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Online communication between home and school

**Case study: Improving the usability of the Unikum
e-service in the primary schools of Tierp
municipality**

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ABSTRACT

This thesis project, focus on the use of Internet and new media as an online communication to improve the caregiver-pupil-school partnership. In particular the usability of the e-service is investigated by studying a real example: the Unikum system as it is used in Tierps municipality.

The Unikum e-service is used in many primary schools in different municipalities in Sweden for communication and cooperation between caregivers-pupils and school.

The aim is to assess the usability of the Unikum e-service in the particular context of Tierps municipality, find out about the benefits of using it, finding the problems that are there, and also to try to design solutions to improve the usability for the e-service.

1. INTRODUCTION

We all agree that the communication and sharing information between the caregivers, pupils and the school is very important for the pupil's learning and social progress. This is because it creates a partnership in which both the caregivers and the school work towards the same goal which is to help the pupil succeed.

Recent research on *Bridging The Gap Between Parents, Pupils And Schools* (Burgess, D., Imaginative minds group- Teaching Times)^[1] has written about the communication between caregivers and the school: "Without this on-going and collegial communication, the "right hand cannot be aware of what the left hand is doing"^[1].

Many papers have been written about the ways and ideas for effective and reliable communication between the caregivers, pupil and the school to reach the same goal, the child's better performance at school and motivate him/her to do well. A positive partnership can be achieved by providing the caregivers with the regular updated information about the education, and not only when something goes wrong, and at the same time, listening to the caregivers' opinions and ideas.

1.1. THE PROBLEM

Recent research of (edutopia, 2010): *TIPS, TECH TOOLS, AND STRATEGIES for IMPROVING FAMILY-TO-SCHOOL COMMUNICATION* [2] state that:

- Around one third or more of the pupils had difficulty to talk to their caregivers about their education.
- The caregivers felt that they were excluded and struggled in getting information about the school day from their child and they need more effective ways to keep them informed from the school about their child education progress.

In the past and in some schools till now, the most common way to communicate with caregivers is papers carried from the school to the home by the pupil "the pupil post" which is a form of one-way communications. The problem of this way is that sometimes it never actually reaches the caregivers because the child forgot it at all or forgot to give it in time.

Another way of communication is "the face to face meetings" with caregivers. The problem of this way is that these meetings are quite difficult to arrange. Also because of the limited time of the meeting there is seldom time for discussion (only the most important issues to discuss).

Finally, in urgent cases, the school may make phone calls to the caregivers to their home or work phone number. The problem of this communication way is that not all the time school can reach caregiver when they are not at home or work for any reason!

Recent research of (Redecker, C., Haché, A. and Centeno, C., 2010: *Using Information and Communication Technologies to promote Education and Employment Opportunities for Immigrants and Ethnic Minorities* (Policy brief)[9] showed that many immigrant children have lower educational attainment than their peers (European Commission 2008b; 2008c) [9] due to the socio-economic issue and the language barriers and that this emphasizes the need to increase the efforts in education by encouraging schools to be inclusive and multicultural to update the teachers' skills and competencies and strengthen the communication with caregivers and community to remove barriers within the school system (European Commission 2009b) [9]. This will help to address the needs of immigrant children to become active participants in society (The European Commission (2007a)[9]. All eventually return to the same question: Is the traditional way of communication between home and school enough to do all that? And the answer is off-course: "No".

With the advent of new technology ideas have been put forward new ways to reduce the gap between home and school and to generally improve the ways of communication.

In the recent years, the new technology has opened up effective channels of communication between home and school. New online tools hold the potential of keeping all the caregivers in contact irrespective of their cultural and language background. Also make them able to receive and pass information from/to school and stay updated with their child's progress in time.

With the increased use of this new technology in the home-school communication and the potential for improvement it holds, there is a need to study:

- How to use Internet and the new media to keep the caregivers up-to-date about important events for their child in the school.
- How to make caregivers, pupils and the school work together using this new technology to create effective partnership to gain the better benefits for "all". And "all" means: the child to be better in school and life, the caregivers to be more empowered, the teachers' morality to be improved, the school then the community is better, so everyone wins [3].
- Finally how to improve these new ways to be more effective.

1.2. WHY UNIKUM?

As this thesis study is about the using of the internet and the new media in the online communication and cooperation between home and school. From the previous researches and my using to some of the online technology web-based and mobile application that mentioned in these researches, I found that there are many online communication tools with much different functionality that used as a wide online communication between home and school. And that makes these e-services complex, difficult and unclear to their users, and need a lot of training and help guides for the new users. All that make these e-services became un-used by their users.

That is why this thesis project, focus on studying a real example the Unikum e-service that used and still in Tierps municipality to find what type of problems that faces the Unikum's users.

I choose Unikum for many reasons: first Unikum is a web-based e-service for online communication between home and school in the primary schools in many municipalities in Sweden and one of them is Tierp's municipality where I live. Second I am one of these caregivers that need a lot information about their children education progress and I also believe that children really need their caregiver support especially in their early education and live.

2. RESEARCH QUESTIONS

THE INTERNET AND NEW MEDIA

- Does Unikum consider the culture background of its users?
- Does Unikum consider the language background of its users?
- Does Unikum consider the security and privacy of its users?
- Does Unikum consider the ability of its users? Especially the children?

THE SATISFACTION

- Is Unikum satisfying to use?
- Is Unikum's concepts are acceptable?
- Does Unikum do what its users want? And support its users' goals?

THE EASE OF USE

- How easily and successfully do Unikum's users find the information they are looking for? (search)
- How easily can Unikum's users navigate through it?
- How well do Unikum's users understand the symbols and icons?
- How easily and successfully do Unikum's users find the tools or options they want?

THE ASSESSMENT

- What are the major usability flaws that prevent Unikum's users from completing their tasks?
- How closely does the flow of Unikum reflect its users (teachers) work flow?

THE DESIGN

- How to improve the current design of Unikum to be more usable to its users?
Note:
Usable means: make caregivers, pupils and the school use the improved design to get up-to-date information and create effective partnership to gain the better benefits to "all"

3. BACKGROUND

3.1. INTERNET & NEW MEDIA EFFECTS ON CAREGIVERS-PUPIL-SCHOOL COOPERATION / COMMUNICATION

With the increase of using the internet and new technology everywhere in our life, for instance the using of smart phone with all its renewed application, That effects the way that we communicate with each other. It is now all most all can use the internet and social media anytime and anywhere at home, at work, even at schools. To know how that effects the caregivers-pupil-school communication and cooperation; it is important to discuss the following:

3.2. THE SITUATION BEFORE THE IT-SYSTEM WAS INTRODUCED

To understand the benefits of using internet and new technology in the home-school communication, it is necessary to understand how it works before using it. The traditional ways that used in home-school communication are described below. The traditional ways could be useful to those who have no smart phones, no computer with internet connection, also for those who have difficulty or don't know how to use computer or internet, but even these people can learn by time!

3.2.1. TALKING ABOUT SCHOOL

This is one of the common ways that the caregivers prefer to use to get information from their child about their school day. But many children have difficulty to speak about their school day for many reasons: like they don't remember all the details or they don't want to talk about something that happened maybe because they are not aware of everything that happened. The result of this way, the caregivers struggled in getting information from their child^[2]. Or the caregivers could be success in getting some of the information but not all of it. Finally this information could be wrong because the child miss understand something and that all leads to, this information that the caregivers get in this way is unreliable.

3.2.2. USING PAPERS

It is one of the most common one-ways communications^[4]. It still used in many schools till now to send frequent and regular information and messages to the caregivers by using papers and it also known as "pupil post". For instance sending the "Veckobrev" (in Swedish), that contains the events during the next week. But this way relied on the pupil and frustrating for both caregivers and pupil! Because information rarely arrived to caregivers at time or even never show up at all!

3.2.3. DIRECT TALKING

It is tow-ways communication and can be called "Face to face meeting". The aim is to sit and talk about the child progress in school with caregivers and even the child himself. The problems of this method are: First the difficulties to arrange the meeting, especially with the busy caregivers and the limited time of the teachers. The second problem is that it arranged one or two times in the year for one hour long, so only the most important events will be discussed during the limited time of the meeting.

3.2.4. USING LAND LINE TELEPHONE CALLS

It is one of the tow-way communications and usually used in urgent situations. It could be a good way for the caregivers to call to the school but unpleasant to them when they get a call from the school that almost contain urgent bad news about their child!

This way has different problems for instant school cannot reach the caregivers due to number changing, busy line, out of service, or caregivers are not at home or work!

3.3. THE SITUATION AFTER IT-SYSTEM WAS INTRODUCED; DOES IT-SYSTEM REALLY CHANGE THE COMMUNICATION WAYS?

Recent research of (Graham-Clay, S., 2005): *Communicating with Parents: Strategies for Teachers*^[5] showed that in the very few years, the internet described as the powerful platform especially after using of the social media and the new mobile technology (smart phones). These innovations changed the way of using the internet to be international or 'Globalised' dimension. And it became the universal information's source for all-anywhere-anytime^[5]. That led to increase the number of internet's users and changed the way of communication between people. And according to (Nielsen, L., 2010): *6 Ways to Use Cell Phones to Strengthen the Home-School Connection*^[6] The caregivers-pupil-school communication also changed from the traditional ways to what it called the "online communication" ^[6] to exchange up-to-date information and ideas.

3.3.1. THE BENEFITS OF USING THE NEW TECHNOLOGY IN THE HOME-SCHOOL COMMUNICATION

- The using of online-communication methods between home and school, created new ways of learning. That made schools to help and encourage their pupils to develop their ability of using these new methods. That led to release their natural creativity and their willingness to learn that was frustrated by the traditional old methods. And all that will lead to improve the pupils' education.
- The using of online communication keeps the caregivers-pupil-school exchange up-to-date information and ideas at anytime, anywhere they are and for everyone. The most used methods are SMS, emails, online conference (Skype), chat, blog, closed and secured social networks, web based e-services (online platform) and Apps on smart phones.
- Resent research of (Miniwatts Marketing Group, 2012): *INTERNET GROWTH STATISTICS- Today's road to e-Commerce and Global Trade- Internet Technology Reports*^[3] is that one of the most important things is that online-communication efforts to solve the cultural and languages differences problem. For instance the using of the online communication tools that provide real-time translation, language spelling and grammar correction, they can help the families who live in Sweden with different mother language (not Swedish) and different cultural background to overcome this problem. Some examples are the using of (Google SMS-translate in mobile phonesⁱ and ImTranslatorⁱⁱ)^[3].

ⁱ Google Mobile: <http://www.google.com/mobile/sms/>

ⁱⁱ ImTranslator: <http://imtranslator.com/>

- The recent research of (Redecker, C., Haché, A. and Centeno, C., May 2010): *Using Information and Communication Technologies to promote Education and Employment Opportunities for Immigrants and Ethnic Minorities (Policy brief)*^[9] went further and showed that “Information and Communication Technologies (ICT) can effectively support the social and economic integration of immigrants and ethnic minorities”
- According to (Miniwatts Marketing Group, 2012): *INTERNET GROWTH STATISTICS- Today's road to e-Commerce and Global Trade- Internet Technology Reports*^[3]; showed that with the many different web-based solutions, the schools are able to open simple effective channels of online-communication with the caregivers. That enables the caregivers to be virtually in their child classroom irrespective to their location, they still able to receive up-to-date information about their child's progress and also send feedback in different ways that suitable to their situation. Some of the examples the web-based tools and solutions for online communication that used in schools^[3]: eChalkⁱ, Google Apps for Education Editionⁱⁱ, edmodoⁱⁱⁱ, blackboard^{iv}, edline^v and many others.
- According to (Stier, Backes and Lamb): *Increasing Parents-Teacher-Child Communication for Beginning Teachers: S.O.S. Style*^[7] showed that the using of cell phones and smart phone in home-school online-communication, help busy teachers easily to communicate with busy caregivers. Some examples of using smart phone Apps and tools in schools^[7]: Google SMS translate, Drop.io^{vi}, WeTxt^{vii}, Swaggle^{viii}, PollEverywhere^{ix}, and many others.

3.3.2. DOES IT-SYSTEM REALLY IMPROVE THE COOPERATION/ COMMUNICATION AND EDUCATION?

- Teachers now a days are able to send pupil schedule, school lunch menus, calendar, lectures that contain pictures and videos, links to external document, books, websites, online resource, pupils progress, class or child activities,, homework, all about exam, exam results and many other things and receive response from both caregivers and pupil about all that.
- Caregivers are able to receive up-to-date information about their child activities, progress, schedule, exams, results via blog, email, chat, SMS and many other abilities. And also they participate effectively by sending their opinions, ideas and asking question.
- Pupils get information easily from their teacher about their schedule, results, their progress situation, lessons, homework, and educational resources like links, films, pictures, online books and documents.
- From all above we found that the new technology bring new forms of communications and learning methods that increase the pupils, caregivers and teachers natural creativity and their desire to learn and that improve the education^[9].

ⁱ eChalk: <http://www.echalk.com/>

ⁱⁱ Google Apps for Education Edition: <http://www.edutopia.org/google-educators-school-communication>

ⁱⁱⁱ edmodo: <http://www.edmodo.com/>

^{iv} Blackboard: <http://www.blackboard.com/International/EMEA/Overview.aspx?lang=en-us>

^v Edline: <http://www.edline.com/>

^{vi} Drop.io: <http://en.wikipedia.org/wiki/Drop.io>

^{vii} WeText: <http://www.wetxt.com/>

^{viii} Swaggle: <http://www.swaggle.mobi/sessions/new>

^{ix} PollEverywhere: <http://www.polleverywhere.com/>

3.3.3. PROBLEMS OF USING THE NEW TECHNOLOGY

- According to (Lievrouw, L.A. and Livingstone, S., 2006): *Handbook of new media: social shaping and social consequences of ICTs* ^[8] showed that the lack of resources is one of the common problems that face schools in their trying to develop an effective online communication between home and school. For instance some caregivers do not have computer, internet, or smart phone.
- The lake of technical skills for some of the caregivers and small pupil that affects their ability to use the new technology is one of the common problems. For instance; some caregivers and small pupils do not have en email account, or they have it but they do not check their email every day because they do not know how to login to it without help of others.
- According to (Redecker, C., Haché, A. and Centeno, C., May 201): *Using Information and Communication Technologies to promote Education and Employment Opportunities for Immigrants and Ethnic Minorities* (Policy brief) ^[9] showed that he security and privacy problem is one of the most important issues that make many people refuse to use the new online-communications methods. For instance; emails can be forwarded to anyone! So when we encourage the pupil to use these new online methods of communications, the most important issue is that we consider “How to keep the idea of childhood when they use this new technology?”^[9]
- Using the online communication is not like the face-to-face meeting and it can produce a misunderstanding in many cases. For instance; not well formatted email can change the receiver interpretation of the sender’s message.
- The design problems of the web-based platform and mobile applications lead to many usability problems for the users. For instance; are these online tools easy to use and satisfied the users’ needs.
- Sometimes there is a need of providing training for the new teachers, caregivers and pupil to be able to use these new online-communications methods.
- The using of new online-communication between caregivers, pupils and school produced many ethical problems. For instance; the bad using of the online information like republishing the information in the closed social network into public one.
- Translator tools that suppose they solved the language problem, they don’t provide the same translation quality for all the languages. For instance; caregivers that their mother language is French or English will get a better translation from the Swedish language than caregivers who speak Kurdish. Even these translator tools did not consider the culture differences that changing the whole meaning of the sentences and results misunderstanding of the subject.

3.4. CAN IT-SYSTEM BE CHANGED TO FURTHER IMPROVE THE COOPERATION & COMMUNICATION?

The way to further improvement of the online-communication between home and school, is by following the HCI principles in the design to increase the usability by considering:

- The users’ needs and satisfaction by following the principles of the User Centred Design.
- Faster and easy use for all its users with a clear simple online help.
- Providing high security and privacy to its users for more trust and confidence use by all.

- Considering the culture and language differences for the users from different cultures and languages. And trying that all users will get the same quality of the services and information with (considering the ethical issue).
- Providing training to the new users when it needed.

4. UNIKUM E-SERVICE

4.1. ABOUT UNIKUM (UNIKUM POINT VIEW)

Unikum is a web-based e-service for online communication and collaboration between caregivers, pupils and school on goals, planning, assessment, monitoring reflections and dialogue, development and documentation^[11], as shown in figure 4.1^[11,13].

By 2012, it used in many schools in different municipalities in Sweden. And one of them is Tierp municipality.

4.2. UNIKUM VISION

The Unikum vision is: “Learning experience for all of our unique children adapted to each child's unique circumstances and situation”^[13]. And that required the cooperation of all at home and school. As shown in figure 4.2^[11,12].

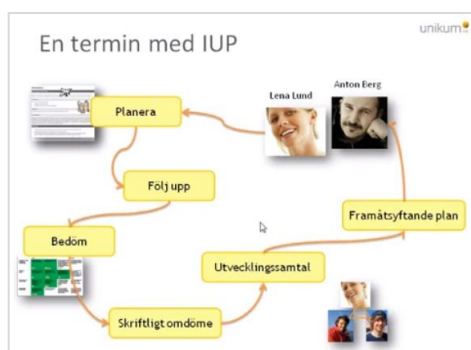


Figure 4.1: illustrate how to use Unikum's tools in one semester as shown in a guide tour video on the Unikum website [11, 13].

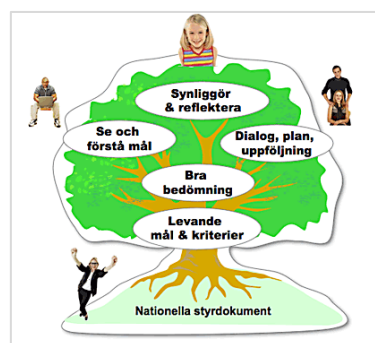


Figure 4.2: illustrate the Unikum vision, the figure from Unikum website [11, 12].

4.3. UNIKUM FOCUS

Unikum tools focus on five processes of learning in schools to personalize learning and reach the school's goals. These processes are as described in Unikum's website^[11] as follow:

- “Visible development for the pupil by documentation and reflection.
- Individual learning plan based on dialog between home and school.
- Pupil understands the development goals and the way to reach them.
- Continuous formative assessment of the pupil's progress towards their goals.
- Pupil, caregivers and school updating continuously documents, objectives and criteria.”

4.4. UNIKUM FUNCTIONALITY, WHAT THE SYSTEM DOES?

This study is on the Unikum version before august 2012, which included the following tools: Unikum login page is shown in figure 4.3 below.

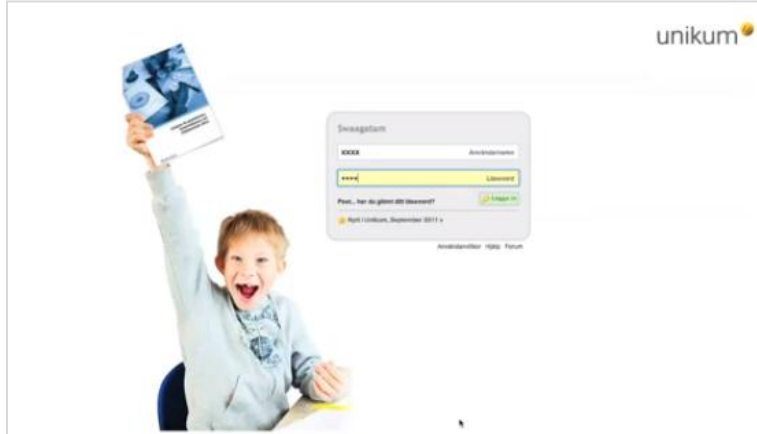


Figure 4.3: screenshot from a video [11, 13] on Unikum website, it illustrates the User's login page of Unikum.

“Start”; It is the start page of the user and it contains 3 tools:

- First “Om mig” under the “Start” and it means “about me”. It is the start page of the user and it shows information about the user and its relations “Relationer” in Swedish. As shown in figure 4.4 below.



Figure 4.4: illustrate the User's start page in Unikum. The screenshot is from guided tour video [11, 13] at Unikum website.

- Second “Inställningar” under “Start” and it means “Settings”. It used to change the user information according to his/her login access. And it also contains the terms of use. As shown in figure 4.5.
- And the third is “Notiser” under “Start”. And it means notifications from other users that made new update in Unikum. It contains “Aktuella notiser” and “Alla Notiser”

Användarnamn och lösenord

Användarnamn *
klassfyra

Lösenord *
Bekräfta lösenord *

Förnamn *
klass

Efternamn *
fyra

Uppdatera användarnamn i enlighet med för- och efternamn

Personnummer (åååå mmdd-nnnn) *
19740815-5187

E-post
klassfyra@hotmail.co.uk

Personnummer används endast för att synkronisera användare med andra system.

Årskurs (för grundskoleelever)
Ej satt

Kontaktuppgifter

☒ Dölj mina kontaktuppgifter - så att endast klassens personal kan se dem.

Telefon hem

Telefon arbete

Mobiltelefon

Gatuadress
Bergsgatan 6c

Postnummer
81536

Ort
Tierp

☒ Jag vill få mina viktiga noter via e-post
☒ Jag vill få meddelanden från min skola och klass via e-post
☒ Jag vill få viktiga användarmeddelanden via e-post

Användaravtal

Du har godkänt användaravtalet. [Klicka här](#) för att läsa avtalet eller ändra samtycket.

Presentation

Beskrivning
Jag är en lärare för elevklassfyra och andra elever som går i projekt design.

Välj bild: [Choose File](#) No file chosen
Bilden ska vara i PNG, GIF eller JPEG-format i stående passfoto-format.

Välj bakgrundsbild

Figure 4.5: The screenshot from Unikum e-service that illustrate The “Inställningar” page content.

“Fokus”; and it means in English “Focus” and it contains 3 tabs:

- The first tab is the “LPP” (Lokal pedagogisk planering) under “Fokus” and it means in English (local educational plan). It is used for creating and using the local educational plan of the course for pupils as shown in figure 4.6 below.

LPP för Klass 3 - Älgarna

Klass 3 - Älgarna Kronolles Västerteg

Vikingatiden

Skapad av Lena Lund idag, i Kronolles, Västerteg
Baserad på "Mali LPP - Kronolles" från Kronolles, Västerteg.

Elev	Nuläge	Kommentarer
Tintin Andren		1 kommentar
Jossan Beck		0 kommentarer
Kimme Karlén		0 kommentarer
Oliver Ottosson		0 kommentarer
Lova Skimmer		0 kommentarer

LPP för Tintin Andren

Klass 3 - Älgarna Kronolles Västerteg

Vikingatiden för Tintin Andren

Syfte med arbetsområdet

- Hi | Utvecklar förståelse av historiska företeelser och skeendens bakgrund och samband och allt dessa kan uppfattas, förstås och tolkas ur olika perspektiv
- Tk | Utvecklar intresset för teknik och sin förmåga och sitt omdöme vad gäller att hantera tekniska frågor

Konkretiserade mål

- Hi | Kunna berätta om och jämföra hur män, kvinnor och barn levde och tänkte i några skilda miljöer och tider i Sverige och på några andra platser i världen
- Tk | Kunna med handledning planera och utföra enkla konstruktioner

Undervisning

- lära sig mer om hur människor levde på vikingatiden genom att se på film, lyssna på berättelser, läsa faktatexter, skriva egna texter m.m.
- gestalta livet på vikingatiden i bild och form bl. a. genom att bygga modeller av vikingaskepp.

Bedömning

Vi kommer att bedöma elevens förmåga att:

- muntligt och/eller skriftligt jämföra hur människor levde på vikingatiden och hur människor lever idag
- följa en instruktion för att bygga en modell

Figure 4.6: Two screenshots from tour guide video [11, 13] on Unikum website that illustrate The “LPP”.

- The second tab is the “IUP-mål” (Individuell utvecklingsplan- mål) and it means in English the (Individual Development plan- goal) for the pupil.
- The third tab is the ”Läroplan 2012” and it means the “learning plan in 2012” for all courses as shown in figure 4.7 below.

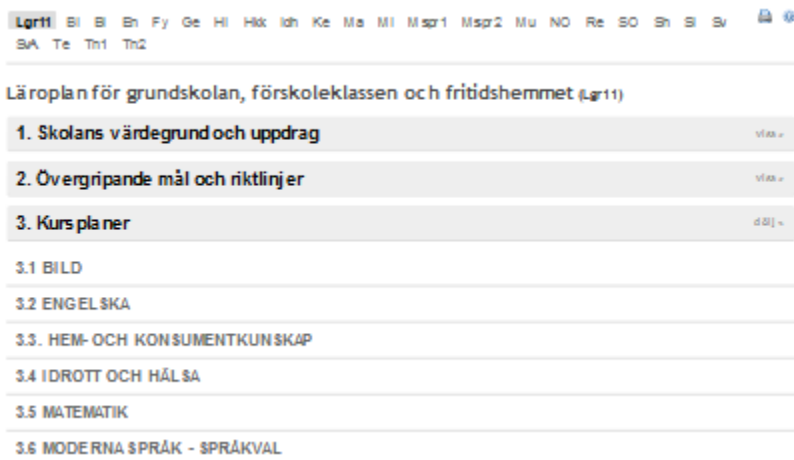


Figure 4.7: Screenshots from Unikum that illustrate The “Läroplan 2012”.

“IUP”; (Individuell utvecklingsplan) and it means in English “Individual Development Plan” as shown in figure 4.8 below.

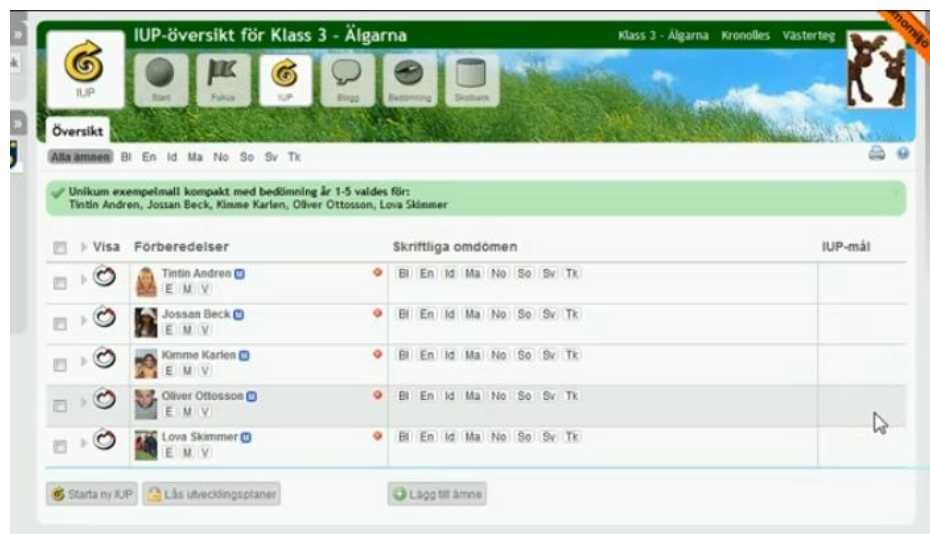


Figure 4.8: Screenshot from tour guide video [11, 13] on Unikum website that illustrates The “IUP”

After starting an “IUP” for pupil the “IUP” page contain the following tabs:

“Nuvarande” and “föregående” and they mean the “current” and the “previous”. Each will have different tabs depending on the selected “IUP-plan”. For instance according to the selected “IUP-plan” the “IUP” contains the following tabs that shown in figure 4.9.

- The “Översikt” tab that it means the “overview” as shown in the screenshot in figure 4.9.



Figure 4.9: Screenshot from tour guide video [11, 13] on Unikum website that illustrates The “IUP” >>”Nuvarande”>>”Översikt”

- The “Min utveckling” and it means “my development”. It contains a list of questions that the pupil should answer them. As shown in figure 4.10.

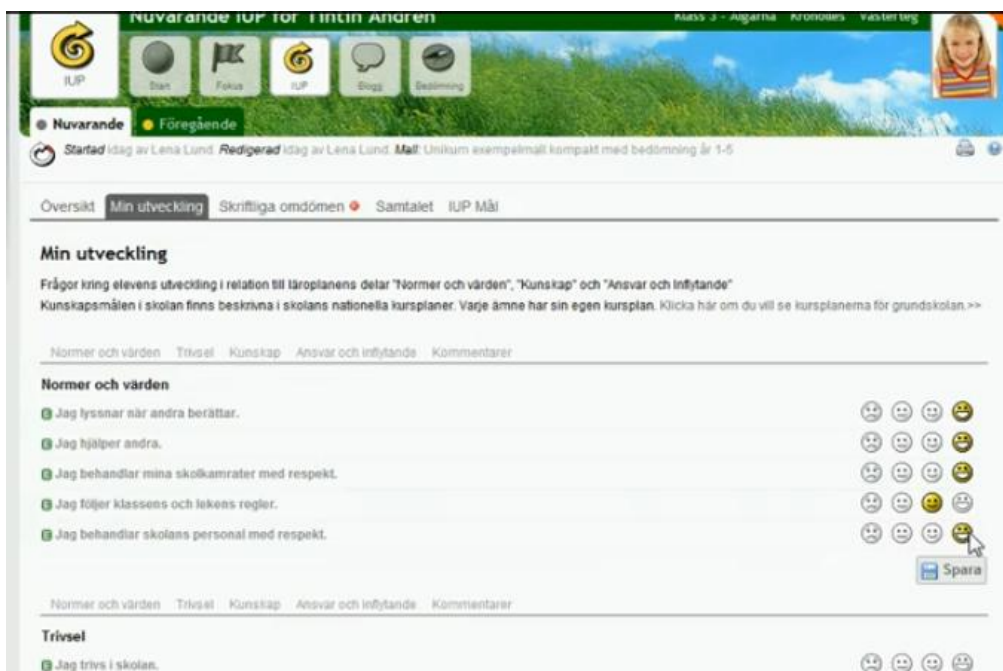


Figure 4.10: Screenshot from tour guide video [11, 13] on Unikum website that illustrates The “IUP” >>”Nuvarande”>>”Min utveckling”

- The “skriftliga omdömen” and it means “written reviews”. It used for preparing pupil’s review before the appraisal as shown in figure 4.11.

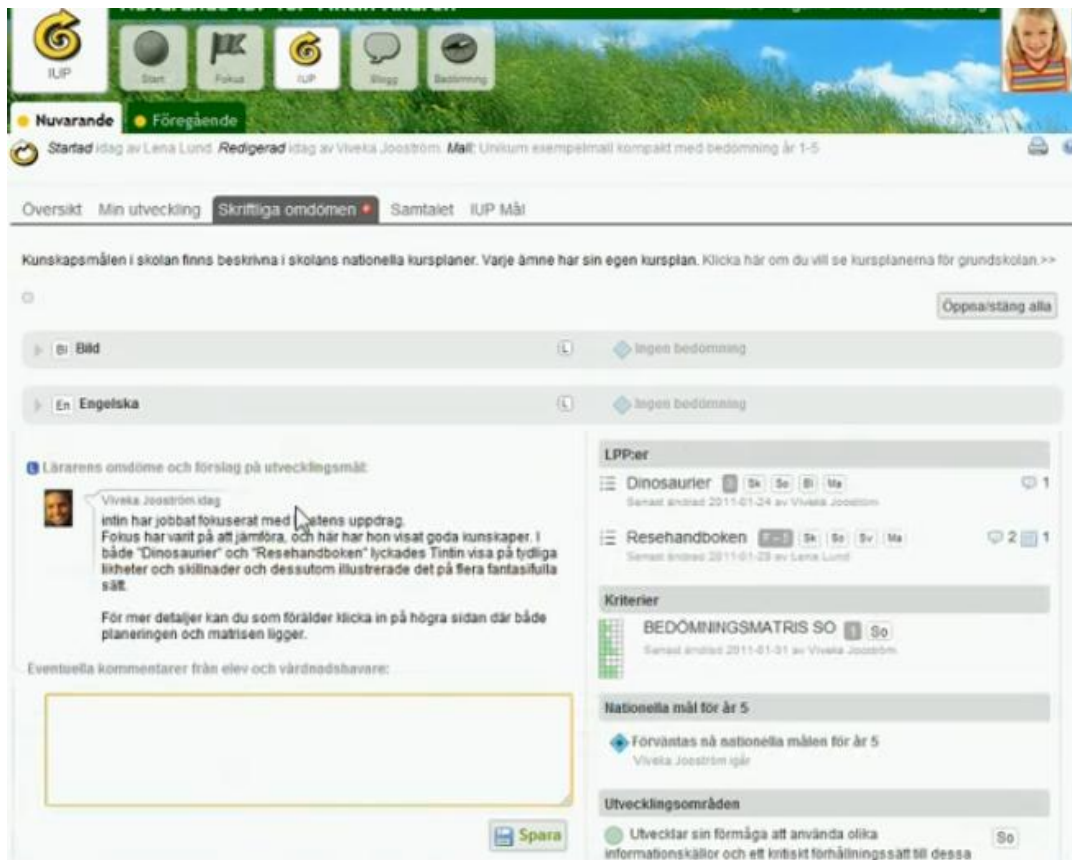


Figure 4.11: Screenshot from tour guide video [11, 13] on Unikum website that illustrates The “IUP” >>”Nuvarande”>>”Skriftliga omsömen”

- The “Samtalet” and it mean “the conversation” between the home and school.
- The “IUP-mål” and it means the “Individual Development goal” for the pupil. As shown in figure 4.12.

“Blogg”; and there are a blog in each level: pupil blog, class blog, school blog and also municipality blog. As shown in figure 4.13. The user can do three action: “Spara Utkast” it means “Save Draft”, “Publicera” and it means “publish” and send email at after midnight, and finally “E-posta” and it means “E-mail”, send an email directly.

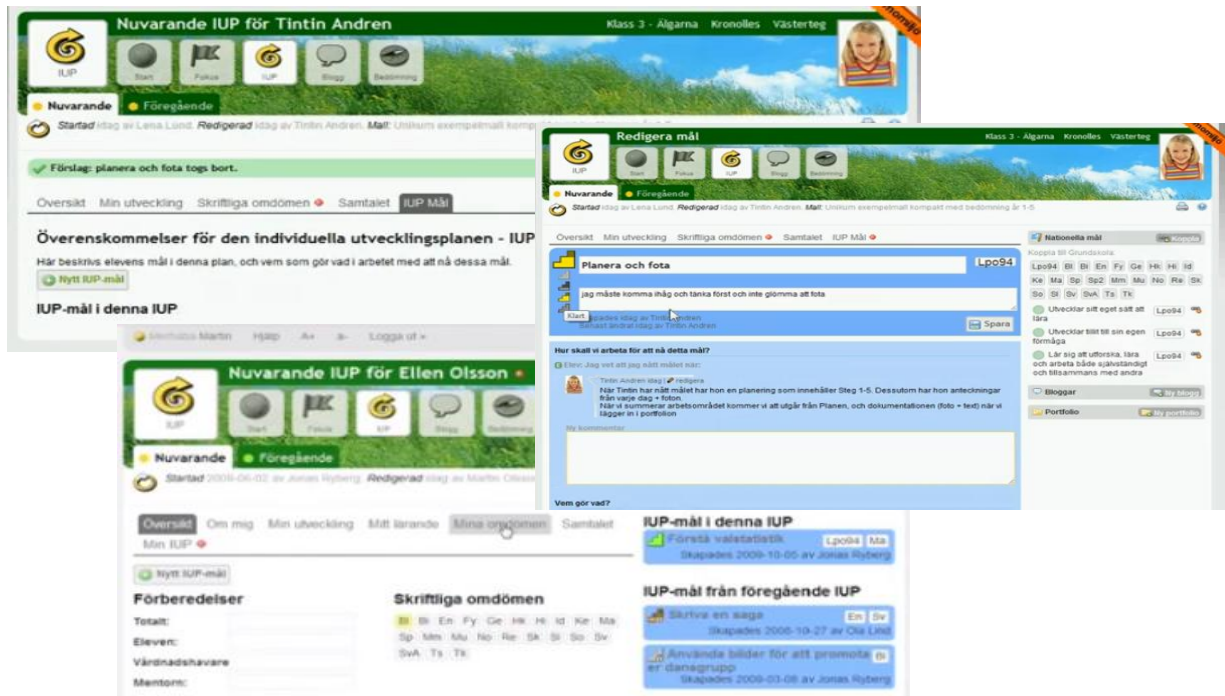


Figure 4.12: Screenshot from tour guide video [11, 13, 14] on Unikum website that illustrates The “IUP” >”Nuvarande”>”IUP-mål”

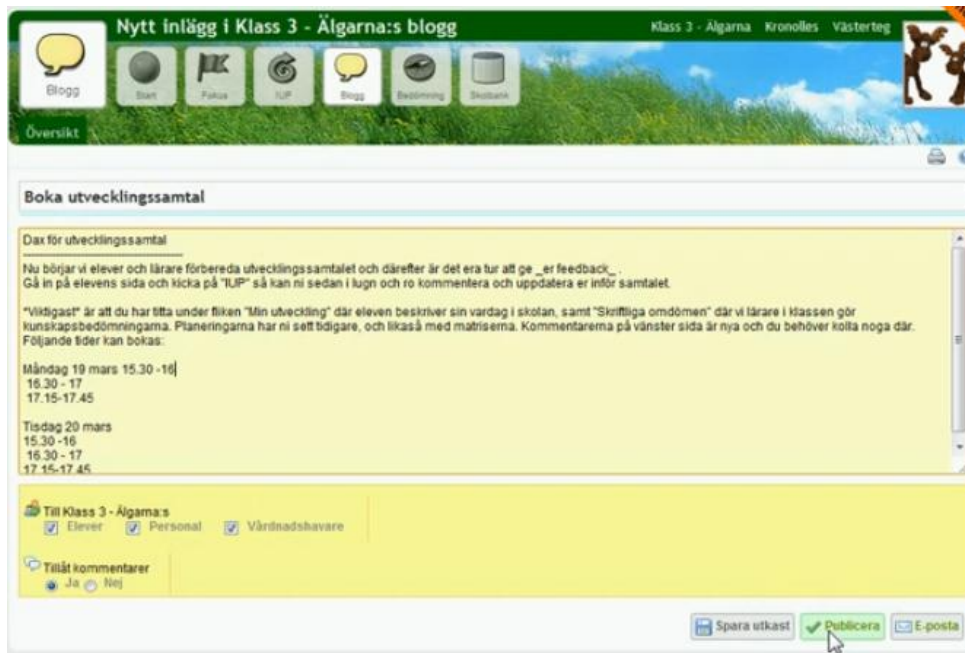


Figure 4.13: Screenshot from tour guide video [11, 13,] on Unikum website that illustrates The “Blogg”

“Bedömning”; and it means “the assessment” for the pupil. And it contains three tabs:

- The first tab is the “Matriser” and it means “matrices”. And it is a table that show the pupil’s assessments as shown in figure 4.14.

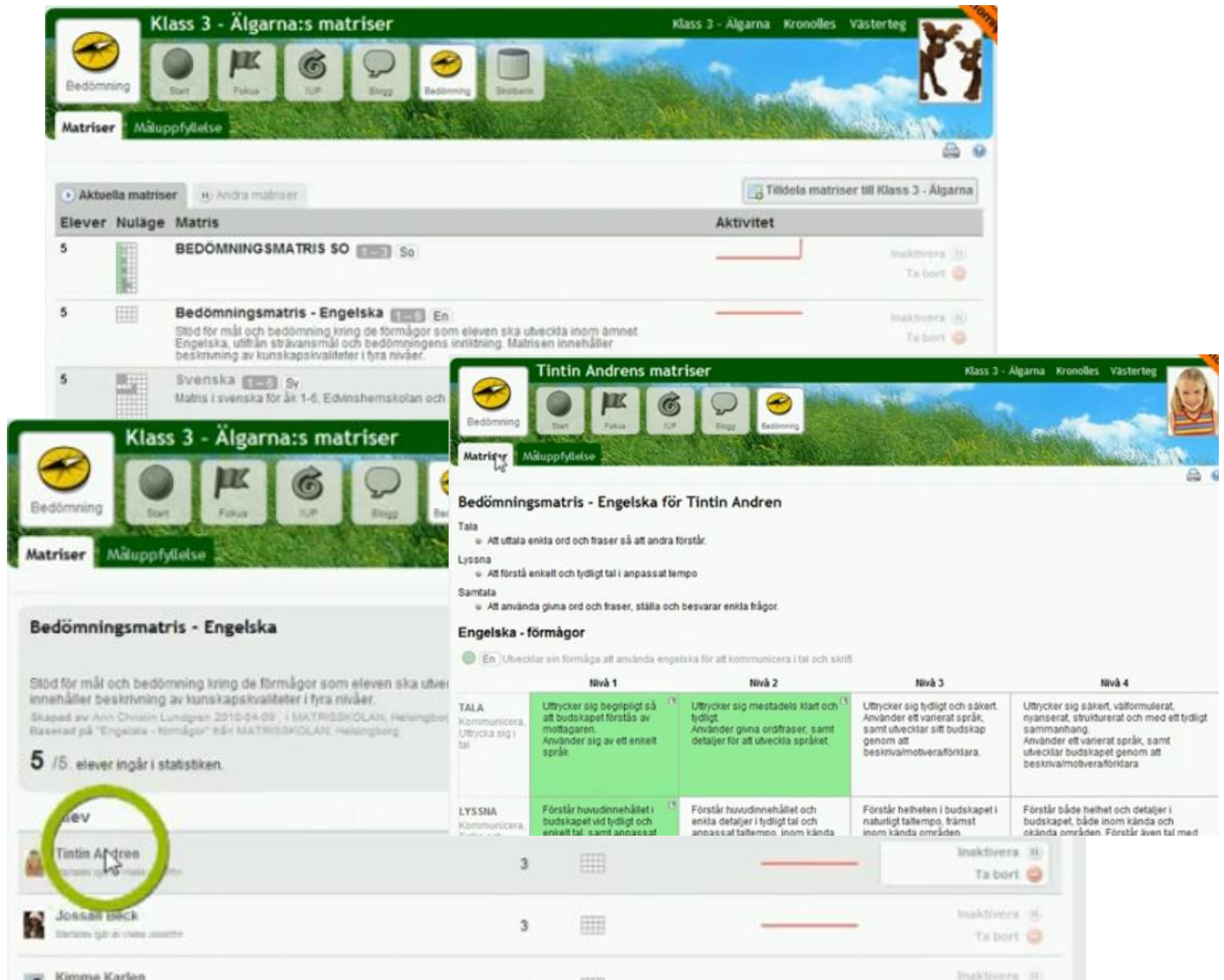


Figure 4.14: Screenshot from tour guide video [11, 13.] on Unikum website that illustrates The “Bedömning”>”Matriser”.

- The second tab is the “Kunskapkrav – nya” And it means “the Knowledge Required – new” for the new educational plan. It used for tracking pupil’s knowledge against the national proficiency.
- The third tab is the “Måluppfyllelse – gammal” and it means “the Goal achievement – old” for the old educational plan (in 2011/2012 only for “8: an” and that mean for only pupils in 8th class). And it used for tracking pupil’s to reach the goal achievement against the national proficiency. As shown in figure 4.15.

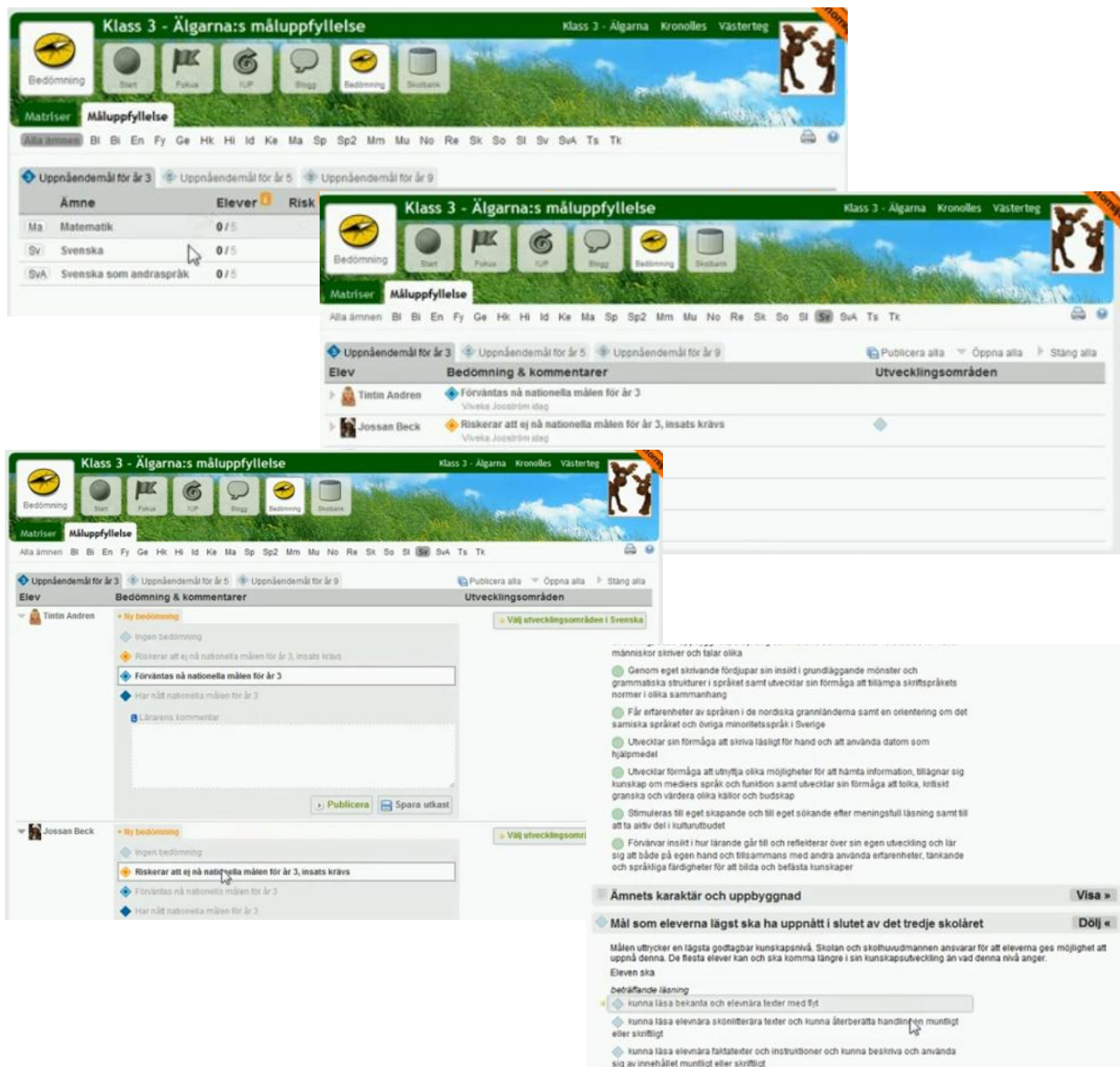


Figure 4.15: Screenshot from tour guide video [11, 13] on Unikum website that illustrates The “Bedömning”>>” Måluppfyllelse – gammal”.

“Skolbanken”; It means “the national school bank”. It includes thousands of examples about “IUP”, “LPP” and “Matriser” and it used only by the teachers and the educators. As shown in figure 4.16.

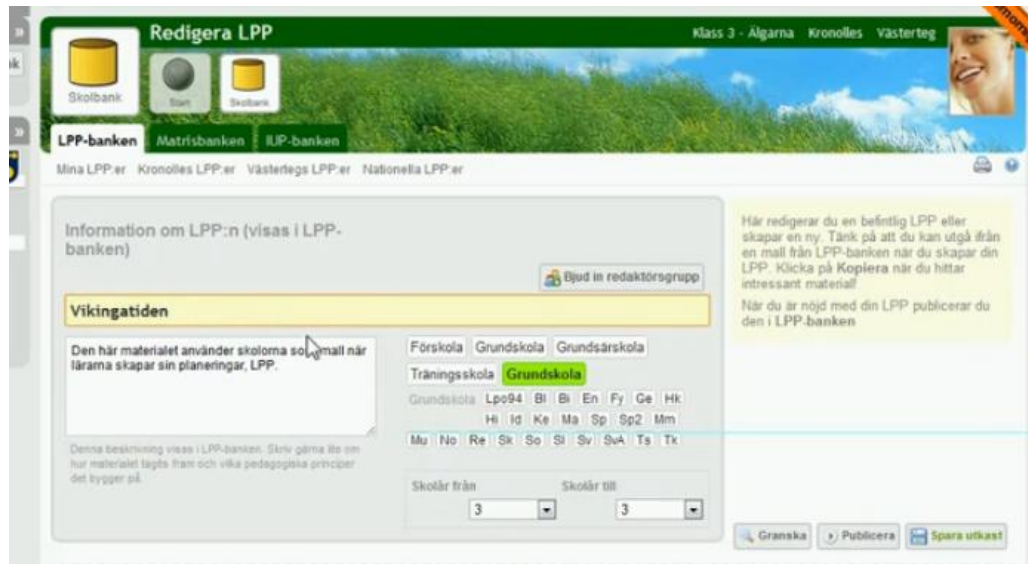


Figure 4.16: Screenshot from tour guide video [11, 13,] on Unikum website that illustrates The “Skolbanken”.

