# All children in electronic focus

**Evaluation of the trainings for the Electronic Child Record**

August 2008 – Danielle M. Spoor MSc

Universiteit Twente
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*Master thesis*

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# Samenvatting

**Introductie**

Op dit moment wordt de registratie van kinderen bij de jeugdgezondheidszorg op papier gedaan. Volgens Burgmeijer (2007, p. 3) wordt informatieoverdracht tussen en binnen jeugdgezondheidszorgorganisaties inefficiënt gedaan en is de analyse van de informatie minimaal. Daarom is, vanaf 2009, de registratie van kinderen bij het consultatiebureau en bij de GGD verplicht elektronisch (Burgmeijer, 2007, p. 3). De verwachting is dat het EKD kinderen zichtbaarder maakt voor jeugdgezondheidszorg-organisaties; een betere overdracht van documenten naar andere organisaties of afdelingen mogelijk maakt; de professionalisering van de jeugdgezondheidszorg ondersteunt; een betere en snellere diagnose van risico's bij het opgroeien faciliteert; kinderen in risicosituaties volgt; nationaal en lokaal inzicht geeft in ontwikkelingen voor longitudinaal en epidemiologisch onderzoek (Burgmeijer, 2008, p.23). Dit heet het Elektronisch Kind Dossier (EKD).

In Nederland zijn verschillende organisaties druk bezig met het implementeren van het EKD. De gezondheidszorgorganisaties ZuidZorg en De Zorgboog (appendix 2), die in dit onderzoek centraal staan, werken samen bij de ontwikkeling en implementatie (door training van medewerkers) van een Elektronisch Kind Dossier voor kinderen van 0 tot 4 jaar. De zorg voor kinderen gaat op 4-jarige leeftijd over van het consultatiebureau naar de GGD.

De implementatie van het EKD binnen de ZuidZorg en De Zorgboog heeft plaatsgevonden nadat de medewerkers drie trainingen hadden doorlopen; een algemene computertraining, een EKD training en een CMC (communicatie met computer) training. De organisaties hebben eerst de trainingen gegeven aan een pilotgroep bestaande uit medewerkers van verschillende consultatiebureaulocaties in Eindhoven (1 locatie), Bladel (3 locaties) en Mierlo (2 locaties).

**Theorie**

Dit onderzoek heeft geprobeerd de Theory of Planned Behavior en de theorie van Van Dijk van de Vier fasen van toegankelijkheid tot ICT te combineren. Dit zou de Theory of Planned Behavior beter toepasbaar moeten maken voor het meten van gedragsintentie bij de implementatie van nieuwe ICT applicaties. De Theory of Planned Behavior is gebruikt als acceptatiemodel om te analyseren of de acceptatie voor het gebruik van het EKD toeneemt tijdens de trainingen. De theorie van Van Dijk is gebruikt om het belang te onderzoeken van toegang tot ICT bij gedrags(intentie) bij het gebruik van ICT applicaties.

Tevens is de Social Construction of Technology (SCOT) theorie gebruikt, welke veronderstelt dat artefacten zichzelf presenteren als essentieel verschillende technologieën voor verschillende sociale groepen (Bijker, 1987, p. 29-30), om vast te stellen of de interpretatieve flexibiliteit per medewerkersgroep verschilt en of er, gebaseerd of deze groepsresultaten, bepaalde acties zouden en moeten worden genomen. Voor dit onderzoek wordt deze theorie gebruikt om een beter

beeld te krijgen van de visies van de respondenten ten aanzien van het EKD en hoe het EKD invloed heeft op hun dagelijks werk.

De onderzoeksvragen zijn:

A. Wat is de invloed van training in het gebruik van het Elektronisch Kind Dossier op de intentie van medewerkers om het het Elektronisch Kind Dossier te gebruiken?
B. Wat is de invloed van het gebruik van ICT in het algemeen op de intentie van medewerkers om het Elektronisch Kinddossier te gebruiken?

**Methode**

Voor en na elk van de drie trainingen is aan de deelnemers van de trainingen gevraagd een vragenlijst in te vullen. Deze vragenlijsten zijn gebruikt als input voor dit onderzoek. De deelnemers (n=42) aan de pilot waren allemaal respondenten in dit onderzoek. De respondenten kunnen geplaatst worden in vier groepen, namelijk artsen, verpleegkundigen, assistenten en anders (voornamelijk ondersteunend personeel). Van de uitkomsten van de vragenlijsten zijn gemiddelden berekend, t-toetsen uitgevoerd en correlaties berekend.

