasing effects to underlying web structures, however in reality when compared against even the modest interface designs for this project, the richness and feeling of interaction required was absent. Initial tests rendered the following conclusions, that coding animation is counter intuitive and not suited to me person-

ally. Although there are graphical and timeline based interfaces for HTML5 & CSS3 animations, such as Adobe Edge, even these produce fairly unpredictable results and what's more Adobe Edge does not include tools to create graphics that would be sufficient for this project: instead it allows the manipulation of previously created graphical elements in accordance with, what is at present, the somewhat humble capabilities of CSS3 animations and transitions. In the end it was another older Adobe product that was ultimately used: Adobe's multimedia and software authoring environment Flash.

Despite meaning that any final version output would have to be converted into another format for use in mobile phones, since Flash is no longer natively supported on any mobile platform without the use of third party software acting as a bridge between Flash output and mobile platforms, it remains a versatile tool that produces good-looking and interaction-rich output. And owing to my working experience using Flash, I felt comfortable using it for rapid prototyping to produce what is after all a preliminary version of a prototype, and not a final product. Therefore, graphics and the limited programming required for this project were completed using Adobe Flash.

3.3 Testing & feedback

The application prototype was tested for fitness of purpose and for general usability. Testing was carried out with a small group of 4 people whose demographics were: 2 male and 2 female, aged from 17 to 31. One person was Finnish, another was half Finnish but did not consider Finnish to be their first language, he had gone to school abroad, and the other two were learning Finnish and were foreign nationals. All four participants owned smart phones spending an average, by their own estimation, of three hours a day using non-call features on their devices, and although none followed structured language courses, all used online dictionaries and translators, and all viewed English language videos and websites which they all realised was a form of implicit learning. Testing took place in an office environment in semi-quiet conditions, using and HP elite book multi touch computer: a laptop running the Windows 8 operating system that allows users to control events using the touchscreen as well as mouse and keyboard input.

There were two main goals of the testing:

- Observe and the user experience as it relates to navigation and layout design by scrutinising users' ability to navigate and carry out the main functions of the application.

- Understand application weaknesses and ascertain ways to improve them.

Testing was carried out individually and in two phases:

- Testers were given a few minutes to freely explore the application, and were asked to describe what they were doing as they did so, and also asked some free form questions relating to the look and feel of the application.
- A multiple-choice questionnaire was filled out after using the prototype, see appendix 2 for a list of these questions.

3.3.1 Testing feedback

What follows are observations made when testers were freely exploring the application and comments made in answer to either direct questions or the multiple choice questionnaire completed after using the application.

When watching the logo animation at the beginning the reactions were generally negative – ‘What’s this supposed to be?’, ‘Why does a web page need an introduction?’, ‘I can’t click anything’ & ‘It’s fine but it’s onscreen for too long time’. The Animation referred to is shown in figure 13.