“Admin” and it means “Administration”. And it used only by administrator users. It contains only one tab which is the “Relationer” under the “Admin” tab.

5. TIERP MUNICIPALITYⁱ

It is one of the municipalities of the Uppsala County of Sweden [16, 17]. And it is one of the municipalities that using Unikum in its children nurseries and its primary schools.

In Tierp municipality there are 17 nurseries, with activities for children between 1-5 years old [18]. And 11 primary schools spread over 10 locations in the Tierp municipality for children between 7 and 16 years old [18].

5.1. THE AIM OF USING UNIKUM FOR TIERP MUNICIPALITY

Unikum used in Tierp municipality as an online communication and collaboration tool between home and school. By using Unikum; the teachers, caregivers and pupils can exchange the up-to-date information between them about pupil's goals, planning and assessment. Unikum also used for monitoring reflections, dialogue, development and documentation.

5.2. UNIKUM'S USERS IN TIERP

The users of the Unikum in the Tierps municipality are the teachers in the nurseries and the primary schools in the municipality, the caregivers of children between 1-16 years old, and the pupils between 1-16 years old in the nurseries and the primary schools in the municipality. Children between (1-6) years old or may be to 7 years old, need help from their caregiver or teachers to use Unikum.

ⁱ www.tierp.se

6. THEORIES

6.1. HCI

HCI is an abbreviation for human– computer interaction. And it can be defined as the field or the science that study, plan, design, implement, test the usability and evaluate the interaction system between users and the programs, websites, computers or machines^[19].

It also can be defined as the study, plan and the design of the human and computer activities with considering productivity, safety and enjoyment to support these activities. HCI systems should be usable; easy, safe, effective and enjoyable to its users^[20].

6.2. HEURISTIC EVALUATION

Heuristic evaluation (Nielsen and Molich, 1990; Nielsen 1994) can be described as a quick, cheap, most popular and easy usability inspection method to find both the major and minor problems of a user interface design. The method is conducted by involving few number of evaluators (5 evaluator is recommended but not less than 3 evaluator) to inspect the usability of the design by using the ten "heuristics"^[21].

Further information about the ten "heuristics" and the heuristic evaluation method can be found in the following resources links^[22,23 and 24].

6.3. USER CENTRED DESIGN (USD)

It means considering and understanding the needs, tasks and environments of the end users by involving them in each stage of the design process by using different investigative methods like: contextual inquiry, usability test and other methods. ^[27 and 28].

6.4. CONTEXTUAL INQUIRY (CI)

It is a part of the contextual design (CD) method and user centred design (USD) research method. The contextual inquiry interview used to gather information and analyse field data about user needs and tasks. It is the first stage of the contextual design. It is done by using a number of techniques; like contextual interviews (one-to-one interview) and observation. The results (the findings) of the contextual inquiry interview represented in models, and use them in the next stage of the contextual design (CD) process^[25, 26, 28 and 29].

6.5. STRUCTURED INTERVIEW

It also called standardised interview. It is fixed format interview of pre-written questionnaire used to ensure that all participants will answer the same questions in the same order. That will simplify the analysis by comparing the participants' answers on each question^[29 and 30].

7. RESEARCH METHODOLOGY

The study aim of this study is to:

- Gather information about the Unikum e-service; for instance: the aim of the Unikum, the Unikum vision, and how it should be used according to the provider.
- To find how the Unikum e-service used by its users and what are the problems that they face when they use the e-service
- To find if Unikum is usable; easy to use, satisfying its users, functional and considered the culture background, language background, security, privacy and ability of its users especially children?
- And finally to find how to improve the design of Unikum to be more usable to its users?

So the following 4 phases used in this study to find answers to all these questions:

7.1. PHASE 1: UNDERSTANDING THE E-SERVICE

The aim of this phase is to understand the Unikum e-service by gathering information about the e-service from the provider website and inspect the usability of the Unikum e-service in and this done by the following two methods:

7.1.1. INSPECT THE WEBSITE OF THE UNIKUM PROVIDER COMPANY

The aim of this method is to search information about Unikum e-service from the provider point view to find how the provider described the Unikum e-service, how the Unikum supposed to be used according to the provider point view and finally if the provider help the Unikum users to understand the aim and how to use the Unikum e-service.

7.1.2. USABILITY INSPECTION OF THE UNIKUM E-SERVICE

To study Unikum tools and inspect the most common usability problems in the design in this early stage of my study, so I used the heuristic evaluation as a method to reach this goal in this early stage of my research, because it is the most quick, cheap, popular and easy usability inspection method, to find major and minor problems of the design.

7.2. PHASE 2: CONTEXTUAL INQUIRY (INTERVIEWS PHASE)

The aim of this phase is to understand the contextual usability of the Unikum e-service from the buyer, provider Unikum and finally the users point views, by conducting semi-structured interview and structured interview to with the following groups:

7.2.1. INTERVIEW WITH THE SYSTEM EXPERTS, FROM THE BUYER SIDE (TIERP MUNICIPALITY)

A semi-structured interview method was used to understand buyer point view about the benefits of buying Unikum e-service for Tierp municipality, the target group (Unikum User in Tierp), information about Unikum functionality, privacy, security, integrity, ethical and the cultural issues.

7.2.2. INTERVIEW WITH THE SYSTEM EXPERTS, FROM THE PROVIDER SIDE (UNIKUM)

A semi- structured interview was used to get more information about Unikum related to the design, contextual usability, security, privacy, ethics, cultural and integrity issues from the provider Unikum point view.

7.2.3. INTERVIEW WITH THE EXPERIENCED UNIKUM USERS

The aim is to understand the contextual usability of the Unikum by interviewing the Unikum experts users; the teachers, the pupils and the caregivers. A structured interview method was used to ensure that all the participants in the interview will answer the same questions in the same order. And that will simplify the analysis by comparing the participants' answers on each question.

7.3. PHASE 3: TESTING THE USABILITY OF UNIKUM

The aim of the usability test is to get more concrete and reliable results by using high constraint method.

To collect participants to the usability test, a survey method used to sample randomly individuals from the populations and published in the Unikum blog and tierps municipality website. Where the participants selection criteria for the usability test of Unikum was as follow:

- The target group (population) is all the users of Unikum in Sweden.
- The selection group is all the users of Unikum in Tierp.
- Sampling of the targets group is randomly selection of users of Unikum in Tierp (Randomly selections from the Unikum users that participated in the survey).

The usability test method used to gather assessment data about the usability of the Unikum e-service. By using:

- Within subject design method
That means that each participant in each group go through all the tasks of the usability test.
- High constraint method by conducting the usability test in the usability laboratory with test room and control room that equipped with the necessary instrument to reduce the human error (effect)
- The same instruments were used with all task assignments and all participants.
- Counterbalancing task assignments except the first one (login assignment), to prevent any learning effect.

7.4. PHASE 4: THE SUGGESTED DESIGN

The user centred design method used. That considering and understanding the users' needs, tasks and their environments by involving them in the design process by using different investigative methods like: the contextual inquiry and the usability test that used in previous phases.

So depending on the stories that I gathered from the understanding phase and the contextual inquiry (interview phase), the conceptual model was designed shown in figure 8.1 that show the

users stories about their needs and an abstract conceptual scenario for each user group (Teachers, caregivers and pupils).

A low-fi prototype method used in the early stage of the design that show the users flow (flow chart for communication) as shown in figure 8.2, and the sitemap for each user (teacher, pupil and caregiver) as shown in figure 8.3.

3 personas considered in the design: teacher, pupil and caregiver, and a concrete scenario for each persona. And a Hi-Fi prototype method used to make the design more understandable for the end users and the providers (Unikum),

8. EMPIRICAL INVESTIGATION (METHODS AND RESULTS)

8.1. PHASE 1: UNDERSTANDING THE E-SERVICE

8.1.1. INVESTIGATE THE WEBSITE OF THE UNIKUM PROVIDER COMPANY

The aim of this method is to search information about Unikum e-service from the provider, the most important information that I got from Unikum website are:

- The Unikum e-service tools as described in the Unikum website: “
 - *Easy to use, require no special training even for new computer users, pupils with disabilities!*
 - *Helpful.*
 - *Available and reachable anytime, anywhere, by all.*
 - *Need to be used in several languages, and the disabled.*
 - *Work with ordinary computers and Internet connections.*
 - *Safe: information management with the necessary security and integrity to earn the users confidence.*
 - *Open: Appropriate open standards and soft infrastructure to facilitate resources and materials' sharing among educators, interconnection systems, and educational resources.*
 - *Smooth: The teachers decide the teaching methods and tools they want to work with to reach a pupil-run and personalized learning. The tools need to flexibly adapt this, and not vice versa.*
 - *Living: Pupils, teachers 'and caregivers' situation is constantly changing. Therefore also needs tools continuously improved, simplified and streamlined.”^[12]*
- The Unikum providers tried in different ways to provide the information that help the users to use Unikum tools and get there feedback, these ways are:
 - Many guided tour video beside different diagram that describe the Unikum tools and how to use them. And they also published in Unikum TV on YouTube^[13]
 - The Unikum website encourages the users to send their opinions, problems and ideas. That all beside the Unikum Facebook account that upload the latest activities of Unikum and get comments and feedback from users. ^[15]
 - The Unikum website publishes the latest news about the new tools that will be added to the Unikum.

So, all those encourage any user to use Unikum! So I decided to start the next step; the usability inspection of Unikum to find:

- If Unikum tools are usable as they have been described in the Unikum website! Are there some problems in the design?
- If the guided tour video and the other helping ways help users to understand and use Unikum tools!

8.1.2. USABILITY INSPECTION OF THE UNIKUM E-SERVICE

To study Unikum tools and inspect the most common usability problems in the design in this early stage of my research, I did the heuristic evaluation as a method to reach this goal. I prepared the heuristic evaluation plan as shown in (appendex1.1), and it contains:

- Little information about Unikum and links to Unikum website and the guided tour video about Unikum.
- Three scenarios as a teacher, caregiver and pupil.
- Each Scenario has won test plan that consist of many steps to help the evaluator to test most of the Unikum tools but I also asked them to feel free to add more steps to test Unikum in their way.
- I also asked them to put the results in a table that shows; where is the problem, according to what heuristic and the priority of the problems.

And I sent the plan by email to all the HCI Master Pupils how I know!

8.1.2.1. THE EVALUATORS ARE (ONLY TWO!)

I tried to get at least three evaluators by sending an email to many HCI Pupils to participate as evaluators of the heuristic evaluation of Unikum, only two replied that they can do that beside me so we were three evaluators, but after sending my heuristic evaluation plan of Unikum to them, unfortunately one unable to do the evaluation for these two rezones: first because he/she preoccupied with his/her thesis and second reason is that Unikum in Swedish language and he/she can only little Swedish. So I did the heuristic evaluation with only two evaluators.

The lake of that is; it could reduce the quality of the results but that what I got with the limited time I had. And the results can serve the aim of the heuristic evaluation that I mentioned before which it is to inspect in this early step if there is some usability problems in the design of Unikum that will help me investigate more about them in the next steps of my research.

8.1.2.2. THE RESULTS OF THE HEURISTIC EVALUATION OF UNIKUM

The details of the Heuristic evaluation result are listed in appendix 1.2.

Unikum have some usability problems:

- Unikum not speaking the user languages by using unclear names for some of its tools!! For instance; "Fokus", "Matriser", "LPP", extra) that not describe neither their usage purpose nor the information or the tools inside/ under them.
- Same word in different places with different usage!! For instance;"Relationer" under "Om mig" used to view contacts but under "start" used as an administration tool.
- Some tools are listed under a tool but linked to another!! That led to a navigation problem due to the unclear structure. For instance: "Relationer" under "start" but when the user opens it, it linked to "Admin" tool!! That made the user lost where he/she is now!
- Repeating the same information in many places in the design!! That confusing the user and make him/her wonders if they are the same thing or not For instance: "IUP-"mål" once under "IUP" and in other place under "Fokus"!
- Unnecessary tabs!! For instance: "Relationer" under "Admin" is the only tab that available

under “Admin”!!

- Unclear structure: A lot of help materials like using help documents, diagrams, link to Unikum Facebook and also videos in UnikumTV at YouTube or Unikum website, but all that could not make the users understand the logic structure of Unikum. Because the previous problems led to unclear structure that gives the users a confusing description about Unikum process and problem in navigation.
- Some tools need to be more functional for instance the:
 - “Blogg” need text formatting, SMS function not only email in emergencies.
 - “Matriser” need to mark also the goal “un-started yet” beside the goal is “reached” and “Unreached”
 - “Notiser” need search function, mark the read and unread “notis”.
- A lot of text everywhere that exhaust the user with un-needed and unclear information!! For instance the large amount of information in “LPP” that results in making it unreadable from most of the users.

The heuristic evaluation results showed that there are some problems in the design of Unikum e-service that led to unclear structure of Unikum e-service that confuse the users! So I decided that my next step is to discover the usability of Unikum by using contextual inquiry interviews!

8.2. PHASE 2: CONTEXTUAL INQUIRY (INTERVIEWS PHASE)

After studying the guide tour videos, diagrams and getting information about the Unikum from Unikum website, my first impression is that I found that the Unikum vision is clear and a very ideal way to deal with and help in pupil’s education. But in the Heuristic evaluation results I found that there are some usability problems in some of the Unikum tools that could be effect the logic structure of Unikum e-service and make it difficult to understand especially for pupils and caregiver that have no idea about the education process.

From the first step, I also found that Unikum very much stress the “Smoothness” of the system as an advantage.

- Example: *“The teachers decide the teaching methods and tools they want to work with to reach a Pupil-run and personalized learning. The tools need to flexibly adapt this, and not vice versa.”*^[11]

But is this “Smoothness” could produce consequences on the caregivers and pupils understanding of Unikum process for instance confusing them by getting different pictures of information from teachers that using Unikum in different ways. And the question here: Is this due to lack of contextual knowledge?

To understand the usability of Unikum, I interviewed the following groups:

8.2.1. INTERVIEW THE SYSTEM EXPERTS, FROM THE BUYER SIDE (TIERP MUNICIPALITY)

I conducted several interviews with the responsible person in the Shared Services/ IT Centre in Tierp & Älvkarleby municipalities who bought Unikum.

The aim of these interviews is to understand the benefits of buying Unikum e-service for Tierp municipality, the target group (Unikum User in Tierp), information about Unikum functionality, privacy, security, integrity, ethical and the cultural issues.

8.2.1.1. THE MOST IMPORTANT INFORMATION THAT I GOT FROM THOSE INTERVIEWS WERE:

The aim: Tierp municipality bought Unikum to use it in the children nurseries and in the primary schools in Tierp municipality.

- The functionality: By using Unikum, teachers put a learning plan for their courses, course goals, write reviews, individual goals for pupils, blog and communicate with caregivers and pupils. Caregivers and pupils can read and comment the information that they got from teachers.
- Documentation: All these information will be saved in Unikum and kept as document for each pupil till 5 years after his/ her graduation from the primary school.
- Privacy, security and integrity: Tierp municipality thing that Unikum is a closed online e-service that gives a good security and privacy to the information of its users. That is why Tierp municipality register pupils automatically then ask caregivers to join their child in using Unikum to communicate with school, participate in their child education process, read and comment their child document. But there are several families in Tierp feel that Unikum security and documentation integrity are not enough, In this case if both caregivers are not satisfied with the Unikum security, privacy or even integrity, then they can ask Tierp municipality to un-register their child in Unikum. And the child will have only a paper document in the school (traditional documentation).
- Ethical issues: Unikum not allowed teacher to write "känsliga information" and it means sensitive information about pupils! But the question here is teachers committed with that? And are caregiver and pupil known that teachers should not write sensitive information about their child?
- Cultural issues: Unikum does not support any other language even English. And as we know that there are many immigrants from different cultures and languages, they will definitely have problems when they use Unikum.

In this context, I interviewed a teacher that work in one of the children nursery in Tierp, with high range of immigrant children. and the teacher mentioned that the usage of Unikum in the children nursery where he/she work are very low compared to other children nurseries in Tierp due to the difficulty for the immigrant caregivers to read understand all information and then comment them in Swedish, and he/she think that they may need a way to help them to overcome this problem like translating the written text for them in their mother language!!

8.2.2. INTERVIEW WITH THE PROVIDER (UNIKUM)

With help of Tierp municipality, I had a contact with Unikum to make an interview with them. The interview was conducted with in the company's headquarters on 6th March, 2012 at 11am at

Stockholm. The aim of the interview was to have more information about Unikum related to the design, contextual usability, security, privacy, ethics, cultural and integrity issues.

8.2.2.1. THE MOST IMPORTANT INFORMATION THAT I GOT RESULTS FROM THIS INTERVIEW WERE:

- The work environment: the company is well designed and contain few rooms and beside lunch room to few workers, it furnished with modern style furniture, quiet place and adequate lighting and ventilation to ensure the comfort of all workers. All gather at lunch time as a family.
- The idea of Unikum: It started as electronic e-learning books for children and then the idea evolved to become an online e-service for setting the "IUP" "individual development plan" for pupils, that developed by time to be as it is now.
- HCI designer: Unikum employed a HCI designer to make changes on the Unikum design to make more usable and that mean that they also have an idea that there are some problems in the current design. And as an HCI student, I think that because many reasons one of these reasons; Unikum started as an Online IUP tool and by time they added the other tools without looking to the overall structure of Unikum because of time limits, and that is why user find some tools repeated in different places for instance the "IUP-mål", or the same tool name for different tools for instance the "relationer". The new design will be released in the end of august 2012.
- Documentation: the municipalities can decide how long they can keep these documents after the pupil graduation.
- Registering: Each municipality can decide if the caregivers have the right to un-register their child in Unikum.
- The privacy, security (who can see or do what?) the pupil's current teachers can see the pupil's document in Unikum, caregivers can see their child document, pupils can see their document. Pupils can only blog with their teachers and caregivers but not the other pupils in their class or school and that prevent cyber bullying.
- Integrity: the Unikum should provide a full documentation about the pupil, but is that the real situation!
- The cultural issue: Unikum did not consider other languages not even English which is not ethical that some user get less quality of information. But Unikum think to do that in the future.
- The ethical issues: Unikum put in its terms of use that it is not allowed writing sensitive information in Unikum about the pupil. But there are more question like:
 - Can Unikum prevent the bad using of information by teachers?
 - Still the previous years' teachers for the pupil can see the pupil document?
 - Can current teachers or only the mentor read what other teachers wrote in the pupil's document for other courses?
- The Unikum functionality: It was difficult to cover everything in 2 hours meeting. but the most important thing is that I got are the same description for the tools functionality as I found in my first step of studying the Unikum website but the important results that I got are:
 - all the pupils in the class will have the same "LPP", "Matriser" and "IUP-Plan"

- Each pupil will have “IUP-mål”, “Omdömen”, “infor samtal” ” Kunskapkrav- nya” and “Måluppfylse-gamla”

But the question here is the users know all that?

8.2.3. INTERVIEW THE EXPERIENCED UNIKUM USERS

The aims of these interviews with experienced users of Unikum are to find:

- If the users understand the functionality of each tool of Unikum to use it in the right way.
- If the users use all tools of Unikum. If not, why?
- Does Unikum do what its users want? And support its users' goals?
- Is Unikum useful and valued by the target group?
- How to make it more acceptable and useful?
- How closely does the flow of Unikum reflect how the users think of their work flow?(teachers)
- Does Unikum consider the security and privacy of its users?
- Does Unikum consider the ability of its users? Especially the children? Immigrants?
- How easily and successfully do Unikum's users find the information they are looking for? (search)
- How easily can Unikum's users return to the home page? Or any other pages? (The navigation)
- How well do Unikum's users understand the symbols and icons? Why?
- How easily and successfully do Unikum's users find the tools or options they want?

8.2.3.1. PARTICIPANT SELECTION CRITERIA

With help of Tierp municipality I got a list of experienced teachers, caregivers and pupils that use Unikum between 3-5 Years. And because the difficulty of making them participates in the interview, I also asked some people that I know them in Tierp and they also have experience in using Unikum.

Participant's characteristic of the three target groups are:

- 5 teachers
 - Registered in Unikum
 - Familiar with computer
 - Using most tools in Unikum for 3-5 years.
- 3 Caregivers
 - Have at least one child in a primary school in Tierp.
 - Registered in Unikum
 - Familiar with computer
 - Active in using Unikum (writing comments in different Unikum's tools) for at least 3-5 years.
- 2 pupils
 - Their age between (9 - 16) years old
 - Registered in Unikum
 - Familiar with computer
 - Active in using Unikum by witting comments in different Unikum's tools for 3-5 years.

8.2.3.2. THE INTERVIEW LOCATION

With the help of Tierp municipality, the interviews were conducted in a room in (Apenskolan) a primary school in Tierp, the room was equipped with a computer connected to the internet, computer office table, computer chair, tow normal chairs and small round table for coffee and snacks.

8.2.3.3. THE CONSENT FORM AND THE PRESENT CARD FORM

I explained to the participants their rights and that the aim of the interview is to test the Unikum not to test them, also that they have the right to stop the interview if they do not want to continue. I also took their permission to record the interview using my iPhone and they signed the consent form that contains all these information. The consent form is shown in appendix 2.1

Each one of the teachers and caregivers got a present card from Tierp Municipality (One ticket for an adult to Aspenbadet in Tierp).

Each pupil got a present card from Tierp Municipality (Two tickets for a young person to Aspenbadet in Tierp). The present card form is shown in appendix 2.2

8.2.3.4. STRUCTURED INTERVIEW METHOD

The interviews were conducted for 2 hours for each participant separately in the end of March/ start of April 2012. I used a structured interview method by preparing a written interview's plan that contains 3 sessions for each users group (teachers, caregivers and pupils), the three sessions are:

- Pre-questionnaire
- Tasks: the user use his/her real account to login to Unikum and run series of small tasks covering different functions in Unikum.
Note: the aim of using their real account to find and discover the differences in information between them.
- Post- questionnaire

The full structured interview plan for each group are shown in appendixes (3.1, 3.2 and 3.3)

8.2.3.5. THE RESULTS OF THE INTERVIEW WITH EXPERIENCED USERS

Results of the pre questionnaire of the interview with experienced users			
The participants characteristics			
Participant group	Teachers	Caregivers	Pupils
Total number (10)	5	3	2
Ålder (See Appendix 3.4- figure 1)	1 between (30-39) 3 between (40-49) 1 between (50-59)	3 between (40-49)	1 between (9-12) 1 between (13-16)
Ålder (average)	44.4years old	47.5 years old	12.5 years old
Kön (See Appendix 3.4- figure 2)			
- Man	2	2	-
- Kvinna	3	1	2
Computer and internet usage of the participants			
High usage of for caregivers, normal to high usage for teachers, normal usage for pupils. And that show that all are able to use both computer and the internet easily.			
Hur många dagar i veckan använder du en dator? (See Appendix 3.4- figure 3)			
- Mindre än en dag	-	-	-
- En till tre dagar	-	-	1
- Tre till fem dagar	1	-	-
- Mer än fem dagar	4	3	1
Hur länge använder du datorn i snitt per dag? (See Appendix 3.4- figure 4)			
- Mindre än en halvtimme	-	-	-
- En halvtimme till 2 timmar	2	1	2
- 2 timmar till 4 timmar	2	-	-
- 4 timmar till 7 timmar	1	1	-
- Mer än 7 timmar	-	1	-
Hur ofta surfar du på nätet när du använder datorn? (See Appendix 3.4- figure 5)			
- Aldrig	-	-	-
- Sällan	3	1	1
- Halva tiden	2	1	1
- Hela tiden	-	1	-
Vad brukar du göra när du använder datorn? (See Appendix 3.4- figure 11)			
- Email	4	1	1

- Social media(FB, Blog,twitter, spotify)	-	1	2
- Information sökning (ex.google)	4	1	-
- Documentation (Ex. Microsoft Office)	2	-	-
- Media(Ex.Tidningar, playkanaler, musik)	3	1	1
- Jobba	5	2	-
- e-Läsning	1	-	-
- Betala räkningar	-	1	-
- Spela data/online spel	-	-	2
- Beställa, boka, köpa på internet	2	1	-

Unikum usage of the participants

High usage for teachers, low to normal usage for caregivers, low usage for pupils

Änvänder du Unikum varje dag? (See Appendix 3.4- figure 6)

- Ja	4	1	-
- Nej	1	2	2

För Lärare: Jag logger in på Unikum som... (for teachers only) (See Appendix 3.4- figure 7)

- Lärare	5		
- Mentor	4		
- Administratör	5		
- Vårdnadshavare	4		

Hur lång tid per tillfälle använder du Unikum? (See Appendix 3.4- figure 8)

- Mindre än 5 min	-	-	-
- 5-15 min	1	1	1
- 15-30 min	3	2	1
- 30-45 min	1	-	-
- Mer än 45 min	-	-	-

Hur lång tid i veckan använder du Unikum? (See Appendix 3.4- figure 9)

- Mindre än halvtimme	-	1	2
- En halvtimme till 2 timmar	4	2	-
- 2 till 4 timmar	1	-	-
- 4 till 7 timmar	-	-	-
- Mer än 7 timmar	-	-	-

Hur många uppgifter gör du per tillfälle använder du Unikum? (See Appendix 3.4- figure 10)

- 1	-	1	1
- 2-3	2	2	1
- 4-7	2	-	-
- 8-10	-	-	-
- 11 eller fler	1	-	-

Results of the structured interview questionnaire with the experienced users

Ditt syfte för att använda Unikum?

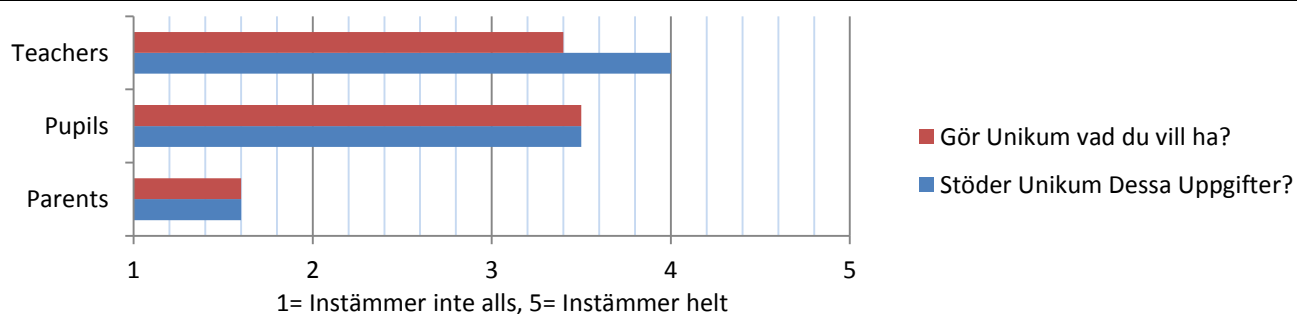
Teachers	Caregivers	Pupils
- Planera undervisning "IUP"	- För att få information från skolan om hur går det för mitt barn	- För att få information om läxor eller prov, provresultat
- Pedagogisk planering för klassen "LPP"		
- Kommunera		
- Underlätta dokumentationen över lag.		
- Infomera elever samt föräldrar om arbets uppgifter, prov resultat och veckobrev via "Blogg"		
- Bedöma elever "Bedömning"		
- "Ömdomen" inför utveckling samtal.		
- För föräldrarmedverkan		

Kan du beskriva ditt ansvar eller dina uppgifter i Unikum och hur det anknyter till de andra användarna?

Scinario1: Not using "LPP" and "Bedömning-Matris" - Log in as a teacher, mentor and admin - As a teacher, he/she is using the "Blogg" and the "Omdömen" - As a mentor, he/she is using the "Omdömen" to prepare to the "Utveckling samtal" for each pupil! - As a mentor, he/she the "IUP-mål" to put extra "mål" to each pupil after the "Utveckling samtal"!	- Målluppfyllnad via samtal med lärare. - Att veta att mitt barn tillgodagör sig utbildning. - Få information om mina barn via "Blogg" liksom läxor, prov från alla mina barnslärare.	- Få information från lärare via "Blogg" om läxor, provresultat.
Scinario2 (See Appendix 3.4- figure14) Not using "LPP", "Bedömning- Matris" and "IUP-mål" as shown below in figure 14. - Log in as a teacher, mentor and admin. - As a teacher, he/she is using the "Blogg" and the "Omdömen". - As a mentor, he/she is using the "Omdömen" to prepare to the "Utveckling samtal" for each pupil! - As a mentor, he/she is using the blog to put extra "IUP-mål" to each pupil!	This show that caregivers only need only: - "Blogg" to communicate with school and get information about their child. - "Utveckling samtal" about their child progress via explaining the "Matris" - The extra "IUP-mål" if their child need	
Scinario3: Not using "Bedömning- Matris". - Log in as a teacher, mentor and admin. - As a teacher, he/she is using the		

<p>"Blogg", "LPP" and the "Omdömen".</p> <ul style="list-style-type: none"> - As a mentor, he/she is using the "Omdömen" to prepare to the "Utveckling samtal" for each pupil! - As a mentor, he/she the "IUP-mål" to put extra "mål" to each pupil after the "Utveckling samtal"! 		
<p>Scenario4:</p> <p>Not using "Omdömen".</p> <ul style="list-style-type: none"> - Log in as a teacher, mentor and admin. - As a teacher, he/she is using the "Blogg", "LPP" and the "Bedömning-Matris". - As a mentor, he/she is using the "Bedömning- Matris" to prepare to the "Utveckling samtal" for each pupil! - As a mentor, he/she the "IUP-mål" to put extra "mål" to each pupil after the "Utveckling samtal"! 		
<p>Scenario5:</p> <p>Not using "Bedömning- Matris" and "IUP-mål".</p> <ul style="list-style-type: none"> - Log in as a teacher and admin. - As a teacher, he/she is using the "Blogg", "LPP" and the "Omdömen". - Trying to use "Bedömning- Matris" but difficult to create or find one to use it. 		

Stöder Unikum dessa uppgifter?



Appendix 3.4- figure 15 Represent the average rate the answers for the participants as teachers, caregivers and pupils

Vilka verktyg använder du mest i Unikum? (See Appendix 3.4- figure 16)

Verktyg	Teachers (5)	Caregivers(3)	Pupils(2)
- Skolbanken (Only for teachers)	2		
- Kunskapskrav-nya eller Måluppfylse-gamla	1	-	-
- Admin/ Instaleringar	2	-	1
- Notiser	-	-	1
- Matriser	2	1	-
- LPP	2	-	-
- IUP	5	2	-

- Blog	5	3	2
Vilka verktyg använder du aldrig i Unikum? (See Appendix 3.4- figure 17)			
- Skolbanken (Only for teachers)	-		
- Kunskapskrav-nya eller Måluppfylse-gamla	4	3	2
- Admin/ Instaleringar	-	-	-
- Notiser	-	-	-
- Matriser	2	2	2
- LPP	3	3	2
- IUP	-	1	-
- Blog	-	-	-
Vilka verktyg tycker du att de bör lägga till Unikum?			
Teachers (5)	Caregivers(3)	Pupils(2)	
<ul style="list-style-type: none">- Tabeller- Redigering- Bild map, film map,- Bifoga filer- Kalendarium- Proritera medlande för example smsa om det viktigt- Förenklad sida för example elever, förelldrar, lärare mer logitikt uppbyggd.- På grund av integritetsfrågor motsätter jag mig användan av Unikum i dagsläget	<ul style="list-style-type: none">- Föräldrablogg- Schema för varje klass- Läxor- Allt om prov(prov tid, vilkan sidor, prov result,...)- Roliga händelser, positiva bedömningar, turnenningar aktiviteter inte bara dåliga information om mina barn.	<ul style="list-style-type: none">- Blogga med andra- Skicka filer!	
Multi access (Only for teachers)			
All teachers said that they have no problem with multi access but when they used the system, But 3 of them could not give me their right roll in that situation!!			
Multi access (Only for teachers)			
The teachers said that they know where they are and they have no problems with navigation but when I asked to tell me where they are at any time I choose, 2 could not specify their current position!!			
Tycker du att "Relation" under "Om mig" innehåller samma information som "Relation"-fliken? (Only for teachers)			
Svar	Teachers (5)	Caregivers(3)	Pupils(2)
- Vet ej	1		
- Ja	2		
- Nej	2		
Om nej, Vad är olika mellan dem? 1. "Relation" under "Om mig" is just information which already exists in the first page so it can be removed. 2. "Relation"-fliken" removing it and keeping only the "Admin- fliken"	4 (Even who answer "Ja"!) And That show that all are not sure if they are the something or not and they suggest		

	to change their name to describe it's contain.		
- förslag att byta namn på dem till: Om mig, Admin	4		
Försök nu ändra ditt (användarnamn-för admin) och lösenord. Är det lätt att hitta hur man gör det?			
Svar	Teachers (5)	Caregivers(3)	Pupils(2)
Inga problem (alla)	5	3	2

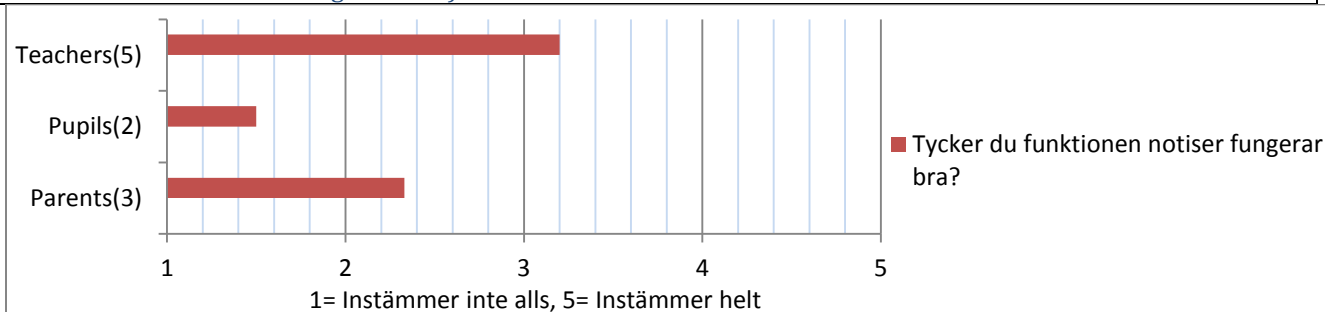
The "Notiser" tool (find an old "Notis", read/ un-read "Notis")

Teachers (5)	Caregivers(3)	Pupils(2)
<ul style="list-style-type: none"> - 2 teachers answered that (Använder aldrig) - 2 answered (I find old "notis" under "Alla Notiser") by searching through them all. - 4 could not find the read/ un-read "notis". 	<ul style="list-style-type: none"> - 2 answered "Vet ej" - 1 answered (I find old "notis" under Alla Notiser)" by search through all to find the one I need! - 3 could not find the read/ un-read "notis". 	<ul style="list-style-type: none"> - All could not find an old "Notis" neither the read/ un-read "notis".

Their suggestion

- Adding search function to it (for instance: search by date, name, Unikum function/ tool...)
- Reducing them by sending only the most important information as a "notis"
- Adding priority to them
- Colouring or putting a sign for the read/ unread "Notis"
- Removing this tool!!

Tycker du funktionen notiser fungerar bra?)



Appendix 3.4- figure 18- Represent the average rate of the participants' answers as teachers, caregivers and pupils

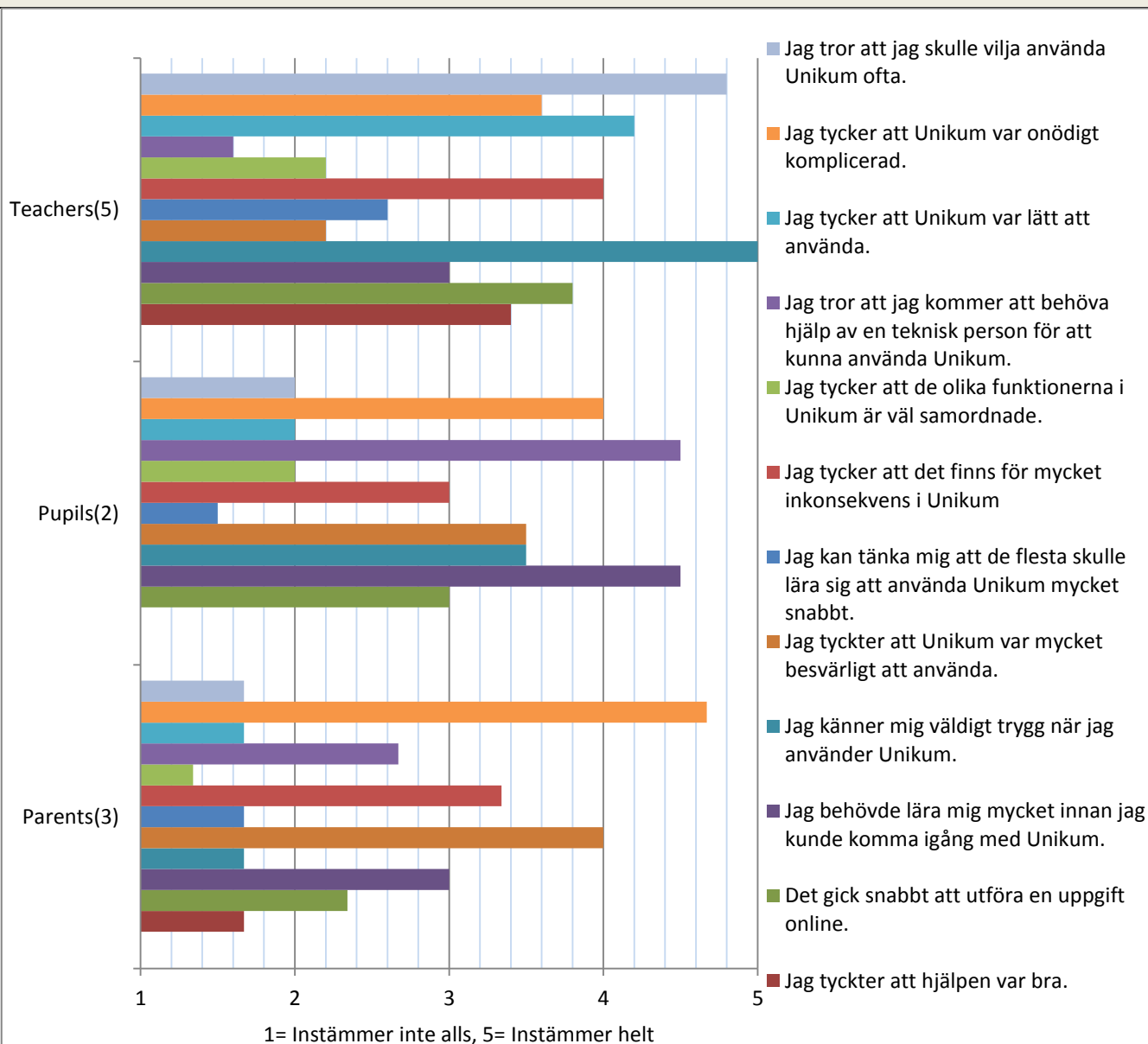
LPP

Teachers (5)	Caregivers(3)	Pupils(2)
<ul style="list-style-type: none"> - All knew what "LPP" means - All knew that the teacher write the "LPP" - One teacher answered that all Pupil in the class will have the same "LPP" and 4 could not specify if all pupil in the class will have the same "LPP" or each pupil will get his own "LPP" - All agreed that "Fokus" is not a 	<ul style="list-style-type: none"> - Two caregivers could not know what "LPP" is; even one of the caregivers is a teacher in the "Vuxenutbildning". The third one used the Unikum help and found answer about what "LPP" means!! - All agreed that "LPP" contain a lot of text, un-needed and in un-cleared information. 	<ul style="list-style-type: none"> - All caregivers could not know what "LPP" is! - All agreed that "LPP" contain a lot of text, un-needed and in un-cleared information

good name and some suggest rename it "LPP" and removing the IUP-mål" button.		
IUP		
Teachers (5)	Caregivers(3)	Pupils(2)
<ul style="list-style-type: none"> - All knew what it means. - Only two knows that it is added only when there is need to add an extra goal for the pupil beside (the general goals of the course-in Matriser)!! - One suggested removing the unnecessary information under "IUP" and only keeping "IUP-mål" 	<ul style="list-style-type: none"> - One caregiver could not know what it means. - NO one knows that it is added only when there is need to add an extra goal for their child beside the general goals of the course. - 2 suggested removing the unnecessary information under "IUP-plan" and only keeping "IUP-mål" 	<ul style="list-style-type: none"> - One could not know what it means. - NO one knows that it is added only when there is need to add an extra goal for their child beside the general goals of the course. - No suggestion
Omdömen		
Teachers (5)	Caregivers(3)	Pupils(2)
<ul style="list-style-type: none"> - One of the teachers could not know what it means and never use it. - 3 teachers and they are also mentors not depending on the teachers' review "Omdömen" in the "Utvecklingsamtal" with caregivers and then to create the "IUP- mål" for the pupil with the caregivers and pupil agreement. - One only using it to prepare to the "Utveckling samtal" and the IUP-mål - One teacher said: No need for it, mentor depends on "Matriser" to know if there is a need for extra goal for each pupil!! 	<ul style="list-style-type: none"> - Tow knew what it means and they found "Omdöm" about their child. - One doesn't have any "Omdöm" about his child so he never notices it before! - All could not be sure when it used! 	<ul style="list-style-type: none"> - No one use it or knows what it means or what it used for.
"Bedömning" >> "Kunskapskrav-Nya or "mål-uppfylse"		
Teachers (5)	Caregivers(3)	Pupils(2)
<ul style="list-style-type: none"> - No one use it. - 3 teachers think that there is no need for it cause it is a part of "LPP" 	<ul style="list-style-type: none"> - No one use it or knows what it means or what it used for. 	<ul style="list-style-type: none"> - No one use it or knows what it means or what it used for.
"Bedömning" >> "Matriser"		
Teachers (5)	Caregivers(3)	Pupils(2)
<ul style="list-style-type: none"> - Three teachers are not using "Matriser". Because one have no idea what it is about!, and two think that it is difficult to create or import a pre-exist one and rewrite it 	<ul style="list-style-type: none"> - Two caregivers have no idea about it because they have no "Matriser" in their child page. - One caregiver thinks that it was a useful way to show their 	<ul style="list-style-type: none"> - One uses it before but not sure what it means or what it used for - One never uses it or knows what it means or what it used

according to the class needs in a specific course goals. - Two using it. - Suggestions: - Need to be easier to create. - Better formatting like showing the started goal, unfilled, not started yet)	Child ability. - One thinks that there is no need to it and "Omdömen" is quite enough if all teachers keep write "Omdöm" about this child - One "vet ej"	for.
" Blogg"		
Teachers (5)	Caregivers(3)	Pupils(2)
- All use it. - Suggestions - be more functional (adding files, pictures, videos or music, font format) - SMS in emergencies	- All use their child "Blogg" - Suggestions <ul style="list-style-type: none"> Format text Caregiver Blogg Blog with all (for instance: with other caregivers!) SMS also not only emailing 	- All use it - Suggestions <ul style="list-style-type: none"> Text format Blog with all (for instance: with other pupils!)
" Skolbanken" for teachers only		
Teachers (5)	Caregivers(3)	Pupils(2)
- Two paths to use it! - All use it. - 3 teachers think that there is a need to a separate "Skolbanken" tool - 2 think there is no need to a separate tool because it already exist from the "LPP", "IUP" and "Matriser"		
Extra needs		
Teachers (5)	Caregivers(3)	Pupils(2)
- More organizing, easier to use, easier to navigate and easier to understand	- Their child Results - Calendar or schedule - More privacy and security that protect their child document - Considering the cultural and language problems for immigrates. - Integration and provide full document about their child - Considering ethical issues for instance preventing writing sensitive information about their child - SMS. - Same online platform for all schools in Tierp!!	- Blog with other pupils - Lectures and home works - schedule

Results of post questionnaire with the experienced users



Represent the average rate of the participants' answers as teachers, caregivers and Pupil for the post questionnaire

8.2.3.6 THE RESULTS SUMMARY OF THE INTERVIEW WITH EXPERIENCED USERS

- Unclear names of the tools especially for caregivers and pupils, even some of the teachers. For instance one of the caregivers is a teacher in the “Vuxenutbildning” but although he/ she could not understand what “LPP” means!!
- Each one of the 5 teachers has his/her own way (scenario) of using Unikum
- None of the 5 scenarios of the 5 teachers is like the Unikum scenario!! They depend on their understanding of the Unikum sequence flow and their needs.
- Using of Unikum tools in different ways by teachers depend on their understanding of the tool usage!
- Each teacher thinks that his/her way of using Unikum is the best!
- All that results in confused and unclear information for the caregivers and pupils (different ways of information depend on the teacher way of using Unikum!!)
- All that also results in un-complete document about the pupil.
- A lot of text in Unikum without considering of the cultural and language problems for immigrants, leads to reduce Unikum usage between immigrants (according to a teacher in one “Mattisborgen förskola ” in Tierp that they have very low usage of Unikum by caregivers from different cultural and language background compared to Swedish caregivers)
- Who can see what: Caregivers are worried about the privacy and security of their child information!
- Low usage of Unikum by pupils for the following reasons beside the other reasons that mentioned above :
 - The same information in Unikum: Unikum only contains the same information that they got from their teachers in the classroom.
 - Limited functionality: Unikum tool do not cover the pupils needs for instance: results, homework, lectures, schedule, blog with each other.
- In general: teachers are using almost all the Unikum tools except “kunskapkrav-nya” or “måluppfyllse-gamla”.
- In general: All caregivers are using “Notiser”, “blogg” and “IUP”. Some of them using “LPP”, “Omdömen” and “Matriser” but no one are using “kunskapkrav-nya” or “måluppfyllse-gamla”.
- In general: pupils only use “Notiser”, “blogg”!!

8.2.3.7 THE CONCLUSION OF THE INTERVIEW WITH EXPERIENCED USERS

The results that I got from the experts interview that described above, illustrated a lot of problem that faces the Unikum users because of many reasons. Most important reasons are:

- The caregiver and pupils are completely depend on the teachers in the way of getting information.
- Neither teachers do not use same scenario nor all teacher use the same tools in the same way and that results that caregivers and pupils get confusing information in different ways.

- Unclear functionality and process sequence: Teachers used different scenarios because they have difficulty in understanding the right sequence of using Unikum tools beside they also have problem to understand the functionality of some tools.
- Unclear naming of tools especially for caregivers and pupils.
- Users need more functionality with considering privacy, security, cultural and language issues.

As the interview is considered as low constrained method even in structured interview, the results that I got from the interview phase are not reliable enough, because as I notice for instance participant wrote something and then said another thing during the discussion of the interview. The results that I got from the interview phase can be used as a base in the high constraint method to get more reliable results. That is why I decided to conduct the usability test of Unikum in the usability laboratory on Ekonomikum in Uppsala University.

8.3 PHASE 3: TESTING THE USABILITY OF UNIKUM

The aim of the usability test is to get more concrete and reliable results by using high constraint method.

8.3.1. SURVEY FOR PARTICIPANT SELECTION CRITERIA IN THE USABILITY TEST

The aim of the survey is to collect participants to the usability test. The invitation to participate in the survey and the survey questionnaire were published in in April 2012 in the Unikum blog of the primary schools in Tierp and also in Tierp municipality website as shown in appendix 4.1.

The survey is shown in the appendix 4.2. And the survey results are shown in appendix 4.3.