**Resultaten**

Dit onderzoek geeft aan dat de respondenten positief zijn over het EKD maar minder positief over de invloed van het EKD op hun dagelijkse werkzaamheden. De meningen van de assistenten worden tijdens de trainingen positiever. De meningen van de verpleegkundigen zijn voor iedere training neutraal en na iedere training gemixed. De meningen van de artsen worden negatiever tijdens de trainigen. De meningen van de 'anderen' veranderen niet tijdens de trainingen. De assistenten werkten al met een ander deel van het EKD software programma, daarom is de invloed van de implementatie van het EKD op hun werk minimaal. De verpleegkundigen voeren ook werkzaamheden uit waarbij geen EKD wordt gebruikt, daarom heeft de implementatie van het EKD slechts consequenties voor een deel van hun werkzaamheden. De artsen verrichten alleen werkzaamheden waarbij het EKD nodig is, daarom is de invloed van de implementatie van het EKD voor deze groep het grootst.

*PC training*

Bij het vergelijken van de voor- en nameting van de pc training evaluaties geven de resultaten aan dat de respondenten geloven dat, gemiddeld genomen, de mensen in hun omgeving deelname van de respondent minder belangrijk vonden, minder collega's deelnamen aan de training, het minder werd verondersteld van de respondenten om deel te nemen. Tevens bleek dat men de training moeilijker, minder zinvol, minder fijn en/of minder interessant vond dan verwacht. Het is aannemelijk dat de respondenten hun collega's tijdens de trainingen niet hebben gezien en daarom deze vraag na de training minder positief hebben beantwoord.

Na de training waren de respondenten positiever, met betrekking tot de computer, over attractiviteit, interesse, ervaring, angst, gebruiksvriendelijkheid, het hebben gehad van training en het hebben van kennis en vaardigheden voor het gebruik van de pc. Gebruik en bezit zijn tijdens de pc training niet significant veranderd.

*EKD training*

Bij het vergelijken van de voor- en de nameting van de EKD trainingsevaluaties is gebleken dat de onderdelen van de Theory of Planned Behavior niet significant zijn veranderd. Er zijn wel significante verschillen gevonden voor de onderdelen Motivatie, Bezit en Vaardigheden (vier fasen van ICT toegankelijkheid). De respondenten gaven aan dat hun bezit van en hun vaardigheden in het EKD zijn toegenomen tijdens de trainingen. Hun motivatie om het EKD te gebruiken is juist afgenomen. Gebruik van het EKD is niet significant veranderd. Het is aannemelijk dat er geen toename is geweest in het gebruik van het EKD omdat de motivatie van de respondenten voor het gebruik van het EKD minder is geworden.

*CMC (communicatie met computer) training*

Bij het vergelijken van de voor- en nameting van de CMC training evaluaties is gebleken dat de onderdelen Attitude ten aanzien van gedrag en Gebruik significant zijn veranderd. De waardering van de respondenten voor het onderdeel Attitude ten aanzien van gedrag is significant minder positief geworden. Het is mogelijk dat geen van de andere onderdelen van de Theory of Planned Behavior zijn veranderd omdat de waarden al vrij positief waren. De respondenten hebben aangegeven dat het gebruik tijdens de CMC training is toegenomen. De onderdelen motivatie, bezit en vaardigheden zijn niet significant veranderd. Het is aannemelijk dat deze onderdelen niet zijn veranderd aangezien ze al vrij positief werden beoordeeld.

**Aanbevelingen voor implementatie van het EKD**

Op basis van dit onderzoek zijn de onderstaande aanbevelingen voor implementatie van het EKD gedaan.

1. Bij de introductie van het EKD is het verstandig te analyseren op welke groep de implementatie het meeste invloed heeft. Speciale aandacht moet gegeven worden aan deze groep. In deze organisaties is dat de groep van de artsen omdat zij op hun werkplek nog niet gewerkt hebben met de pc en de pc nodig hebben voor al hun werkzaamheden. Deze speciale aandacht kan gegeven worden in de vorm van extra ondersteuning bij de trainingen, het oefenen en in de praktijk.
2. Het is belangrijk dat er meer aandacht wordt besteed aan de positieve invloed die het EKD kan hebben op het werk van de medewerkers voordat zij aan de trainingen beginnen (zie ook: Stanley, 2001). Over het algemeen worden de respondenten negatiever over het EKD tijdens de trainingen, omdat de respondenten tijdens de trainingen beginnen te realiseren wat de

invloed van het EKD op hun werk zal zijn. Indien mensen voor aanvang van de trainingen positief zijn over de invloed van het EKD op hun werk is de kans kleiner dat ze een negatieve mening zullen vormen tijdens de trainingen. Daarom moet het worden geprobeerd om de mening van de medewerkers positief te beïnvloeden. Dit kan gedaan worden door de nadruk te leggen op de verbeteringen die er komen door het EKD, op de extra informatie die de teams kunnen ontvangen over hun wijk en door het delen van de ervaringen van de eerste deelnemers van de trainingen met de medewerkers die de trainingen nog moeten gaan volgen.