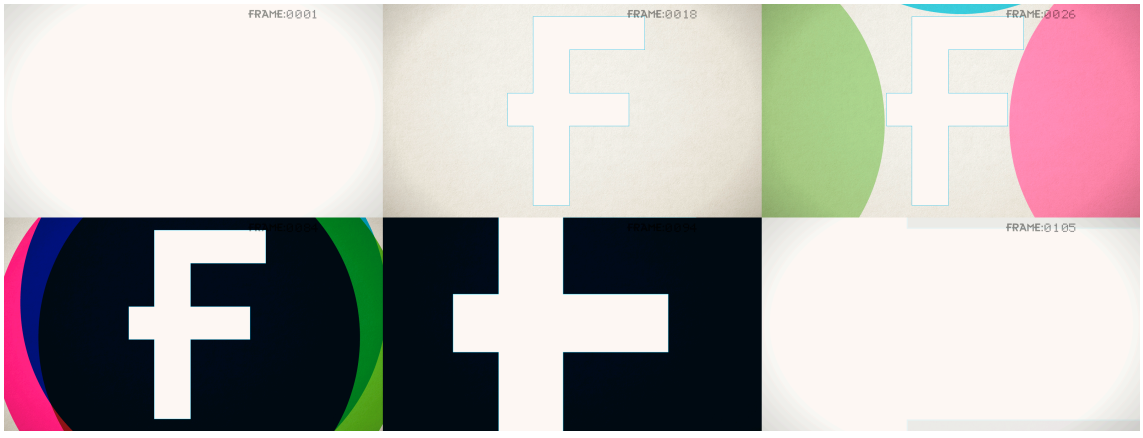

Figure 13: Fade in from white, logo assembles then zooms to fill the screen white before the landing screen, see figure 14, fades in.

The landing or title screen, seen in figure 14, elicited a more positive response, with 2 users mentioning the animated leaf growing and generally praising the look and layout of the screen.

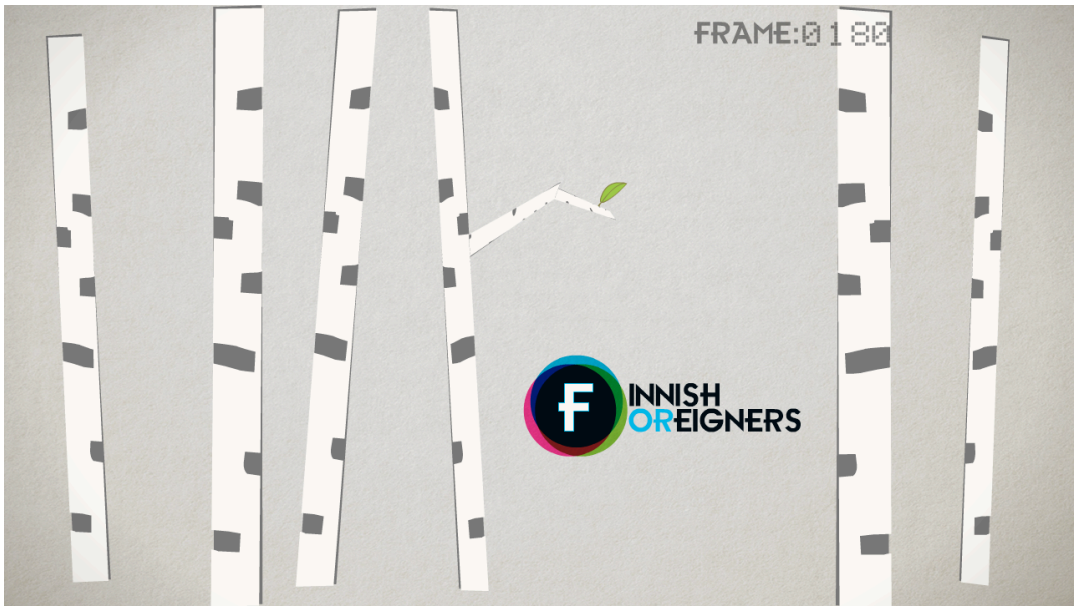

Figure 14: The title screen, showing stylised birch trees and the logo with text.

The text, which uses the letter 'F' from the logo to start the three words of the title, 'Finnish For Foreigners', where the word 'For' takes the first three letters of '*For*eigners' in a highlight colour, was mentioned by all participants, two unreservedly liked it while the remaining two expressed annoyance at it. The text next to the logo made it clear what the purpose of the application was. Despite not having any onscreen instructions, all users knew or guessed to click or touch the screen to get to the next section. To get to the next section, the menu screen, there was another animation, which all the participants had negative feelings towards, see figure 15 below.

All testers agreed it would be better not to have this sequence at all. Objectively, I concur, but the sequence took a long time to get right so I initially wanted to keep it in, but ultimately it was shortened and had its screen time minimised.