8.3.2. SUMMARY OF THE SURVEY RESULTS

- Total number of participant that participated in the survey is 78 participants (13 teachers, 14 Pupils, 49 caregivers, 2 cancelled because they repeated with different answers for the same person).
- The results showed the characteristics of the Unikum users.
- Average age for (parents is 42.6, teachers 43.8 and for pupils 11) years old.
- Most participants are women: 82% of parents, 57% of pupils and 92% of teachers are women.
- Computer usage: The average count of hours per a week they spend in using the computer showed that:

Teachers: 54% of teachers have normal hour usage of the computer per week.

Pupils: 43% of pupils have low hour usage of the computer per week.

Caregivers: 60% of caregivers have heavy hour usage of the computer per week.

- Unikum usage: The results showed that the average count of minutes per a week they spend in using Unikum that:

Teachers: 54% of teachers have normal usage of the Unikum in minutes per week

Pupils: 86% of pupils have low usage of the Unikum in minutes per week

Caregivers: 65% of caregivers have normal usage of the Unikum in minutes per week.

8.3.3. PARTICIPANTS SELECTION CRITERIA

- The target group is all the users of Unikum in Sweden.
- The selection group is all the users of Unikum in Tierp.
- Sampling of the targets group is the randomly selection of users of Unikum in Tierp (Randomly selections from the Unikum users that participated in the survey. By randomly calling them and asking them to participate in the usability test that conducted in June/ July 2012).

Because of some practical matters, the total numbers that participate in the usability test are 8 participants: 4 teachers and 4 caregivers

Note: No pupils (I got only one pupil so I cancelled the test because I could not get 4 pupils and that is because difficulty of getting 4 pupil to participate in the usability test. The difficulty of calling them and talk at the same time to their caregivers to get their agreement that their child participate, and get their agreement to bring him to Ekonomikum in Uppsala University in the summer holiday!!)

8.3.4. THE USABILITY TEST LOCATION

The usability test was conducted in the usability laboratory belongs to Uppsala University and located in the Ekonomikum building in Uppsala.

The test laboratory contains of two rooms; test room and control room and they equipped as follow:

- The test Room Equipment:
 - Consists of one room with a computer equipped with speakers, a microphone, and a video camera.
 - Software needed for the test is a web browser and the screen capture and analysis program Morae version 3.2
 - The screen size is 17" and the resolution is 1024*768
 - Firefox
- Control Room Equipment:
 - one way mirror
 - one computer with two screens, one TV (connected to the video camera in the room where the participant is), microphone and speakers.

8.3.5. PARTICIPANT'S CHARACTERISTIC OF THE SAMPLING OF THE TARGET GROUPS

- 4 teachers and 4 Caregivers that have at least one child in a primary school in Tierp.
- Registered in Unikum
- Participated in the survey

8.3.6. METHOD

This usability test gathered assessment data about the usability of the Unikum e-service. By using:

- Within subject design method
- That means that each participant in each group go through all the tasks of the usability test.

- High constraint method by conducting the usability test in the usability laboratory with test room and control room that equipped with the necessary instrument to reduce the human error (effect)
- The same instruments were used with all task assignments and all participants.
- Counterbalancing task assignments except the first one (login assignment), to prevent any learning effect.

8.3.7. CONSENT FORM AND THE PRESENT CARD FORM

I explained to the participants their rights and that the aim of the interview is to test the Unikum not to test them, also that they have the right to stop the interview if they do not want to continue. I also got their permission to record the interview and they signed the consent form that contains these information. The consent form is shown in appendix 2.1.

Each one of the teachers and caregivers got a present card from Tierp Municipality (One ticket for adult to Aspenbadet in Tierp).

Each pupil got a present card from Tierp Municipality (Two tickets for young people to Aspenbadet in Tierp). The present card form is shown in appendix 2.2.

8.3.8. THE USABILITY TEST PLAN

The test was conducted for 1 hour for each participant separately in June/July 2012. I used the structured procedure for the test by preparing a written test plan that contains 3 sessions for each users group (teachers, caregivers), the three sessions are:

- Pre-questionnaire to discover the participants characteristics:
 - Age, Gender
 - Computer/Internet background
 - Previous experience with Unikum
- Task assignments:
 - Scenario for each group (teachers and caregivers) that contain login account to login to Unikum and the account information
 - 8 small tasks covering different functions in Unikum.
- Post- questionnaire to discover the participants idea about Unikum
 - SUS form (System Usability Scale)
 - Short statements
 - Scale for the answers: it includes 5 level: 1 as strongly disagree , to 5 as strongly agree
 - Some other short questions about Unikum

The full structured usability test plan for each group is shown in appendix 4.4.

8.3.9. RESULTS OF THE USABILITY TEST

Results of the pre questionnaire of the usability test		
The participants characteristics		
Participant group	Teachers	Caregivers
Total number (8)	4	4
Ålde (See appendix 4.5- figure1)	4 between (40-49)	4 between (40-49)
Ålder (average)	43.8 years old	41.5 years old
Kön (See appendix 4.5- figure2)		
- Man	1	2
- Kvinna	3	2
Computer and internet usage of the participants		
<ul style="list-style-type: none"> Computer usage: Normal to high usage for both caregivers and teachers. (See appendix 4.5- figure12) Internet usage: Both caregivers and teachers experienced in using internet. 		
Hur många dagar i veckan använder du en dator? (See appendix 4.5- figure3)		
- Mindre än en dag	-	-
- En till tre dagar	1	-
- Tre till fem dagar	1	1
- Mer än fem dagar	2	3
Hur länge använder du datorn i snitt per dag? (See appendix 4.5- figure4)		
- Mindre än en halvtimme	-	-
- En halvtimme till 2 timmar	2	1
- 2 timmar till 4 timmar	-	2
- 4 timmar till 7 timmar	1	-
- Mer än 7 timmar	1	1
Hur ofta surfar du på nätet när du använder datorn? (See appendix 4.5- figure5)		
- Aldrig	-	-
- Sällan	-	1
- Halva tiden	4	3
- Hela tiden	-	-
Vad brukar du göra när du använder datorn? (See appendix 4.5- figure 11)		
- Email	2	2
- Social media(FB, Blog,twitter, spotify)	1	3
- Information sökning (ex.google)	2	2

- Documentation (Ex. Microsoft Office)	3	1
- Media(Ex.Tidningar, playkanaler, musik	4	2
- Jobba	3	2
- e-Läsning	2	1
- Betala räkningar	2	1
- Spela data/online spel	-	1
- Beställa, boka, köpa på internet	2	1

Unikum usage of the participants

- Normal to heavy usage for teachers, low to normal usage for caregivers (See appendix 4.5- figure13)
- High usage for BLogg, IUP and Notiser.
- Teacher using most of the Unikum tools.
- The tools name confused them all! We can see that when 3 teachers choose "Fohus>>IUP-Må'l not "IUP-Oversikt" that they used to use it a lot!

Änvänder du Unikum varje dag? (See appendix 4.5- figure6)

- Ja	1	-
- Nej	3	4

För Lärare: Jag logger in på Unikum som... (for teachers only) (See appendix 4.5- figure7)

- Lärare	3	
- Mentor	2	
- Administratör	3	
- Vårdnadshavare	4	

Hur lång tid per tillfälle använder du Unikum? (See appendix 4.5- figure9)

- Mindre än 5 min	-	1
- 5-15 min	2	2
- 15-30 min	1	1
- 30-45 min	1	-
- Mer än 45 min	-	-

Hur många gånger i veckan använder du Unikum? (See appendix 4.5- figure 8)

- 0-1	1	1
- 1-3	2	2
- 3-5	1	1
- 5-7	-	-
- Mer än 7	-	-

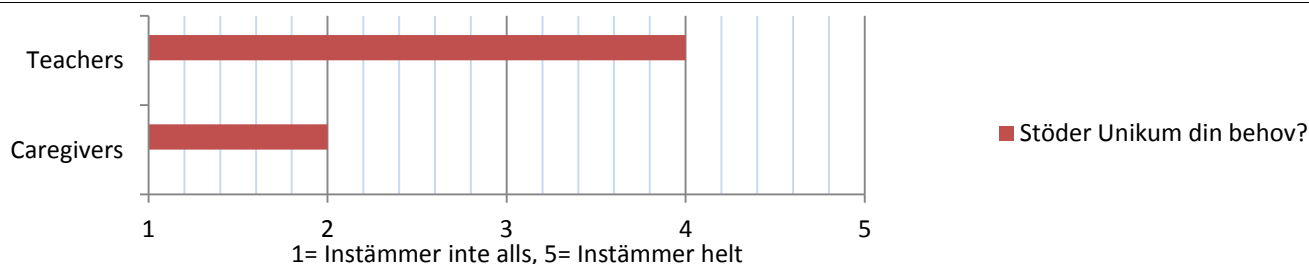
Hur många uppgifter gör du per tillfälle använder du Unikum? (See appendix 4.5- figure10)

- 1	1	2
- 2-3	2	2
- 4-7	1	-
- 8-10	-	-
- 11 eller fler	-	-

Ditt syfte för att använda Unikum?		
Teachers		Caregivers
- Blogg till föräldrar inför utv. samtal		- Se utveckling på mina barn (2st)
- Veckobrev, LPP, Matriser och IUP		- Kollas vad som händer i skolan
- Pedagogisk planering		- Blogg till läraren
- Kommunikation mellan hem och skolan		
- Information!		
- Bedömning för elever		
Vilka vertyg använder du (<input type="checkbox"/> <input type="checkbox"/> aldrig, <input type="checkbox"/> <input checked="" type="checkbox"/> ibland, <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> mycket) i Unikum?	Teachers	Caregivers
<input type="checkbox"/> <input type="checkbox"/> Aldrig	1 Start »» Instälningar 1 Start »» Kontaktlista 1 Start »» Relationer 1 Start »» Notiser 1 Fokus »» Gamla läroplanen 1 IUP »» Översikt 1 IUP »» Omdömen 4 Portfolio »» Översikt 1 Skolbank »» LPP-banken 1 Skolbank »» Matrisbanken 1 Skolbank »» IUP-banken 1 Admin »» Relationer 1 Admin »» Elever 1 Admin »» Lärare 1 Admin »» Administratörer 1 Admin »» Nya användare 1 Admin »» Alla användare	3 Start »» Kontaktlista 3 Start »» Relationer 2 Fokus »» LPP 1 Fokus »» IUP-mål 4 Fokus »» Läroplan 2011 4 Fokus »» Gamla läroplanen 2 IUP »» Omdömen 2 Bedömning »» Matriser 3 Bedömning »» Kunskapkrav – nya 3 Bedömning »» Måluppfylse –gamla 4 Portfolio »» Översikt 4 Skolbank »» LPP-banken 4 Skolbank »» Matrisbanken 4 Skolbank »» IUP-banken 4 Admin »» Relationer 4 Admin »» Elever 4 Admin »» Lärare 4 Admin »» Administratörer 4 Admin »» Nya användare 4 Admin »» Alla användare
<input type="checkbox"/> <input checked="" type="checkbox"/> Ibland	3 Start »» Om mig 1 Start »» Instälningar 1 Start »» Notiser 2 Start »» Kontaktlista 3 Start »» Relationer 2 Fokus »» LPP 1 Fokus »» IUP-mål 3 Fokus »» Läroplan 2011 2 Fokus »» Gamla läroplanen 1 IUP »» Översikt 1 IUP »» Omdömen 1 Blogg »» Översikt 2 Bedömning »» Matriser 2 Bedömning »» Kunskapkrav – nya 2 Bedömning »» Måluppfylse–gamla 1 Skolbank »» LPP-banken 1 Skolbank »» Matrisbanken 3 Skolbank »» IUP-banken 2 Admin »» Relationer	3 Start »» Om mig 4 Start »» Instälningar 1 Start »» Kontaktlista 1 Start »» Relationer 2 Start »» Notiser 2 Fokus »» LPP 2 Fokus »» IUP-mål 1 IUP »» Översikt 1 IUP »» Omdömen 1 Bedömning »» Matriser 1 Bedömning »» Kunskapkrav – nya 1 Bedömning »» Måluppfylse –gamla

	2 Admin »» Elever 2 Admin »» Lärare 1 Admin »» Administratörer 2 Admin »» Nya användare 1 Admin »» Alla användare	
■ ■ Mycket	1 Start »» Om mig 2 Start »» Inställningar 2 Start »» Notiser 2 Fokus »» LPP 3 Fokus »» IUP-mål 1 Fokus »» Läroplan 2011 1 Fokus »» Gamla läroplanen 1 IUP »» Översikt 2 IUP »» Omdömen 3 Blogg »» Översikt 2 Bedömning »» Matriser 2 Bedömning »» Kunskapskrav – nya 2 Bedömning »» Måluppfylse-gamla 2 Skolbank »» LPP-banken 2 Skolbank »» Matrisbanken 1 Admin »» Relationer 1 Admin »» Elever 1 Admin »» Lärare 1 Admin »» Administratörer 1 Admin »» Nya användare 1 Admin »» Alla användare	1 Start »» Om mig 2 Start »» Notiser 1 Fokus »» IUP-mål 3 IUP »» Översikt 1 IUP »» Omdömen 4 Blogg »» Översikt 1 Bedömning »» Matriser

Stöder Unikum din behov?



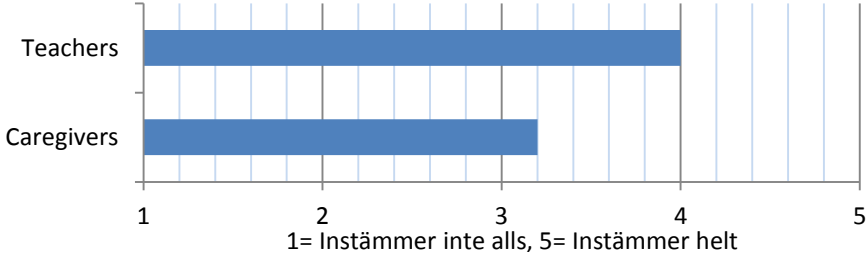
Represent the average rate the answers for the participants as teachers, caregivers

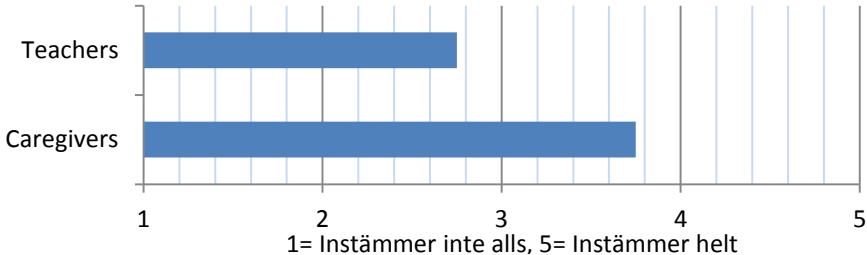
Vilka verktyg tycker du saknas Unikum?

Teachers (4)	Caregivers(4)
<ul style="list-style-type: none"> - Lägag till bilder, film, - Lättare kopera text - Synd att inte eleverna personaliga blogg går ut direkt utan tar ett dag att meila! - Blogga mellan föräldraer i en klass group - (SSO)Single Sign On/ portal - Fyllagning - Att kunna fetmarkera / markera ord i matriser 	<ul style="list-style-type: none"> - Alla Lärare ska använda Unikum - Kalender - Jag vill veta vem ser min son information - Få info snabbare via mail - text översättning - Läxor och lektion - Prov resultat - Mindre text - SMS - Direkt läsning av Unikums information på email

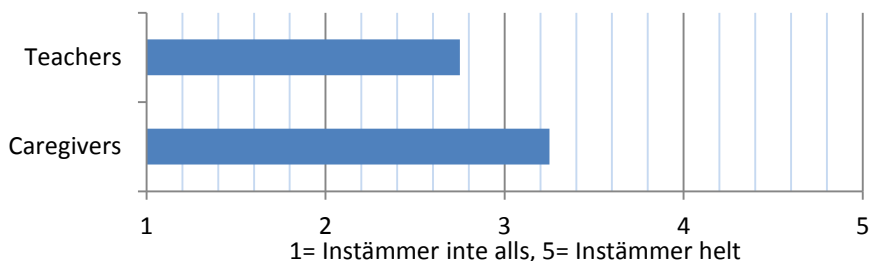
utan att öppna Unikum!

Results of the usability tasks

	Teachers (4)	Caregivers(4)
Uppgift 1		
Logga in på Unikum		
- Success	4	4
- Failed	-	-
Jag loggade in på Unikum som		
- Success	1	4
- Failed	3	-
Uppgift 2		
Försök nu ändra ditt (användarnamn-only for teachers) och lösenord. (OPS. sparar inte)		
- Success	-	4
- Failed	4 couldn't change the username	-
Läsa ditt användaravtalet eller andra samtycket		
- Success	4	4
- Failed	-	-
Uppgift 3		
Söka fram och öppna en gammal notis i "2012-05-08"		
- Success	2	1 (1 with difficulty)
- Failed	2	3
Gå tillbaka till "Notiser" igen. (OPS. utan att använda "bakåtknappen")		
- Success	4 (1 with difficulty)	4 (1 with difficulty)
- Failed	-	-
Kan du hitta gamla notiser som du inte har läst eller öppnat?		
- Success	1	0
- Failed	3	4
Tycker du funktionen "Notiser" fungerar bra?		
 <p>1= Instämmer inte alls, 5= Instämmer helt</p> <p>Represent the average rate the answers for the participants as teachers, caregivers</p>		
Uppgift 4		
Vad är "LPP"?		
- LPP är	4 (Lokal pedagogisk planering)	1 (Lokal pedagogisk planering)
- Vet ej	-	3
Jag tror att:		
- Alla elever i klassen ska få samma LPP	2	1
- Varje elev ska få en egen LPP	1	1

- Vet ej	1	2
LPP		
	Skapa och tilldela en ny LPP	Gå till din son LPP.
- Seccess	3 (1 kunde inte tilldela) (1 skapa/ tilldela with difficulty)	2
- Failed	1 (jag kan inte)	2
Jag tycker att "LPP" var onödigt komplicerad		
 <p>1 2 3 4 5 1= Instämmer inte alls, 5= Instämmer helt</p>		
Represent the average rate the answers for the participants as teachers, caregivers		
Uppgift 5		
Vad är "IUP"?		
- IUP är	4 (Individuell utvecklingsplan)	2 (Aktuella indveduella mål) 1 (Individuell utvecklingsplan)
- Vet ej	-	1
Jag tror att:		
- alla elever i klassen ska få samma IUP	-	-
- varje elev ska få en egen IUP	3	2
- Vet ej	1 (båda två)	2
IUP		
	Skapa och tilldela en ny IUP-mål som heter "Jag kan simma bra"	Skapa ny IUP-mål för din son "Jag kan simma bra"
- Seccess	4 (1 with dificulty)	4 (1 with dificulty)
- Failed	-	-
Uppgift 6		
Vad är "Omdömen"?		
- "Omdömen" är	4 (Hur väl eleven nå målen) (Samlade bilden av matriser) (hur det går) (till elever som får betyg (från 6:an) och ej för elever på låg o mellan)!!	2 (hur det går för min son) (hur lärare tycker att det går i olika ämne)
- Vet ej	-	2
Jag tror att:		
- alla elever i klassen ska få samma "Omdömen"	1 trode att omdömen är samma matriser!	-
- varje elev ska få en egen omdöm	3 (1 with difficulty)	3
- Vet ej	-	1
Omdömen		
	Skapa och tilldela en ny Omdöm.	Gå till din son omdöm
- Seccess	2 (1 with difficulty, search here and there, not sure)	2 (1 with dificulty)
- Failed	2 1 did new matris!! 1 new "Kunkapkrav-nya"	2 (search in bedömning)

Jag tycker att "omdömen" var onödigt komplicerad



Represent the average rate the answers for the participants as teachers, caregivers

Uppgift 7

"Blogg"	Blogga med din elev via att skriva till henne/honom: Hej! Jag kan blogga med • Bold , <u>I</u> , <u>U</u> • Lila Färg • Link till www.Unikum.net	Blogga med ditt barn läraren via att skriva till henne/honom: Hej! Jag kan blogga med • Bold , <u>I</u> , <u>U</u> • Lila Färg • Link till www.Unikum.net
- Success	3	3 (1 with difficulty)
- Failed	1 (could not link till...)	1 (could not link till...)

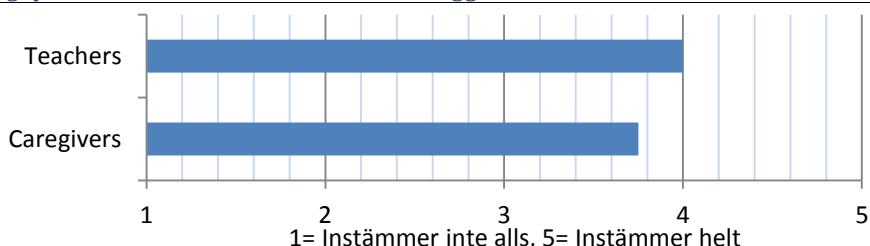
Och lägg till bild från "Skrivbord > Bild om unikum"

- Success	3	3
- Failed	1	1

Bifoga en fil från "Skrivbord > Om Unikum"

- Success	3	2
- Failed	1 skapat ny matris!!	2

Jag tycker att de olika funktionerna i "Blogg" är väl samordnade.



Represent the average rate the answers for the participants as teachers and caregivers

Uppgift 8

Vad är "Matriser"?

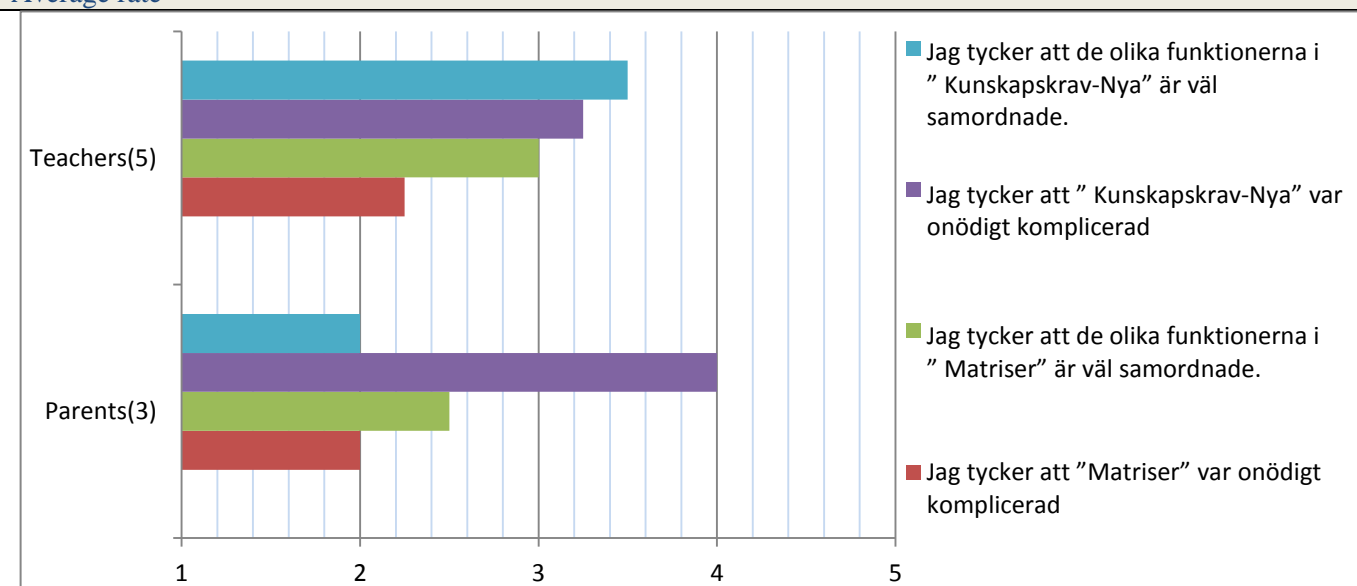
- "Matriser" är	4 (Något som är förskrivet) (Bedömnings matris) (Mål som barn ska nå i olika ämne) (Rutsystem medkunskaps och färdighetmål som går att förlägga)	2 (Uppsatta mål för varje elev) (mål till min son) (hur går det för mina barn)
- Vet ej	-	2

Jag tror att:

- Alla elever i klassen ska få samma "Matriser"	4	-
- Varje elev ska få en egen matris	-	2
- Vet ej	-	2
Matriser	Skapa och tilldela en ny Matris.	Gå till din son Matris

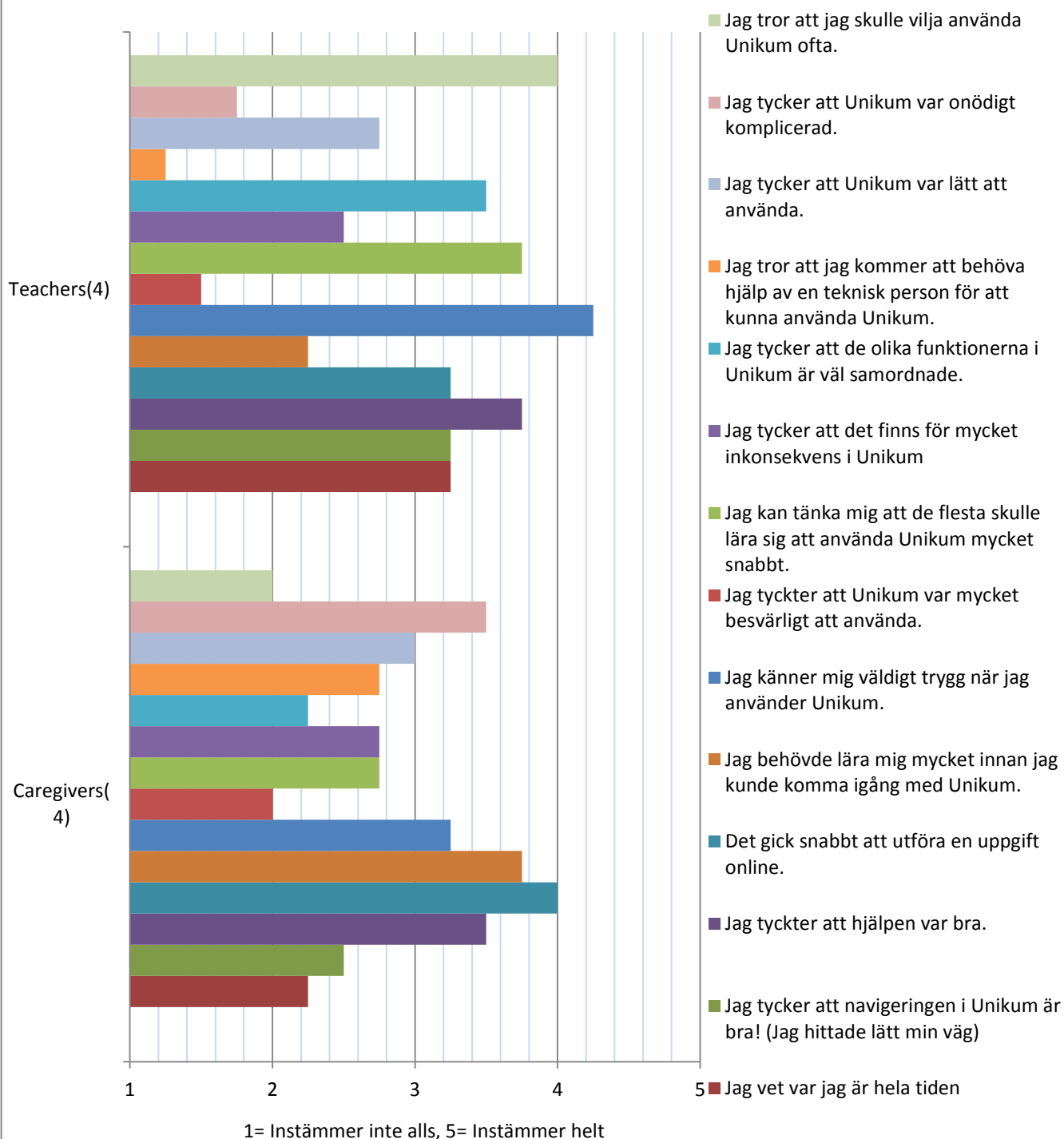
- Success	3 (1 with difficulty)	3
- Failed	1	1
Vad är "Kunskapskrav-Nya"?		
- "Kunskapskrav-Nya" är	4 (en bedömning) (Nya kunskap som ska uppsås) (Lgr11) (mål ska nå till nästa utv. samtal)	1 (Når man kliat av delmål, får man nya mål)
- Vet ej	-	3
"Kunskapskrav-Nya"	Gör en ny "Kunskapskrav-Nya" till din elev	Gå till din son "Kunskapskrav-Nya"
- Success	2	3
- Failed	2 "said : aldrig sett det för ut"	1

Average rate



Represent the average rate of the participants' answers as teachers, caregivers

Results of post questionnaire for the usability test



Represent the average rate of the participants' answers as teachers, caregivers for the post questionnaire

8.3.10. SUMMARY OF THE RESULTS OF THE USABILITY TEST OF UNIKUM

- **Problem in “Multi inloggning” due to unclear structure:** 3 teachers could not specify their rolls when they logged in.
- **Problem in changing the username:** All teachers could not change their username.
- **Problem in finding “Gammal notis”:** 2 teachers and 3 caregivers failed in finding the old “Notis”
- **Problem in finding Opened “Notis”:** 3 teachers and all caregivers failed.
- **Problem in “LPP”**
 - Unclear naming: 3 caregivers could understand what it means.
 - Unclear functionality: 2 teachers and 3 caregivers answered that each pupil get an own “LPP” or answered “Vet ej”.
 - Unclear structure: 2 caregivers could not find their child “LPP”.
- **Problem in “IUP”:**
 - Unclear function: 2 caregivers answered “Vet ej” if all pupils get same IUP or each pupil will get his/ her own IUP
- **Problem in “Omdömen”**
 - Unclear naming: 2 caregivers could understand what it means.
 - Unclear functionality: 2 teachers fail in creating new “Omdömen” because one thought that it is “Matriser” and the other thought that it is “Kunkapkrav-nya”.
 - Unclear structure: 2 caregivers could not find their child “Omdömen”.
- **Problem in “Blogg”**
 - Unclear functionality: 2 caregivers could not “Bifoga fil” because they used the “lägg till bild” button instead!
- **Problem in “Matriser”**
 - Unclear naming: 2 caregivers could understand what it means.
 - Difficulty to complete the task: 1 teacher could not create a new “Matris” and 1 teacher created it with difficulty.
- **Problem in “Kunskapskrav-Nya”**
 - Unclear naming: 3 caregivers could understand what it means.
 - Difficulty to complete the task: 2 caregivers failed and said that they did not see it before!
 - Unclear structure: 2 caregivers said that they did not see it before!
- **Needs for more functions:** All need more functions in Unikum like: Schedule, exams results, lessons, homework, SMS, Format text, more privacy and security, text formatting, adding files that include pictures and video. And also single sign portal!

- **One scenario:** Parent want that all their child's teachers use Unikum in the same way. And that show that what we get it from interview phase that caregivers completely depend on the teachers in the way of getting information
- **Regular update and full document:** caregivers want that all their child's teachers updated their child document in all courses with pleasant information about their child not only the bad information.
- **Cultural and language problems for immigrants:** 2 caregivers are immigrants, they need translation.
- **A lot of text:** 2 caregivers need that teachers use short texting in Unikum
- **Who can see what:** 2 Caregivers are worried about their child information!

8.3.11. CONCLUSION OF THE USABILITY TEST OF UNIKUM

The results of the usability test that described above, illustrated a lot of problem that faces the Unikum users and a lot of needs for the Unikum users. The most important solution that should be considered to solve the problems are:

- Simple, clear and understandable structure for Unikum to all its users to help them to use Unikum in the right way (one scenario).
- Clear naming of tools that nearest to reality and users' understanding.
- Clear and simple functionality of the Unikum tools that help users to understand them.
- Adding more functions that cover the users' needs
- Considering privacy and security issues.
- Considering cultural and language issues.

8.4 PHASE 4: DESIGN

8.4.1. SUGGESTED IMPROVEMENTS

Depending on the results that I got from the understanding phase, the contextual inquiry (interview phase) and the usability test, the main improvement that I suggested the following in my design to cover the users' needs and solve their problems:

- A new simple, clear and understandable structure for Unikum that:
 - Help users to understand the Unikum process.
 - Help users to use one right scenario.
 - Helps users to navigate through Unikum easily to find what they want.
- Using clear naming of tools that nearest to reality and users' understanding.
- Using clear and simple functionality of the Unikum tools that help user to perform tasks easily.
- Adding more functions that cover the users' needs (teacher, pupil and caregiver).
- Considering the cultural background of the users(especially caregivers)
- Considering the privacy and security issues.

8.4.2. USER CENTRED DESIGN AND CONCEPTUAL MODEL

I depended on the stories that I gathered from the understanding phase and the contextual inquiry (interview phase), and I made the conceptual model. As shown in figure 8.1 below:

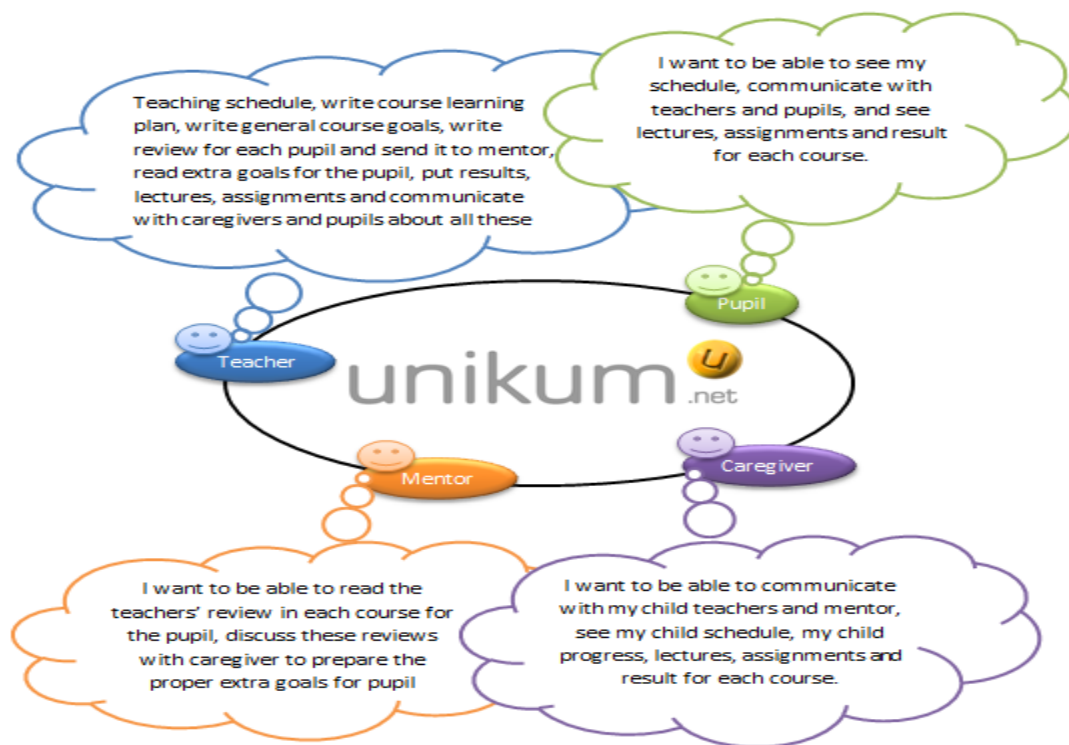


Figure 8.1: The conceptual model that shows:

- The users' stories about their needs.
- Abstract conceptual scenario for each user group (Teachers, caregivers and pupils).

8.4.3. DESIGN: PROTOTYPE (LOW-FI AND HI-FI PROTOTYPE)

I started my design by using the low-fi prototype as an early step of the design that is a quickly and easy to put together. The main steps in the low-fi prototyping are:

- 3 personas considered in the design: teacher, pupil and caregiver
- A concrete scenario for each persona.
- Prototyping: Some sketches on Papers that show:
 - The users flow (flow chart for communication) as shown in figure 8.2.
 - And Sitemap for each user (teacher, pupil and caregiver) as shown in figure 8.3.

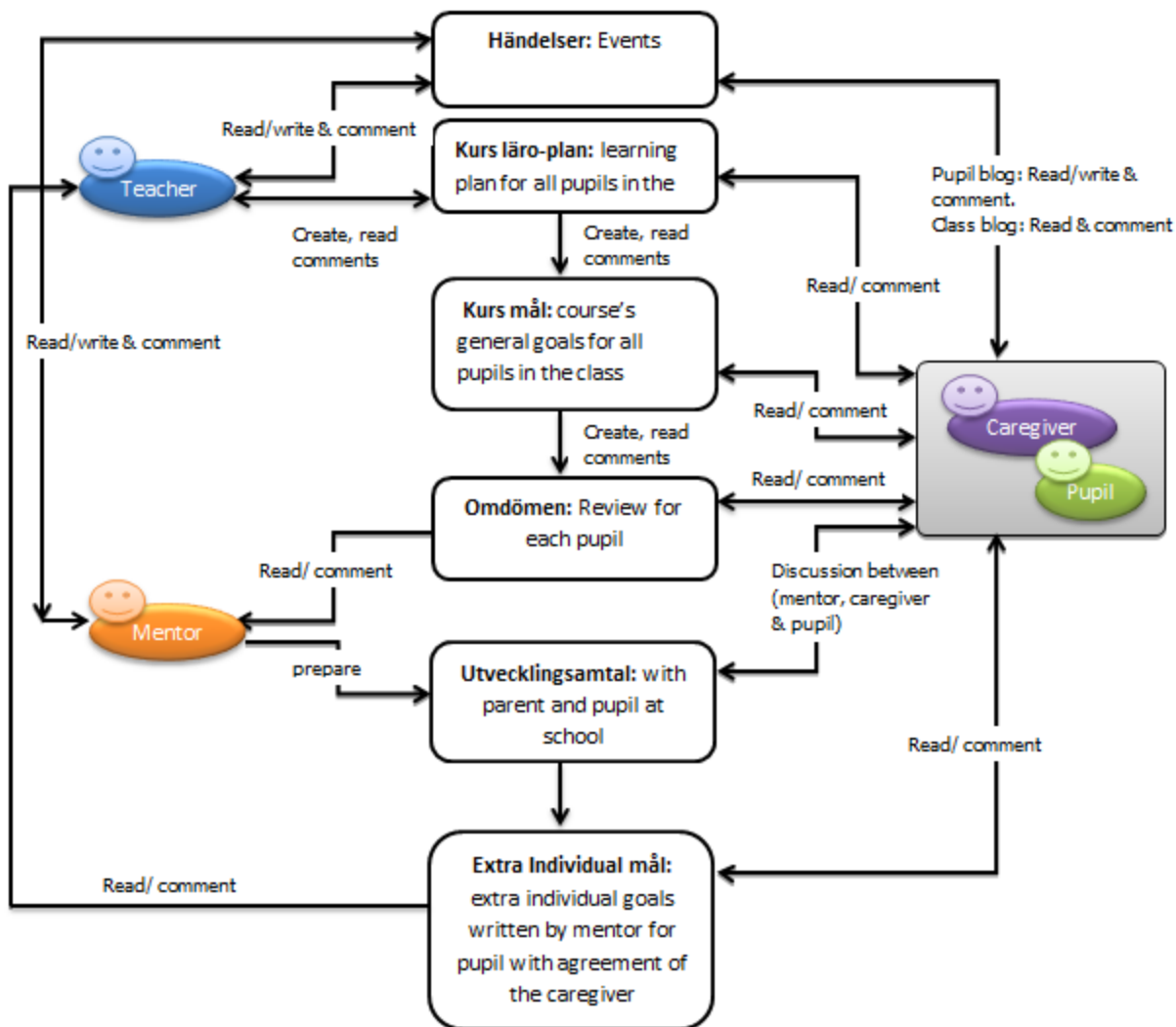


Figure 8.2: The users flow that show:

- The right way of using Unikum by the users,
- The interaction between Unikum and the users, and
- The communication between users (teachers, pupils and caregiver)

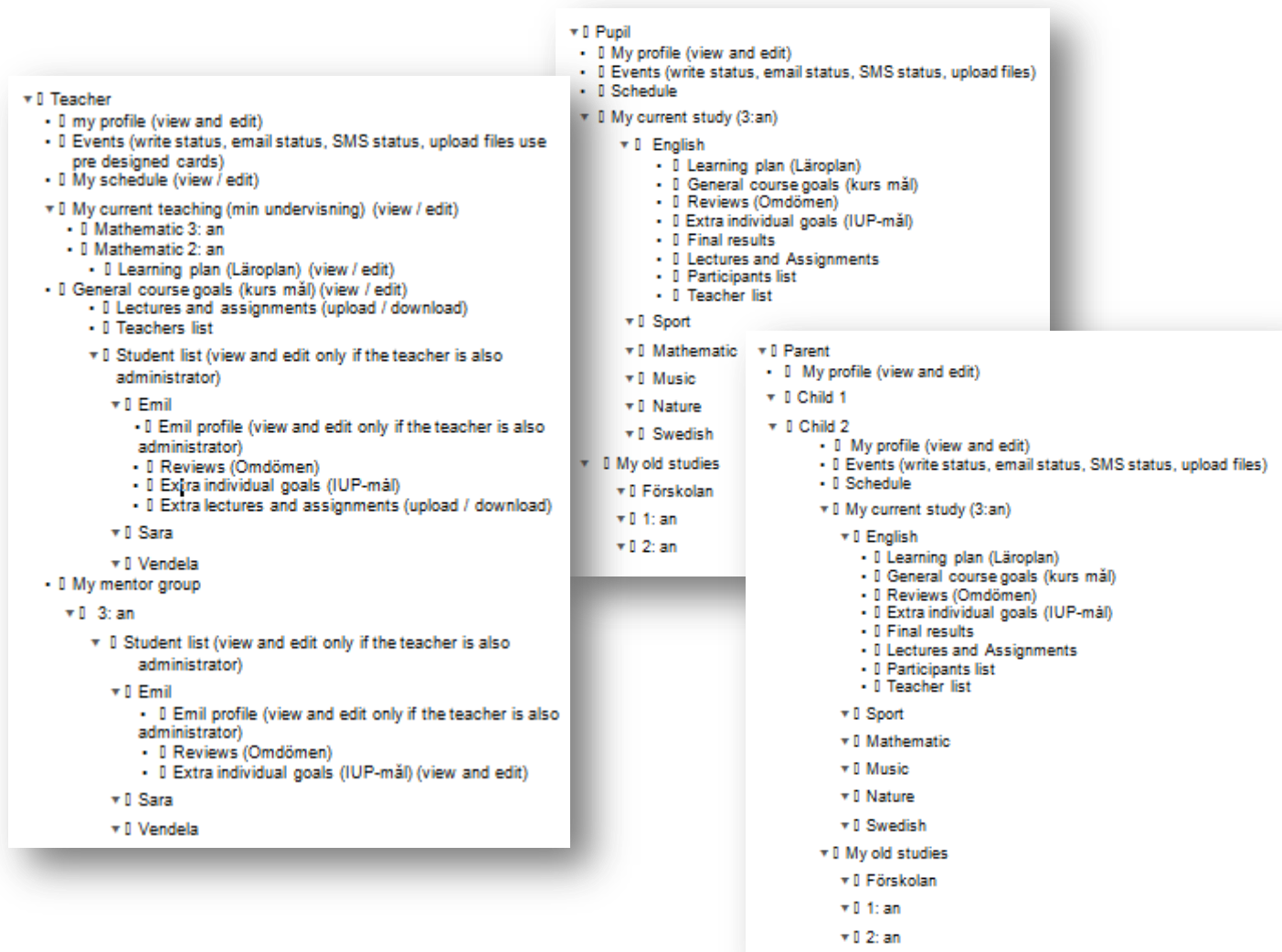


Figure 8.3: The site map for each one of the users (teacher, pupil and caregiver).

To make the design more understandable for the end users and the providers (Unikum), I designed a Hi-Fi prototype by using a WYSIWYG web builder. The prototype contains the following:

8.4.4. PERSONAS

Three personas as shown in picture 8.1:

- Eva is a teacher in mathematics, a mentor and also an administrator in Unikum.
- Sara is a pupil in grade 3
- Anna is a caregiver for Sara



* All people images from: FreeDigitalPhotos.net

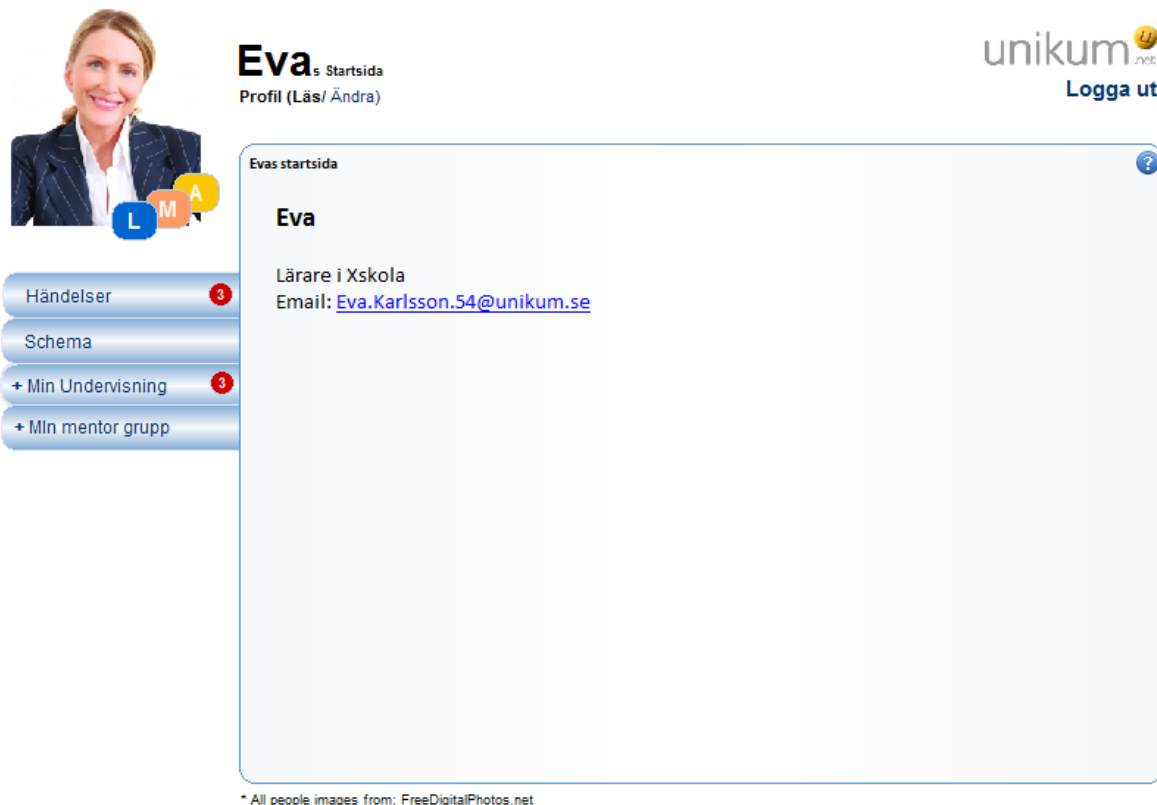
Picture 8.1: Start page of the prototype that show the 3 personas (teacher, pupil and the caregiver)

8.4.5. CONCRETE SCENARIOS

I put 3 scenarios for each persona to cover the Unikum process and the communication between them.

8.4.5.1. SCENARIO1: FOR THE TEACHER (EVA)

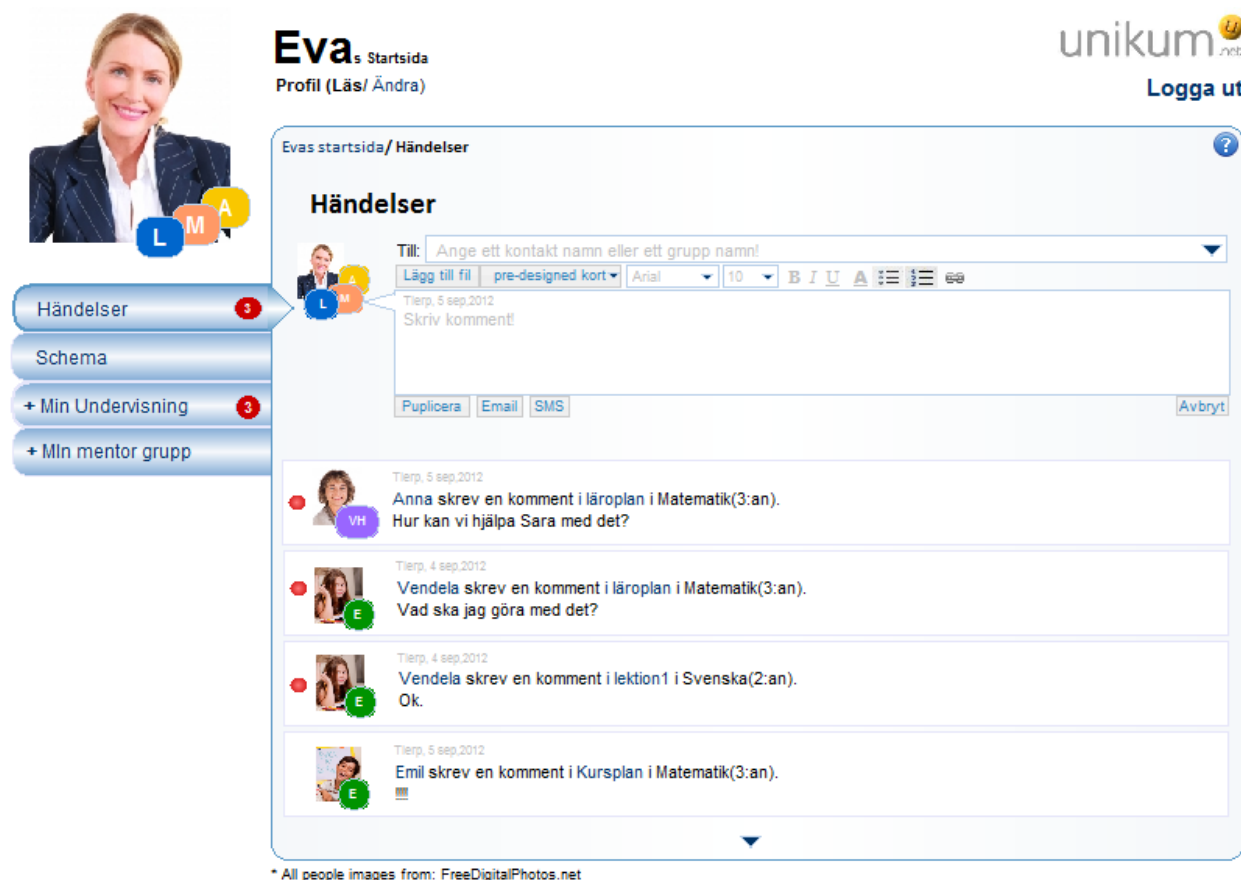
The scenario as shown in the following pictures:



* All people images from: FreeDigitalPhotos.net

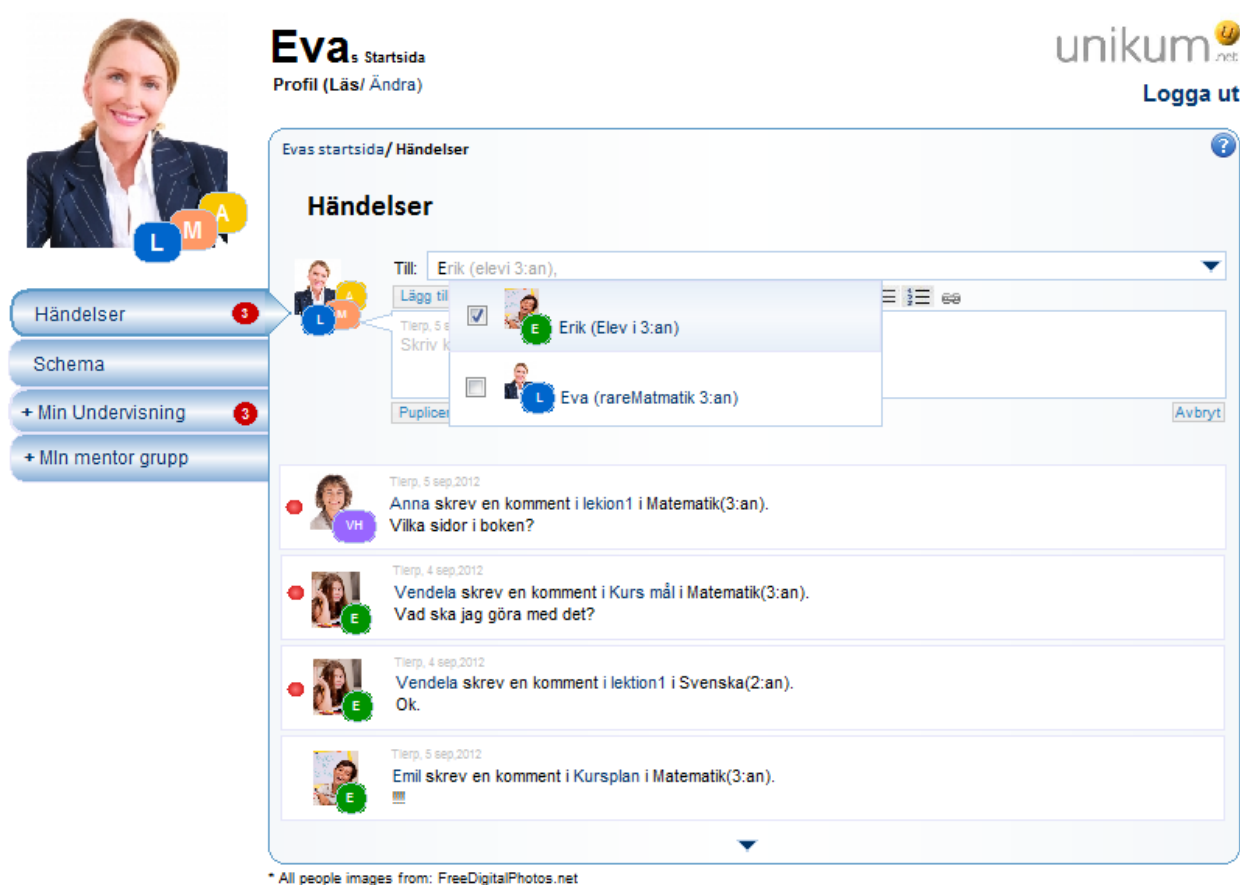
Picture 8.2: The Teacher (Eva)'s start page

- Eva is a teacher, mentor and also an administrator. The letters L, M, and A with different background colour in her picture show that she has these three roles.
- In the start page Eva can find information about her, she can also view and edit it.
- In the left side navigation bar that contains incoming events, her teaching schedule, her teaching, and her mentor group.
- Eva can also see how many events there are for each of them in this page.



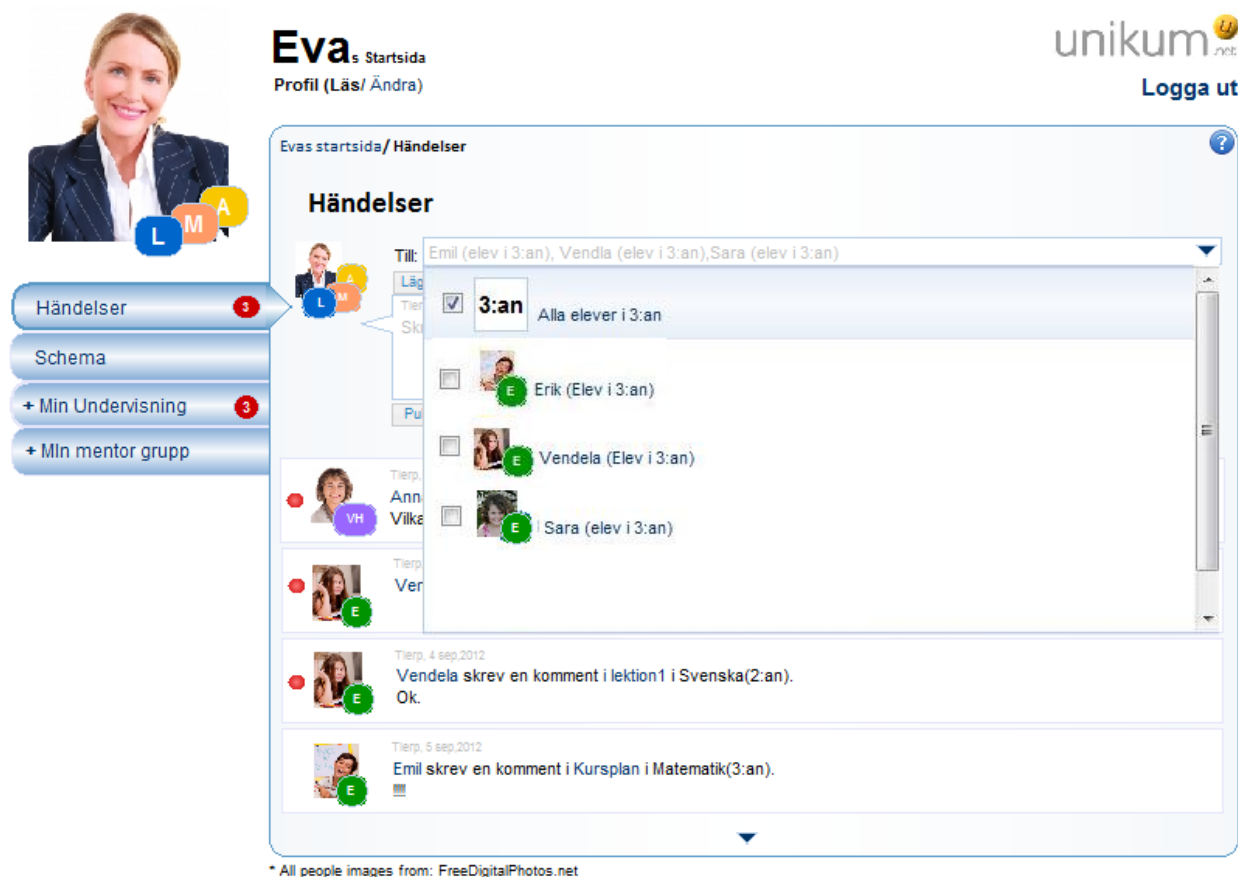
Picture 8.3: Teacher (Eva) opened the events page

- On the top of the event page is a place for writing a new event:
 - Eva can also attach file or upload a file containing pictures, videos, doc, and links to other webpages.
 - Eva can also use predefined cards.
 - Eva can format text.
 - Eva can publish the event in three different ways (publish it here as an event or email it or SMS it) according to the circumstances. For example: If she wants to SMS it and the contact doesn't give a mobile number, then it will appear an information message to inform her that this contact has no mobile number. Try to email it or publish it in state.
 - Eva can also cancel the event.
- Incoming events appear under the space for writing new events:
 - Eva can see the last incoming events sorted by date and time.
 - The events are clickable and marked in red to show that they are not yet read.
 - When clicking an event, she will go to that particular event's page.
 - When she closed the page of the event, the red mark will disappear as the event is now read. And it will be moved to the button of the unread/ unopened event list.
 - The list is scrollable to see more events.



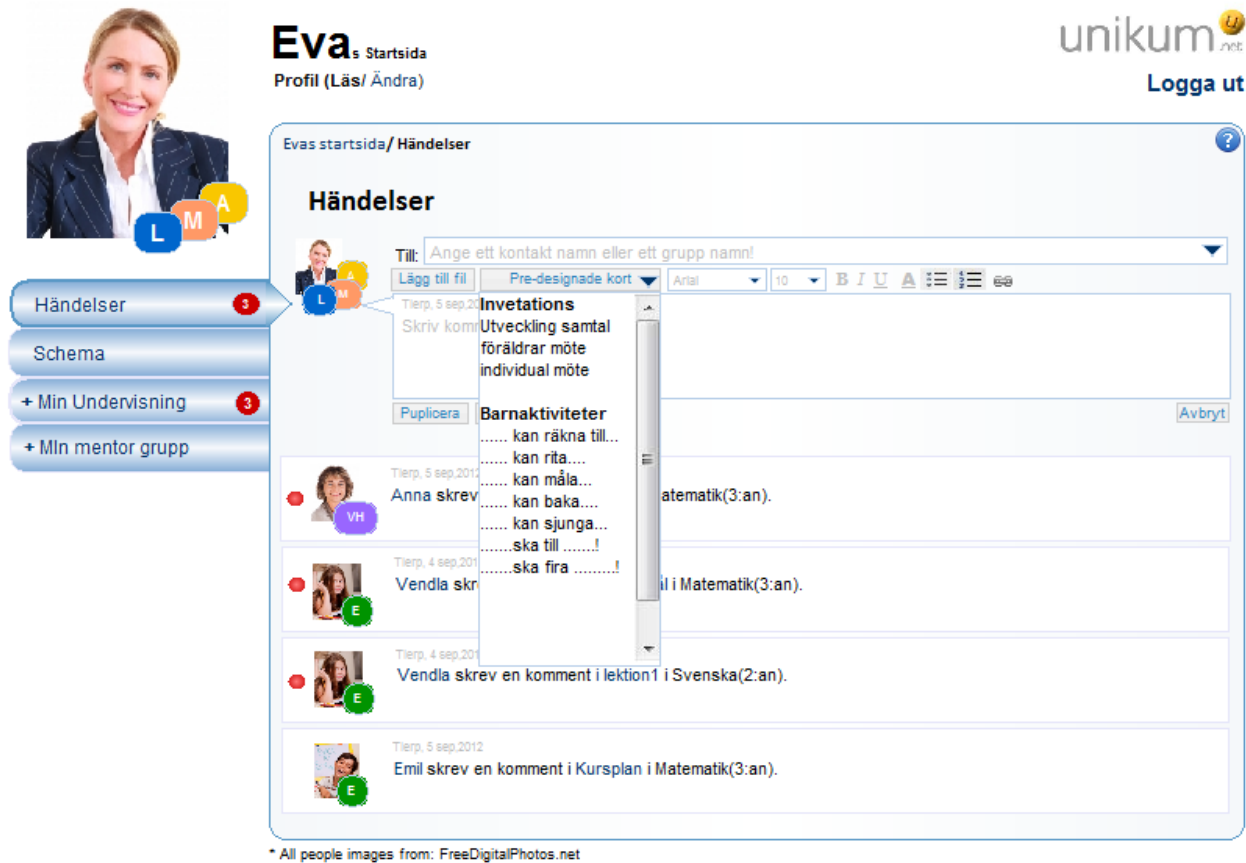
Picture 8.4a: Teacher (Eva) writes a new event.

- Eva can address the event to one contact or to a group of contacts. She can do this in two ways
- The first way is shown in picture 7.4a: by clicking the first part of a contact name then a list of all contacts that start with same letter will appear and Eva can select one of them.



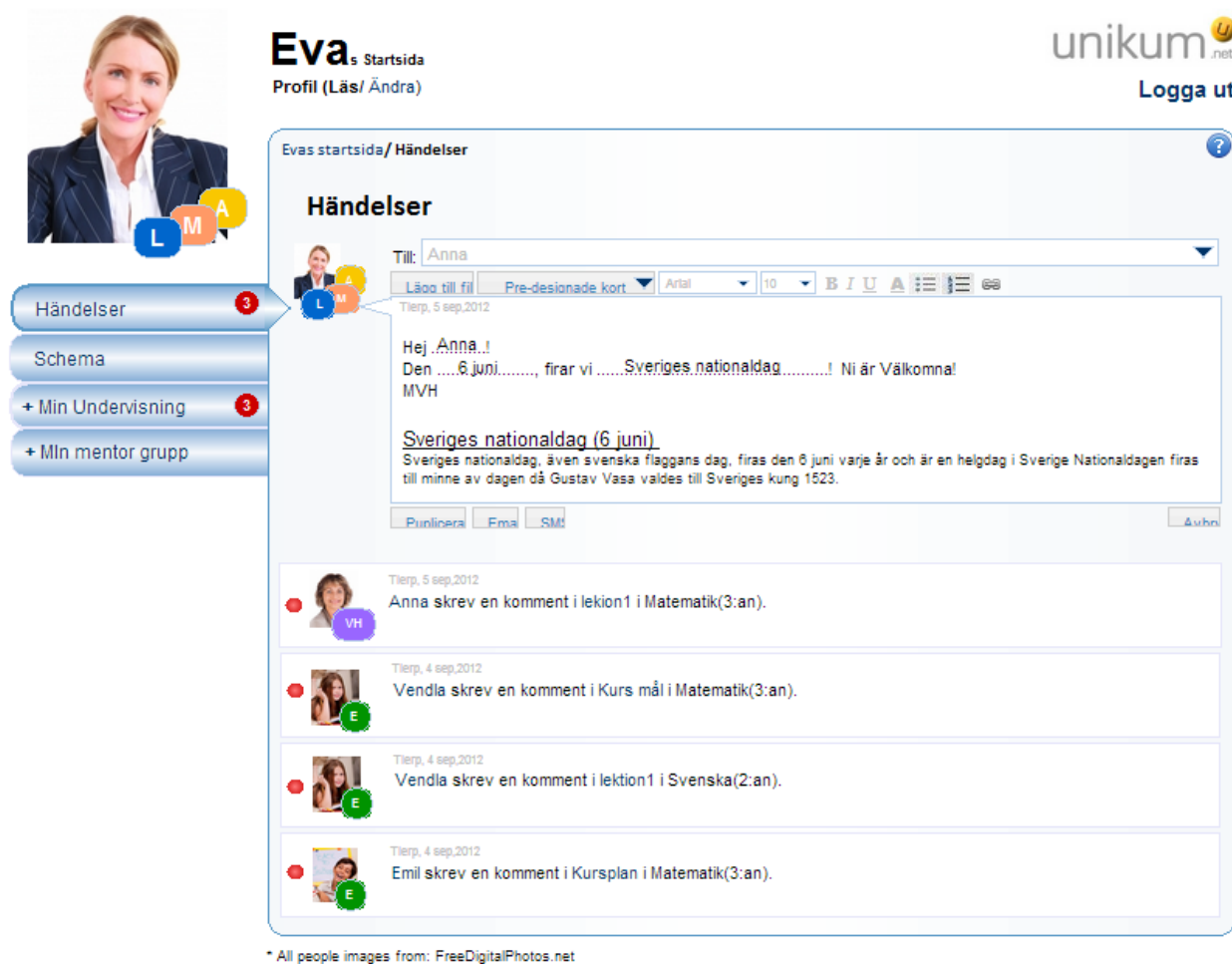
Picture 8.4B: The other way to address the event to one or to group is by clicking the drop-down menu

- All Eva's contacts will appear and she can select one of them.



Picture 8.5: The teacher (Eva) uses a predesigned card

- This is a way to aid cross- cultural understanding.
- It is a way to solve the problem that new immigrants that not have good Swedish yet.
- Eva selects one of the predesigned cards from the drop-down menu.
- The predesigned cards in the drop-down menu categorized into (particular celebrations, invitations or activities)



Picture 8.6: Predesigned card as viewed by the teacher (Eva) and addressed it to the caregiver (Anna)

- It will appear like a structured form in the writing area.
- Eva can fill it in with names and dates and for instance the name of a celebration.
- A pre-printed text (for instance describing a particular celebration, invitation or activity) is at the end of the card.
- On the teacher (Eva) page this text is only in Swedish.
- The system knows the mother language of the caregiver (Anna) and will use a pre-translated version of the text to show it in the caregiver's events below in addition to the Swedish version.

Anna Startside
Profil (Läs/ Ändra)

unikum.net Logga ut

Annas startside/ Händelser

Händelser

Till: Ange ett kontakt namn eller ett grupp namn!

Lägg till fil Antal 10 B I U A [formatting icons]

Tierp, 5 sep.2012

Skriv komment!

Puplicera Email SMS Avbryt

Tierp, 5 sep.2012

Hej Anna..!

Den6 juni....., firar viSveriges nationaldag.....! Ni är Välkomna!

MVH

Sveriges nationaldag (6 juni)

Sveriges nationaldag, även svenska flaggans dag, firas den 6 juni varje år och är en helgdag i Sverige Nationaldagen firas till minne av dagen då Gustav Vasa valdes till Sveriges kung 1523.

مرحبا Anna ..

يوم 6 juni سنحتفل Sveriges nationaldag اهل وسهلا بكم.

مع تحياتنا.

Sveriges nationaldag (6 juni)

وهو اليوم الوطني للسويد و يوم العلم يحتفل به كل عام، عطلة رسمية في السويد. لإحياء ذكرى ذلك اليوم الذي انتخب غوستاف فلسا ملك السويد 1523

Tierp, 4 sep.2012

Vendla skrev en komment i Kurs mål i Matematik(3:an).

Tierp, 4 sep.2012

Vendla skrev en komment i lektion1 i Engelska(3:an).

Tierp, 4 sep.2012

Emil skrev en komment i Kursplan i Matematik(3:an).

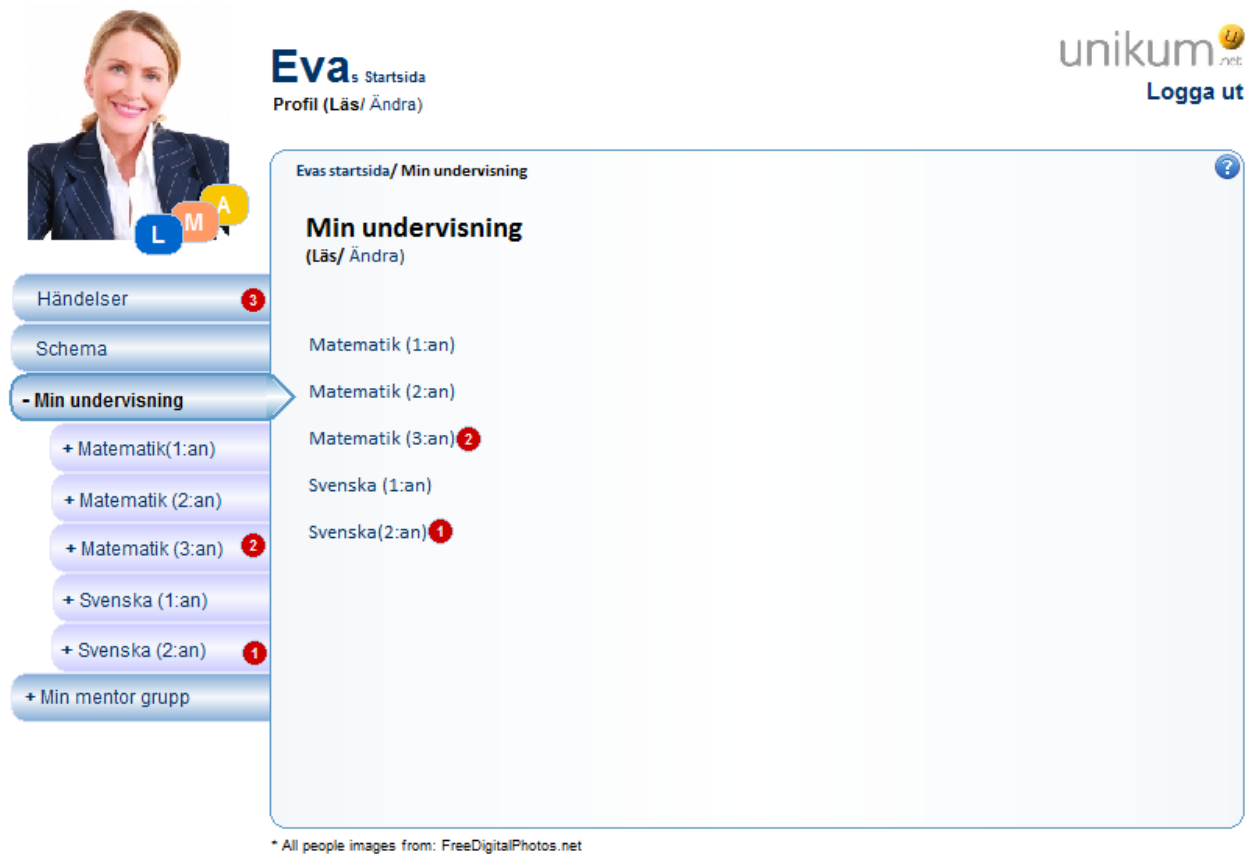
* All people images from: FreeDigitalPhotos.net

Picture 8.7: How the predesigned card as viewed by the caregiver (Anna)

- In the event list it will appear as an incoming event from the teacher (Eva).
- When it opened, it will appear to the caregiver (Anna) in two languages.
- The Swedish version at top.
- Under it the same text in the mother language of the caregiver (Anna).

Note: The schedule tab in the teacher navigation bar is shown in the same way as shown in Picture 7.16 but it only will contain her teaching schedule

- The teacher (Eva) can view and edit schedule for their teaching.



Picture 8.8: Teacher (Eva) views her teaching courses

- Eva will be able to see her courses that they teach.
- A marker will show how many incoming events on each of them.
- For example, Eva will click to see the events for Mathematics (grade 3).

Eva Startside
Profil (Läs/ Ändra)

unikum.net
Logga ut

Evas startside/ Min undervisning/ Matematik (3:an)/ Läroplan

Matematiks läroplan

(Läs/ Ändra)

Förankring i kursplanens syfte

Genom undervisningen i ämnet matematik ska eleverna sammanfattningsvis ges förutsättningar att utveckla sina förmågor att:

Kopplingar till läroplan visa » dölj »

Innehåll

Under vårterminen jobbar vi med följande områden: * Tid och temperatur * Addition & subtraktion * Geometri * Bråk * Multiplikation och division

visa » dölj »

Konkretisering av mål

- 1. Tid och temperatur** - enheterna år, månad, vecka, dygn, timme, minut, sekund - läsa och skriva datum - leta reda på uppgifter i almanackan - avläsa klockan och skriva klockslag med siffror - läsa av termometern
- 2. Geometri** - avgöra om en vinkel är rät, spetsig eller trubbig - namnet på olika månghörningar - förstå vad som menas med förstoring och förminskning - förstå och använda skala
- 3. Bråk** - kunna läsa och skriva bråk - kunna avläsa bilder av bråk - veta hur många delar det går på en hel - kunna storleksordna bråk
- 4. Multiplikation och division** - multiplicera med 10, 100, 1000, till exempel $10 \cdot 45$, $100 \cdot 45$, $1000 \cdot 45$ - räkna multiplikation med större tal, till exempel $3 \cdot 4174$ - räkna med kort division, till exempel $1248/4$, $3615/3$

Arbetsätt

Du kommer att få: - träna på att förklara muntligt och skriftligt hur du tänkt - arbeta både enskilt och i grupp - jobba laborativt - jobba med läromedlet "Borgen 4B"

visa » dölj »

Bedömning

Till: Ange ett kontakt eller grupp namn!

Tierp, 5 sep. 2012
Skriv kommentar!

Lägg till fil Puplicera Email SMS Avbryt

Tierp, 5 sep. 2012
Hur kan vi hjälpa Sara med det?

Tierp, 4 sep. 2012
Vad ska jag göra med det?

* All people images from: FreeDigitalPhotos.net

Picture 8.9: The teacher (Eva) views the learning plan for mathematic course (grade 3)

- When clicking Mathematics (grade 3), it will appear a list that regards the whole class and contain
 - Learning plan for the course (view and edit)
 - Course goals (view and Edit)
 - Lectures and assignments (upload and download)
 - Pupils list (view and also edit because Eva is also administrator)
 - Teachers list (View and also edit because Eva is also administrator)
- All events in Mathematics grade 3 are marked in the left menu.
- When Eva clicks the learning plan she will see the learning plan. She can view and edit it.
- Also Eva can directly reply the incoming events that have been added by pupils and/or caregivers.
- Or she can write a new event that will reach the whole class and caregivers.



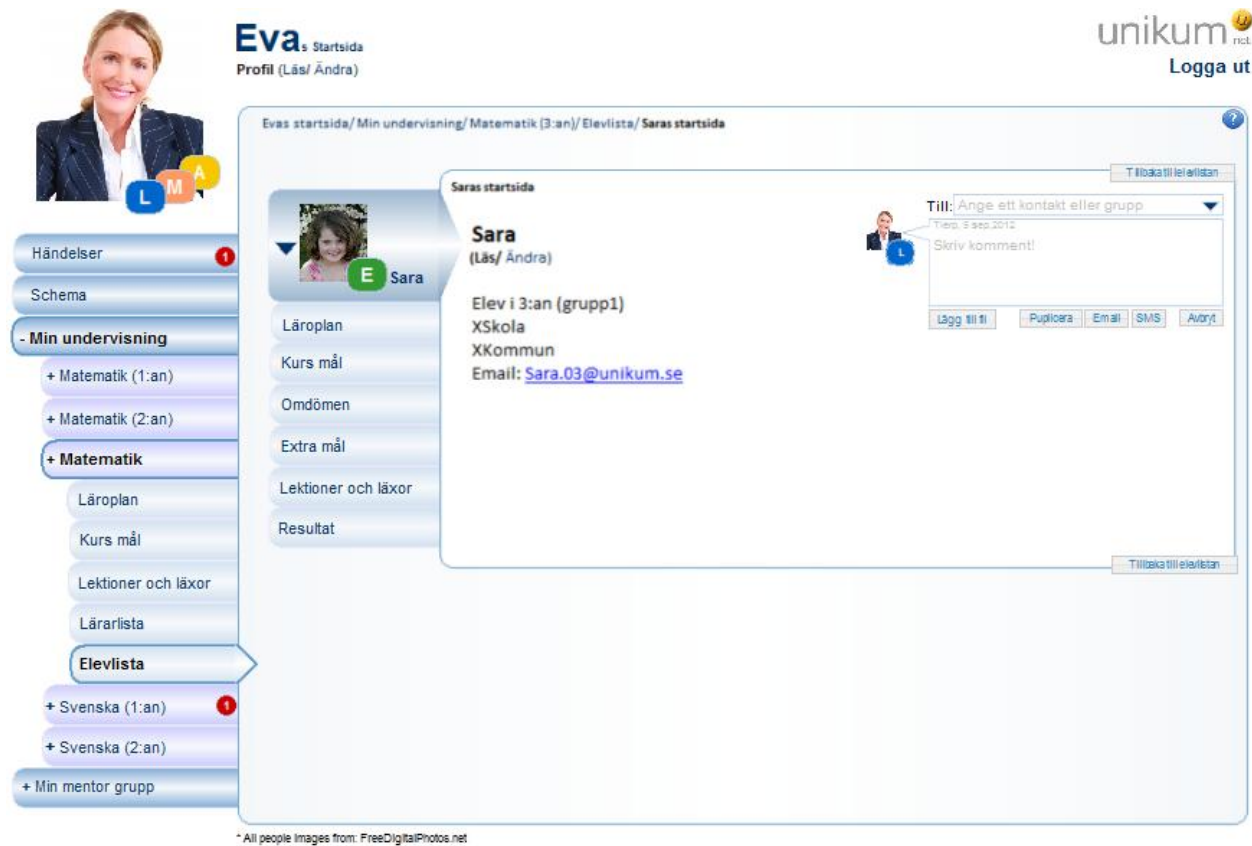
Picture 8.10: Pupils list as viewed by the teacher (Eva)

- The pupils' lists have pictures and names for all pupils.
- Eva can view and also edit because she is also administrator.



Picture 8.11: Pupils list edited by the teacher (Eva)

- Eva is also an administrator and thus can edit the pupils list by clicking edit.
- Eva can add a new pupil; upload a picture for him/ her.
- Eva can also remove a pupil from the list.
- Eva can also edit the contents of a pupil in the list.
- After adding a pupil, Eva will be able to open the pupil page.

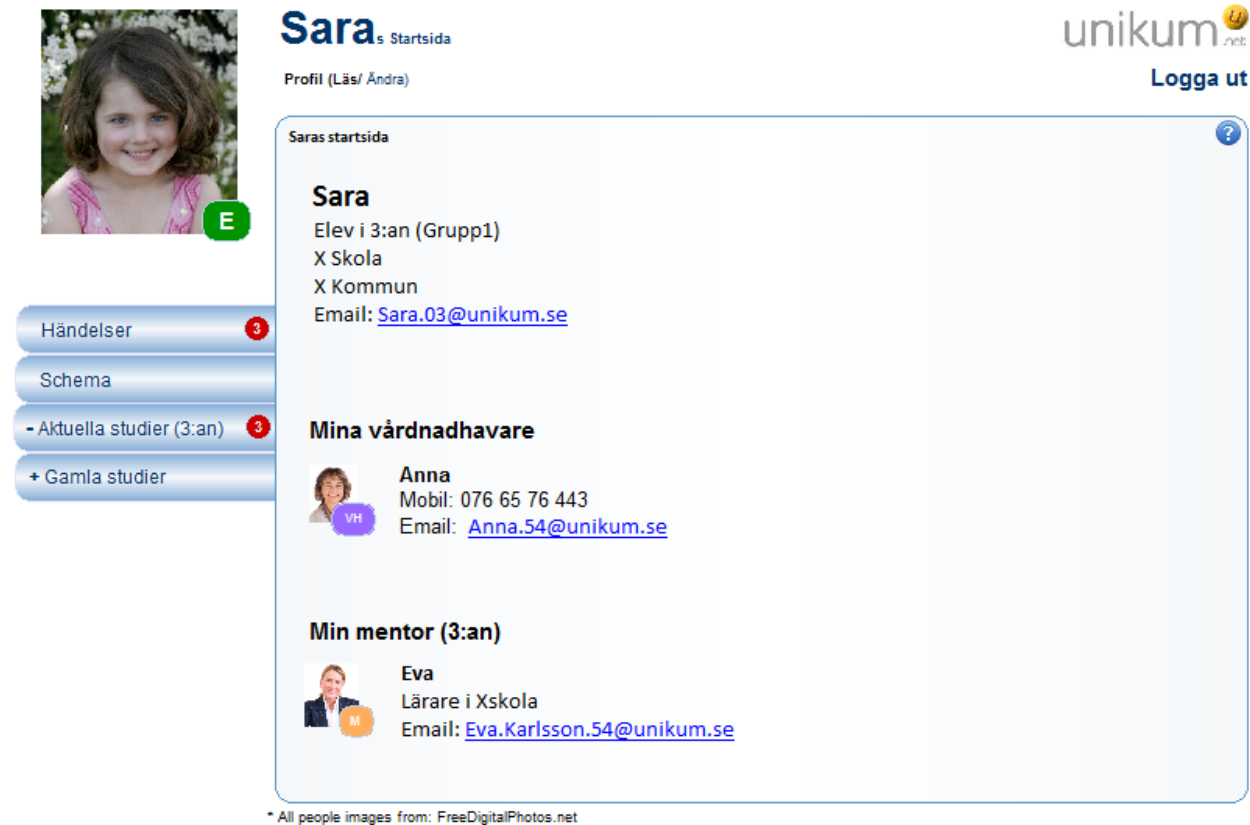


Picture 8.12: The Teacher (Eva) views the pupil (Sara) page

- Eva can view the pupil's (Sara) information.
- Eva also is an administrator so she can edit the profile of the pupil (Sara).
- Eva can write new reviews for the pupil (Sara).
- Eva can also receive uploaded assignments from the pupil (Sara).
- Eva can also write individually adapted lecture material and instructions for assignments
- Eva can also add links to lecture useful material, pictures, and videos
- Eva can add individual results and grading for the pupil (Sara).
- Eva can read the extra goals for the individual pupil as written by the mentor and agreed upon by the caregivers.
- Eva can add comments the extra goals by writing an event.
- And so on...

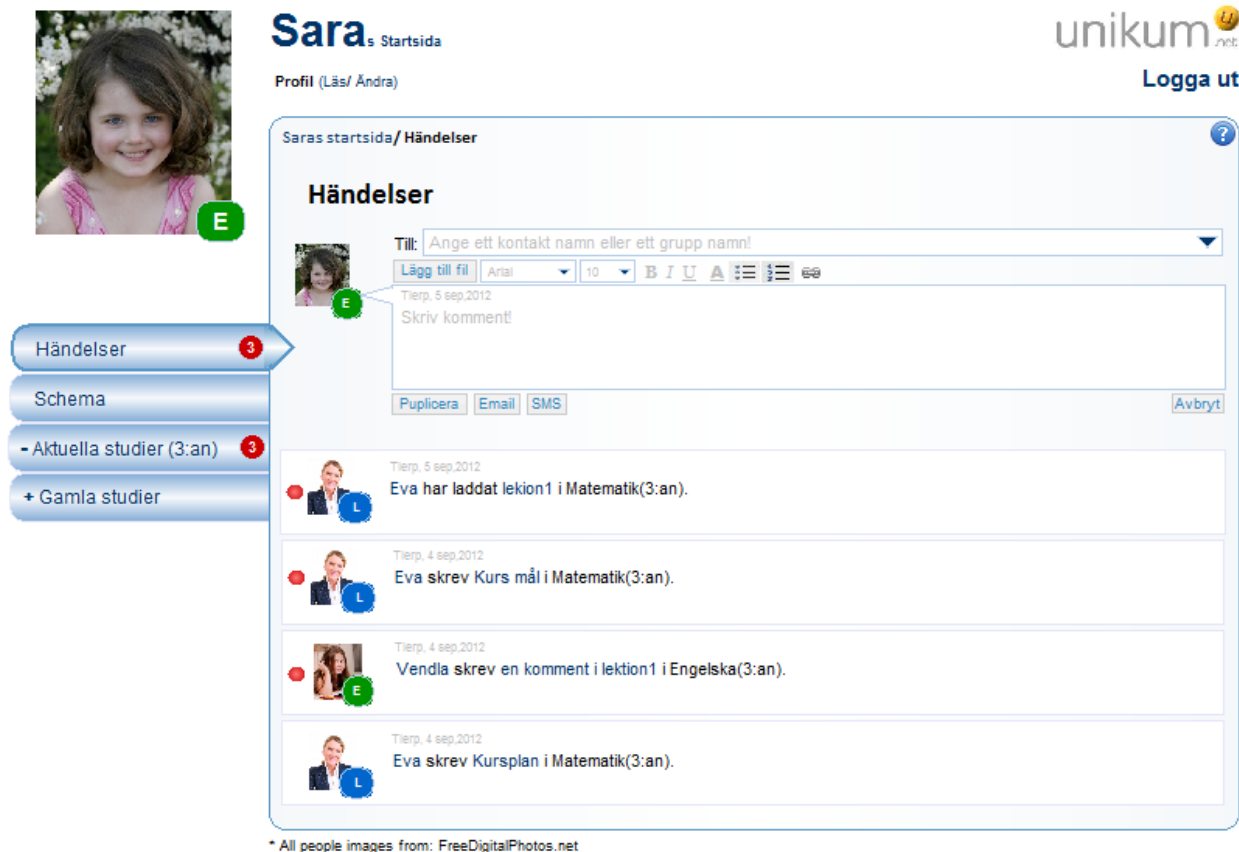
8.4.5.2. SCENARIO2: FOR THE PUPIL (SARA)

The Scenario is shown in the following pictures of the suggested design:



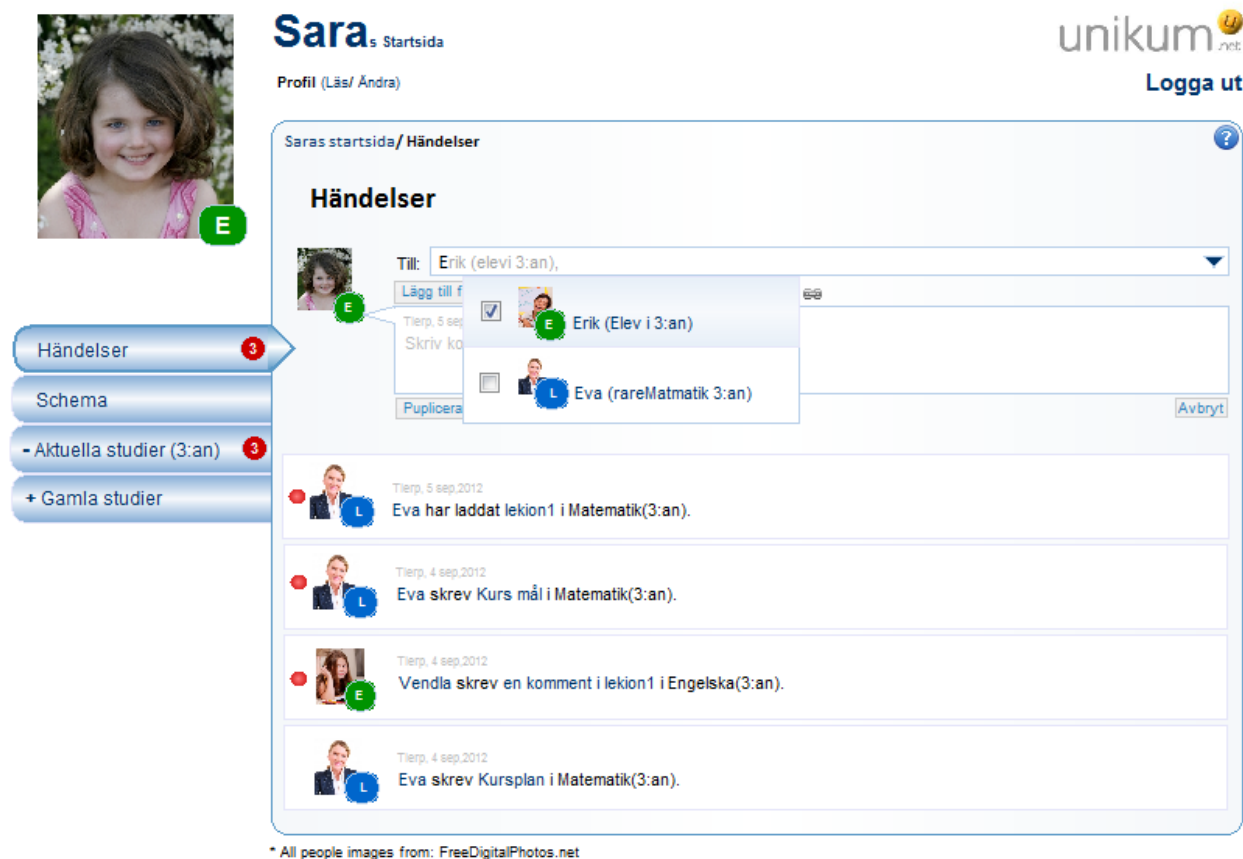
Picture 8.13: The pupil (Sara) view her start page

- The letter E with green background colour in her picture show that she is login as a Pupil.
- From the start page, Sara can view and edit her information (Profile) like change her password, her picture, her email, information about her and contact information.
- She can also view contact information about her caregivers and her mentor.
- The pupil (Sara) can navigate using the navigation bar in the left side of the start page. The navigation bar contains events, schedule, her current studies (third grade), and her old studies.



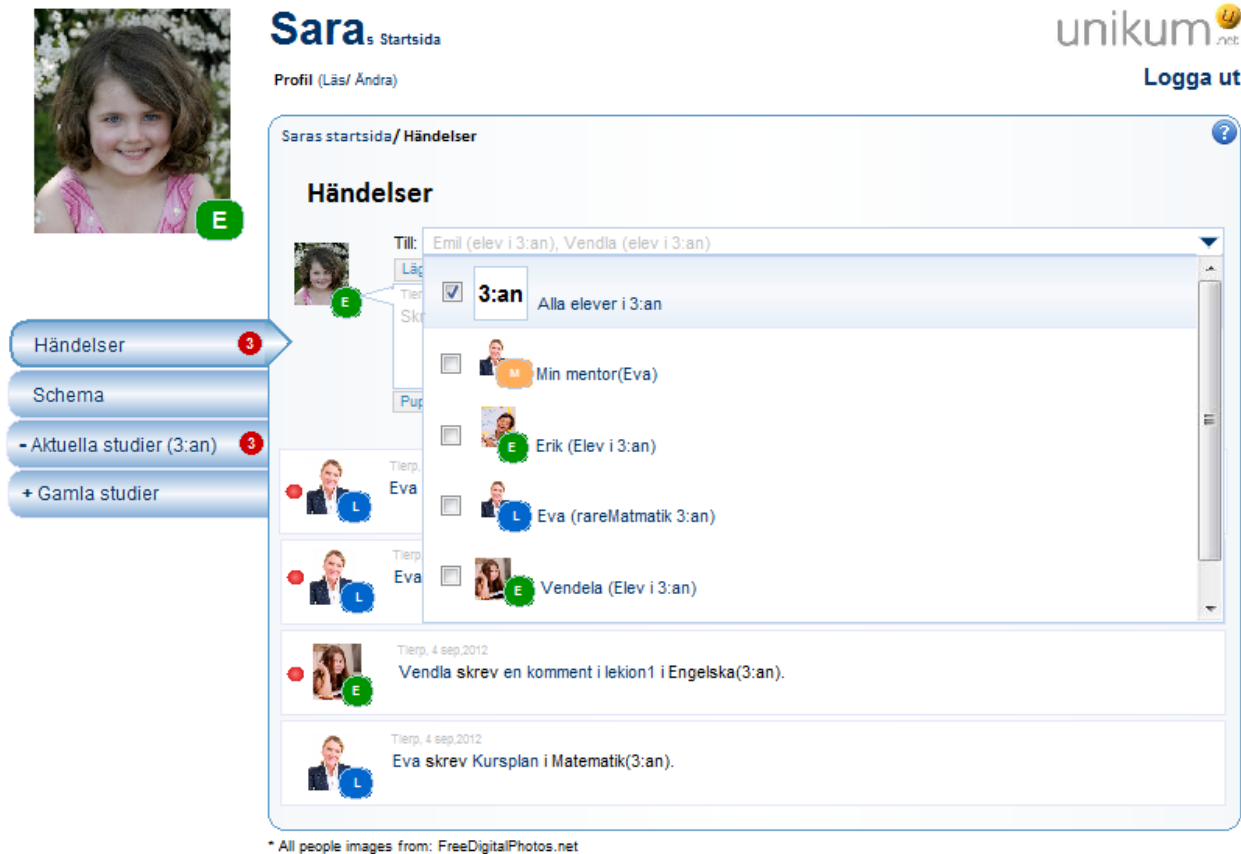
Picture 8.14: Pupil (Sara) opens her events page

- On the top of the event page is a place for writing a new event:
 - Sara can also attach file or upload a file containing pictures, videos, doc, and links to other webpages.
 - Sara can format text.
 - Sara can publish the event in three different ways (publish it here or email or SMS it) according to the circumstances. For example: If she wants to SMS it and the contact doesn't have a mobile number, then it will appear a message: (This contact has no mobile number. Try to email it or publish it in state.)
 - Sara can also cancel the event.
- Incoming events appear under the space for writing new events:
 - Sara can see the last incoming events sorted by date and time.
 - The events are clickable and marked in red to show that they are not yet read.
 - When clicking an event, she will go to that particular event's page.
 - When she closed the page of the event, the red mark will disappear as the event is now read. And it will be moved to the bottom of the event list.
 - The list is scrollable to see more events.