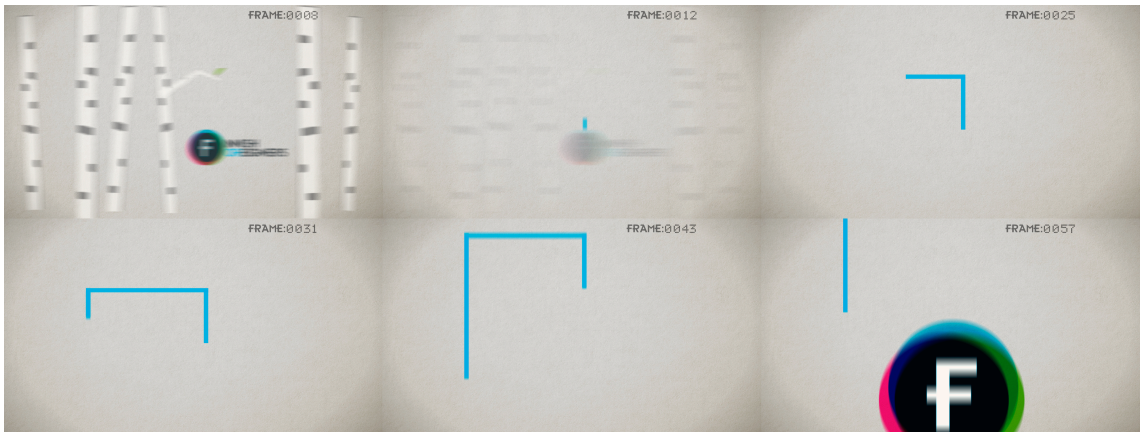

Figure 15: A blue path leads from the title screen to the menu screen, seen in figure 16.

The Main menu screen was thought of as ‘nice and clean’. The fact that two of the four options did not function in the test, the ‘Settings’ and ‘Partitive case’ options, was frustrating for the users, since there was no visual cue to differentiate them from the working buttons. Some users thought the central logo should operate as a navigation button, this was a fair criticism since in the main application screen, figure 17, it does function as a home menu button. Only one of the four testers chose to view the ‘Demo’ to see how the application worked, the others went straight into the ‘Local cases’ option. There were comments that no one knows what the ‘Local cases’ referred to, though all except the native Finnish speaker knew what the ‘Partitive case’ referred to, all three having some experience of learning Finnish as a second language. That there was no forced sign-up or log-in was considered a positive; however, one tester thought that this would limit the use of the tool since it meant that there would be no personalisation or way to keep track of an individual’s progress. Secondly, it was said that sharing online was a common and enjoyable part of life, so an option for signing in to a SNS should be available.

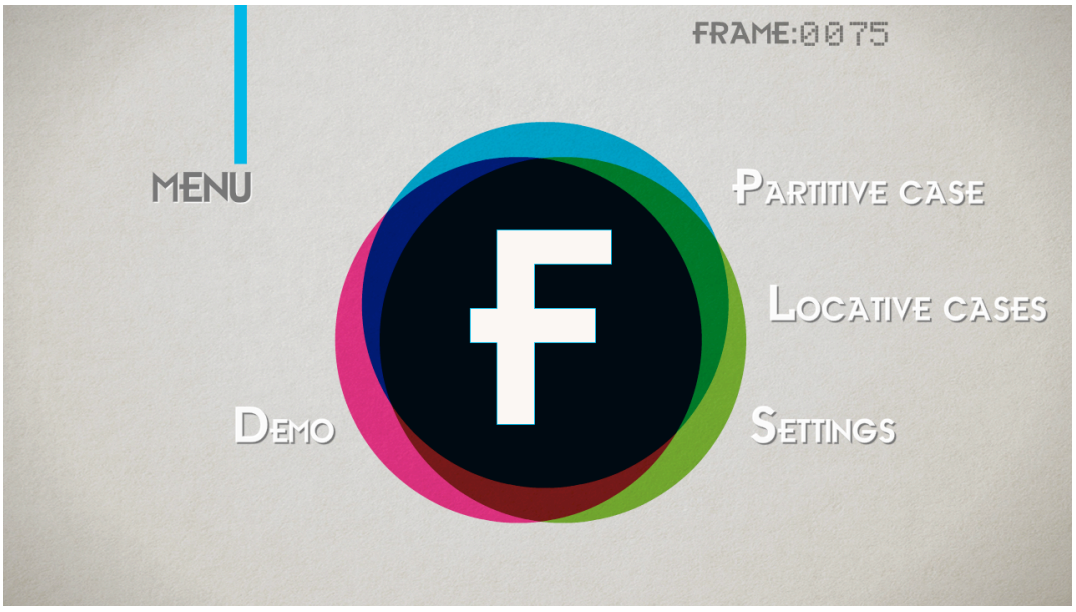

Figure 16: Application main menu screenshot with four options to choose from, although two did not function at the time of testing.

The Main application screen, illustrated in figure 17 was the most problematic for the testers. Not having viewed the demo it was not considered obvious what was to be done when faced with the initial state (Figure 17 a), the look of the word blocks was considered flat and ugly, and again, it was not obvious what the visual metaphor of the

child's toy bricks was; instead of looking like bricks or blocks the graphic appeared to be just words written on a black box. When told what the task was, the number of options to choose from was thought too low; there should have been more word bricks to choose from to increase the difficulty level of the task. That this informal learning tool was using technical grammatical nomenclature, such as 'illatiivi', was considered inappropriate, also that the onscreen instructions were in Finnish seemed to defeat the purpose of a Finnish language teaching tool. The target area to drop the word blocks into was not thought obvious by those who had not viewed the demo. The ability to drop word blocks in areas other than the target area was thought of as a negative. That there was no option to disable the audio that played when a correct inflection occurred was considered a flaw. The general look and layout of the application received some praise, but the feel of the application, how the blocks responded when they were picked up, moved and dropped was not considered to be fluid enough, or that there should be more inertia when dragging the blocks so that they would have the illusion of weight. One tester summed it up by commenting 'it should operate more like my iPhone'; indeed this was a telling comment, since the application did not adhere to the design or operational conventions of smart phones that users are not only used to, but seem to demand.