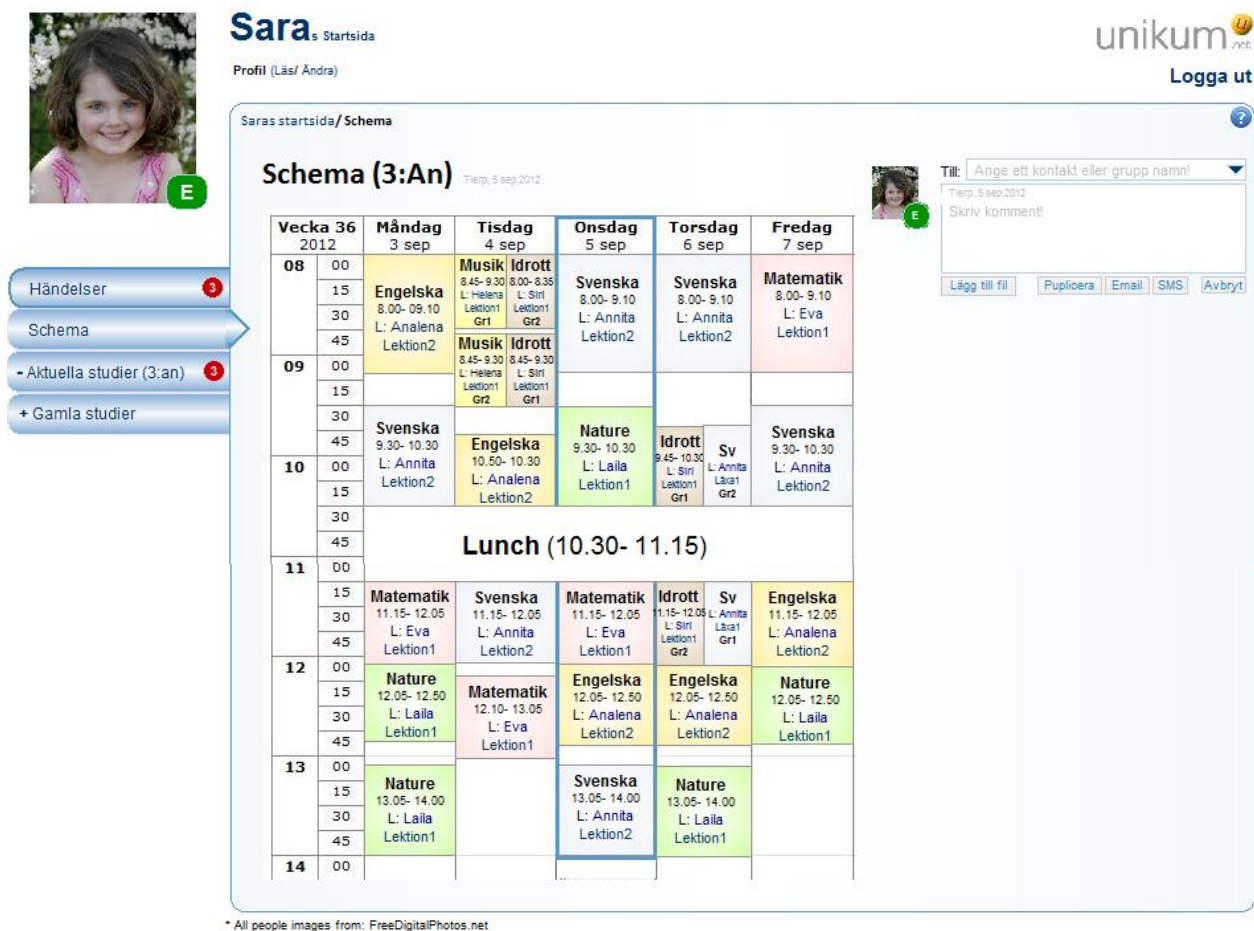
Picture 8.15a: The Pupil (Sara) writes an event.

- Sara can address the event to one contact or to a group of contacts. She can do this in two ways
- The first way is shown in picture 7.15a: by typing the first part of a contact name then a list of all contacts that start with this will appear and she can select one of them.



Picture 8.15b: The other way to address the event to one or to group is by clicking the drop-down menu

- Sara's contacts will appear and she can select one of them.



Sara Startside
Profil (Läs/ Ändra)

unikum .net
Logga ut

Saras startside/ Schema

Schema (3:An)

Tierp, 5 sep 2012

Vecka 36 2012	Måndag 3 sep	Tisdag 4 sep	Onsdag 5 sep	Torsdag 6 sep	Fredag 7 sep	
08	00	Musik	Idrott			
	15	Engelska	Svenska	Svenska	Matematik	
	30	8.00- 09.10 L: Analena Lektion2	8.00- 9.10 L: Annita Lektion2	8.00- 9.10 L: Annita Lektion2	8.00- 9.10 L: Eva Lektion1	
	45					
09	00	Musik	Idrott			
	15	8.45- 9.30 L: Hielena Lektion1 Gr2	8.45- 9.30 L: Siri Lektion1 Gr2			
	30					
	45	Svenska	Nature	Idrott	Svenska	
		9.30- 10.30 L: Annita Lektion2	9.30- 10.30 L: Laila Lektion1	9.45- 10.30 L: Siri Lektion1 Gr1	9.30- 10.30 L: Annita Lektion2	
10	00					
	15					
	30					
	45	Lunch (10.30- 11.15)				
11	00					
	15	Matematik	Svenska	Matematik	Idrott	Sv
	30	11.15- 12.05 L: Eva Lektion1	11.15- 12.05 L: Annita Lektion2	11.15- 12.05 L: Siri Lektion1 Gr2	11.15- 12.05 L: Annita Lektion1 Gr1	11.15- 12.05 L: Annita Lektion2
	45					
12	00	Nature	Engelska	Engelska	Nature	
	15	12.05- 12.50 L: Laila Lektion1	12.05- 12.50 L: Annita Lektion2	12.05- 12.50 L: Annita Lektion2	12.05- 12.50 L: Laila Lektion1	
	30					
	45					
13	00					
	15	Nature	Svenska	Nature		
	30	13.05- 14.00 L: Laila Lektion1	13.05- 14.00 L: Annita Lektion2	13.05- 14.00 L: Laila Lektion1		
	45					
14	00					

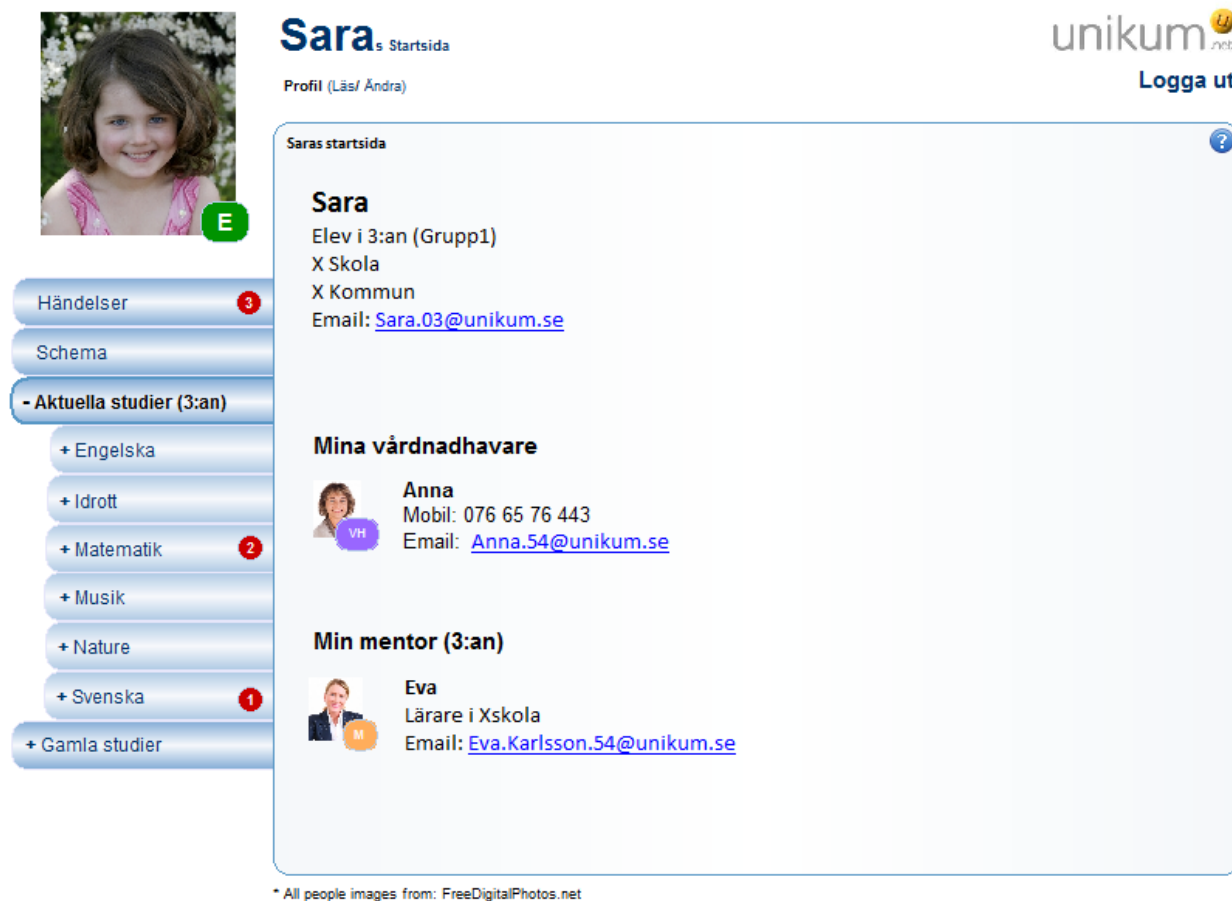
Till: Ange ett kontakt eller grupp namn!
Tierp, 5 sep 2012
Skriv komment!

Lägg till fil Puplicera Email SMS Avbryt

* All people images from: FreeDigitalPhotos.net

Picture 8.16: The pupil (Sara) views her schedule.

- The schedule viewed by week. The current day will be selected.
- The schedule shows weekly information about courses' time, a link to the teacher contact information, links to the lectures and Assignment, links to the teachers contact page and link to the courses page
- Sara can write an event or comment others events from the schedule page.



Picture 8.17: The pupil (Sara) navigate to her current studies (without clicking)

- Sara can navigate using the navigation bar to view its contents without clicking.



Picture 8.18: The pupil (Sara) views her current studies page.

- Sara can view her current studies page by clicking on the current studies (3rd grade).
- Sara can view all courses she has in her current study.
- Sara can also see how many events in each course.

The screenshot shows the Unikum web application. At the top left is a pupil's profile picture of a girl named Sara, with a green 'E' icon. Below it is a sidebar menu with categories like 'Händelser', 'Schema', 'Aktuella studier (3:an)', 'Engelska', 'Idrott', 'Matematik', 'Läroplan', 'Kurs mål', 'Omdömen', 'Extra mål', 'Lektioner och läxor', 'Resultat', 'Elevlista', 'Lärlista', 'Musik', 'Nature', 'Svenska', and 'Gamla studier'. The main content area is titled 'Saras startsida/ Aktuella Studien/ Matematik/ Läroplan'. It features a header 'Matematiks läroplan' and a section 'Förankring i kursplanens syfte' which states the purpose of the mathematics course. Below this is the 'Innehåll' (Content) section, which lists four main topics: 1. Tid och temperatur, 2. Geometri, 3. Bråk, and 4. Multiplikation och division. Each topic has a brief description of what students will learn. The 'Arbetsätt' (Working method) section describes how students will work, and the 'Bedömning' (Assessment) section is also visible. On the right side of the main content area, there is a comment box with a small profile picture and a text input field, and buttons for 'Lägg till fil', 'Publicera', 'Email', 'SMS', and 'Avbryt'.

* All people images from: FreeDigitalPhotos.net

Picture 8.19: The pupil (Sara) views the learning plan of the Mathematic

- Sara can navigate to one of the courses like Mathematic to see its contents.
- Inside each course, Sara can view information about:
 - The course learning plan for the course for all pupils in the course.
 - Course goals. (the general goals of the course that all pupils in the course should reach them)
 - Review by the teacher for Sara in that course.
 - The extra individual goals for Sara in this course.
 - The course lectures and assignments and the extra lectures and assignments Sara if there is a need. Also she can view the result of each assignment.
 - The course final result for Sara.
 - The pupils list.
 - and the teachers list
- Sara can write new event or comment others events from leaning plan page.

The screenshot shows the Unikum web interface. At the top left is Sara's profile picture and name 'Sara' with a 'Startsida' link and a 'Profil (Läs/ Ändra)' link. The top right shows the 'unikum' logo and a 'Logga ut' button. A left sidebar contains a menu with items like 'Händelser', 'Schema', 'Aktuella studier (3:an)', '+ Engelska', '+ Idrott', '- Matematik', 'Läroplan', 'Kurs mål', 'Omdömen', 'Extra mål', 'Lektioner och läxor', 'Resultat', 'Elevlista', 'Lärarlista', '+ Musik', '+ Nature', '+ Svenska', and '+ Gamla studier'. The main content area is titled 'Matematiks kursmål' and contains a table with three columns: 'Nivå 1', 'Nivå 2', and 'Nivå 3'. The table has three rows: 'Räkning', 'Addition och subtraktion', and 'Multiplikation och division'. The 'Räkning' row has green cells for 'Till 10' and 'Till 100' (both with a blue 'L' icon) and a grey cell for 'Till 1000' (with a red dot icon). The 'Addition och subtraktion' row has a green cell for '0-10' (with a green 'E' icon) and grey cells for '10-100' and '100-1000'. The 'Multiplikation och division' row has grey cells for '0-10', '10-100', and '100-1000'. To the right of the table is a comment box with a 'Till:' dropdown, a date 'Tierp, 5 sep 2012', a 'Skriv kommentar!' text area, and buttons for 'Lägg till fil', 'Publicera', 'Email', 'SMS', and 'Avbryt'.

	Nivå 1	Nivå 2	Nivå 3
Räkning	Till 10 (Green, L)	Till 100 (Green, L)	Till 1000 (Grey, Red dot)
Addition och subtraktion	0-10 (Green, E)	10-100 (Grey)	100-1000 (Grey)
Multiplikation och division	0-10 (Grey)	10-100 (Grey)	100-1000 (Grey)

* All people images from: FreeDigitalPhotos.net

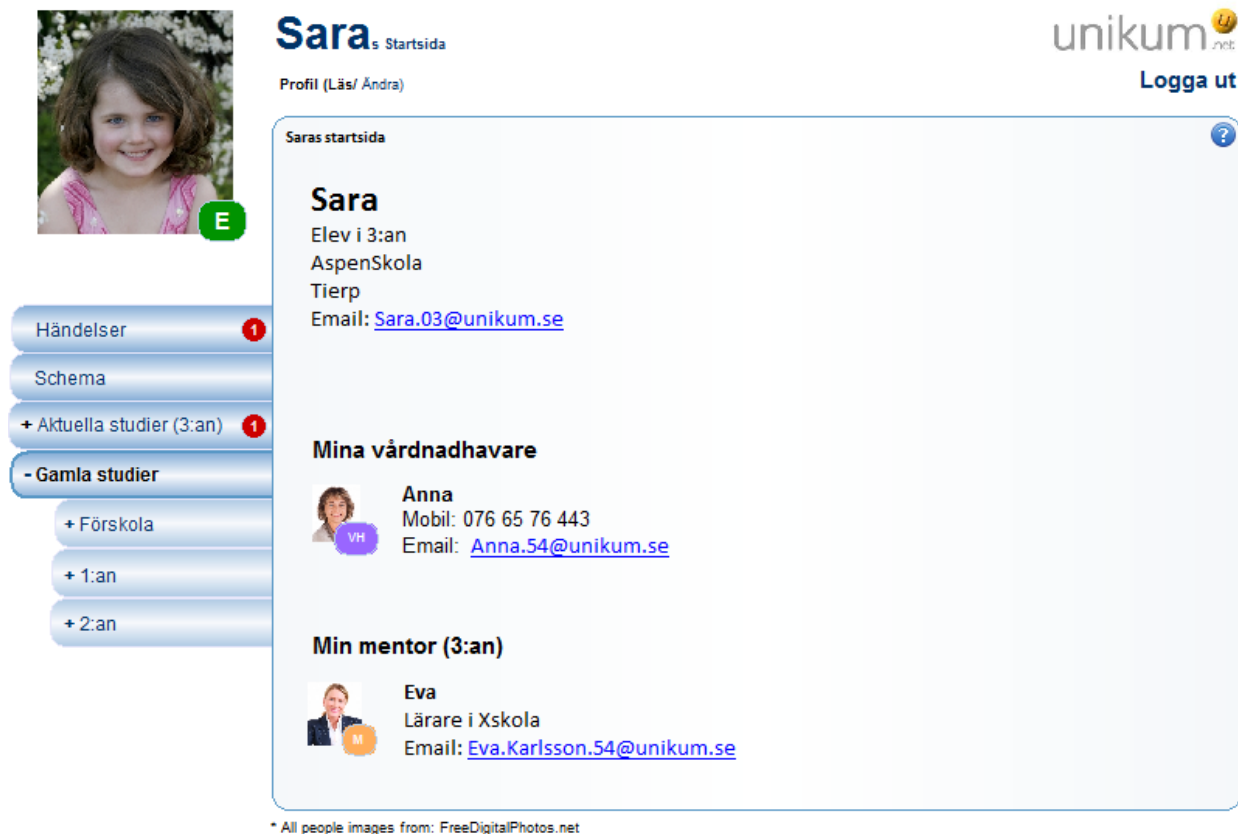
Picture 8.20: Mathematic course goals as viewed by the pupil (Sara)

- Sara can view the general goals for Mathematic course.
- Sara can see the status of each goal in the matrix:
 - Goal with grey background show that the goal not starts yet.
 - Goal with white background show that the goal started but not yet fulfilled by Sara.
 - Goal with green background show that the teacher marked that it fulfilled by Sara.
- Sara can mark the started as she fulfilled this goal so the teacher notices this.
- The red mark (incoming event) shows that the goal status is changed.
- Sara can write a new event or comment others events from the course goals page.

The screenshot shows the 'unikum.net' web application. At the top left is a profile picture of a girl named Sara, with the text 'Sara's Startside' and 'Profil (Läs/ Ändra)'. The top right has the 'unikum.net' logo and a 'Logga ut' button. The main content area is titled 'Saras startside/ Aktuella Studien/ Matematik/ Lektioner och Läxor'. Below this is a section 'Matematiks Lektioner och läxor' containing a table of lessons and assignments. The table has three columns: 'Lektioner', 'Läxor', and 'Status'. The 'Lektioner' column lists 'Lektion 1' and 'Lektion 2'. The 'Läxor' column lists 'Läxa 1' and 'Läxa 2'. The 'Status' column shows 'Läxa 1' with a green checkmark and 'Läxa 2' with a red X. To the right of the table is a comment box with a 'Till:' dropdown, a text input field, and buttons for 'Lägg till fil', 'Publicera', 'Email', 'SMS', and 'Avbryt'. A sidebar on the left contains navigation buttons: 'Händelser', 'Schema', 'Aktuella studier (3:an)', '+ Engelska', '+ Idrott', '- Matematik', 'Läroplan', 'Kurs mål', 'Omdömen', 'Extra mål', 'Lektioner och läxor', 'Resultat', 'Elevlista', 'Lärarlista', '+ Musik', '+ Nature', '+ Svenska', and '+ Gamla studier'. At the bottom, there is a small text note: '* All people images from: FreeDigitalPhotos.net'.

Picture 8.21: Mathematic lectures and assignment page as viewed by the pupil (Sara)

- Lecture is uploaded by the teacher (Eva) and Sara can download it to read it.
- Assignment is uploaded by the teacher (Eva) so the Sara can download it to do it and then upload it.
- Status represents the teacher assessment (result) on the pupil assignment work. The teacher (Eva) uploads the assessment status for Sara. And Sara can download it to correct it if there is a need
- Sara can see the incoming event on lecture or assignment and even status.

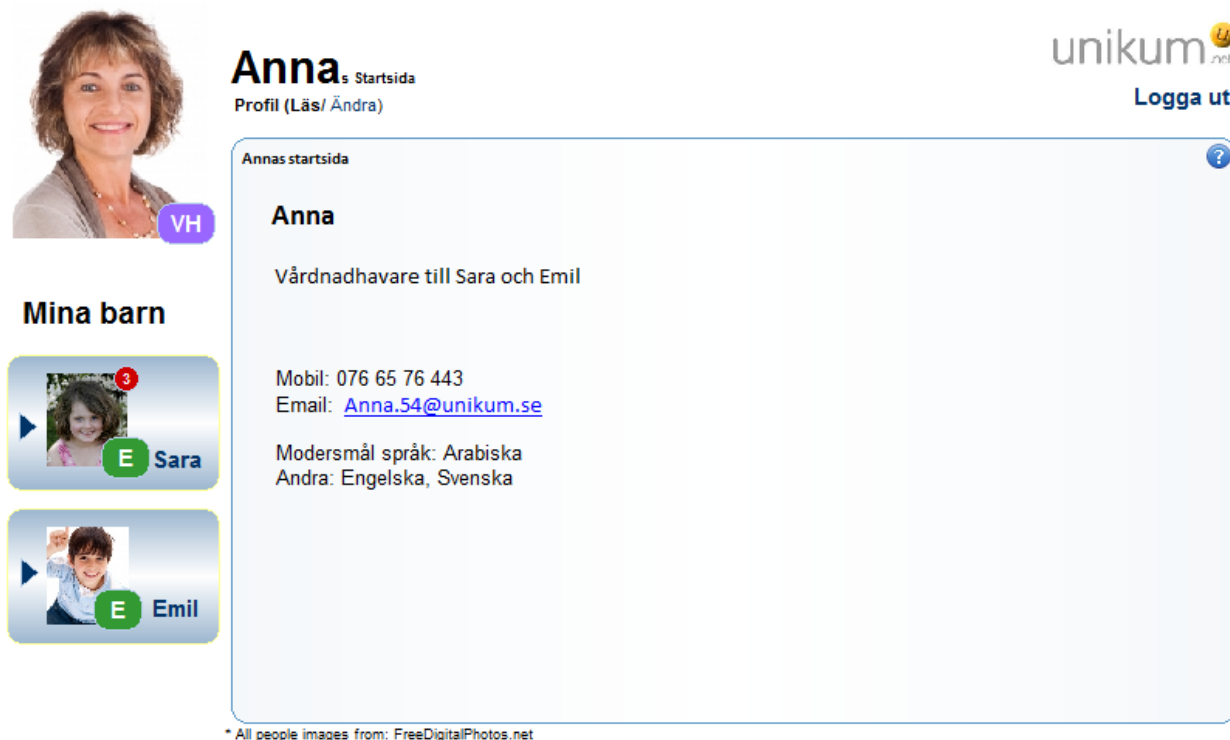


Picture 8.22: Pupil (Sara) navigate to her old studies

- Sara can view her old studies.
- But she cannot comment them or write new event to the teachers or pupils of her old studies.
- Old studies contain documentation about her old studies for all the courses.
- Inside each course, Sara can view information about:
 - The course learning plan for the course for all pupils in the course.
 - Course goals. (the general goals of the course that all pupils in the course should reach them)
 - Review for the pupil (Sara) in the course.
 - The extra individual goals for the pupil (Sara) in this course.
 - The course lectures and assignments and also the extra lectures and assignments for the pupil (Sara) if there is a need. Also she can view the result of each assignment.
 - The course final result for Sara.
 - The pupils list.
 - and the teachers list

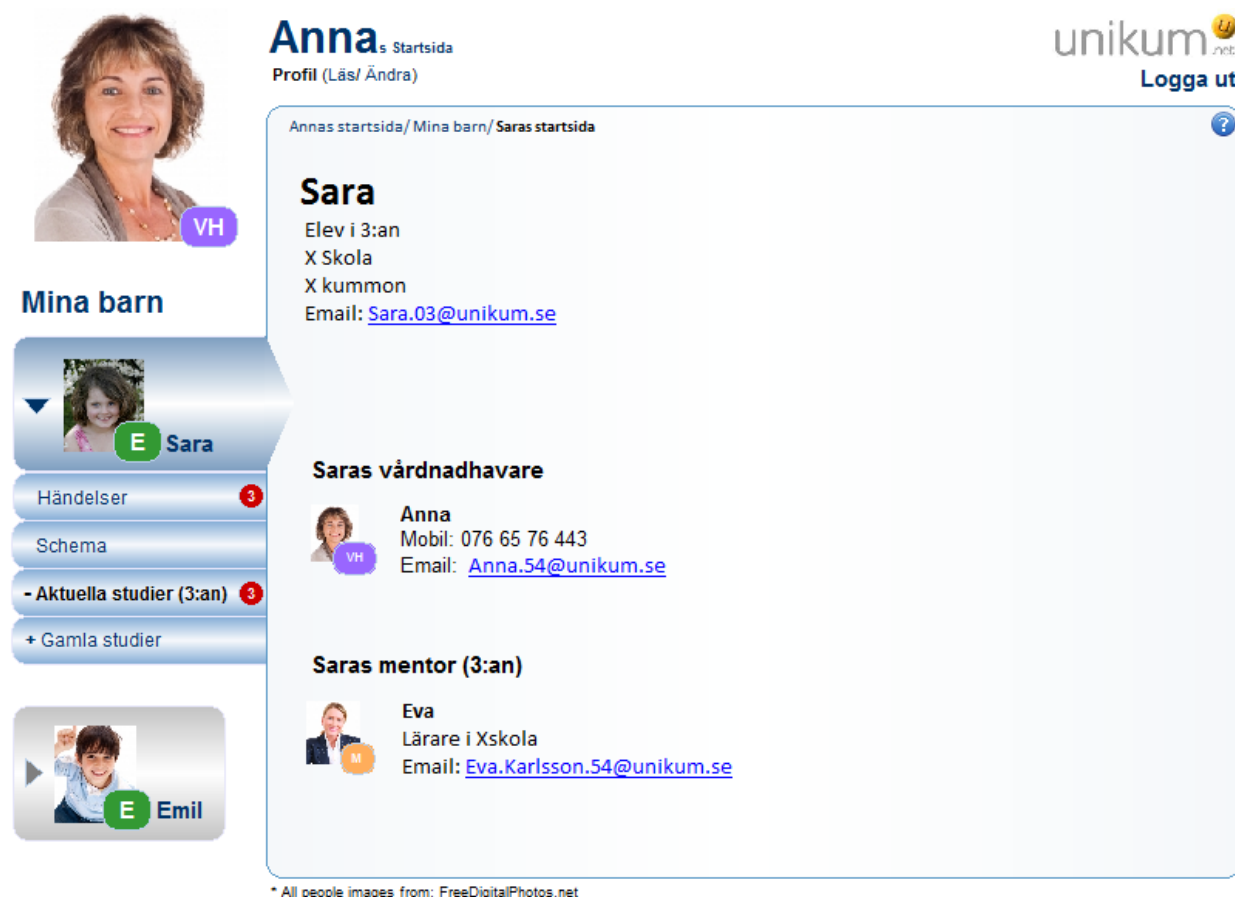
8.4.5.3. SCENARIO3: FOR THE CAREGIVER (ANNA)

The Scenario is shown in the following pictures of the suggested design:



Picture 8.23: The caregiver (Anna) start page

- The letters VH with violat background colour in her picture show that she is login as a caregiver.
- When Anna login to her account in Unikum, she can see from her start page:
 - Her profile that she can view and edit it.
 - Links to her children page in Unikum.
 - Anna also can see how many incoming events for each of her children.
- Anna can edit her profile to change her information. Like her password, her picture, her contact information, mother language and second languages and she can activate/ deactivate translation to her mother language.



Picture 8.24: The caregiver (Anna) views her daughter (Sara) start page.

- Anna can view and edit her daughter (Sara) profile. Anna can change information about Sara like how long time Sara stay in free time in school, allergy information against some food or medicine, and extra.
- Anna can see if there are incoming events and where.
- Anna can easily navigate in her daughter (Sara) pages by using the Sara's navigation bar that contains Sara's events, schedule, current studies and the old studies for Sara.
- Anna can easily return to her start page by clicking her picture, her name or the navigation address.
- Anna cannot open her son (Emil) Unikum page at the same time (when she opened her other child Sara's Unikum page). That is why her son page is disabled till she closes her daughter page.
- Anna can close easily her daughter page by clicking on the drop down arrow on the left side of her daughter picture.

Annas Startsida
Profil (Läs/ Ändra)

unikum.net
Logga ut

Annas startsida/ Mina barn/ Saras startsida/ Aktuella Studien/ Matematik/ Läroplan

Matematiks läroplan

Till: Ange ett kontakt eller grupp namn!
Tierp, 5 sep 2012
Skriv komment!

Lägg till fil Puplicera Email SMS Avbryt

Förankring i kursplanens syfte

Genom undervisningen i ämnet matematik ska eleverna sammanfattningsvis ges förutsättningar att utveckla sina förmågor att:

Kopplingar till läroplan visa dölj »

Innehåll

Under vårterminen jobbar vi med följande områden: * Tid och temperatur * Addition & subtraktion * Geometri * Bråk * Multiplikation och division

visa dölj »

Konkretisering av mål

- 1. Tid och temperatur** - enheterna år, månad, vecka, dygn, timme, minut, sekund - läsa och skriva datum - leta reda på uppgifter i almanackan - avläsa klockan och skriva klockslag med siffror - läsa av termometern
- 2. Geometri** - avgöra om en vinkel är rät, spetsig eller trubbig - namnet på olika månghörningar - förstå vad som menas med förstoring och förminskning - förstå och använda skala
- 3. Bråk** - kunna läsa och skriva bråk - kunna avläsa bilder av bråk - veta hur många delar det går på en hel - kunna storleksordna bråk
- 4. Multiplikation och division** - multiplicera med 10, 100, 1000, till exempel $10 \cdot 45$, $100 \cdot 45$, $1000 \cdot 45$ - räkna multiplikation med större tal, till exempel $3 \cdot 4174$ - räkna med kort division, till exempel $1248/4$, $3615/3$

Arbetsätt

Du kommer att få: - träna på att förklara muntligt och skriftligt hur du tänkt - arbeta både enskilt och i grupp - jobba laborativt - jobba med läromedlet "Borgen 4B"

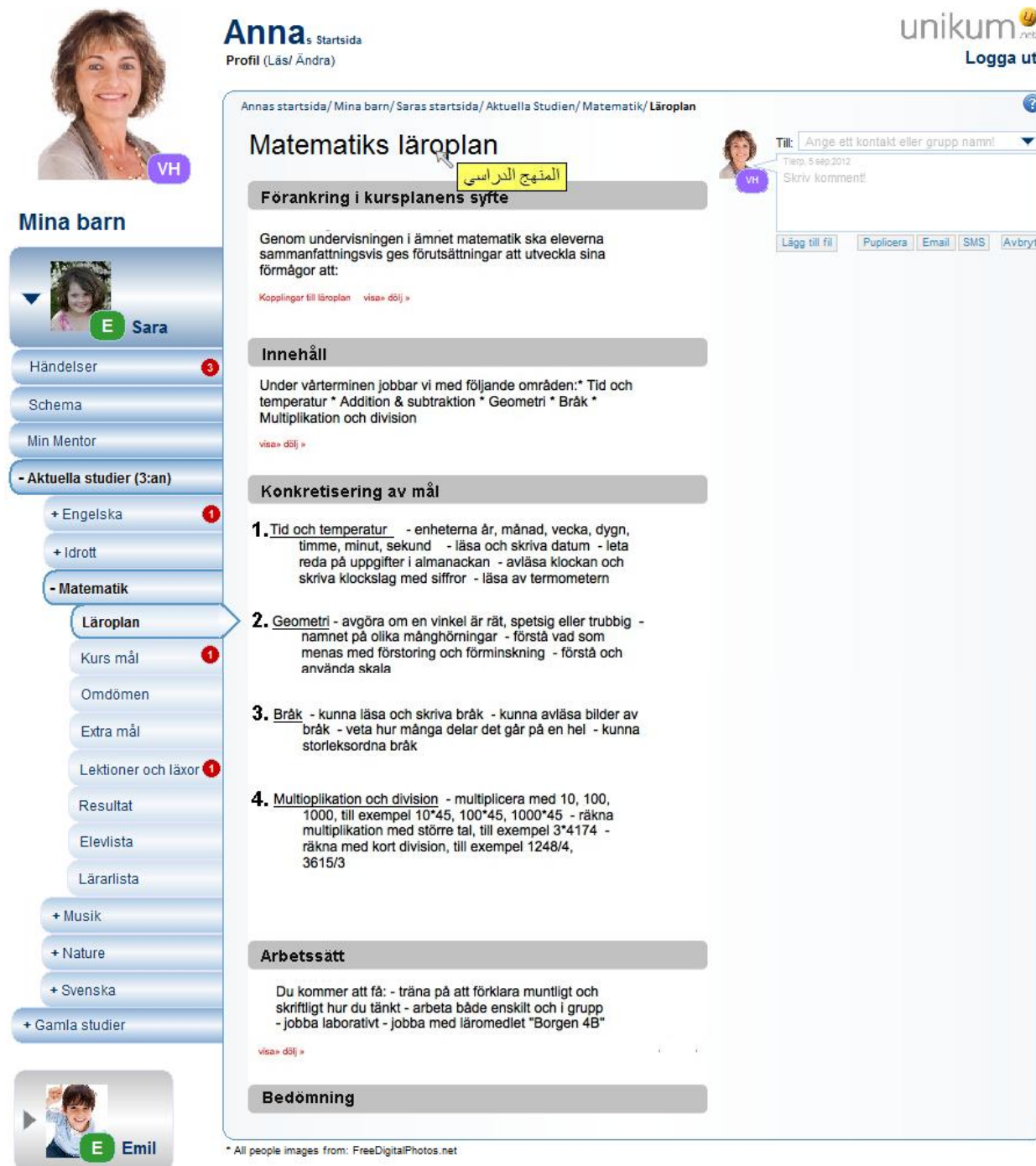
visa dölj »

Bedömning

* All people images from: FreeDigitalPhotos.net

Picture 8.25: The caregiver (Anna) views view the learning plan of the Mathematic for her daughter (Sara)

- Anna can navigate to one of the courses like Mathematic in the current studies to see its contents.
- Inside each course, the Anna can view information about:
 - The course learning plan for the course for all pupils in mathematic.
 - Course goals. (the general goals of the course that all pupils in mathematic should reach them)
 - Review of the teacher for her daughter (Sara) in mathematic.
 - The extra individual goals for her daughter (Sara) in mathematic.
 - The course lectures and assignments and the extra lectures and assignments for her daughter (Sara) if there is a need. Also she can view the result of each assignment.
 - The final result on Mathematic for her daughter (Sara).
 - The pupils list.
 - and the teachers list
- Anna can write new event or comment on others events from leaning plan page.



Anna's Startside
Profil (Läs/ Ändra)

unikum.net
Logga ut

Annas startside/ Mina barn/ Saras startside/ Aktuella Studien/ Matematik/ Läroplan

Matematiks läroplan

Förankring i kursplanens syfte

Genom undervisningen i ämnet matematik ska eleverna sammanfattningsvis ges förutsättningar att utveckla sina förmågor att:

Kopplingar till läroplan visa dölj »

Innehåll

Under vårterminen jobbar vi med följande områden: * Tid och temperatur * Addition & subtraktion * Geometri * Bråk * Multiplikation och division

visa dölj »

Konkretisering av mål

- 1. Tid och temperatur** - enheterna år, månad, vecka, dygn, timme, minut, sekund - läsa och skriva datum - leta reda på uppgifter i almanackan - avläsa klockan och skriva klockslag med siffror - läsa av termometern
- 2. Geometri** - avgöra om en vinkel är rät, spetsig eller trubbig - namnet på olika månghörningar - förstå vad som menas med förstoring och förminskning - förstå och använda skala
- 3. Bråk** - kunna läsa och skriva bråk - kunna avläsa bilder av bråk - veta hur många delar det går på en hel - kunna storleksordna bråk
- 4. Multiplikation och division** - multiplicera med 10, 100, 1000, till exempel $10 \cdot 45$, $100 \cdot 45$, $1000 \cdot 45$ - räkna multiplikation med större tal, till exempel $3 \cdot 4174$ - räkna med kort division, till exempel $1248/4$, $3615/3$

Arbetsätt

Du kommer att få: - träna på att förklara muntligt och skriftligt hur du tänkt - arbeta både enskilt och i grupp - jobba laborativt - jobba med läromedlet "Borgen 4B"

visa dölj »

Bedömning

* All people images from: FreeDigitalPhotos.net

Picture 8.25: The caregiver (Anna) can click on any word to show a translation to it. Also it will auto correct the text in Swedish when she write an event to help her.

8.4.6. RESULTS OF THE SUGGESTED DESIGN

The hi-fi prototype of the design is not the final design so it could be contains some problems. But I tried in the design to show:

- The new suggested structure that covers the needs of each user group (teacher, pupil and caregiver), how they think and what they expect.
- Simplify the navigation for the all users groups and make it clear enough to all.
- Using clear names for the tools that more nearest to reality and users' understanding.
- Find solution to the cultural differences and language problems by using the pre designed cards, auto suggestion/ correction in the text writing and the word translation in the text reading.
- Adding new tools that support the users' needs like schedule, lectures and assignment.
- Using closed social media under the teacher and caregiver observation is better and increases the pupil freedom to communicate also with other pupils in the same class or course.
 - o This will make pupil more interested in using Unikum because it can cover their needs.
 - o The side effect is the bad using by some pupils of this freedom (cyber bullying). but in the other hand pupils use this closed social media under their caregivers and teachers' observation better than not using Unikum because it is not covering their needs, and instate they went to use Facebook or any other opened social media without any observation. That is why I suggested to prevent the screen print when the user using Unikum.
- When the suggested design structure, tools and functionality are clear, understandable and easy to use to the users groups this will:
 - o Increase the usability of Unikum
 - o Increase the pupil's documentation quality and that reduce the ethical problems of unpleasant and uncompleted picture in the pupil's documentation).
 - o Increase the security and privacy because the current teachers will be able to view information about the pupil only in there courses, mentor can view pupil information in all courses and if mentor also administrator can change in pupil's profile. Old studies are locked as document and no one can change on it and no one can see it only the Pupil and the caregiver and they will be informed if the administrator wants to use this information.

9. CONCLUSION AND FURTHER SUGGESTIONS

9.1. SUMMARY OF RESULTS AND CONCLUSION

The Unikum website emphasize that Unikum is easy to use even for new users, children and people with disabilities, safe, available anytime anywhere to all, open, smooth, and living! All those statements encourage any user to use Unikum. So I decided to start the next step; the usability inspection of Unikum using the heuristic evaluation to find:

- If Unikum tools are usable as they have been described in the Unikum website! Are there some problems in the design?
- If the guided tour video and the other helping ways help users to understand and use Unikum tools!

The heuristic evaluation results showed that there actually were some usability problems in Unikum. These problems were mainly about navigation and unclear terminology. I decided to further investigate the usability by contextual interviews. The results that I got from the expert interviews illustrated several problems that face the Unikum users. The most important was the total dependency of the caregivers and pupils on the teachers' choice of using the system. None of the teachers used tools in the same way and that resulted in that caregivers and pupils got information in many different ways, which was confusing. The reason for this was that the teachers had difficulty in understanding the right sequence of using the Unikum tools and functionality. Users tended to become lost in the navigation of the website; this was because of ambiguous and unclear naming of tools, labels and menu-options. It was also evident that users need more functionality, especially considering things like lectures, homework and events that are central to their perception of schoolwork. Also caregivers requested improved functionality for privacy, security, cultural and language issues. The interviews results also showed that already busy teachers with their full schedule need a lot of time to update information by using Unikum.

As the interview showed that teachers used the system in so many different ways, I decided to conduct the usability test of Unikum in the usability laboratory on Ekonomikum in Uppsala University. The results of the usability test confirmed and gave more specific description of the problems that faces the Unikum users. Based on these results I could conclude that the most important requirements for high usability are:

- Simple, clear and understandable structure based on the end users' needs.
- Clear and consistent naming of tools with names that are close to the users' understanding and reality.
- Some functionality of the Unikum tools is very difficult both to understand and use. These should be simplified. Additional functionality is needed to cover users' needs.
- A special consideration has to be taken regarding privacy and security issues, and also regarding cultural and language issues.

So based on these requirements, I tried to introduce the suggested design. In the hi-fi prototype of the suggested design I tried to show:

- A new structure that covers the needs of each user group (teacher, pupil and caregiver), based on how they think and what they expect.
- A simplified navigation for the all user groups.

- Proposed new names for the tools are clear, consistent and closer to the reality and understanding of the users.
- A proposed solution to the cultural differences and language problems by using pre-designed cards, auto suggestion/ correction in the text writing and word translation in the text.
- Addition of new tools that support the users' needs like schedule, lectures and assignments.
- A proposal of a closed social media service under the observation of teachers and caregivers to increase the pupil freedom to communicate with other pupils in the same class or course.

With the suggested design structure, the tools and the functionality will be clear, understandable and easy to use. The effects of this will be to increase the usability of Unikum, by all Unikum users because teachers will use Unikum in the same way with clear scenario and that will make pupils and caregivers get clear, understandable information in the same way from all teachers. All that will encourage all the users to use Unikum to update information. And that will increase the quality of the documentation and reduce ethical problems. The proposed design will also increase the security and privacy because the current teachers will be able to view information about the pupil only in their courses, only the pupil's mentor can view pupil's information in all. Also previous courses will be view only by the pupil and caregivers.

9.2. FURTHER SUGGESTIONS TO IMPROVE THE USABILITY OF UNIKUM

9.2.1. FURTHER SUGGESTION FOR IMPROVING THE UNIKUM DESIGN

- Because of the time limitation, I couldn't cover all the usability problems in the design like: the difficulty of creating the general goals matrix, also the edit of all pages like profile, adding extra goals, general goals reviews and others.
- I have an idea for design of Unikum application for smartphones. And I think that this is very important in the near future because of the increase of using the smartphone by almost all. And the Unikum Apps will simplify and save the time for the users.
- I suggest conducting a focus group to discuss the suggested design that produced in this research with compared with current Unikum design to get the users assessment about the suggested design and get further suggestions from the users to improve it.

9.2.2. RECOMMENDATION FOR TIERP MUNICIPALITY

- The results showed that pupils and caregivers are completely depend on the teachers in the way of getting information in Unikum and because results showed that teachers are using Unikum in different ways (scenarios), so I highly recommend that teachers in Tierp follow one scenario as suggested in the flow chart of communication of the proposed design in this study that shown in figure 8.2.
- I recommend arranging a presentation about Unikum to the new teachers, pupils and caregivers that introduce:
 - Unikum vision
 - The aim of using it.

- Unikum functionality and tools and the right way of using them.
 - The users' rights.
 - Unikum security and privacy
 - Documentation and integration
 - And finally why it is important to all to use it.
-
- As the results showed that the teachers are always busy with their full schedule, and they have difficulty to find a time to use Unikum. I also recommend making the using of Unikum in the teacher's schedule.

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Appendix 1: The Heuristic evaluation

Appendix 1.1: The Heuristic evaluation plan

Thank you for your participation in the Heuristic Evaluation of Unikum www.unikum.net

The goal of this Heuristic Evaluation is to find the usability problems in the HCI design with considering the functionality, privacy and security.

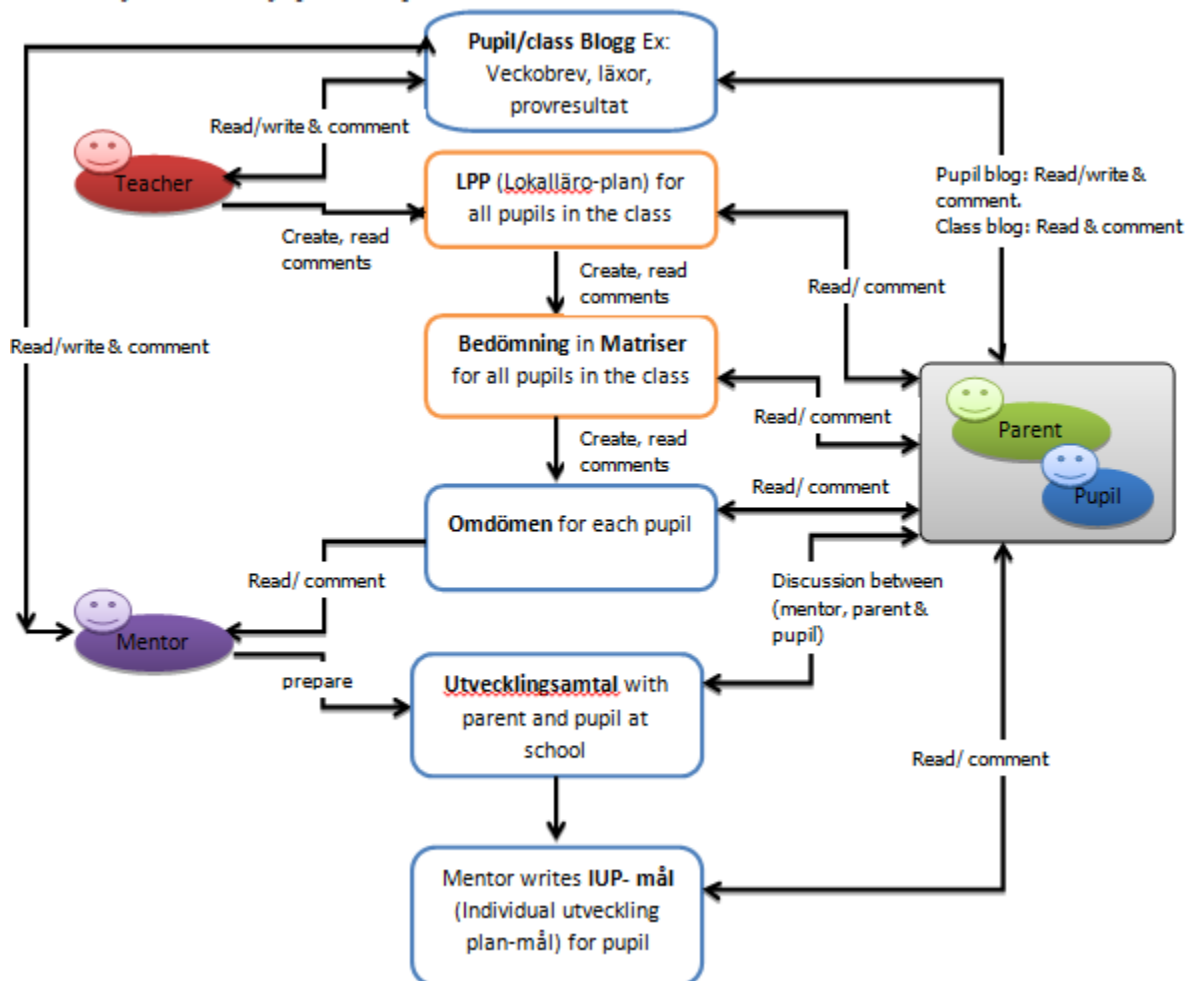
About Unikum

The Unikum Vision is that "All children are unique. Unikum want to make it easier to adapt learning in school to all these unique children." Unikum contains tools that make collaboration on goals, assessments, plans and quality of school smoother and easier and save time to make the collaboration on learning easier. Preparation and review appraisals easily, work on IUP and objectives are facilitated, and monitoring, reflection and dialogue to reach everyone. More on IDP, Individual Development plans with written reviews, Blog, provide better dialogue between home and school.

Please visit Unikum website www.unikum.net for further information about Unikum.

The process & functions, communication between school and home by using Unikum is shown in the diagram below:

Note: If you have any question please contact me.



Step1:

1. Using the following **pupil** account and scenario to test Unikum when login as a Pupil:

Scenario (E)

Ditt namn är **elevklassfyra** du är en elev i klass **Projekt design** i **Grundskola i Tierp (Provskola)**

Din vårdnadshavare är **vhklassfyra**

Din inloggningsinformation till Unikum

Användarnam	elevklassfyra
Lösenord	elevklass4

Din inloggningsinformation till din email (msn.se)

Användarnam	elevklassfyra@hotmail.co.uk
Lösenord	elevklass4

2. You can do the following tasks to help you to test Unikum beside your own test:

Task1

- Logga in på Unikum
- Jag loggade in på Unikum som
 - ☐ Lärare
 - ☐ Elev
 - ☐ Vårdnadshavare
 - ☐ Mentor
 - ☐ Administratör

Task2

- Försök nu ändra ditt lösenord. (OPS. sparar inte)
- Läs ditt användaravtalet eller andra samtycket

Task3

- Söka fram och öppna en gammal notis i "2012-04-15"?
- Gå tillbaka till "Notiser" igen. (OPS. utan att använda "bakåtknappen")
- Kan du hitta gamla notiser som du inte har läst eller öppnat?
 - ☐ Ja
 - ☐ Nej
 - ☐ Vet inte

Task4

- Vad är "LPP"?
 - ☐ LPP är _____
 - ☐ Vet ej

- Jag tror att:
 - ☐ alla elever i klassen ska få samma LPP
 - ☐ varje elev (jag) ska få en egen LPP
 - ☐ vet ej
- Gå till din LPP.