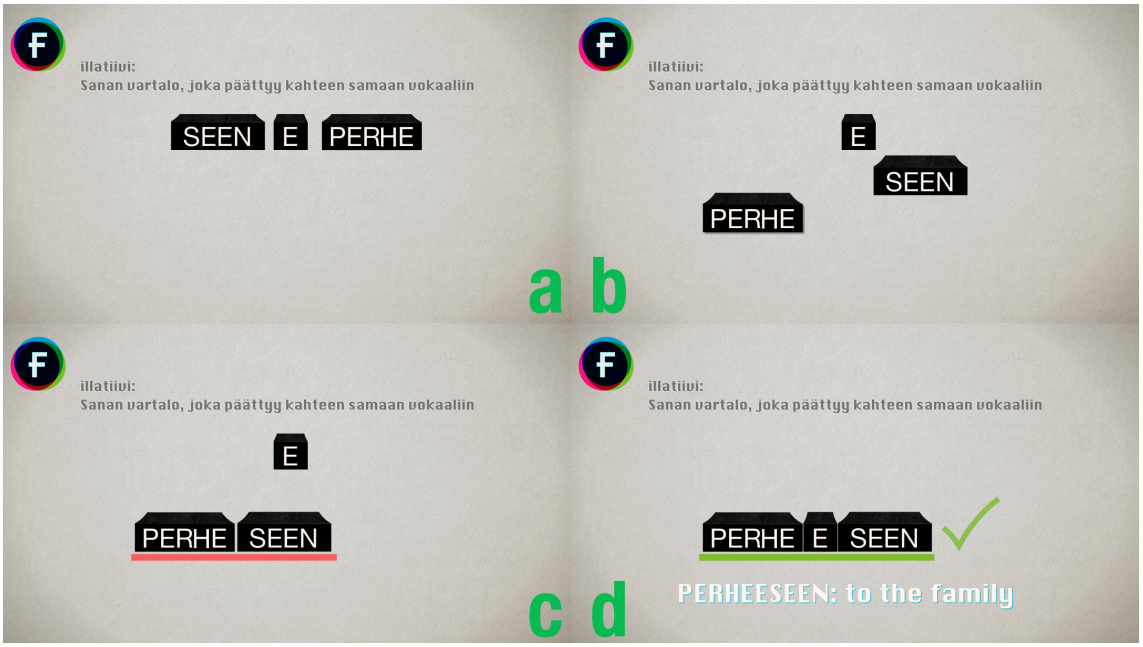

Figure 17: the main application screenshot, showing: A) The initial state. B) A state where one block is correctly placed in the target area, PERHE, and the other, SEEN, has not been dropped in the correct position. C) Visual feedback when a word has been wrongly inflected. D) Visual feedback when a word has been correctly inflected, at this point audio of the white text beneath the blocks would play

Some other general notes were that the word bricks should be changed from black to a wooden texture, to reinforce the visual metaphor of the children's blocks. The finger used in the demo animation to highlight where the user should drag and drop the word bricks should be changed also, see figure 18 below. The overall feeling of all the users was that superfluous animations should be reduced, that the landing screen, figure 14, should appear at the start and not after the logo appears. Also all the options on the menu screen should have all lead somewhere, the 'Settings' and 'Partitive case' options did not. Also, using the grammatical names like 'Partitive' and 'Local' or 'adessiivi' was too formal for this type of application.

Additionally multi-touch gestures like using more than one finger to pinch or swipe the screen should have been enabled. Only tap had been enabled for the navigation functions and drag and drop for moving the word blocks, users who were accustomed to multi-touch gestures on their mobile devices automatically expected them in this, and also in any other touch screen application.

The general idea of the application was 'okay' or 'pretty good', but the implementation was too simple, there was not enough challenge in the block-moving task and too few object bricks with different text on them to choose from. This meant that none of the participants would pay for the application, though half said they would use it if there were more features implemented. There was some confusion as to who the target audience for the application is, the sparse simple layout hinted that the audience would perhaps be younger than the intended adult language learners living in Finland. One thing that was missing, that the testers were expecting was some kind of social media sharing function, it seems that every other service or website that the testers use includes the ability to share online. A portrait orientation should also be implemented for smart phone viewing.

The favourite things about the site were the landing screen (two times) and the logo with the text on the landing screen. One tester stated that the basic idea was their favourite part of the application, and that their least favourite was the execution of that idea. Others stated that the extra animations at the start, the lack of implemented functions, and the small number of word bricks available during the task were the worst parts of the application.

3.3.2 Reflections

Though it is true that a larger test sample would have been desirable, the small group that participated had a lot to say and many valuable criticisms and comments emerged.

What was most surprising was the emphasis placed on graphical shortcomings compared to the content and functionality; whether it was praise or criticism the majority of each testers time was spent discussing the way the application looked. Some graphical updates were made, as illustrated in figure 18, and to evaluate these further testing would be required.

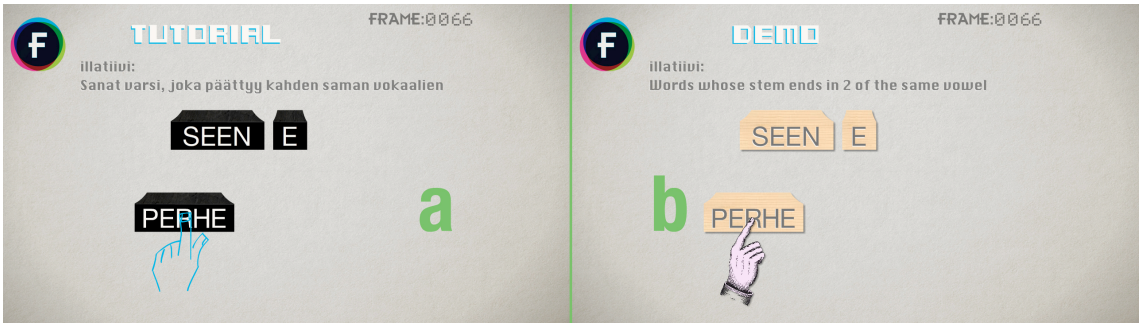

Figure 18: Application instructional demo illustrating how to drag the word blocks as shown to test group, before (A) and after (B) some feedback generated graphical updates.

Furthermore, what the testing highlighted was the reliance and importance to people of following design conventions. For example, when it was suggested that the pinch gesture, where the thumb and forefinger come together whilst touching the touch sensitive surface, could be used to close a page or for navigation, as opposed to the usual zoom or scale functionality associated with the pinch gesture, the response from the testers was not only negative, but hostile. This was an important lesson to learn, since it seems non-compliance with conventions is a fast way to get users to stop using your product: it's not that users do not want to think or try new things, but rather that they would like to concentrate on what the content is rather than how to manipulate it.

4 Conclusion

The goal of this thesis was to examine e-learning in its different permutations and how changing technologies have enabled its evolution. At the same time I investigated the taxonomy of different modes of e-learning and how these can be utilised in language learning. To showcase informal e-learning a prototype concept was produced that would enable teachers to supplement classroom teaching and improve users understanding of Finnish grammar. The project was not without some measure of success and the main goals were satisfied, at least in some elementary manner, with only minor technical setbacks.

The different approaches to e-learning can be a worthwhile addition to the language teaching landscape: especially if they enable communication, collaboration and the casual acquisition of language elements. They will undoubtedly become more important as the age group who have grown up using mobile devices and new web technologies enter into higher education. On the basis of interview research with learners and teachers of Finnish, it has been established that against an increasingly mobile-technology rich backdrop, the use of an informal style of learning: with no formal feedback, curriculum or assessment, but which instead takes place in pockets of free time around, alongside or as part of normal daily tasks has become more conspicuous; but also that it is most effective when pursued as a supplement to formal or classroom learning.

The intended outcome for the production part of this project was to design a concept that would allow users to consider Finnish grammar at their own convenience in settings of their choice. One challenging aspect of this is that all grammar elements seemed interconnected to the point that visualising one part in isolation without explaining other connected topics made the teaching seem a little too abstract. Furthermore the scope and scale of all the permutations of grammar meant that a full deployment could take years to achieve. A preliminary prototype application was presented in the study that illustrated one way to present Finnish grammar: however the prototype was limited to a proof of concept and did not include full implementation of many of the features, which could potentially be developed in the future.

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Interview Questions

Q1: What makes Finnish difficult to learn?

Finnish has a reputation for being a difficult language, and yet I have seen young children speak it beautifully: why do you think this reputation persists?

What makes Finnish difficult for an adult foreigner to learn?

Is it in fact as easy/difficult as any other language for an adult to learn?

A common complaint about Finnish courses is that the *'partitive case'* is not the easiest place to start, what are your thoughts on this assertion? (For example the kesäyliopisto courses and those at Kaliiolan Kansalaisopiston, both begin with the *partitiivi* – to the best of my recollection.)

Q2: What are your ideals about teaching Finnish for foreigners?

Why teach Finnish to foreigners?

What qualities make a good Finnish language student? (Is it someone under 6 years old with adequate exposure to the sounds?)

What are the worst habits a Finnish language student can have?

Is it already too late if a person is only starting to study when they are already in Finland?

Should a student learn vocabulary or grammar? Are the two necessarily exclusive?

Presumably people learning Finnish for foreigners have no prejudices against Finland, they did move here after all. Or could it be true that moving country is more stressful than anticipated, plus having to register with the magistrate and foreigner police and deal with some official bureaucracy etc, that these things combine in the mind of the learner to form an obstacle to learning? (Similar to how the Swedish language level of some Finns is often lower than their English level, perhaps due to some cultural memory of historic oppression that forms a barrier to their learning.)