Task 5

- Vad är "IUP"?
 - ☐ IUP är _____
 - ☐ Vet ej
- Jag tror att:
 - ☐ alla elever i klassen ska få samma IUP
 - ☐ varje elev (jag) ska få en egen IUP
 - ☐ vet ej
- Gå till din IUP.
- Skapa ny IUP-mål för dig själv "Jag kan simma bra"

Task 6

- Vad är "Omdömen"?
 - ☐ Omdömen är _____
 - ☐ Vet ej
- Jag tror att:
 - ☐ Alla elever i klassen ska få samma omdömen
 - ☐ Varje elev(jag) ska få en egen omdöm
 - ☐ Vet ej
- Gå till din omdöm

Task 7

- Blogga med din lärare via att skriva till henne/honom:
I rubriken "Hej!"
I bloggen
"Jag kan blogga med
Bold, *I*, U
Lila Färg från (fler färger)
Link till www.Unikum.net"

- Lägg till bild från "Skrivbord > Bild om unikum"
- Bifoga en fil från "Skrivbord > Bild om unikum"

Task 8

- Vad är "Matriser"?
 - ☐ Matriser är _____
 - ☐ Vet ej
- Jag tror att:
 - ☐ Alla elever i klassen ska få samma Matriser
 - ☐ Varje elev(jag) ska få en egen Matris
 - ☐ Vet ej
- Gå till din "Matriser".
- Vad är "Kunskapskrav-Nya"
 - ☐ "Kunskapskrav-Nya" _____
 - ☐ Vet ej
- Gå till din "Kunskapskrav-Nya"

Task 9

- Logga in till din email. läsa alla email som kommer från Unikum.

3. The Heuristic Evaluation result will be presented in the following way

Please put your evaluation result in a table in the following way:

Where	What	Priority
Usability problem description	According to these Heuristics EX: 3 User control 5 Error prevention 10 Help	Use 0 to 4 rating scale to rate the severity of usability problems as follow: 0 = I don't agree that this is a usability problem at all 1 = Cosmetic problem only: need not be fixed unless extra time is available on project 2 = Minor usability problem: fixing this should be given low priority 3 = Major usability problem: important to fix, so should be given high priority 4 = Usability catastrophe: imperative to fix this before product can be released

Step 2

1. Using the following **caregiver** account and scenario to test Unikum when you login as a caregiver:

Scenario (VH)

Ditt namn är **vhklassfyra**. Du är vårdnadshavare för **elevklassfyra** som går i klass **Projekt design** i **Grundskola i Tierp(Provskola)**

Din inloggningsinformation till Unikum

Användarnam **vhklassfyra**
Lösenord **vhklass4**

Din inloggningsinformation till din email (msn.se)

Användarnam **vhklassfyra@hotmail.co.uk**
Lösenord **vhklass4**

2. You can do the following tasks to help you to test Unikum beside your own test :

Task1

- Logga in på Unikum
- Jag loggade in på Unikum som
 - ☐ Lärare
 - ☐ Elev
 - ☐ Vårdnadshavare
 - ☐ Mentor
 - ☐ Administratör

Task2

- Försök nu ändra ditt lösenord. (**OPS. sparar inte**)
- Läs ditt användaravtalet eller andra samtycket

Task3

- Söka fram och öppna en gammal notis i "2012-04-15"?
- Gå tillbaka till "Notiser" igen. (**OPS. utan att använda "bakåtknappen"**)
- Kan du hitta gamla notiser som du inte har läst eller öppnat?
 - ☐ Ja
 - ☐ Nej
 - ☐ Vet inte

Task4

- Vad är "LPP"?
 - ☐ LPP är _____
 - ☐ Vet ej
- Jag tror att:
 - ☐ alla elever i klassen ska få samma LPP
 - ☐ varje elev (din son) ska få en egen LPP
 - ☐ vet ej
- Gå till din son LPP.

Task 5

- Vad är "IUP"?
 - ☐ IUP är _____
 - ☐ Vet ej
- Jag tror att:
 - ☐ alla elever i klassen ska få samma IUP
 - ☐ varje elev (din son) ska få en egen IUP
 - ☐ vet ej
- Gå till din son IUP.
- Skapa ny IUP-mål för din son "Jag kan simma bra"

Task 6

- Vad är "Omdömen"?
 - ☐ Omdömen är _____
 - ☐ Vet ej
- Jag tror att:
 - ☐ Alla elever i klassen ska få samma omdömen
 - ☐ Varje elev (din son) ska få en egen omdöm
 - ☐ Vet ej
- Gå till din son omdöm

Task 7

- Blogga med ditt barn läraren via att skriva till henne/honom:
- I rubriken "Hej!"
- I bloggen

"Jag kan blogga med

- **Bold**, *I*, U
- **Lila Färg** från (fler färger)
- Link till www.Unikum.net"

- Lägg till bild från "Skrivbord > Bild om unikum"
- Bifoga en fil från "Skrivbord > Bild om unikum"

Task 8

- Vad är "Matriser"?
 - ☐ Matriser är _____
 - ☐ Vet ej
- Jag tror att:
 - ☐ Alla elever i klassen ska få samma Matriser
 - ☐ Varje elev(din son) ska få en egen Matris
 - ☐ Vet ej
- Gå till din son "Matriser".
- Vad är "Kunskapskrav-Nya"
 - ☐ "Kunskapskrav-Nya" _____
 - ☐ Vet ej
- Gå till din son "Kunskapskrav-Nya"

Task 9

- Logga in till din email. Oppna alla emailsom kommer från Unikum.

3. The Heuristic Evaluation result will be presented in the following way

Where	What	Priority
Usability problem description	<p>According to these Heuristics</p> <p>EX:</p> <p>3 User control</p> <p>5 Error prevention</p> <p>10 Help</p>	<p>Use 0 to 4 rating scale to rate the severity of usability problems as follow:</p> <p>0 = I don't agree that this is a usability problem at all</p> <p>1 = Cosmetic problem only: need not be fixed unless extra time is available on project</p> <p>2 = Minor usability problem: fixing this should be given low priority</p> <p>3 = Major usability problem: important to fix, so should be given high priority</p> <p>4 = Usability catastrophe: imperative to fix this before product can be released</p>

Step 3

1. Using the following **teacher** account and scenario to test Unikum when you login as a teacher:

Scenario (L)

Ditt namn är **lklassfyra**. Du är lärare för **elevklassfyra** och andra elever som går i klass **Projekt design** i **Grundskola i Tierp(Provskola)**

Din inloggningsinformation till Unikum

Användarnam	lklassfyra
Lösenord	lklass4

Din inloggningsinformation till din email (msn.se)

Användarnam	lklassfyra@hotmail.co.uk
Lösenord	lklass4

2. You can do the following tasks to help you to test Unikum beside your own test :

Task1

- Logga in på Unikum
- Jag loggade in på Unikum som
 - ☐ Lärare
 - ☐ Elev
 - ☐ Vårdnadshavare
 - ☐ Mentor
 - ☐ Administratör

Task2

- Försök nu ändra ditt användarnamn och lösenord. (OPS. sparar inte)
- Läs ditt användaravtalet eller andra samtycket

Task3

- Söka fram och öppna en gammal notis i "2012-05-08"?
- Gå tillbaka till "Notiser" igen. (OPS. utan att använda "bakåtknappen")
- Kan du hitta gamla notiser som du inte har läst eller öppnat?
 - ☐ Ja
 - ☐ Nej
 - ☐ Vet inte

Task4

- Vad är "LPP"?
 - ☐ LPP är _____
 - ☐ Vet ej
- Jag tror att:
 - ☐ alla elever i klassen ska få samma LPP
 - ☐ varje elev ska få en egen LPP
 - ☐ vet ej
- Skapa och tilldela en ny LPP.

Task 5

- Vad är "IUP"?
 - ☐ IUP är _____
 - ☐ Vet ej
- Jag tror att:
 - ☐ alla elever i klassen ska få samma IUP
 - ☐ varje elev ska få en egen IUP
 - ☐ vet ej
- Skapa och tilldela en ny IUP-plan
- Skapa och tilldela en ny IUP-mål "Jag kan simma bra"

Task 6

- Vad är "Omdömen"?
 - ☐ Omdömen är _____
 - ☐ Vet ej
- Jag tror att:
 - ☐ Alla elever i klassen ska få samma omdömen
 - ☐ Varje elev ska få en egen omdöm
 - ☐ Vet ej
- Skapa och tilldela en ny "Omdöm"

Task 7

- Blogga med ditt barn läraren via att skriva till henne/honom:
I rubriken "Hej!"
I bloggen
"Jag kan blogga med

Bold, /,

Lila Färg från (fler färger)

- Link till www.Unikum.net
- Lägg till en bild från "Skrivbord > Bild om unikum"
- Bifoga en fil från "Skrivbord > Bild om unikum"

Task 8

- Vad är "Matriser"?
 - ☐ Matriser är _____
 - ☐ Vet ej
- Jag tror att:
 - ☐ Alla elever i klassen ska få samma Matriser
 - ☐ Varje elev ska få en egen Matris
 - ☐ Vet ej
- Skapa och tilldela en ny "Matris".
- Vad är "Kunskapskrav-Nya"
 - ☐ "Kunskapskrav-Nya" _____
 - ☐ Vet ej
- Gör en ny "Kunskapskrav-Nya"

Task 9

- Logga in till din email. Oppna alla emailsom kommer från Unikum.

3. The Heuristic Evaluation result will be presented in the following way

Where	What	Priority
Usability problem description	<p>According to these Heuristics</p> <p>EX:</p> <p>3 User control</p> <p>5 Error prevention</p> <p>10 Help</p>	<p>Use 0 to 4 rating scale to rate the severity of usability problems as follow:</p> <p>0 = I don't agree that this is a usability problem at all</p> <p>1 = Cosmetic problem only: need not be fixed unless extra time is available on project</p> <p>2 = Minor usability problem: fixing this should be given low priority</p> <p>3 = Major usability problem: important to fix, so should be given high priority</p> <p>4 = Usability catastrophe: imperative to fix this before product can be released</p>

Appendix 1.2: The results of the heuristic evaluation

The table below lists some of the problems that I found by using The Heuristic evaluation as method to find the usability problems in Unikum.

Where	What	Priority
The e-service not speaking the users languages I found many unclear names for tools for instance ("fokus", "Matriser", "LPP", extra) that not describe their usage purpose and what type of tool under them.	2 Match between system and the real world 6 Recognition rather than recall (Minimize the user's memory 7 Flexibility and efficiency of use	3 = Major usability problem: important to fix, so should be given high priority
Repeating of same word in different places with different usages for instance: "Relationer" one place under "Om mig" means view of contacts but under "start" means administration tool and when the user open it, it linked to "Admin" tool!! That made the user lost where he-she is now!	4 Consistency and standards 8 Aesthetic and minimalist design	4= Usability catastrophe: imperative to fix this as soon as possible.
"IUP-"mål" the same tool once under "IUP" and in other place under "Fokus". That make the user wonder if they are the same thing or not.	8 Aesthetic and minimalist design	3 = Major usability problem: important to fix, so should be given high priority
User need more functions like text formatting, sending SMS, blogging, email, with each other's,	7 Flexibility and efficiency of use	2 = Minor usability problem: fixing this should be given low priority
Problem in navigation: get lost with the unclear structure.	3 User control and freedom 7 Flexibility and efficiency of use	3 = Major usability problem: important to fix, so should be given high priority
The users especially caregivers and Pupils need help to use the system because they cannot understand the logic structure of the process and the information that provided in Unikum's tools. The help information is not clear enough to provide the users with right way of using Unikum.	10 Help and documentation 7 Flexibility and efficiency of use 2 Match between system and the real world	3 = Major usability problem: important to fix, so should be given high priority
Some tools are listed under one tool but linked to another. For instance "Relationer" is under "start" but it linked to "Admin" when user opens it!! Beside it is the only tool that available under "Admin"!!!	8 Aesthetic and minimalist design.	3 = Major usability problem: important to fix, so should be given high priority
A lot of text everywhere that Exhaust the user with un needed and unclear information!! For instance the large amount of information in "LPP" that results in making it unreadable from most of the users.	8 Aesthetic and minimalist design. 6 Recognition rather than recall	3 = Major usability problem: important to fix, so should be given high priority

Appendix 2: The Consent form and the present card

Appendix 2.1 The Consent form (2 pages)

1/2

Välkommen till en utvärdering av Unikum!

Vi är mycket tacksamma över att du vill ställa upp och hjälpa oss. Som testdeltagare har du ett antal rättigheter som du bör känna till.

De data som genereras sparas på ett helt avpersonifierat sätt så att det inte går att förknippa dig med enskilda resultat. Du har rätt att när som helst och utan några förklaringar avbryta testet. Kompensationen som du har blivit utlovad kommer du naturligtvis ändå att få.

Du har rätt att få hela testet förklarat för dig om du så önskar, dess syfte, metod etc. Testledaren kommer att svara på sådana frågor så långt det går utan att resultatet av försöket påverkas, så snart du frågar. Vissa förklaringar måste dock ibland ges först efteråt för att resultaten ska vara tillförlitliga. Testledaren får inte ge falska eller vilseledande uppgifter.

Testet kommer att spelas in.

Jag har tagit del av dessa upplysningar:

_____	_____	_____
Ort och datum	Namnteckning	Namnförtydligande

2/2

Testet kommer att spelas in. Aidentifierade utdrag ur denna inspelning kan komma användas vid en presentation för anställda på Tierps Kommun, Unikum och Uppsala Universitet samt vid en presentation av vår undersökning inför klasskamrater.

Nedan får du två val. Kryssa i det val du samtycker med.

☐ Jag godkänner att aidentifierade utdrag ur inspelningen får visas.

☐ Jag godkänner INTE att aidentifierade utdrag ur inspelningen får visas.

_____	_____	_____
Ort och datum	Namnteckning	Namnförtydligande

Appendix 2.2: The present card form




TIERPS KOMMUN

2012-02-29

Premie för deltagande i Projekt Design för E-tjänsten Unikum

Som tack för ditt deltagande så vill vi erbjuda dig ett inträde till Aspenbadet.

För deltagande skolelever så erbjuds två ungdomsbiljetter under 19 år.

Ort och datum

Lärare, förälder, elev

Underskrift

Namnförtydligande

Postadress	Besöksadress	E-mailadress/Utfärdare	Telefon
815 80 TIERP	Centralgatan 7	per-erik.simonsson@unik.tierp.se	0295-21 86 16

Appendix 3: The structured interview's plan with experienced users of Unikum

Appendix 3.1 For the teachers (L- Lärare)

[illegible]

[Gå till "Fokus> LPP"](#)

Vad är LPP?

Vem kan skapa LPP?

Till vem?

Vad är "Aktuella LPP:er" och "Gamla LPP:er"?

Tycker du att "Fokus" är bra namn!

☐ Ja ☐ Nej, _____

Föreslå ett bättre namn! Vad det ska innehålla?

Finns det en skillnad mellan "IUP-mål" och "IUP fliken"?

Finns det ett behov av att "IUP-Mål" fliken här (under fokus)?

Har du nytta av att se alla ämnen här?

☐ Ja ☐ Nej, _____

Jag tycker att det skulle vara bättre om LPP innehåller _____

[Gå till "IUP"-flikten](#)

Vad är IUP?

Vem kan skapa IUP?

5

Till vem?

Vad är "Nuvarande" och "Föregående"?

Tycker du att indelningen i "Nuvarande", "Föregående" respektive "Datum" är bra?
Är det bra namn?

☐ Ja ☐ Nej, _____

Föreslå bättre namn till dem?

Finns det ett behov av alla de: "Sociala mål", "Om mig", "Min lärande", "Min utveckling" och "inför samtalet"?

☐ Ja ☐ Nej, _____

Finns det ett behov av både "Min IUP" och "Översikt"?

Vad är "Omdömen"?

Jag tycker att IUP ska innehålla _____

[Gå till "Blogg"-flikten](#)

Med vem kan du blogga?

Det skulle vara bättre om "Blogg"-flikten innehåller _____

[Gå till "Bedömning"-flikten](#)

Vad är skillnaden mellan "Bedömning" och "Omdömen"?

7

Vad är "Matriser"?

Vem kan skapa dem?

Till vem?

Vad är skillnaden mellan IUP och Matriser?

Vad är "Kunskapskrav-Nya"?

Vem kan skapa dem?

Till vem?

Kan "Kunskapskrav-Nya" vara en del av "Omdömen"?

☐ Ja ☐ Nej

Jag tycker att

Vad är "Måluppfyllelse-Gamla"?

Vem kan skapa dem?

Till vem?

Det skulle vara bättre om "Bedömning" innehåller bara

[Gå till "Skolbank"-fliken](#)

Vad är "Skolbank"?

8

Vem kan använda "Skolbank"?

Till vem?

Finns det ett behov av det "Skolbank"-fliken?

☐ Ja☐ Nej

Det skulle vara bättre om "Skolbank"

[Gå till "Admin"-fliken](#)

Finns det ett behov av det "Admin"-fliken?

☐ Ja☐ Nej

Tycker du att navigeringen i Unikum är bra!

☐ Ja☐ Nej

Hittar du lätt din väg?

☐ Ja☐ Nej

Vet du var du är hela tiden?

☐ Ja☐ Nej

En avslutande fråga – är det något som vi inte gått igenom som du skulle vilja ändra på i Unikum?

Frågeformulär 2 (L)

9

	Stämmer inte alls						Stämmer allt
1 Jag tror att jag skulle vilja använda Unikum ofta.							
2 Jag tycker att Unikum var onödigt komplicerad.							
3 Jag tycker att Unikum var lätt att använda.							
4 Jag tror att jag kommer att behöva hjälp av en teknisk person för att kunna använda Unikum.							
5 Jag tycker att de olika funktionerna i Unikum är väl samordnade.							
6 Jag tycker att det finns för mycket inkonsistens i Unikum							
7 Jag kan tänka mig att de flesta skulle lära sig att använda Unikum mycket snabbt.							
8 Jag tycker att Unikum var mycket besvärligt att använda.							
9 Jag känner mig väldigt trygg när jag använder Unikum.							
10 Jag behövde lära mig mycket innan jag kunde komma igång med Unikum.							
11 Det gick snabbt att utföra en uppgift online.							
12 Jag tycker att hjälpen var bra.							

Vilka verktyg använder du mest i Unikum? För vad använder du dem?

Vilka verktyg använder du aldrig i Unikum? Varför?

Vilka verktyg tycker du att de bör lägga till Unikum?

Hur nära återspeglar flödet av Unikum ditt arbetsflöde?

Svartskala 100% Nej		Svartskala 100% Ja	

Änvänder du Unikum varje dag?

☐ Nej ☐ Ja

Hur lång tid per tillfälle använder du Unikum?

☐ Mindre än 5 min ☐ 5-15 min ☐ 15-30 min ☐ 30-45 min ☐ Mer än 45 min

Hur många uppgifter gör du per tillfälle du använder Unikum?

☐ 1 ☐ 2-3 ☐ 4-7 ☐ 8-10 ☐ 11 eller fler

Hur lång tid i veckan använder du Unikum?

☐ Mindre än en halvtimme
☐ En halvtimme till 2 timmar
☐ 2 timmar till 4 timmar
☐ 4 timmar till 7 timmar
☐ Mer än 7 timmar

Uppgifter (VH)

Logga in på ditt Unikum konto innan du besvarar frågorna nedan.

Jag loggar in på Unikum som ☐ Lärare ☐ Elev ☐ Vårdnadshavare ☐ Mentor ☐ Administratör

Vet du i vilken nivå du är nu? ☐ Ja ☐ Nej, _____

Är det lätt att hitta i vilken nivå du är nu? ☐ Nej ☐ Ja

Försök nu ändra ditt lösenord. Är det lätt att hitta hur man gör det?

☐ Ja ☐ Nej, _____

Tycker du funktionen notiser fungerar bra?

Svartskala 100% Nej		Svartskala 100% Ja	

Hur gör du för att söka fram en gammal notis?

Kan du hitta gamla notiser som du inte har läst eller öppnat?

☐ Ja ☐ Nej, _____

Jag tycker att det skulle vara bättre om notiser innehåller _____

Gå till "Fokus> LPP"

Vad är LPP?

Vem kan skapa LPP?

Till vem?

Vad är "Aktuella LPP:er" och "Gamla LPP:er"?

Tycker du att "Fokus" är bra namn!

☐ Ja ☐ Nej, _____

Föreslå ett bättre namn! Vad ska innehålla?

Finns det en skillnad mellan "IUP-mål" och "IUP fliken"?

Finns det ett behov av att "IUP-Mål" fliken här (under fokus)?

Har du nytta av att se alla ämnen här?

☐ Ja ☐ Nej

Jag tycker att det skulle vara bättre om LPP innehåller

[Gå till "IUP"-fliken](#)

Vad är IUP?

Vem kan skapa IUP?

Till vem?

Vad är "Nuvarande" och "Föregående"?

Tycker du att indelningen i "Nuvarande", "Föregående" respektive "Datum" är bra?
Är det bra namn?

☐ Ja ☐ Nej

Föreslå bättre namn till dem?

Finns det ett behov av alla de: "Sociala mål", "Om mig", "Min lärande", "Min
utveckling" och "inför samtalet"?

☐ Ja ☐ Nej

Finns det ett behov av både "Min IUP" och "Översikt"?

Vad är "Omdömen"?

Jag tycker att IUP ska innehålla

[Gå till "Blogg"-fliken](#)

Med vem kan du blogga?

Det skulle vara bättre om "Blogg"-fliken innehåller

[Gå till "Bedömning"-fliken](#)

Vad är skillnaden mellan "Bedömning" och "Omdömen"?

Vad är "Matriser"?

Vem kan skapa dem?

Till vem?

Vad är skillnaden mellan IUP och Matriser?

Vad är "Kunskapskrav-Nya"?

Vem kan skapa dem?

Till vem?

Kan "Kunskapskrav-Nya" vara en del av "Omdömen"?

☐ Ja ☐ Nej

Jag tycker att

Vad är "Måluppfyllelse-Gamla"?

Vem kan skapa dem?

Till vem?

Det skulle vara bättre om "Bedömning" innehåller bara

Tycker du att navigeringen i Unikum är bra!

☐ Ja ☐ Nej

Hittar du lätt din väg?

☐ Ja ☐ Nej

Vet du var du är hela tiden?

☐ Ja ☐ Nej

En avslutande fråga – är det något som vi inte gått igenom som du skulle vilja ändra i Unikum?

7

Frågeformulär 2 (VH)

8

- 1 Jag tror att jag skulle vilja använda Unikum ofta.
- 2 Jag tycker att Unikum var oöddigt komplicerad.
- 3 Jag tycker att Unikum var lätt att använda.
- 4 Jag tror att jag kommer att behöva hjälp av en teknisk person för att kunna använda Unikum.
- 5 Jag tycker att de olika funktionerna i Unikum är väl samordnade.
- 6 Jag tycker att det finns för mycket inkonsekvens i Unikum.
- 7 Jag kan tänka mig att de flesta skulle lära sig att använda Unikum mycket snabbt.
- 8 Jag tycker att Unikum var mycket besvärligt att använda.
- 9 Jag känner mig väldigt trygg när jag använder Unikum.
- 10 Jag behövde lära mig mycket innan jag kunde komma igång med Unikum.
- 11 Det gick snabbt att utföra en uppgift online.
- 12 Jag tycker att hjälpen var bra.

Inskattningar 100% 50%		Inskattningar 50% 100%	

3

Vilka verktyg använder du mest i Unikum? För vad använder du dem?

Vilka verktyg använder du aldrig i Unikum? Varför?

Vilka verktyg tycker du att de bör lägga till Unikum?

Hur nära återspeglar flödet av Unikum dina behov?

Unikum inte alls	Unikum lite	Unikum mycket

Änvänder du Unikum varje dag?

☐ Nej ☐ Ja

Hur lång tid per tillfälle använder du Unikum?

☐ Mindre än 5 min ☐ 5-15 min ☐ 15-30 min ☐ 30-45 min ☐ Mer än 45 min

Hur många uppgifter gör du per tillfälle du använder Unikum?

☐ 1 ☐ 2-3 ☐ 4-7 ☐ 8-10 ☐ 11 eller fler

Hur lång tid i veckan använder du Unikum?

☐ Mindre än en halvtimme
☐ En halvtimme till 2 timmar
☐ 2 timmar till 4 timmar
☐ 4 timmar till 7 timmar
☐ Mer än 7 timmar

4

Uppgifter (E)

Logga in på ditt Unikum konto innan du besvarar frågorna nedan.

Jag loggar in på Unikum som ☐ Lärare ☐ Elev ☐ Vårdnadshavare ☐ Mentor ☐ Administrator

Vet du i vilken nivå du är nu? ☐ Ja ☐ Nej, _____

Är det lätt att hitta i vilken nivå du är nu? ☐ Nej ☐ Ja

Försök nu ändra ditt lösenord. Är det lätt att hitta hur man gör det?

☐ Ja ☐ Nej, _____

Om nej, jag tycker _____

Hur gör du för att söka fram en gammal notis?

Kan du hitta gamla notiser som du inte har läst eller öppnat?

☐ Ja ☐ Nej, _____

Tycker du funktionen notiser fungerar bra?

Unikum inte alls	Unikum lite	Unikum mycket

Jag tycker att det skulle vara bättre om notiser innehåller _____

Gå till "Fokus> LPP"

Vad är LPP? _____

Vem kan skapa LPP?

Till vem?

Vad är "Aktuella LPP:er" och "Gamla LPP:er"?

Tycker du att "Fokus" är bra namn!

☐ Ja ☐ Nej, _____

5

Föreslå ett bättre namn! Vad det ska innehålla?

Finns det en skillnad mellan "IUP-mål" och "IUP fliken"?

Finns det ett behov av att "IUP-Mål" fliken här (under fokus)?

Har du nytta av att se alla ämnen här?

☐ Ja ☐ Nej, _____

Jag tycker att det skulle vara bättre om "Fokus"-fliken innehåller _____

[Gå till "IUP"-fliken](#)

Vad är IUP? _____

Vem kan skapa IUP? _____

Till vem? _____

Vad är "Nuvarande" och "Föregående"?

Tycker du att indelningen i "Nuvarande", "Föregående" respektive "Datum" är bra? Är det bra namn?

☐ Ja ☐ Nej, _____

Föreslå bättre namn till dem? _____

Finns det ett behov av exempelvis: "Sociala mål", "Om mig", "Min lärande", "Min utveckling" och "Inför samtalet"?

☐ Ja ☐ Nej, _____

6

Finns det ett behov av både "Min IUP" och "Översikt"?

Vad är "Omdömen"?

Jag tycker att "IUP"-fliken ska innehålla _____

[Gå till "Blogg"-fliken](#)

Med vem kan du blogga? _____

Det skulle vara bättre om "Blogg"-fliken innehåller _____

[Gå till "Bedömning"-fliken](#)

Vad är skillnaden mellan "Bedömning" och "Omdömen"?

Vad är "Matriser"?

Vem kan skapa dem? _____

Till vem? _____

Vad är skillnaden mellan IUP och Matriser?

Vad är "Kunskapskrav-Nya"?

7

Vem kan skapa dem?

Till vem?

Kan "Kunskapskrav-Nya" vara en del av "Omdömen"?

☐ Ja ☐ Nej

Jag tycker att

Vad är "Måluppfyllelse-Gamla"?

Vem kan skapa dem?

Till vem?

Det skulle vara bättre om "Bedömning" innehåller bara

Tycker du att navigeringen i Unikum är bra!

☐ Ja ☐ Nej

Hittar du lätt din väg?

☐ Ja ☐ Nej

Vet du var du är hela tiden?

☐ Ja ☐ Nej

En avslutande fråga – är det något som vi inte gått igenom som du skulle vilja ändra i Unikum?

Frågeformulär 2 (E)

8

1 Jag tror att jag skulle vilja använda Unikum ofta.

2 Jag tycker att Unikum var oöddigt komplicerad.

3 Jag tycker att Unikum var lätt att använda.

4 Jag tror att jag kommer att behöva hjälp av en teknisk person för att kunna använda Unikum.

5 Jag tycker att de olika funktionerna i Unikum är väl samordnade.

6 Jag tycker att det finns för mycket inkonsistens i Unikum.

7 Jag kan tänka mig att de flesta skulle lära sig att använda Unikum mycket snabbt.

8 Jag tycker att Unikum var mycket besvärligt att använda.

9 Jag känner mig väldigt trygg när jag använder Unikum.

10 Jag behövde lära mig mycket innan jag kunde komma igång med Unikum.

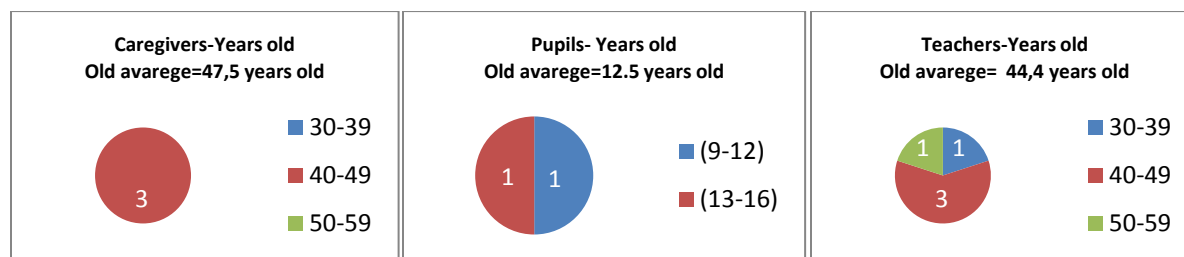
11 Det gick snabbt att utföra en uppgift online.

12 Jag tycker att hjälpen var bra.

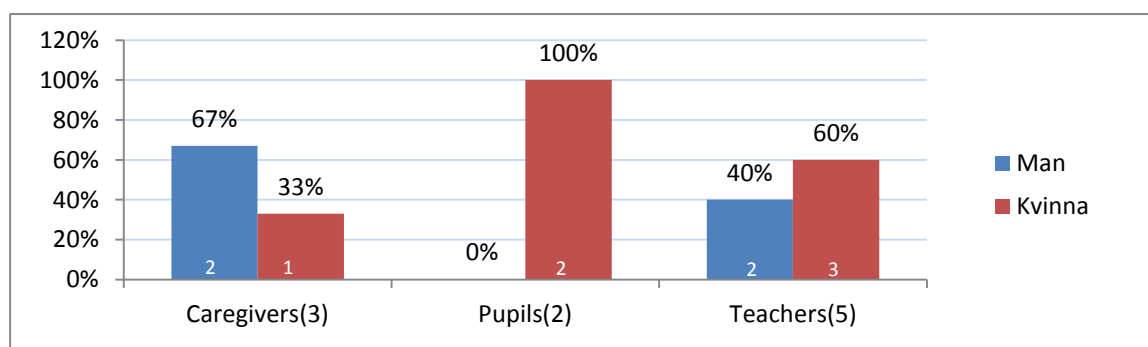
Ingenstans
lite allaIngenstans
någon

Appendix 3.4: The teachers' scenarios and the diagrams of the results of the interview with the experienced users of Unikum

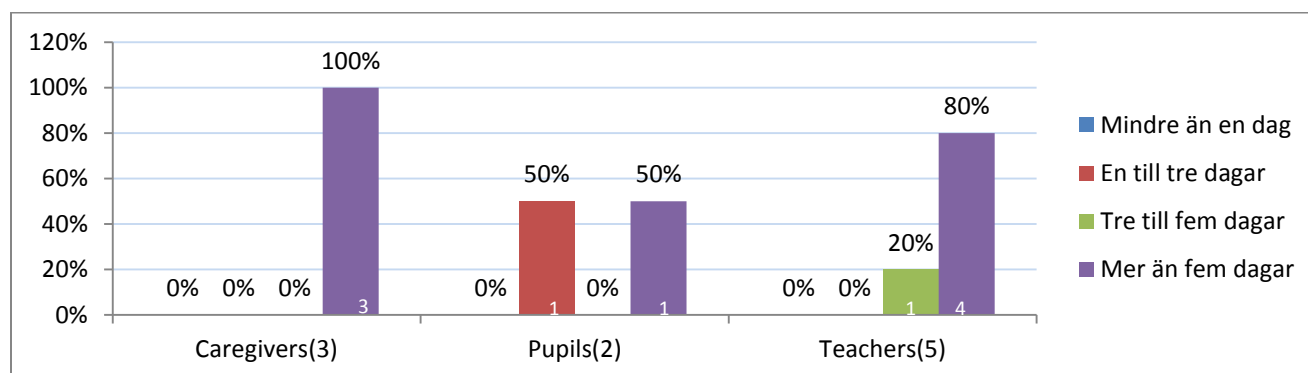
The total number of participants in the expert interview is 8 participants (5 teachers, 2 Pupil and 3 caregivers). The result of the interview is shown below:



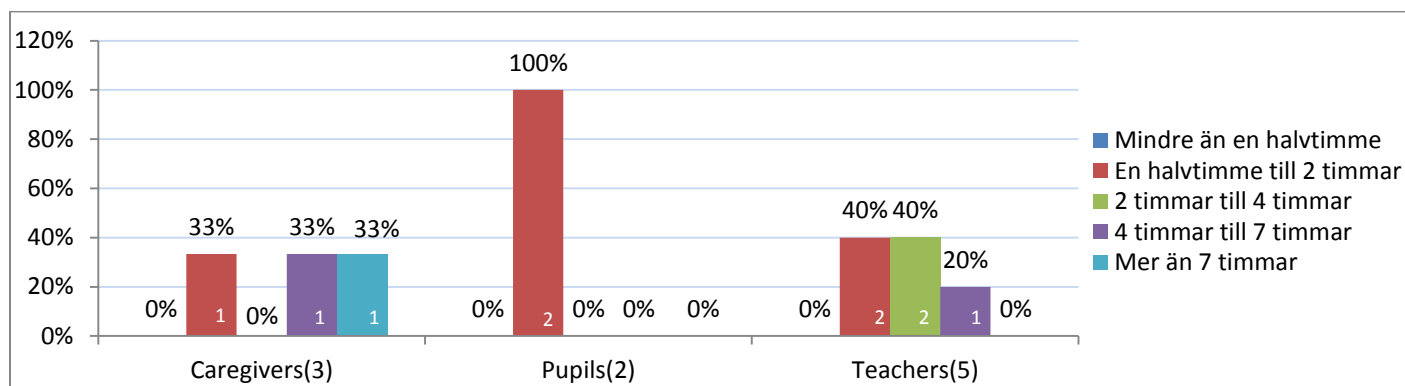
Appendix 3.4- figure 2- Represent the number of caregivers, Pupil and teachers according to their old (Ålder)



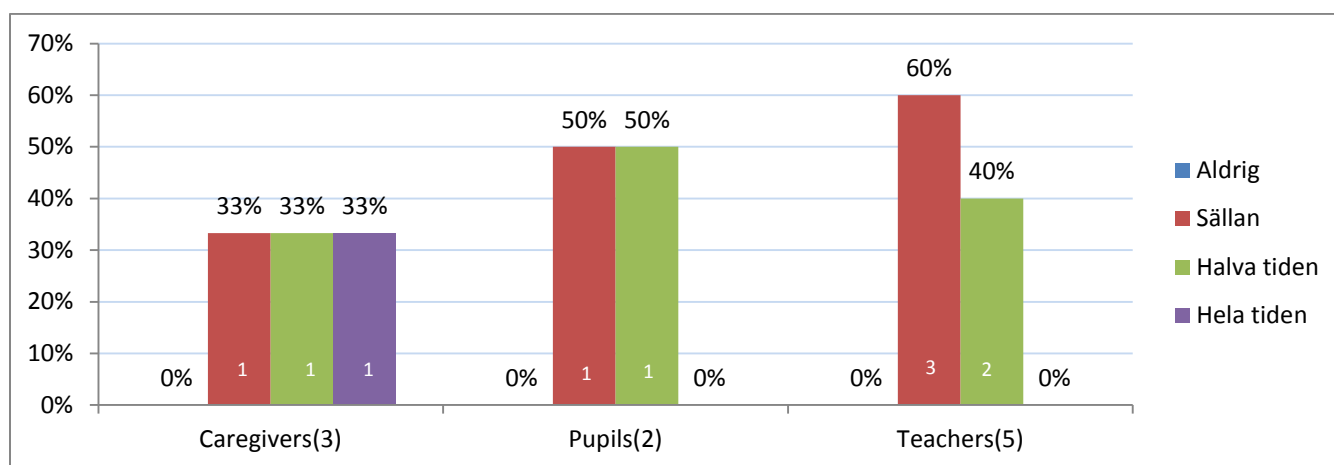
Appendix 3.4- figure 2- Represent the number and the % number of teachers, caregivers and Pupil according to (Kön).



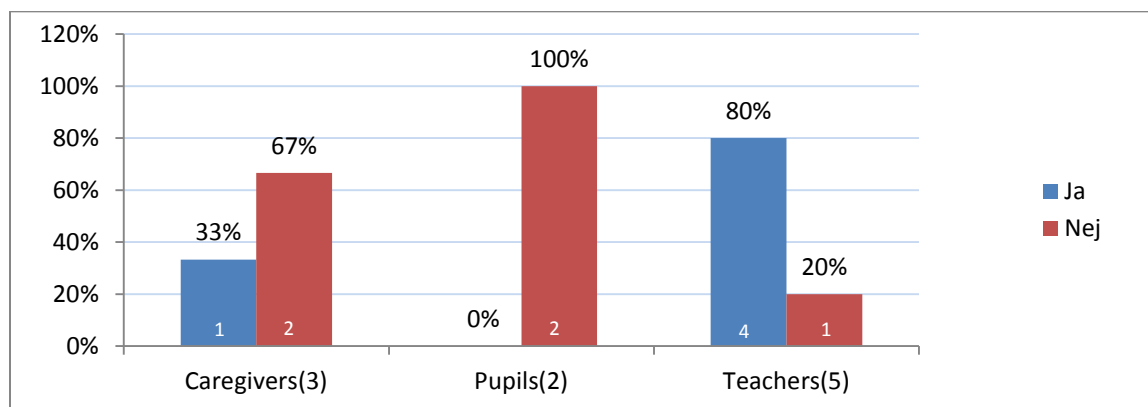
Appendix 3.4- figure 3- Represent the number and the % number of teachers, caregivers and Pupil per answer for the question (Hur många dagar i veckan använder du en dator?)



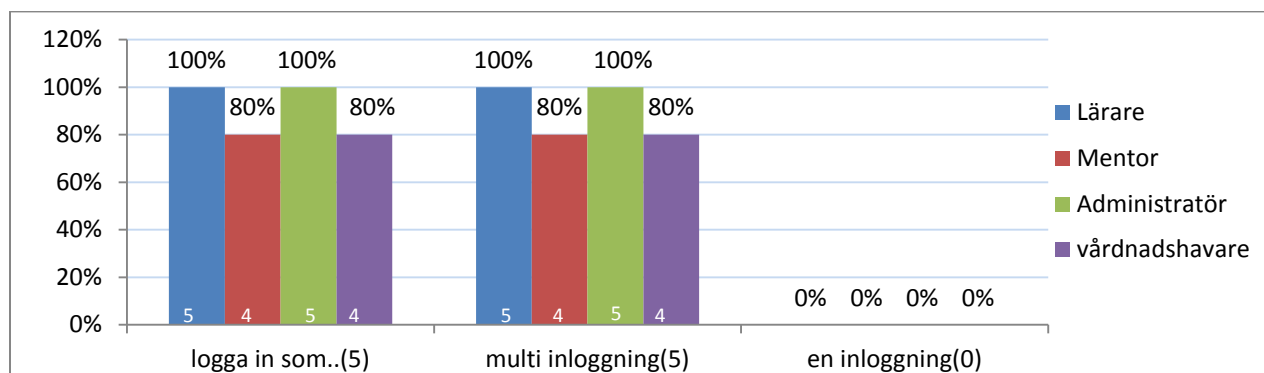
Appendix 3.4- figure 4- Represent the number and the % number of teachers, caregivers and Pupil per answer for the question (Hur länge använder du datorn i snitt per dag?)



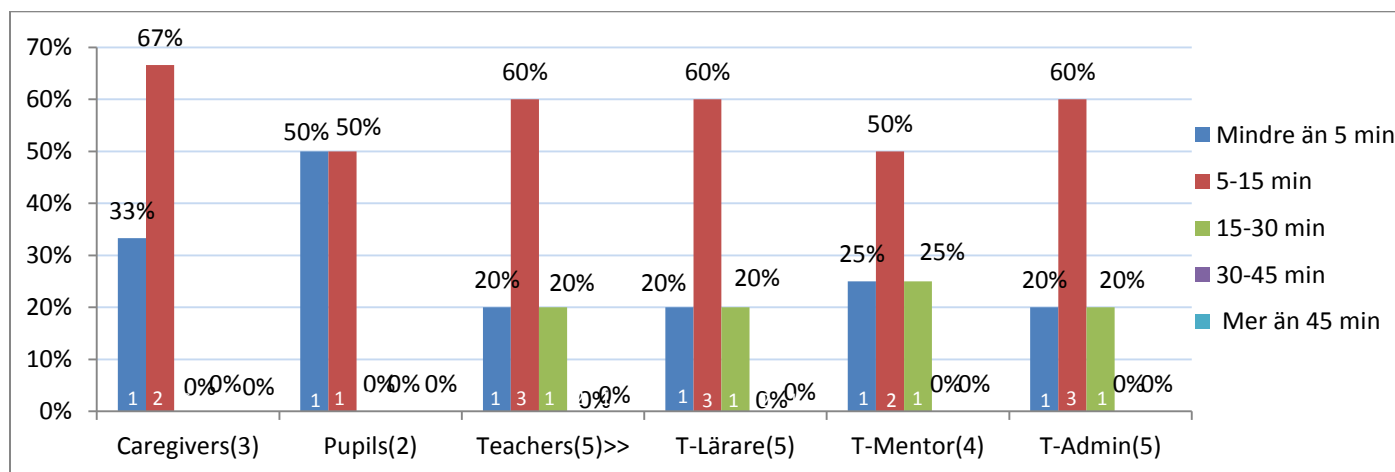
Appendix 3.4- figure 5- Represent the number and the % number of teachers, caregivers and Pupil per answer for the question (Hur ofta surfar du på nätet när du använder datorn?)



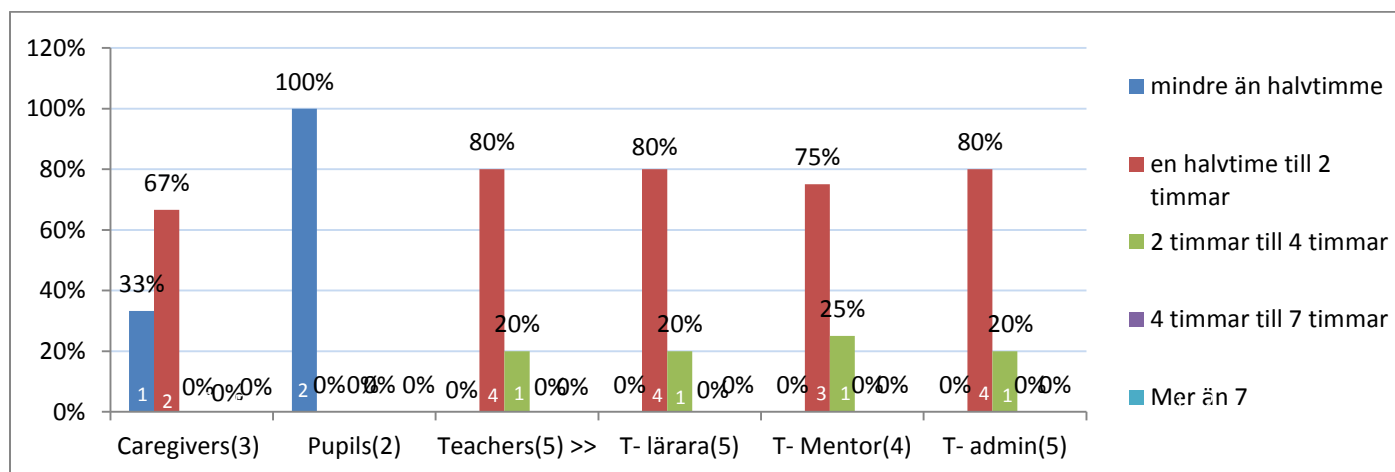
Appendix 3.4- figure 6- Represent the number and the % number of teachers, caregivers and Pupil per answer for the question (Använder du Unikum varje dag?)



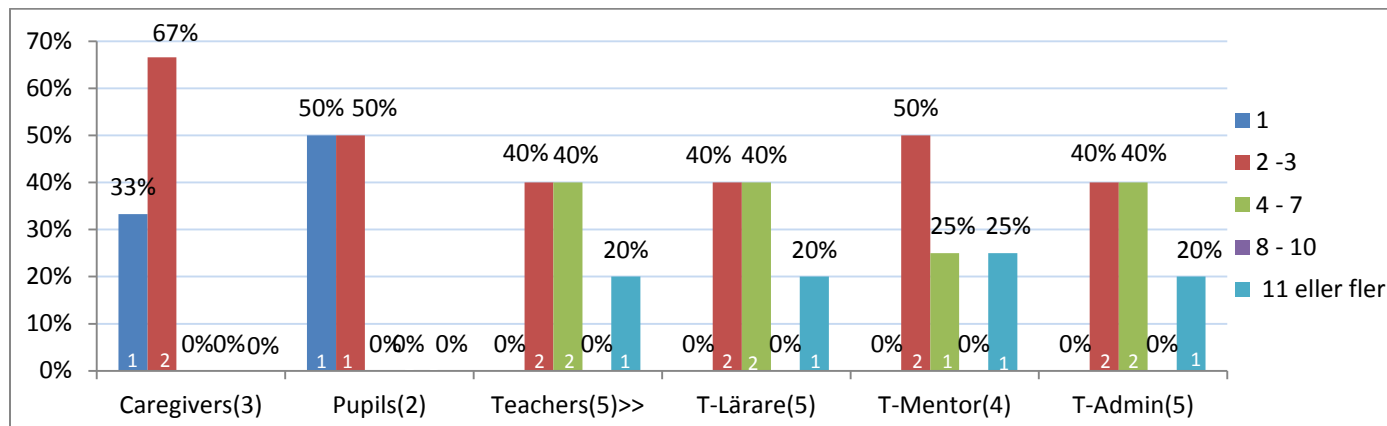
Appendix 3.4- figure 7- It shows the number and the % number of teachers per answer for the question (Jag logger in på Unikum som...)



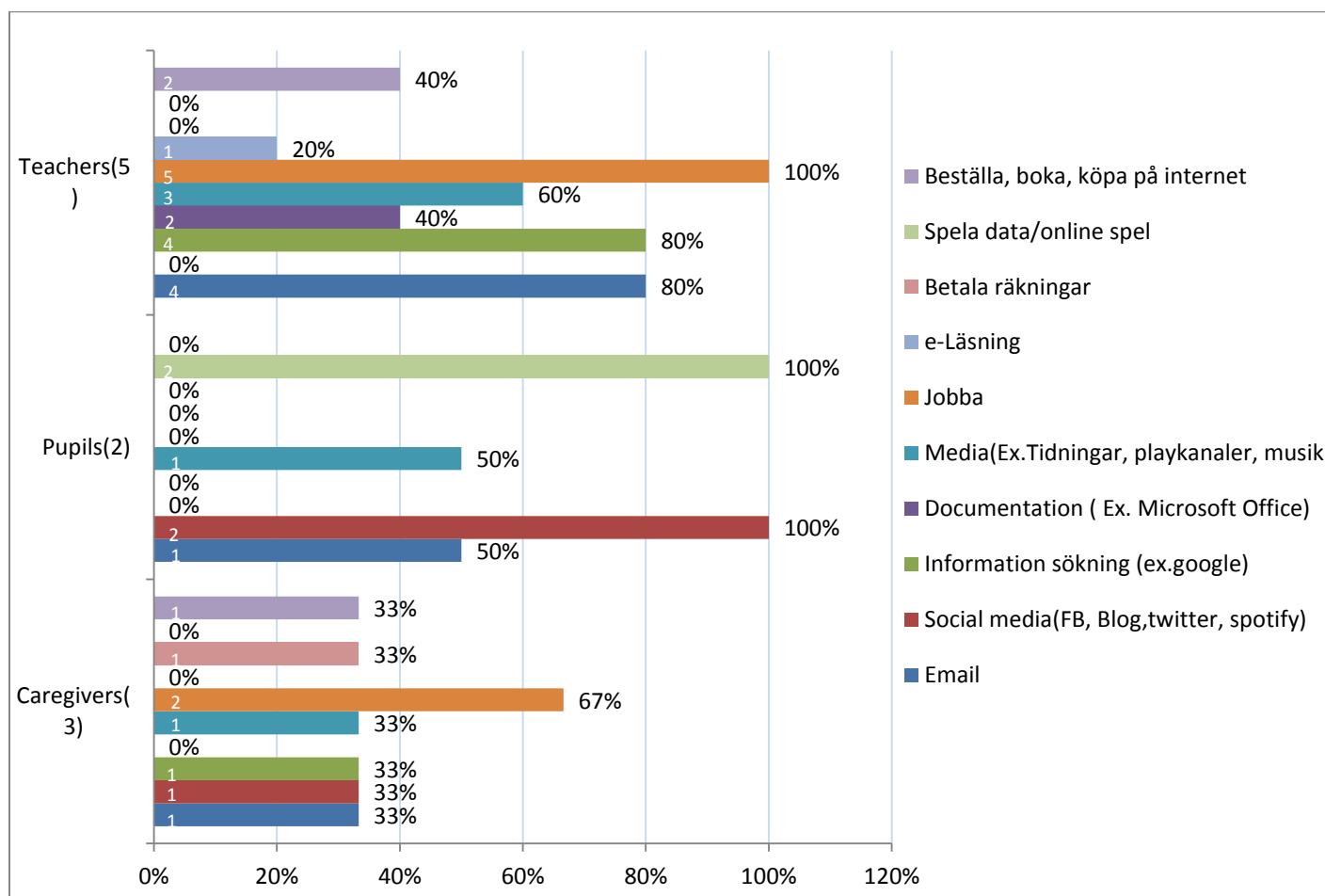
Appendix 3.4- figure 8- Represent the number and % number of teachers, caregivers and Pupil per answer for the question (Hur lång tid per tillfälle använder du Unikum?)



Appendix 3.4- figure 9 - Represent the number and the % number of teachers, caregivers and Pupil per answer for the question (Hur lång tid i veckan använder du Unikum?).



Appendix 3.4- figure 10 - Represent the number and the % number of teachers, caregivers and Pupil per answer for the question (Hur många uppgifter gör du per tillfälle använder du Unikum?)



Appendix 3.4- figure 11 - Represent the number of teachers, caregivers and Pupil per answer for the question (Vad brukar du göra när du använder datorn?)

Scenarios: From the teachers' answers, I found that each of them has his own way in using Unikum to do his/ her tasks. The scenarios that they used are as described below:

Scenariio1: Not using “LPP” and “Bedömning- Matris”

- Log in as a teacher, mentor and admin
- As a teacher, he/she is using the “**blogg**” and the “**Omdömen**”!
- As a mentor, he/she is using the “**Omdömen**” to prepare to the “**utveckling samtal**” for each pupil!
- As a mentor, he/she the “**IUP-mål**” to put extra “**mål**” to each pupil after the “**utveckling samtal**”!

Scenariio2: Not using “LPP”, “Bedömning- Matris” and “IUP-mål” as shown below in figure 14.

- Log in as a teacher, mentor and admin.
- As a teacher, he/she is using the “**blogg**” and the “**Omdömen**”.
- As a mentor, he/she is using the “**Omdömen**” to prepare to the “**utveckling samtal**” for each pupil!
- As a mentor, he/she is using the blog to put extra “**IUP-mål**” to each pupil!

Scenariio3: Not using “Bedömning- Matris”.

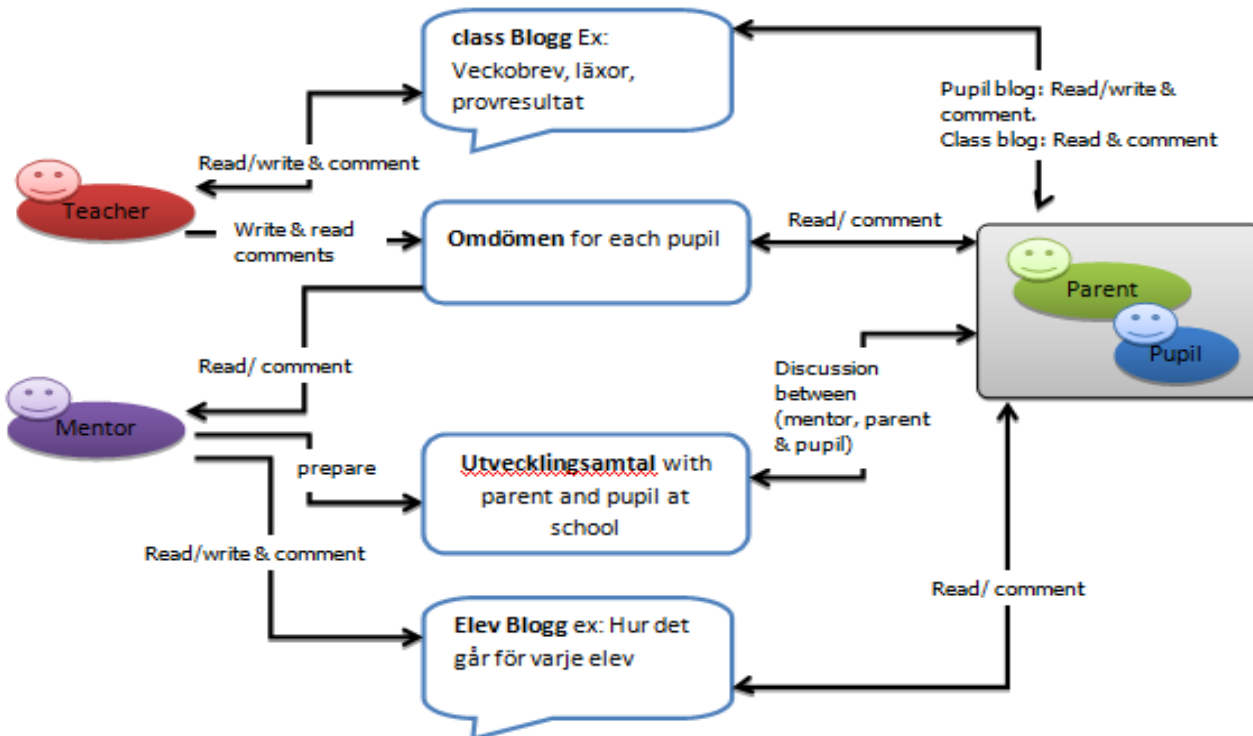
- Log in as a teacher, mentor and admin.
- As a teacher, he/she is using the “**blogg**”, “**LPP**” and the “**Omdömen**”.
- As a mentor, he/she is using the “**Omdömen**” to prepare to the “**utveckling samtal**” for each pupil!
- As a mentor, he/she the “**IUP-mål**” to put extra “**mål**” to each pupil after the “**utveckling samtal**”!

Scenariio4: Not using “Omdömen” .

- Log in as a teacher, mentor and admin.
- As a teacher, he/she is using the “**blogg**”, “**LPP**” and the “**Bedömning- Matris**”.
- As a mentor, he/she is using the “**Bedömning- Matris**” to prepare to the “**utveckling samtal**” for each pupil!
- As a mentor, he/she the “**IUP-mål**” to put extra “**mål**” to each pupil after the “**utveckling samtal**”!

Scenariio5: Not using “Bedömning- Matris” and “IUP-mål”.

- Log in as a teacher and admin.
- As a teacher, he/she is using the “**blogg**”, “**LPP**” and the “**Omdömen**”.
- Trying to use “**Bedömning- Matris**” but difficult to create or find one to use it.



Appendix 3.4- figure 14 - Represent the tasks as described in scenario 2.

From meeting five **expert** teachers, I found that each of them used Unikum on his own way because each of them believes that this is the right way of using it. So the information that the caregivers get about their child is depend on the teacher's way of using Unikum. And that make me expect a difficulty for the caregivers to understand the information they get from different teachers!!!

From the caregivers' answers (In swedish) I collect these needs as described below:

- Målluppfyllnad via samtal med lärare.
- Att veta att mitt barn tillgodagör sig utbildning.
- Få information om mina barn via "Blogg" liksom läxor, prov från alla mina barnslärare.

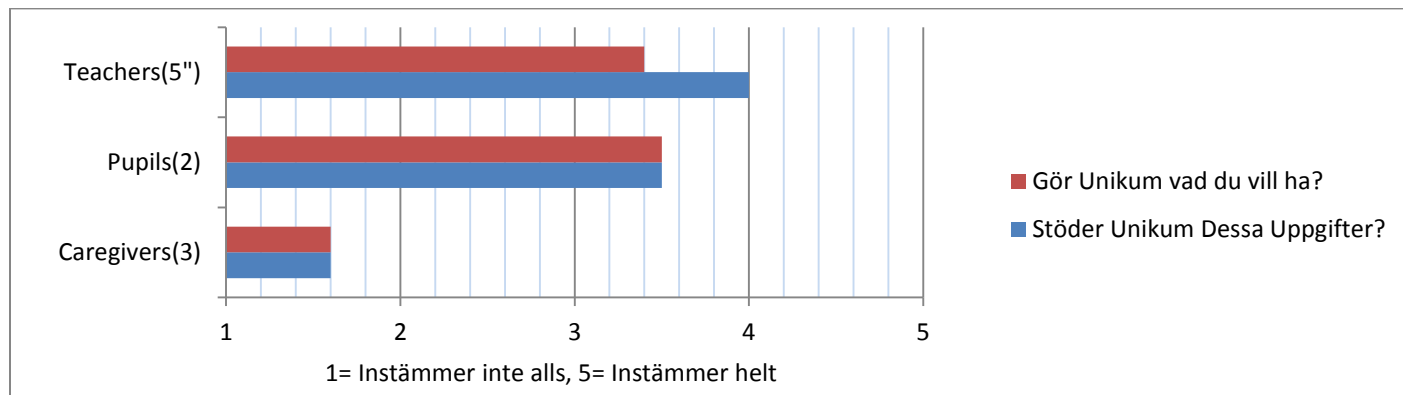
This show that caregivers only need only

- The "**blogg**" to communicate with school and get information about their child.
- "**Utveckling samtal**" about their child progress via explaining the "**Matris**"
- The extra "**IUP-mål**" if their child need

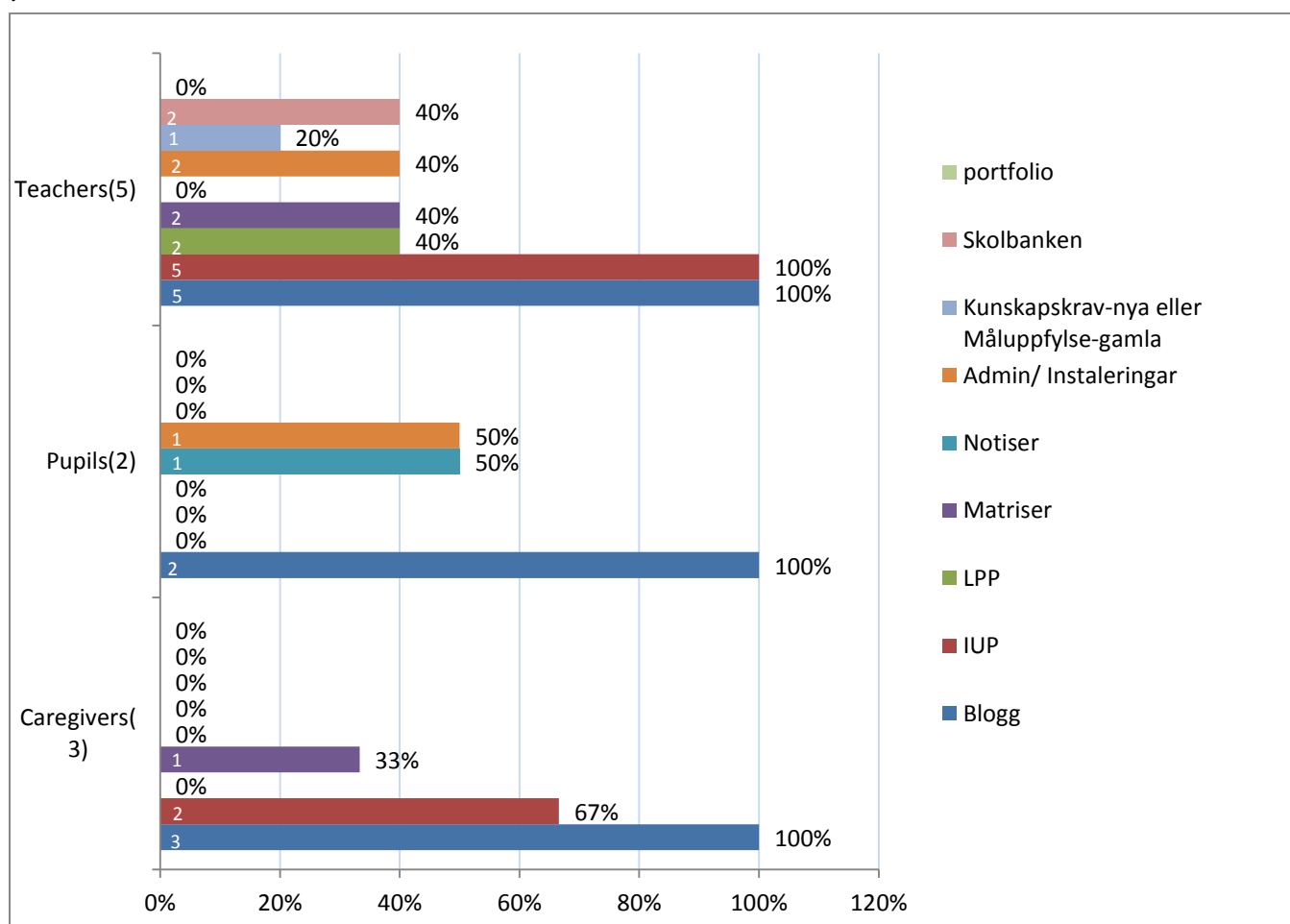
From the pupils' answers (In swedish) I collect these needs as described below:

- Få information från lärare via "Blogg" om läxor, provresultat.

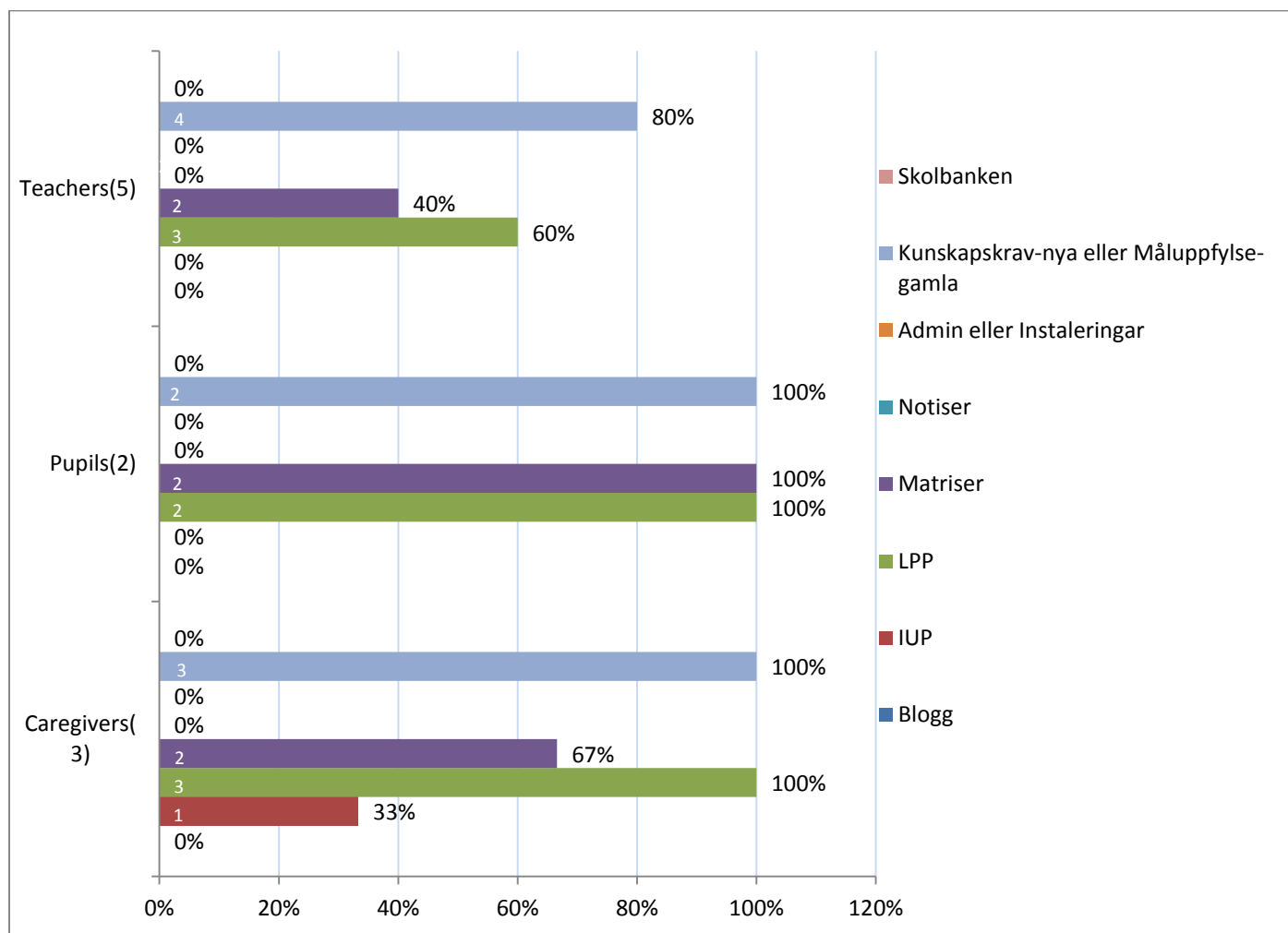
So that how that the only need for the pupil is the "**blogg**" to get the information they need from the teacher.



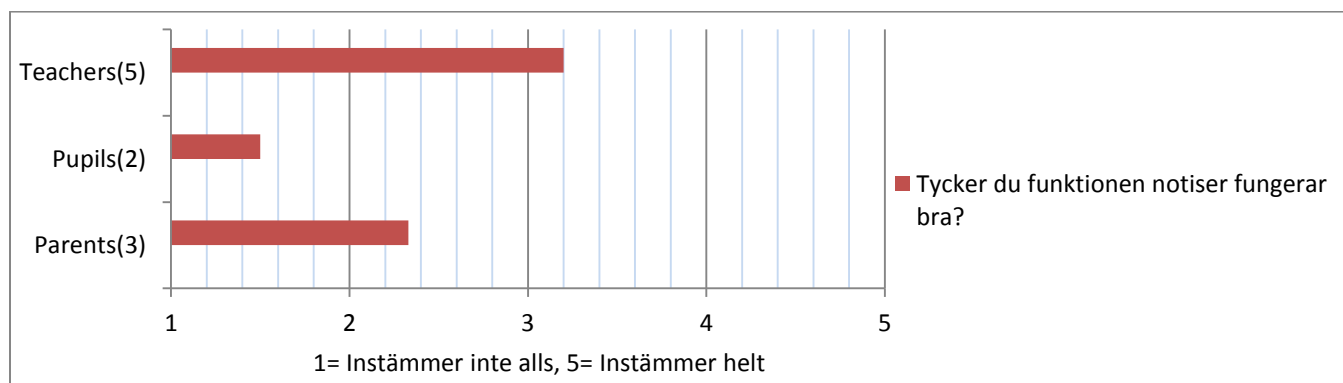
Appendix 3.4- figure 15- Represent the average rate the answers for the participants as teachers, caregivers and Pupil for the question (Stöder Unikum dessa uppgifter?)



Appendix 3.4- figure 16- Represent the number and the % number of the participants' answers for the question (Vilka verktyg använder du mest i Unikum? För vad använder du dem?)



Appendix 3.4- figure 17- Represent the number and the % number of the participants' answers for the question (Vilka verktyg använder du aldrig i Unikum? Varför?)



Appendix 3.4- figure 18- Represent the average rate the answers for the participants as teachers, caregivers and Pupil for the question (Tycker du funktionen notiser fungerar bra?)

Appendix 4: The usability test

Appendix 4.1: The invitation to participate in the survey and the survey's questionnaire

Vill du berätta något om Unikum?

Hej!

Vi vänder oss till dig du som lärare, förälder, student och kan komma att ha behov att förbättra e-tjänst, Unikum.

Just nu försöker vi förbättra Unikum. För att göra det på bästa sätt behöver vi veta vad som kan vara aktuell för att använda Unikum att vi bör förbättra. Därför går vi nu ut med en frågrågan om att delta i en studie. Studien fokuserar på användarvänlighet och genomförande av Safa Naser, en masterstudent som studerar på Uppsala Universitet, vid Institutionen för Informatik och Media. Arbetet leds av Else Nygren, professor i människa-datorinteraktion.

Om du väljer att delta i studien, kommer du avsätta två timmar för detta. Du kommer att testa Unikum under observation av studenten i universitetets testlab, kan du även svara på några frågor om hur du upplevt online-tjänster. I gengäld och som tack för ditt deltagande Tierp kommun erbjuder dig ett inträde till Aspenbadet. För deltagande lärare och förälder erbjuds en vuxenbiljet till Aspenbadet. För deltagande skolelever erbjuds två ungdombiljetter till Aspenbadet.

Vi kommer att följa upp detta brev med ett samtal med en begäran om att delta. Du inte blir synad, hade vi redannog av dem för att genomföra studien.

Tror du att det skulle vara spännande att vara med i studien och tycka till om online-tjänster, är du välkommen nu att anmäla dig genom att fylla i formuläret och skicka det till: Safa.Naser.8488@student.uu.se . Ange kontaktinformationen via den formulär så att vi kan kontakta dig för att boka en tid.

Vi på Tierp Kommun, hoppas att det finns ett antal personer som vill bidra med sina erfarenheter så att vi kan erbjuda en tjänst som utvecklats av användarna önskar.

Appendix 4.2: The survey questionnaire that published in Tierp municipality website

Enkät Unikum 2012

Namn: *

Älder:

Kön: *

Telefon:

E-post:

Frågor runt din datoranvändning

Hur många dagar i veckan använder du en dator? *

[Välj alternativ] []

Hur länge använder du datorn i snitt per dag? *

[Välj alternativ] []

Hur ofta surfar du på nätet när du använder datorn? *

[Välj alternativ] []

Vad brukar du göra när du använder datorn?

Frågor runt UNIKUM specifikt

Jag logger in på Unikum som *

☐ Lärare

☐ Elev

☐ Vårdnadshavare

☐ Mentor

☐ Administrator

Använder du Unikum varje dag? *

☐ Ja ☐ Nej

Hur många gånger i veckan använder du Unikum? *

[Välj alternativ] []

Hur lång tid per tillfälle använder du Unikum? *

[Välj alternativ] []

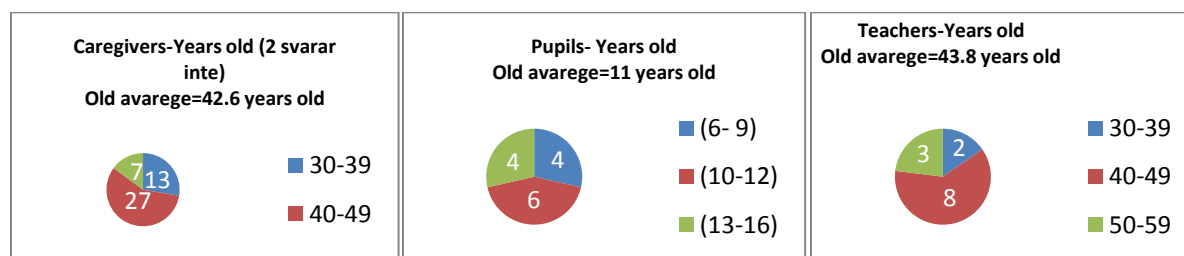
Hur många uppgifter gör du per tillfälle du använder Unikum? *

[Välj alternativ] []

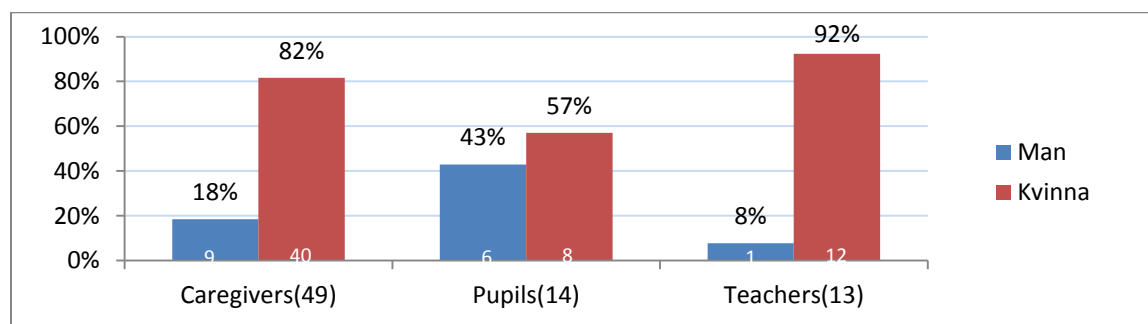
Skicka in svar

Appendix 4.3: The results of the survey

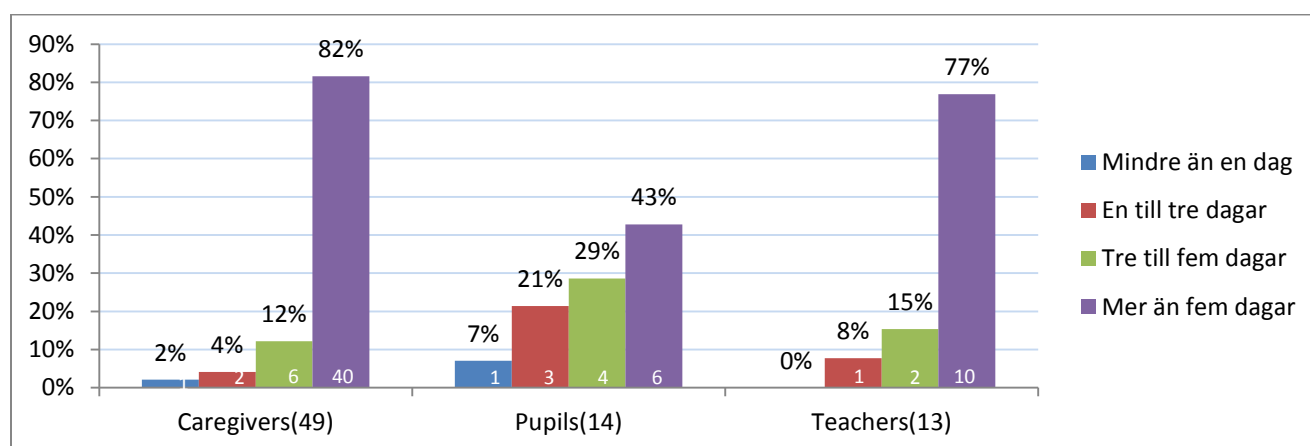
Total no. of participant in the survey is 78 participants (13 teachers, 14 Pupils, 49 caregivers, 2 cancelled because they repeated with different answers for the same person).



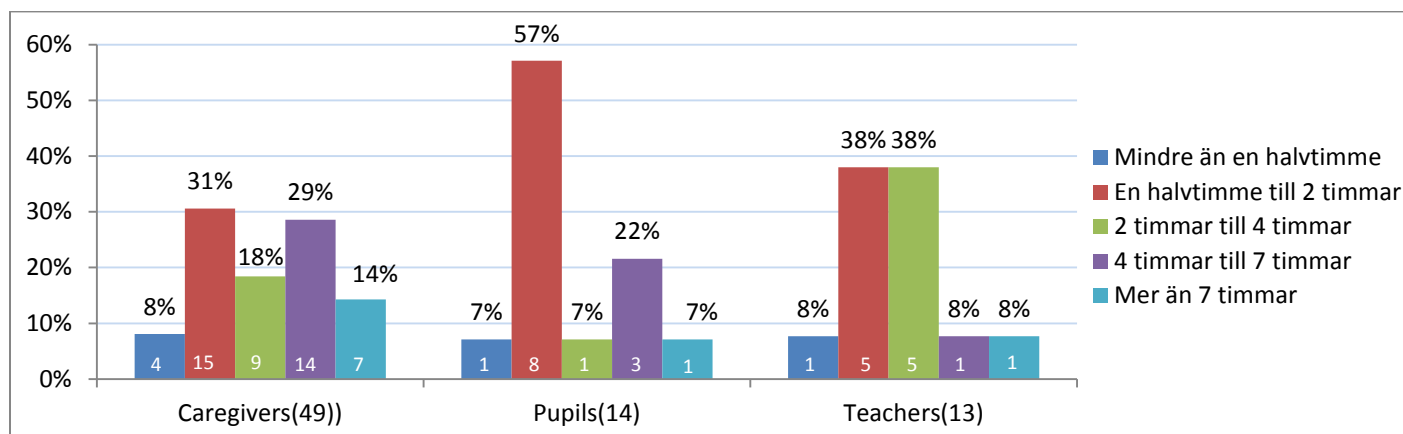
Appendix 4.3- figure1 Represent the number of caregivers, Pupil and teachers according to their old (Ålder)



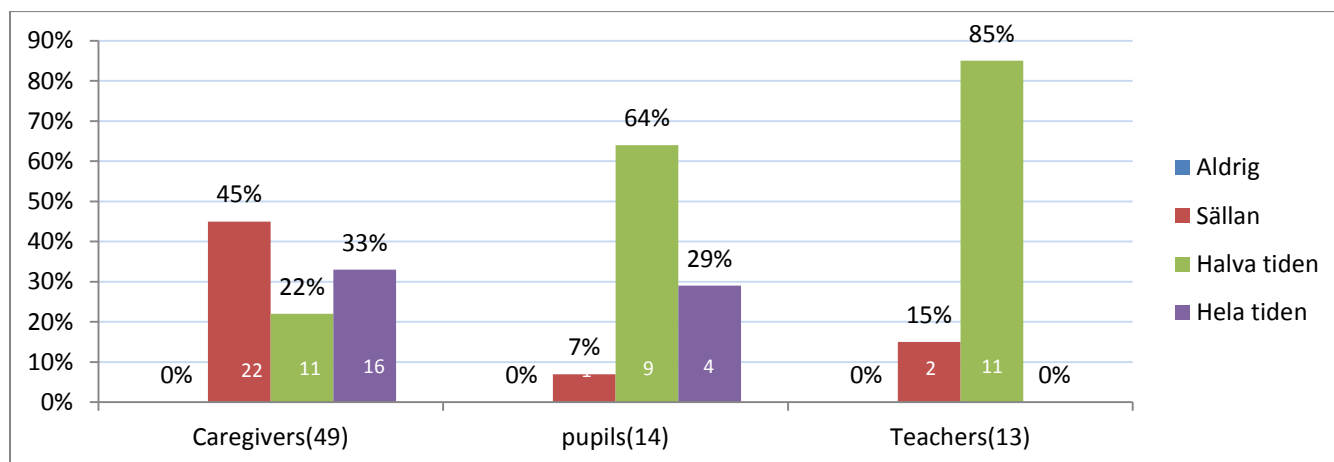
Appendix 4.3- figure 2 Represent the number and the % number of teachers, caregivers and Pupil according to their sex (Kön)



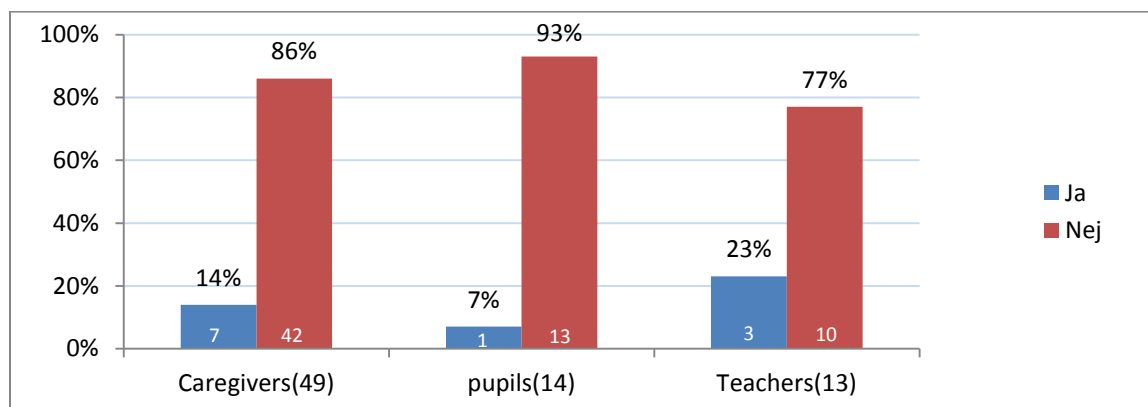
Appendix 4.3- figure3 Represent the number and the % number of teachers, caregivers and Pupil per answer for the question (Hur många dagar i veckan använder du dator?)



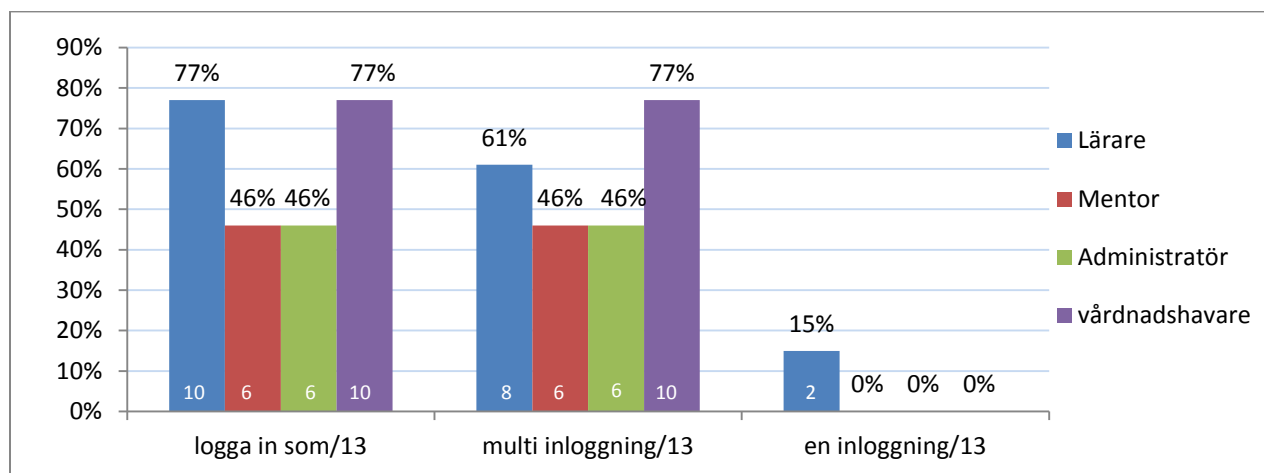
Appendix 4.3- figure4 Represent the number and the % number of teachers, caregivers and Pupil per answer for the question (Hur länge använder du datorn i snitt per dag?)



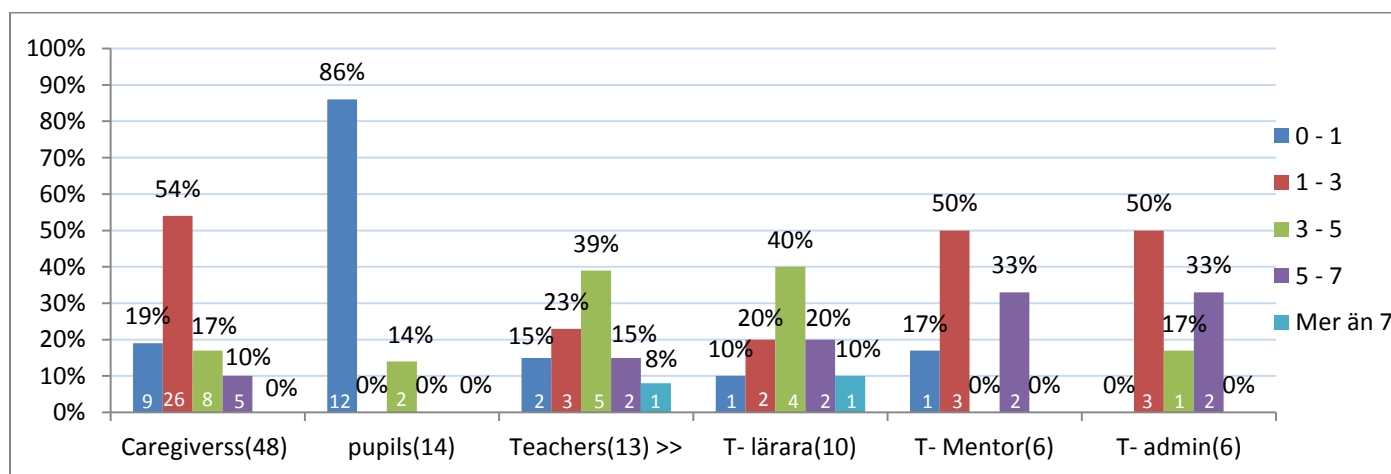
Appendix 4.3- figure5 Represent the number and the % number of teachers, caregivers and Pupil per answer for the question (Hur ofta surfar du på nätet när du använder datorn?)



Appendix 4.3- figure 6 Represent the number and the % number of teachers, caregivers and Pupil per answer for the question (Änvänder du Unikum varje dag?)

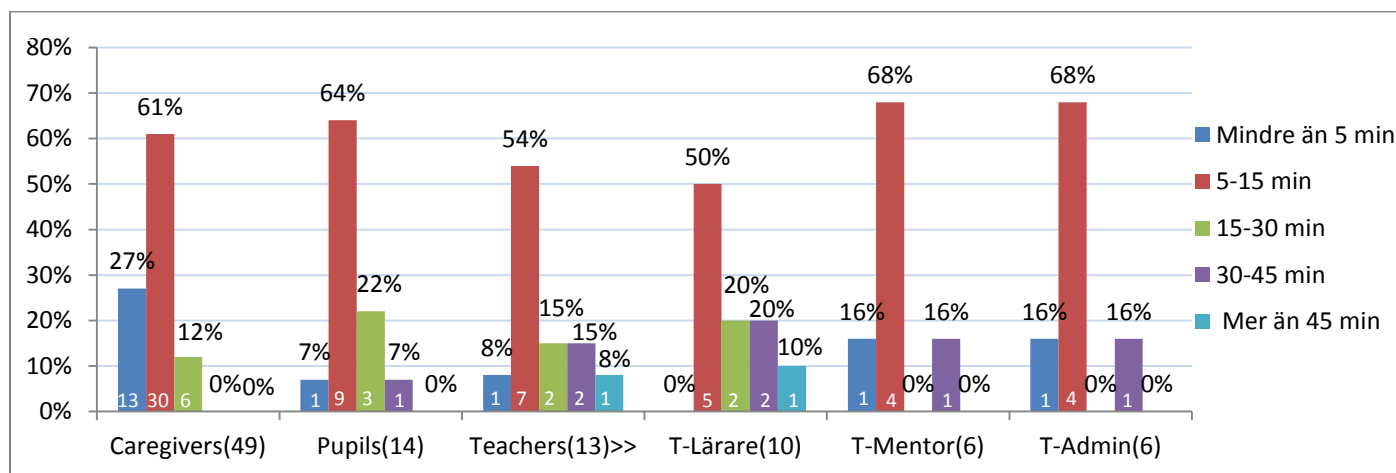


Appendix 4.3- figure 7 Represent the number and the % number of participants as teachers per answer for the question (Jag logger in på Unikum som...)

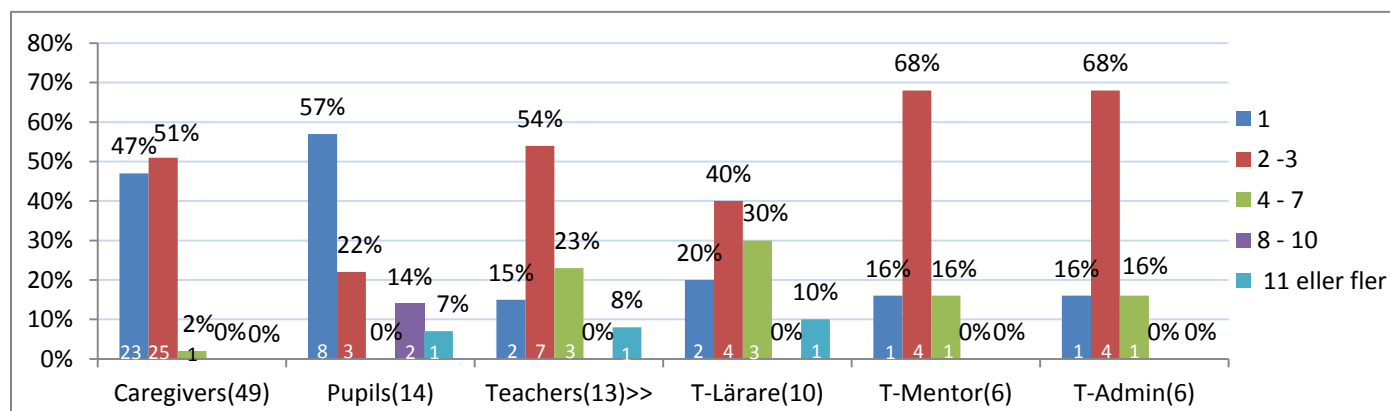


Appendix 4.3- figure 8 Represent the number and the % number of participants as teachers, caregivers and Pupil per answer for the question (Hur många gånger i veckan använder du Unikum?)

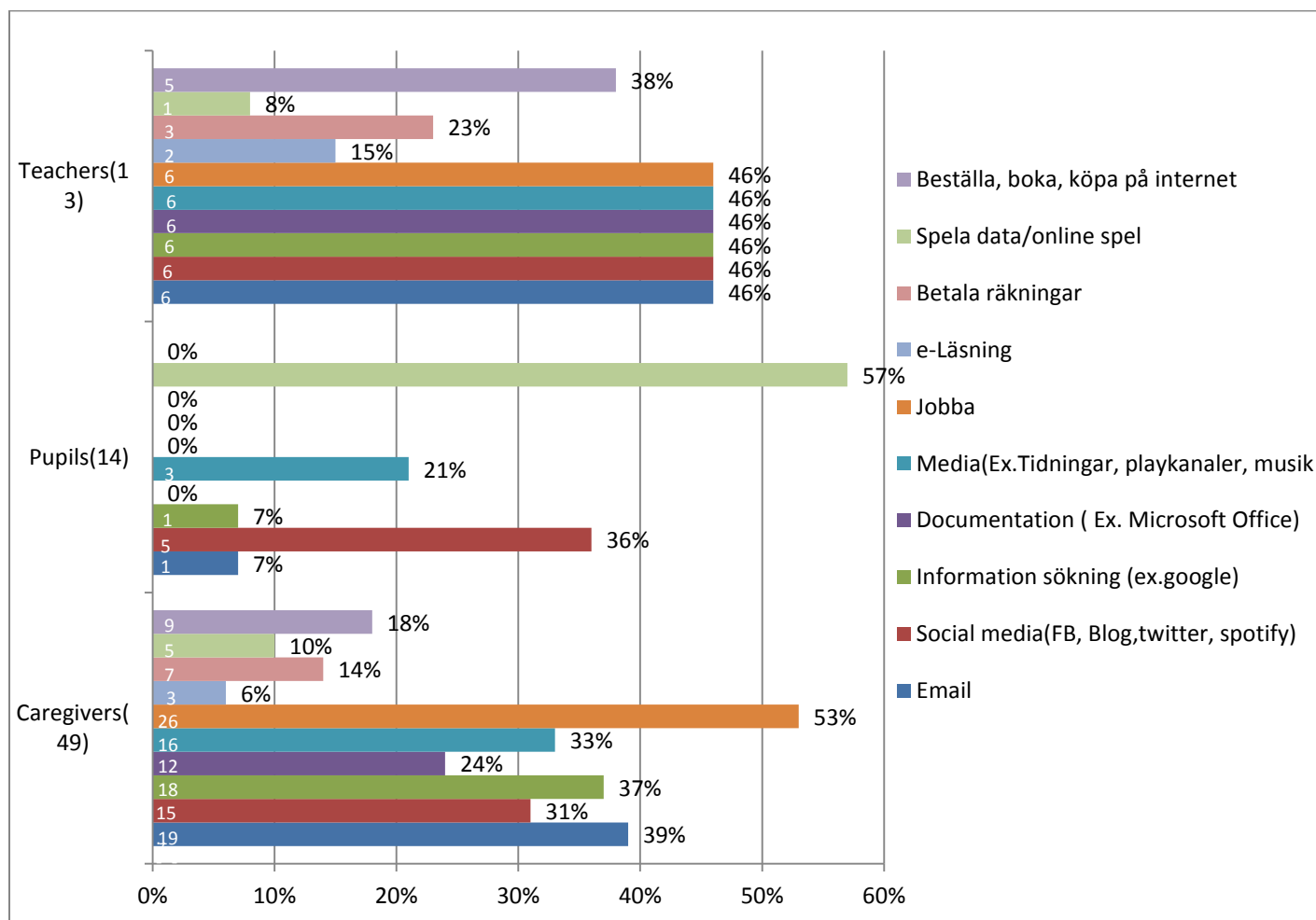
Note: The total number of caregivers here is 48 because there was 1 error answer was cancelled



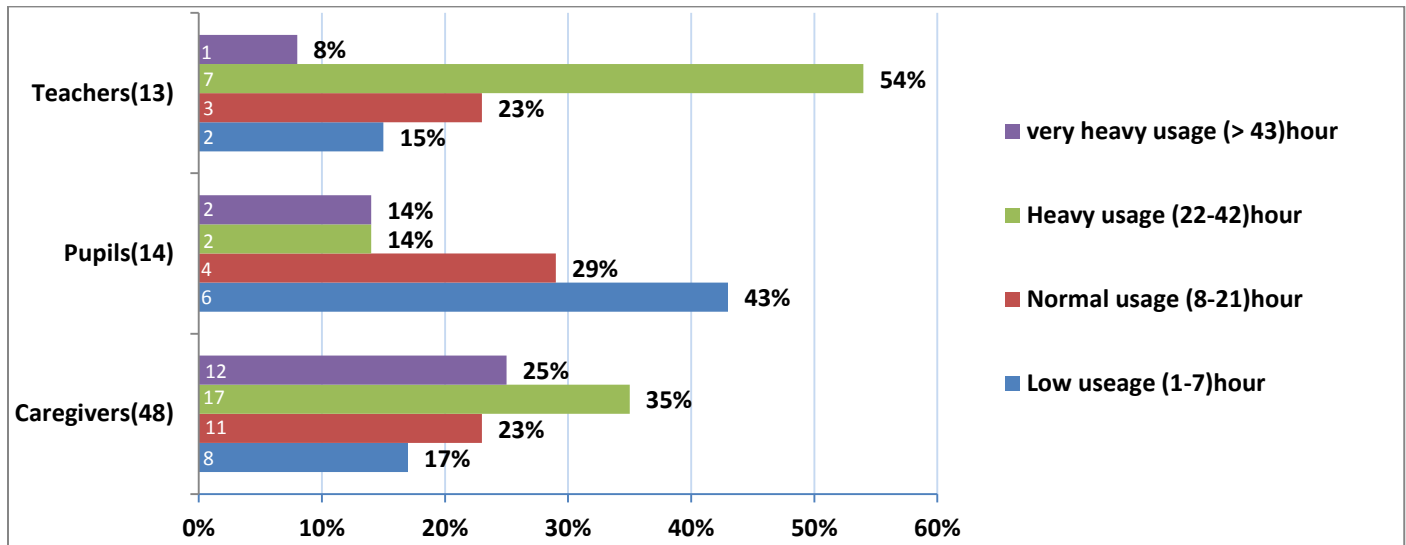
Appendix 4.3- figure 9 Represent the number and % number of participants as teachers, caregivers and Pupil per answer for the question (Hur lång tid per tillfälle använder du Unikum?)



Appendix 4.3- figure 10 Represent the number and the % number of participants as teachers, caregivers and Pupil per answer for (Hur många uppgifter gör du per tillfälle använder du Unikum?)