Q3: 'Everyone' seems to speak English anyway, so what's the point?

When non-native speakers attempt Finnish, often the Finn replies in English.

Or

Any mistake made when speaking Finnish is often ruthlessly corrected, why is this? Does this lead to fear in the learner (of being wrong) and slow their progress?

Are Finns just not used to hearing bad Finnish?

Q4: How can classroom teaching be supplemented with eLearning?

What would adult learners need, in terms of media or electronic content?

How could some of the time people spend looking at heir laptops/phones be used learning Finnish?

Q5: What helped you learn your second, third…..languages?

Was it music?

Was it TV with subtitles?

Q6: Any other comments?

Thanks

Finnish For Foreigners Testing Questionnaire

This is the last section of the testing; please answer the questions below by circling one answer that best describes you opinion.

1 The overall the application is attractive.

¨ 1 ¨ 2 ¨ 3 ¨ 4 ¨ 5

Agree Disagree

2 The graphics are pleasing.

¨ 1 ¨ 2 ¨ 3 ¨ 4 ¨ 5

Agree Disagree

3 The between screen transitions are worthwhile.

¨ 1 ¨ 2 ¨ 3 ¨ 4 ¨ 5

Agree Disagree

4 The layout has a good balance of graphics versus text.

¨ 1 ¨ 2 ¨ 3 ¨ 4 ¨ 5

Agree Disagree

5 The colours used are attractive.

¨ 1 ¨ 2 ¨ 3 ¨ 4 ¨ 5

Agree Disagree

6 The typography (lettering, headings, titles) is attractive.

¨ 1 ¨ 2 ¨ 3 ¨ 4 ¨ 5

Agree Disagree

7 The application landing screen makes me want to explore the site further.

¨ 1 ¨ 2 ¨ 3 ¨ 4 ¨ 5

Agree Disagree

8 The application menu screen makes me want to explore the application further.

¨ 1 ¨ 2 ¨ 3 ¨ 4 ¨ 5

Agree Disagree

9 It is easy to find my way around the application

¨ 1 ¨ 2 ¨ 3 ¨ 4 ¨ 5

Agree Disagree

10 Screens have the right amount of content.

¨ 1 ¨ 2 ¨ 3 ¨ 4 ¨ 5

Agree Disagree

11 The application logo is good.

¨ 1 ¨ 2 ¨ 3 ¨ 4 ¨ 5

Agree Disagree

12 The information is relevant to my learning needs.

¨ 1 ¨ 2 ¨ 3 ¨ 4 ¨ 5

Agree Disagree

13 The application content interests me.

¨ 1 ¨ 2 ¨ 3 ¨ 4 ¨ 5

Agree Disagree

14 I would use this application.

¨ 1 ¨ 2 ¨ 3 ¨ 4 ¨ 5

Agree Disagree

15 I would pay for this application.

¨ 1 ¨ 2 ¨ 3 ¨ 4 ¨ 5

Agree Disagree

16 The application has a clear purpose.

¨ 1 ¨ 2 ¨ 3 ¨ 4 ¨ 5

Agree Disagree

17 I always felt I knew what it was possible to do next.

¨ 1 ¨ 2 ¨ 3 ¨ 4 ¨ 5

Agree Disagree

18 I would recommend this application to a friend.

¨ 1 ¨ 2 ¨ 3 ¨ 4 ¨ 5

Agree Disagree

19 I would like this application on a social network.

¨ 1 ¨ 2 ¨ 3 ¨ 4 ¨ 5

Agree Disagree

Thank you!

This questionnaire was based on questions found here:

WAI Site Usability Testing Questions. W3 [online] Cited 29 March 2013.
http://www.w3.org/WAI/EO/Drafts/UCD/questions.html