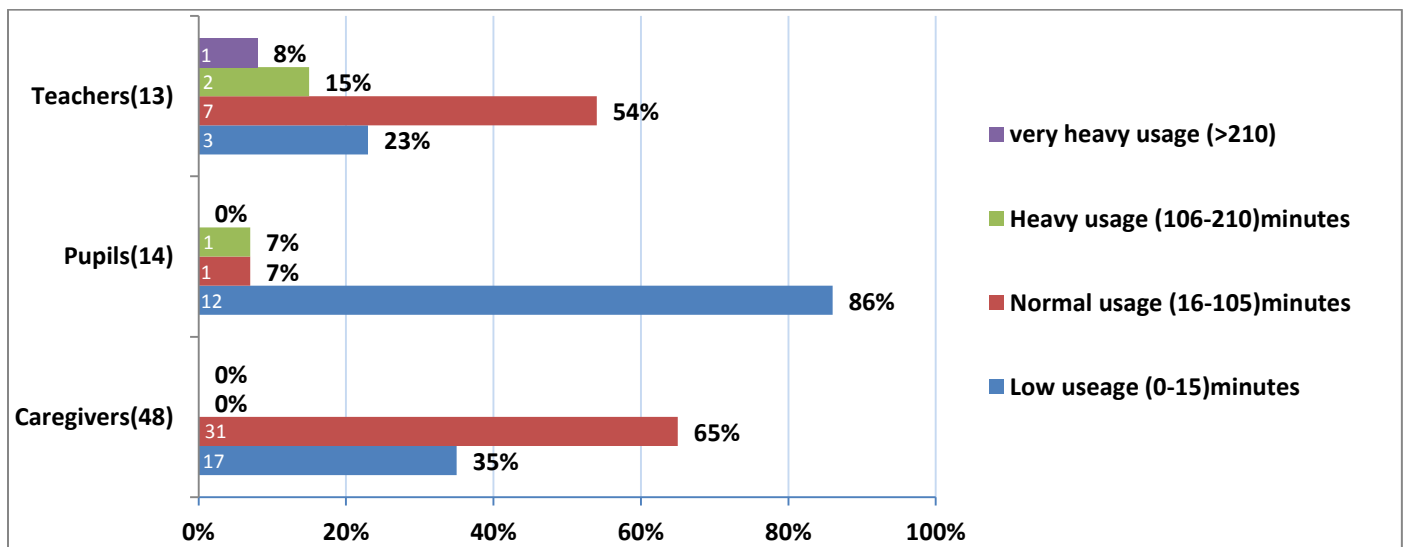


Appendix 4.3-figure 11 represents the number of participants as teachers, caregivers and Pupil per answer for the question (Vad brukar du göra när du använder datorn?)



Appendix 4.3- figure 12- Represent the number and the % number of participants as teachers, caregivers and Pupil according to their hour usage of computer per week.

Note: one caregiver answer is cancelled.



Appendix 4.3- figure 13 Represent the number and the % number of participants as teachers, caregivers and Pupil according to their hour usage of Unikum per a week.

Note: one caregiver answer is cancelled.

Appendix 4: The usability test

Appendix 4.1: The usability test plan

Appendix 4.1.1: For the teachers

1

Frågeformulär 1 (L)

10 min

Namn: _____

Kön: ☐ Man ☐ Kvinna Alder: _____

Jag jobbar som _____ i/på _____

Ditt syfte för att använda Unikum! _____

Vilka verktyg använder du (aldrig ☐ /ibland ☐ /mycket ☒) i Unikum?

- ☐ Start » Om mig
- ☐ Start » Inställningar
- ☐ Start » Kontaktlista
- ☐ Start » Relationer
- ☐ Start » Notiser
- ☐ Fokus » LPP
- ☐ Fokus » IUP-mål
- ☐ Fokus » Läroplan 2011
- ☐ Fokus » Gamla läroplanen
- ☐ IUP » Översikt
- ☐ IUP » Ömdömen
- ☐ Blogg » Översikt
- ☐ Bedömning » Matriser
- ☐ Bedömning » Kunskapskrav – nya
- ☐ Bedömning » Måltuppfylle – gamla
- ☐ Portfolio » Översikt
- ☐ Skolbank » LPP-banken
- ☐ Skolbank » Matrisbanken
- ☐ Skolbank » IUP-banken
- ☐ Admin » Relationer
- ☐ Admin » Elever
- ☐ Admin » Lärare
- ☐ Admin » Administratörer
- ☐ Admin » Nya användare
- ☐ Admin » Alla användare

Stöder Unikum din behov?

Vilka verktyg tycker du saknas Unikum?

2

Scenario (L)

Använd följande scenario för att göra uppgifterna om Unikum

Ditt namn är **Iklassfyra**
Du är en lärare för **eleveklassfyra** och andra elever som går i klass **Projekt design i Grundskola i Tierp(Provskola)**

Din inloggningsinformation till Unikum

Användarnamn	Iklassfyra
Lösenord	Iklass4

Din inloggningsinformation till din email (msn.se)

Användarnamn	Iklassfyra@hotmail.co.uk
Lösenord	Iklass4

OPS. (Använd ej ”bakåtknappen”)

3

Uppgifter (L)

45 min

Säg till när du är redo!

Uppgift 1

5 min

Logga in på Unikum

Säg till när du är klar!

Jag loggade in på Unikum som

- ☐ Lärare
☐ Elev
☐ Vårdnadshavare
☐ Mentor
☐ Administratör

Säg till när du är klar!

4

Uppgift 2

5 min

Försök nu ändra ditt användarnamn och lösenord. (OPS. sparar inte)
Säg till när du är klar!

Läs ditt användaravtalet eller andra samtycket
Säg till när du är klar!

5

Uppgift 3

5 min

Söka fram och öppna en gammal notis i "2012-05-08"?
Säg till när du är klar!

Gå tillbaka till "Notiser" igen. (OPS. utan att använda "bakåtknappen")
Säg till när du är klar!

Kan du hitta gamla notiser som du inte har läst eller öppnat?

- ☐ Ja
☐ Nej
☐ Vet inte

Säg till när du är klar!

Tycker du funktionen "Notiser" fungerar bra?

Säg till när du är klar!

Tröskelvärde min 5 st				
--------------------------	--	--	--	--

6

Uppgift 4

5 min

Vad är "LPP"?

- ☐ LPP är _____
☐ Vet ej

Jag tror att:

- ☐ alla elever i klassen ska få samma LPP
☐ varje elev ska få en egen LPP
☐ vet ej

Säg till när du är klar!

Skapa och tilldela en ny LPP

Säg till när du är klar!

7

Jag tycker att "LPP" var onödigt komplicerad

Säg till när du är klar!

Tröskelvärde min 5 st				
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Uppgift 5

5 min

Vad är "IUP"?

- ☐ IUP är _____
☐ Vet ej

Jag tror att:

- ☐ alla elever i klassen ska få samma IUP
☐ varje elev ska få en egen IUP
☐ vet ej

Säg till när du är klar!

Skapa och tilldela en ny IUP-mål som heter "Jag kan simma bra"

Säg till när du är klar!

8

Uppgift 6

5 min

Vad är "Omdömen"?

- ☐ "Omdömen" är _____
☐ Vet ej

Jag tror att:

- ☐ Alla elever i klassen ska få samma omdömen
☐ varje elev ska få en egen omdömen
☐ Vet ej

Säg till när du är klar!

Skapa och tilldela en ny Omdöm

3 min

Säg till när du är klar!

Jag tycker att "omdömen" var onödigt komplicerad

Säg till när du är klar!

Omdömen Ja, ja	Omdömen Ja, ja	Omdömen Ja, ja	Omdömen Ja, ja	Omdömen Ja, ja

Uppgift 7

5 min

Blogga med din elev via att skriva till henne/honom:

"

Hej!

Jag kan blogga med

- **Bold**, I, U
- Lila färg
- Det är en link till www.Unikum.net

"

Lägg till bild från "Skrivbord > Bild om Unikum"

Bifoga en fil från "Skrivbord > Om Unikum"

Säg till när du är klar!

Jag tycker att de olika funktionerna i "Blogg" är väl samordnade.

Säg till när du är klar!

Omdömen Ja, ja	Omdömen Ja, ja	Omdömen Ja, ja	Omdömen Ja, ja	Omdömen Ja, ja

Uppgift 8

10 min

Vad är "Matriser"?

- ☐ "Matriser" är _____
☐ Vet ej

Jag tror att:

- ☐ Alla elever i klassen ska få samma Matriser
☐ varje elev ska få en egen Matris
☐ Vet ej

Säg till när du är klar!

Skapa och tilldela en ny "Matris".

Säg till när du är klar!

Vad är "Kunskapskrav-Nya"?

- ☐ "Kunskapskrav-Nya" _____
☐ Vet ej

Säg till när du är klar!

Gör en ny "Kunskapskrav-Nya" till din elev

Säg till när du är klar!

Jag tycker att "Matriser" var onödigt komplicerad

Jag tycker att de olika funktionerna i "Matriser" är väl samordnade.

Jag tycker att "Kunskapskrav-Nya" var onödigt komplicerad

Jag tycker att de olika funktionerna i "Kunskapskrav-Nya" är väl samordnade.

Säg till när du är klar!

Omdömen Ja, ja	Omdömen Ja, ja	Omdömen Ja, ja	Omdömen Ja, ja	Omdömen Ja, ja

Omdömen Ja, ja	Omdömen Ja, ja	Omdömen Ja, ja	Omdömen Ja, ja	Omdömen Ja, ja

Omdömen Ja, ja	Omdömen Ja, ja	Omdömen Ja, ja	Omdömen Ja, ja	Omdömen Ja, ja

Omdömen Ja, ja	Omdömen Ja, ja	Omdömen Ja, ja	Omdömen Ja, ja	Omdömen Ja, ja

Frågeformulär 2 (L)

10 min

- Jag tror att jag skulle vilja använda Unikum ofta.
- Jag tycker att Unikum var onödigt komplicerad.
- Jag tycker att Unikum var lätt att använda.
- Jag tror att jag kommer att behöva hjälp av en teknisk person för att kunna använda Unikum.
- Jag tycker att de olika funktionerna i Unikum är väl samordnade.
- Jag tycker att det finns för mycket inkonsekvens i Unikum.
- Jag kan tänka mig att de flesta skulle lära sig att använda Unikum mycket snabbt.
- Jag tycker att Unikum var mycket bekvämt att använda.
- Jag känner mig väldigt trygg när jag använder Unikum.
- Jag behövde lära mig mycket innan jag kunde komma igång med Unikum.
- Det gick snabbt att utföra en uppgift online.
- Jag tycker att hjälpen var bra.
- Jag tycker att navigeringen i Unikum är bra! (Jag hittade lätt min väg)
- Jag vet var jag är hela tiden

Omdömen Ja, ja	Omdömen Ja, ja	Omdömen Ja, ja	Omdömen Ja, ja	Omdömen Ja, ja

Omdömen Ja, ja	Omdömen Ja, ja	Omdömen Ja, ja	Omdömen Ja, ja	Omdömen Ja, ja

Omdömen Ja, ja	Omdömen Ja, ja	Omdömen Ja, ja	Omdömen Ja, ja	Omdömen Ja, ja

Omdömen Ja, ja	Omdömen Ja, ja	Omdömen Ja, ja	Omdömen Ja, ja	Omdömen Ja, ja

Omdömen Ja, ja	Omdömen Ja, ja	Omdömen Ja, ja	Omdömen Ja, ja	Omdömen Ja, ja

Omdömen Ja, ja	Omdömen Ja, ja	Omdömen Ja, ja	Omdömen Ja, ja	Omdömen Ja, ja

Omdömen Ja, ja	Omdömen Ja, ja	Omdömen Ja, ja	Omdömen Ja, ja	Omdömen Ja, ja

Omdömen Ja, ja	Omdömen Ja, ja	Omdömen Ja, ja	Omdömen Ja, ja	Omdömen Ja, ja

Omdömen Ja, ja	Omdömen Ja, ja	Omdömen Ja, ja	Omdömen Ja, ja	Omdömen Ja, ja

Omdömen Ja, ja	Omdömen Ja, ja	Omdömen Ja, ja	Omdömen Ja, ja	Omdömen Ja, ja

Omdömen Ja, ja	Omdömen Ja, ja	Omdömen Ja, ja	Omdömen Ja, ja	Omdömen Ja, ja

Omdömen Ja, ja	Omdömen Ja, ja	Omdömen Ja, ja	Omdömen Ja, ja	Omdömen Ja, ja

Omdömen Ja, ja	Omdömen Ja, ja	Omdömen Ja, ja	Omdömen Ja, ja	Omdömen Ja, ja

En avslutande fråga - är det något som vi inte gått igenom som du skulle vilja ändra på i Unikum?

Appendix 4.1.2: For the caregivers

§1

Frågeformulär 1 (VH)

10 min

Namn: _____

Kön: ☐ Man ☐ Kvinna Alder: _____

Jag jobbar _____ i _____

Ditt syfte för att använda Unikum! _____

Vilka verktyg använder du (aldrig ☐ / ibland ☐ / mycket ☒) i Unikum?

- ☐ Start » Om mig
- ☐ Start » Inställningar
- ☐ Start » Kontaktlista
- ☐ Start » Relationer
- ☐ Start » Notiser
- ☐ Fokus » LPP
- ☐ Fokus » IUP-mål
- ☐ Fokus » Läroplan 2011
- ☐ Fokus » Gamla läroplanen
- ☐ IUP » Översikt
- ☐ IUP » Omdömen
- ☐ Blogg » Översikt
- ☐ Bedömning » Matriser
- ☐ Bedömning » Kunskapskrav - nya
- ☐ Bedömning » Måltoppfyllse - gamla
- ☐ Portfolio » Översikt
- ☐ Skolbank » LPP-banken
- ☐ Skolbank » Matrisbanken
- ☐ Skolbank » IUP-banken
- ☐ Admin » Relationer
- ☐ Admin » Elever
- ☐ Admin » Lärare
- ☐ Admin » Administratörer
- ☐ Admin » Nya användare
- ☐ Admin » Alla användare

Stöder Unikum din behov? Främdspråk
svensk engelska

Vilka verktyg tycker du saknas Unikum?

§2

Scenario (VH)

40 min

Använd följande scenario för att göra uppgifterna om Unikum

Ditt namn är **vhklassfyra**
Du är vårdnadshavare för **elevklassfyra** som går i klass **Projekt design** i **Grundskola i Tierp(Provskola)**

Din inloggningsinformation till Unikum
Användarnamn **vhklassfyra**
Lösenord **vhklass4**

Din inloggningsinformation till din email (msn.se)
Användarnamn **vhklassfyra@hotmail.co.uk**
Lösenord **vhklass4**

OPS. (Använd ej "bakåtknappen")

§4

Uppgift 1

5 min

Logga in på Unikum

Säg till när du är klar!

Jag loggade in på Unikum som

- ☐ Lärare
- ☐ Elev
- ☐ Vårdnadshavare
- ☐ Mentor
- ☐ Administratör

Säg till när du är klar!

§3

Uppgifter (VH)

35 min

Säg till när du är redo!

Uppgift 2

5 min

Försök nu ändra ditt lösenord. (OPS. sparar inte)
Säg till när du är klar!

Läs ditt användaravtalet eller andra samtycket
Säg till när du är klar!

Uppgift 4

5 min

Vad är "LPP"?

- ☐ LPP är _____
☐ Vet ej

Jag tror att:

- ☐ alla elever i klassen ska få samma LPP
☐ varje elev (din son) ska få en egen LPP
☐ Vet ej

Säg till när du är klar!

Gå till din son LPP.

Säg till när du är klar!

Jag tycker att "LPP" var onödigt komplicerad

Säg till när du är klar!

Omdömen bra	Omdömen bra	Omdömen bra	Omdömen bra	Omdömen bra
----------------	----------------	----------------	----------------	----------------

Uppgift 3

5 min

Söka fram och öppna en gammal notis i "2012-04-15"?
Säg till när du är klar!

Gå tillbaka till "Notiser" igen. (OPS. utan att använda "bakåtknappen")
Säg till när du är klar!

Kan du hitta gamla notiser som du inte har läst eller öppnat?

- ☐ Ja
☐ Nej
☐ Vet inte

Säg till när du är klar!

Tycker du funktionen "Notiser" fungerar bra?

Säg till när du är klar!

Omdömen bra	Omdömen bra	Omdömen bra	Omdömen bra	Omdömen bra
----------------	----------------	----------------	----------------	----------------

Uppgift 5

5 min

Vad är "IUP"?

- ☐ IUP är _____
☐ Vet ej

Jag tror att:

- ☐ alla elever i klassen ska få samma IUP
☐ varje elev (din son) ska få en egen IUP
☐ Vet ej

Säg till när du är klar!

Gå till din sons IUP.

Säg till när du är klar!

Skapa ny IUP-mål för din son "Jag kan simma bra"

Säg till när du är klar!

Uppgift 6

5 min

Vad är "Omdömen"?

- ☐ Omdömen är _____
☐ Vet ej

Jag tror att:

- ☐ Alla elever i klassen ska få samma omdömen
☐ varje elev ska få en egen omdömen
☐ Vet ej

Säg till när du är klar!

Gå till din sons omdömen

Säg till när du är klar!

Jag tycker att "omdömen" var onödigt komplicerad

Säg till när du är klar!

Omdömen bra	Omdömen bra	Omdömen bra	Omdömen bra	Omdömen bra
----------------	----------------	----------------	----------------	----------------

Uppgift 7

§10

5min

Blogga med ditt barn läraren via att

skriva till henne/honom:

”
 Hej!
 Jag kan blogga med
 • **Bold**, *I*, U
 • Lila Färg
 • Link till www.Unikum.net
 ”

Och lägg till bild från ”Skrivbord > Bild om unikum”

Bifoga en fil från ”Skrivbord > Bild om unikum”

Säg till när du är klar!

Jag tycker att de olika funktionerna i
 Blogg är väl samordnade.
 Säg till när du är klar!

Enkelt	Medel	Godt	Mycket

Uppgift 8

§11

5min

Vad är ”Matriser”?

- ☐ Matriser är _____
☐ Vetej

Jag tror att:

- ☐ Alla elever i klassen ska få samma Matriser
☐ varje elev ska få en egen Matris
☐ Vetej

Säg till när du är klar!

Gå till din son ”Matriser”.

Säg till när du är klar!

Vad är ”Kunskapskrav-Nya”?

- ☐ _____
☐ Vetej

Säg till när du är klar!

Gå till ”Kunskapskrav-Nya”

Säg till när du är klar!

Frågeformulär 2 (VH)

§12

10 min

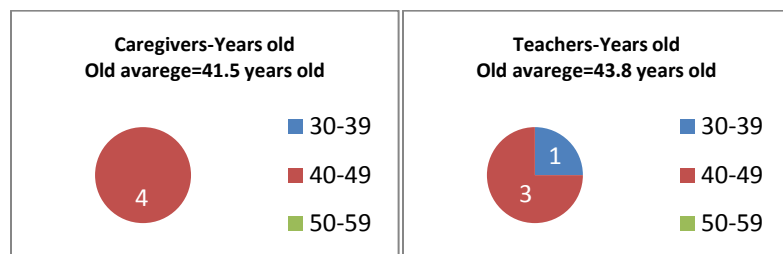
- Jag tror att jag skulle vilja använda Unikum ofta.
- Jag tycker att Unikum var onödigt komplicerad.
- Jag tycker att Unikum var lätt att använda.
- Jag tror att jag kommer att behöva hjälp av en teknisk person för att kunna använda Unikum.
- Jag tycker att de olika funktionerna i Unikum är väl samordnade.
- Jag tycker att det finns för mycket inkonsekvens i Unikum.
- Jag kan tänka mig att de flesta skulle lära sig att använda Unikum mycket snabbt.
- Jag tycker att Unikum var mycket besvärligt att använda.
- Jag känner mig väldigt trygg när jag använder Unikum.
- Jag behövde lära mig mycket innan jag kunde komma igång med Unikum.
- Det gick snabbt att utföra en uppgift online.
- Jag tycker att hjälpen var bra.
- Jag tycker att navigeringen i Unikum är bra! (Hittar jag lätt min väg)
- Jag vet var jag är hela tiden

Enkelt	Medel	Godt	Mycket

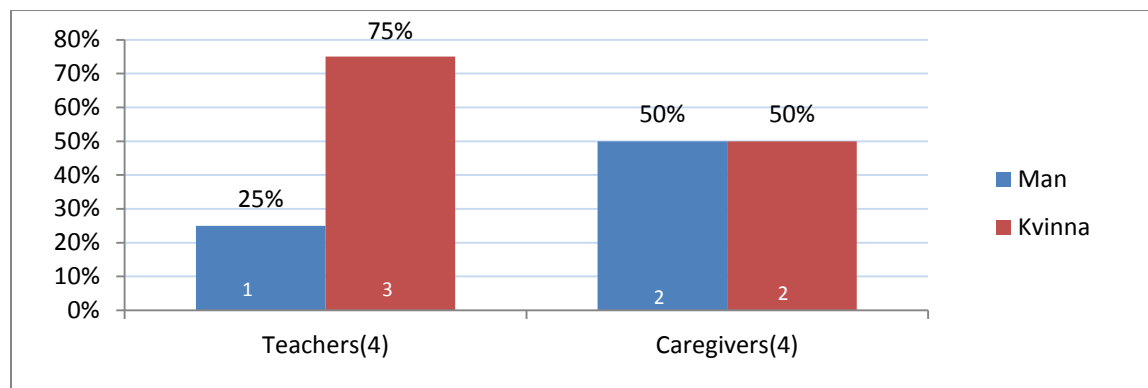
En avslutande fråga – är det något som vi inte gått igenom som du skulle vilja ändra på i Unikum?

Appendix 4.2: The diagrams of results of the usability test of Unikum

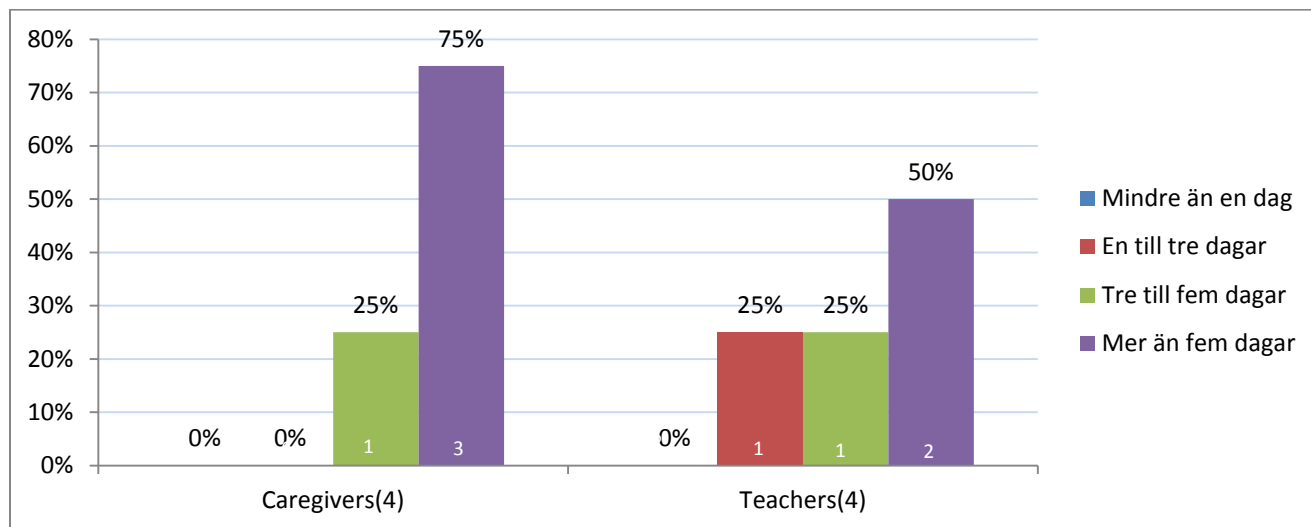
Total no. of participant in the usability test is 8 participants (4 teachers and 4 caregivers). It was so difficult to make Pupils to come to Uppsala University from Tierp.



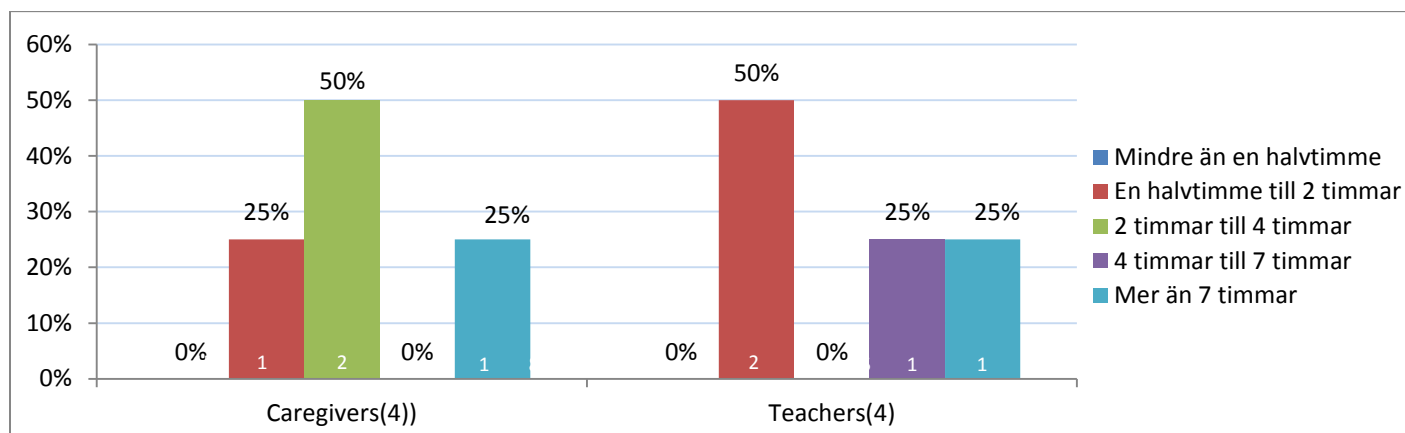
Appendix 4.5- Figure 1- Represent the number of caregivers and teachers according to their old (Ålder)



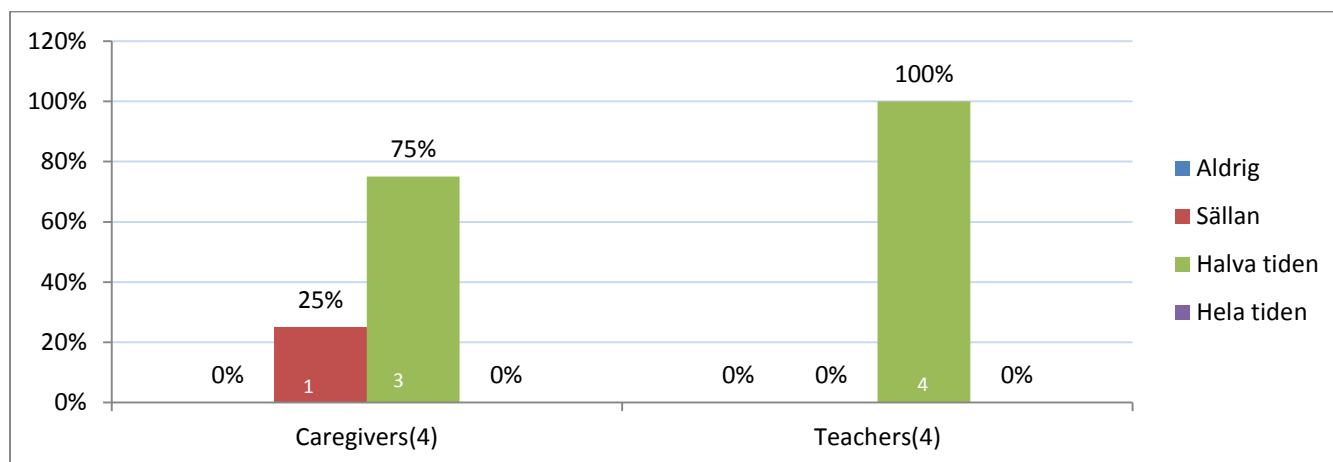
Appendix 4.5- Figure 2- Represent the number and the % number of teachers, caregivers according to their sex (Kön)



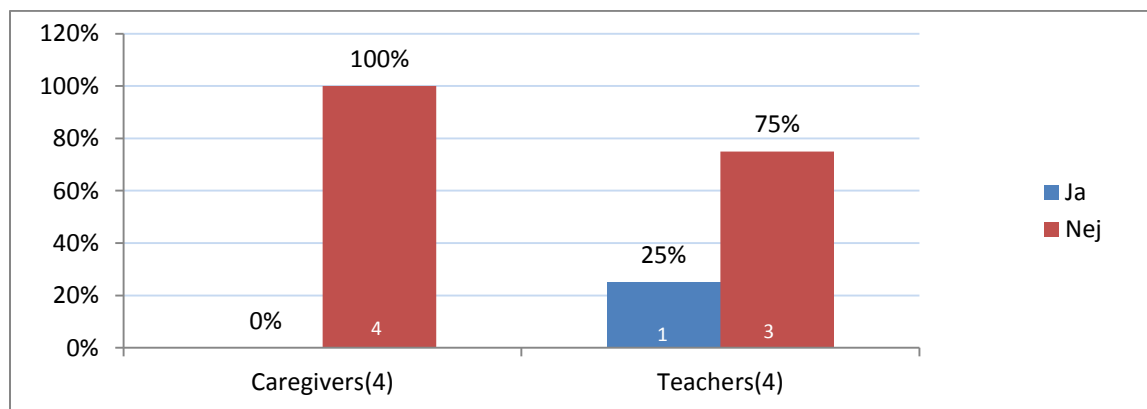
Appendix 4.5- Figure 3- Represent the number and the % number of teachers, caregivers per answer for the question (Hur många dagar i veckan använder du en dator?)



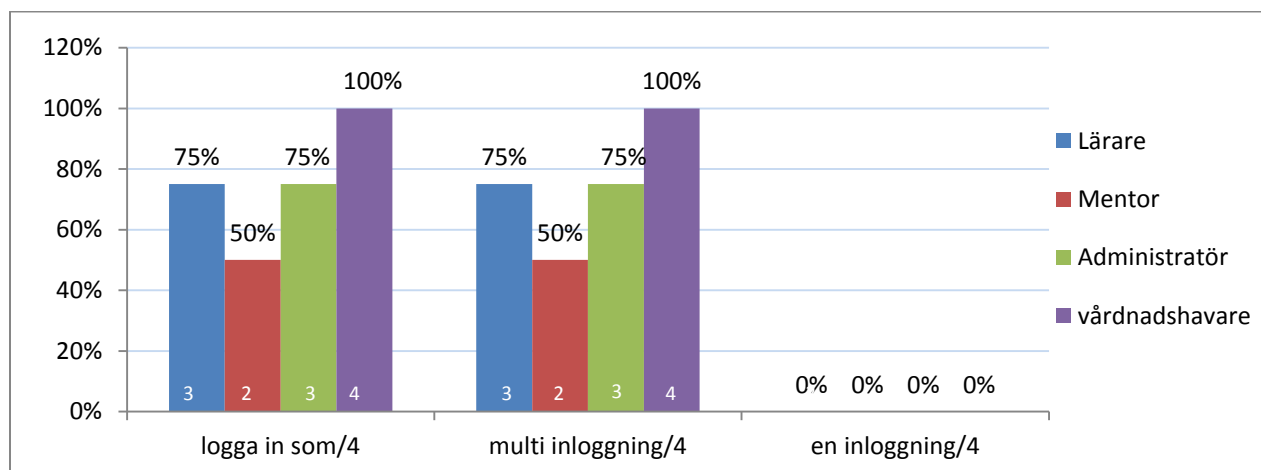
Appendix 4.5- Figure 4- Represent the number and the % number of teachers, caregivers per answer for the question (Hur länge använder du datorn i snitt per dag?)



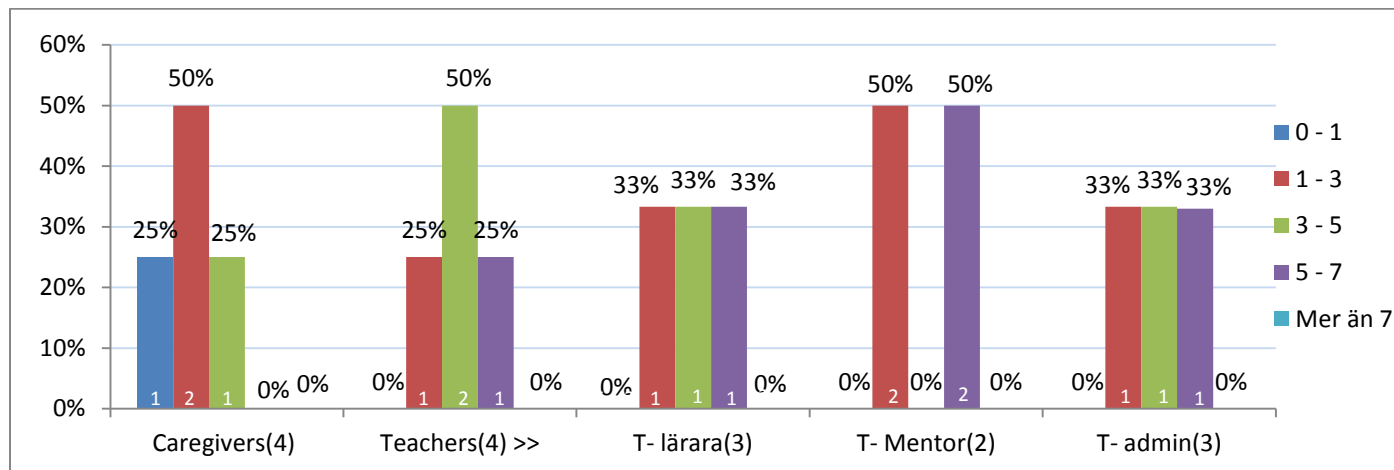
Appendix 4.5- Figure 5- Represent the number and the % number of teachers, caregivers per answer for the question (Hur ofta surfar du på nätet när du använder datorn?)



Appendix 4.5- Figure 6- Represent the number and the % number of teachers, caregivers per answer for the question (Änvänder du Unikum varje dag?)

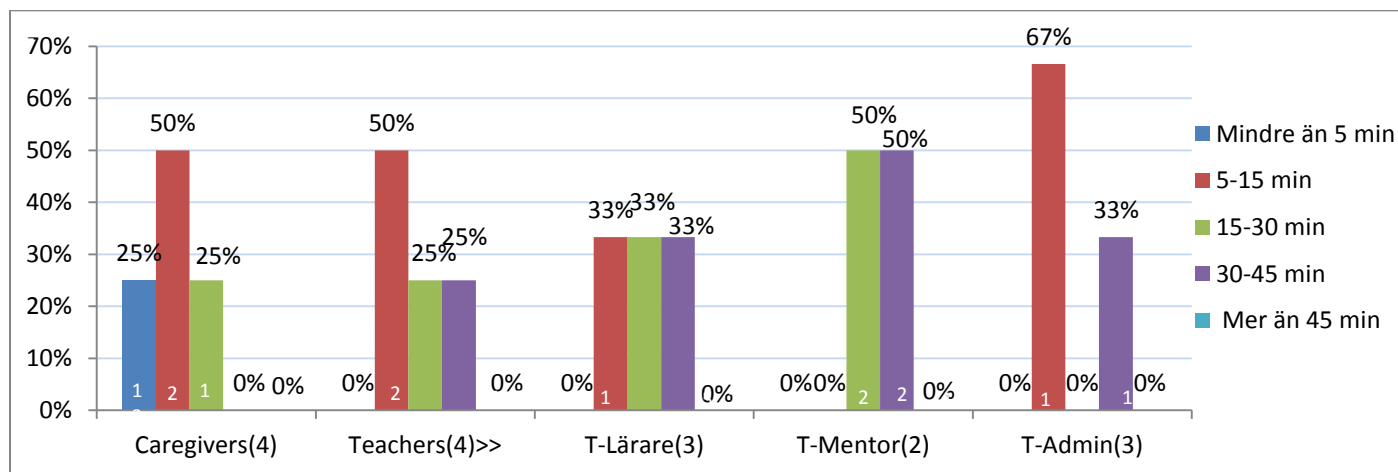


Appendix 4.5- Figure 7- Represent the number and the % number of participants as teachers per answer for the question (Jag logger in på Unikum som...)

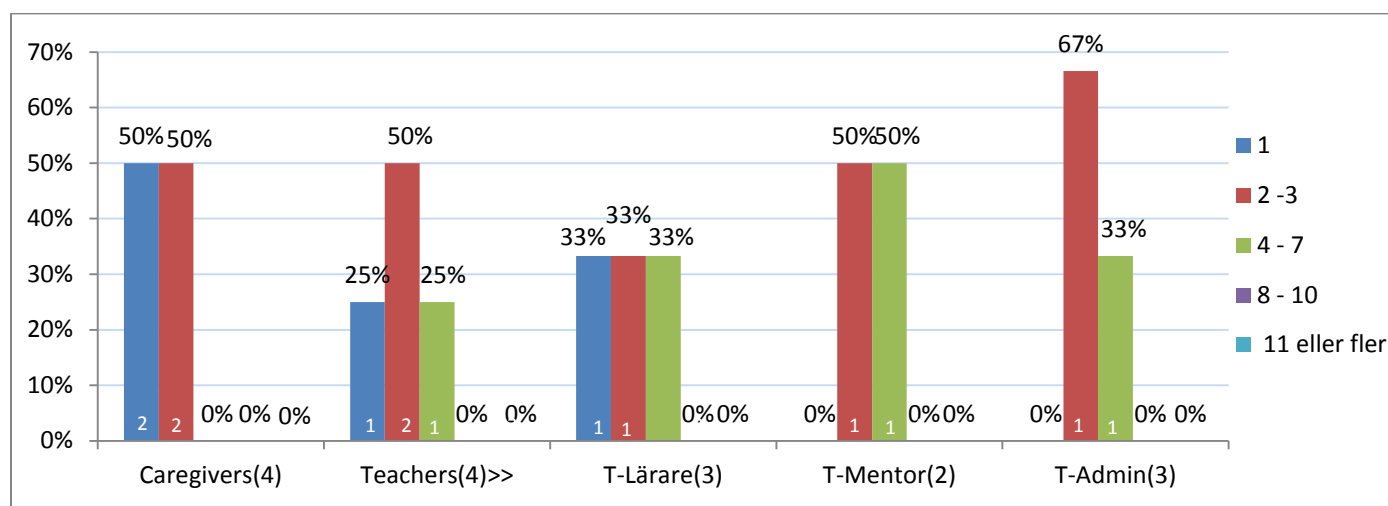


Appendix 4.5- Figure 8- Represent the number and the % number of participants as teachers, caregivers per answer for the question (Hur många gånger i veckan använder du Unikum?)

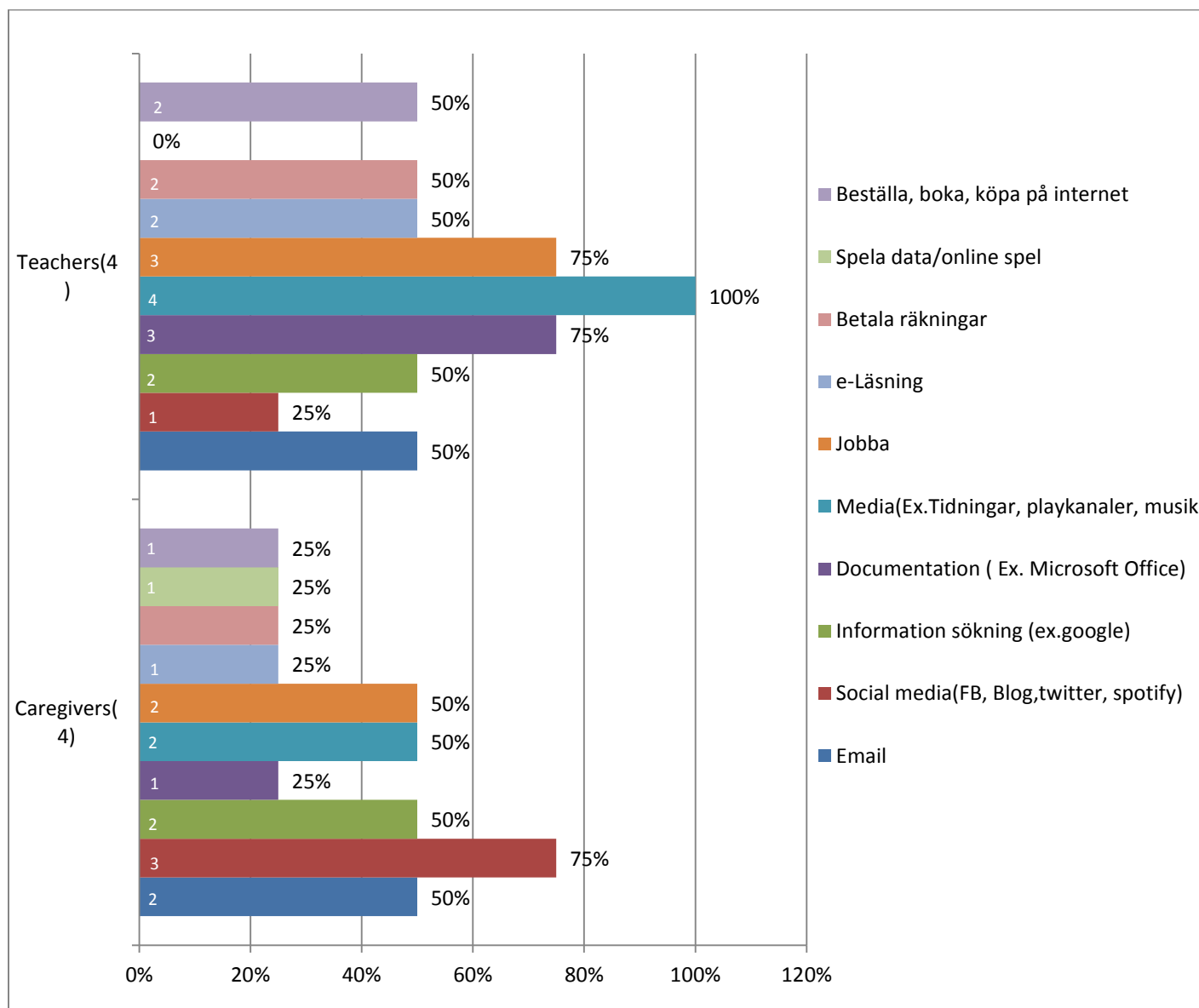
Note: The total number of caregivers here is 48 because there was 1 error answer was cancelled



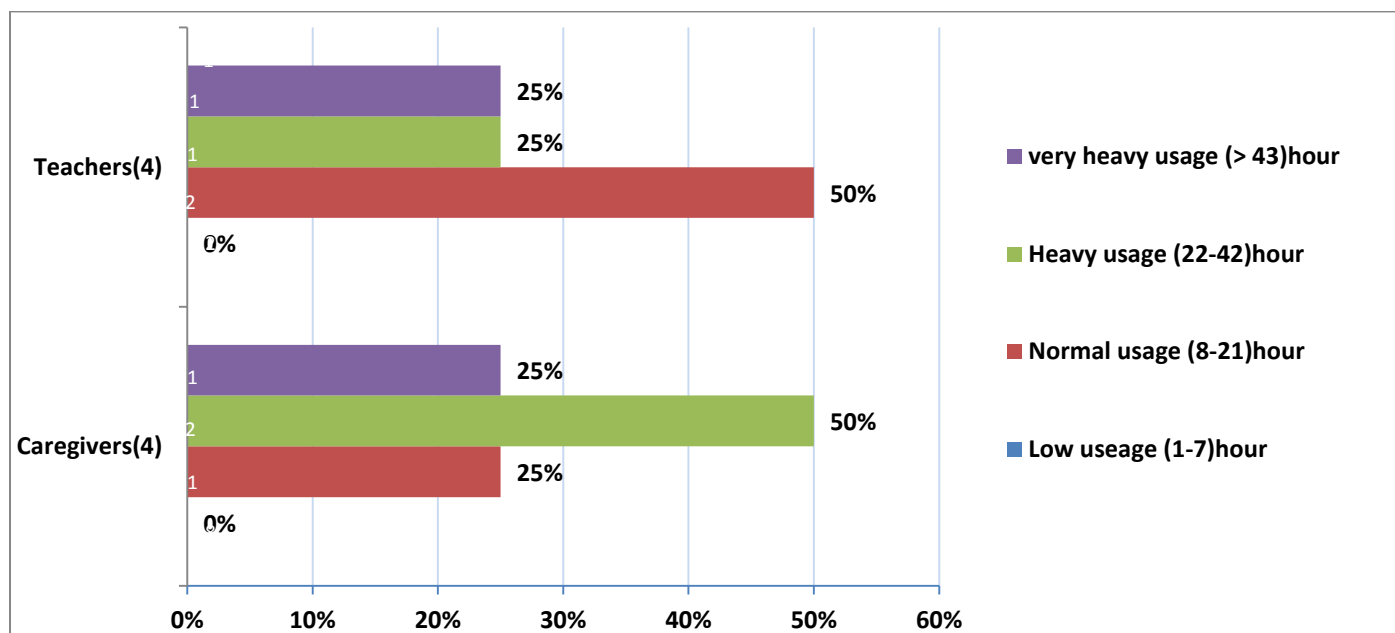
Appendix 4.5- Figure 9- Represent the number and % number of participants as teachers, caregivers per answer for the question (Hur lång tid per tillfälle använder du Unikum?)



Appendix 4.5- Figure 10 - Represent the number and the % number of participants as teachers, caregivers per answer for the question (Hur många uppgifter gör du per tillfälle använder du Unikum?)

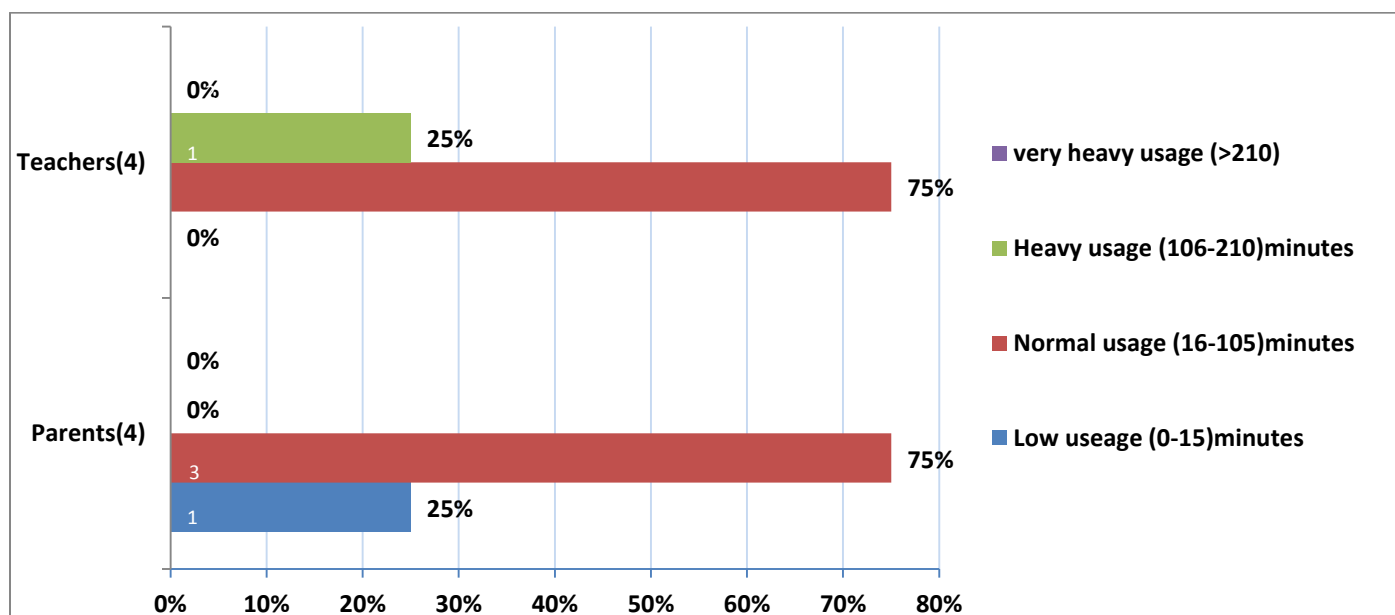


Appendix 4.5- Figure 11 - Represent the number of participants as teachers, caregivers per answer for the question (Vad brukar du göra när du använder datorn?)



Appendix 4.5- Figure 12 - Represent the number and the % number of participants as teachers, caregivers according to their hour usage of computer per week.

Note: one caregiver answer is cancelled.



Appendix 4.5- Figure 13 - Represent the number and the % number of participants as teachers, caregivers according to their usage of Unikum per a week in minutes.

Note: one caregiver answer is cancelled.