3. Het gebruik van de computer is nieuw voor sommige medewerkers en relatief nieuw voor anderen. Om snel de vaardigheden van de medewerkers bij het gebruik van de pc te vergroten moet er meer nadruk worden gelegd op het gebruik van de pc. De organisatie (de managers) kunnen proberen het gebruik van de pc te vergroten door de medewerkers te motiveren e-mails te sturen, memos te schrijven op de pc en documenten op te zoeken via internet/intranet.
4. Het is mogelijk dat vaardigheden en gebruik vergroten voor de EKD training indien medewerkers mogen oefenen met het EKD voor aanvang van de training. Medewerkers zouden kunnen oefenen in een beveiligde omgeving, zoals tijdens de simulatie trainingen, via e-learning of door het oefenen met een cd-rom. Ondersteuning door meer ervaren medewerkers kan ook behulpzaam zijn.
5. Het gebruik van het EKD programma kan vergroot worden door medewerkers eerder in de trainingen toegang tot het software programma te geven.
6. Na de EKD training verandert het gebruikt niet significant. Dit betekent dat de respondenten niet hebben geoefend met het EKD programma voor aanvang van de CMC training zoals er van hen verwacht werd. Het vergroten van de motivatie van de medewerkers of het afnemen van een toets kan het gebruik laten doen toenemen.
7. De medewerkers van de pilot zijn gekozen aan de hand van hun enthousiasme voor het EKD. Het is aannemelijk dat de rest van de medewerkers minder enthousiast is, waardoor er meer aandacht moet worden gegeven aan het enthousiast maken van de medewerkers die nog niet in het EKD geschoold zijn.

De aanbevelingen voor verder onderzoek zijn gegeven in hoofdstuk 7.

# Summary

**Introduction**

At this moment the registration of child healthcare is done in paper files. According to Burgmeijer (2007, p. 3) information transfer is done inefficiently and the analysis of information is done minimally. Therefore, as of 2009, the registration of children at consultation bureaus and regional health departments (GGD's) will have to be done electronically (Burgmeijer, 2007, p. 3). The ECR is expected to make all children more visible to child healthcare organizations; to create a better transfer of documents to other organizations or departments; to support the professionalization of the healthcare providers; to facilitate a better and quicker diagnosis of the risks while growing up; to track children in risk-situations; to provide national and local insight in developments and longitudinal and epidemiological research (Burgmeijer, 2008, p. 23). This is called the Electronic Child Record (ECR).

In the Netherlands several organizations are busy implementing the ECR. Healthcare organizations ZuidZorg and De Zorgboog (see appendix 2), who are central in this research, are working together in developing and implementing (through training employees) an Electronic Child Record for children of ages from 0 to 4. At age 4 the children are transferred to the GGD. The implementation of the ECR within the ZuidZorg and De Zorgboog took place after the healthcare staff had received three trainings (computer skill training, ECR-software training and a usage training of the software during a consult). The organizations first gave the trainings to a pilot group which consisted of the employees of several consultation bureau locations in Eindhoven (1 location), Bladel (3 locations) and Mierlo (2 locations).

**Theory**

This research has tried to combine the Theory of Planned Behavior and Van Dijks theory of the Four phases of access to ICT, which would make the Theory of Planned Behavior more applicable for measuring behavioral intention with the implementation of new ICT applications. The Theory of Planned Behavior is used as a acceptance model to analyze whether the acceptance of the use of the ECR increases during the trainings. The theory of Van Dijk is used to research the importance and influence of access to ICT on behavior(alintention) of using an ICT application.

In addition, the Social Construction of Technology (SCOT) theory approach, which suggests that artifacts present themselves as essentially different technologies to different social groups (Bijker 1987, p. 29-30), is used to determine if the interpretive flexibility varies per employee group and if, based on these group results, particular action should and can be taken. For this research this theory is used to get a view on the respondent's visions on the ECR and how the ECR is affecting their work.

The research questions are:

*A. What is the impact of training in the use of the Electronic Child Record on employee's intention to use the Electronic Child Record?*

*B. What is the impact of use of ICT in general on employee's intention to use the Electronic Child Record?*

**Method**

Before and after each of the three trainings the participants of the trainings were asked to fill out a questionnaire. These questionnaires were used as input for this research. The participants (n = 42) of the pilot were all respondents in this research. The respondents can be placed into four categories, namely doctors, nurses, assistants and others (mainly support staff). The results to the questionnaires were used for testing means, performing t-tests and calculating correlations.

**Results**

This research shows that the respondents are positive toward the ECR but less positive about the influence the ECR has on their work. The views of the assistants become slightly more positive during the trainings. The views of the nurses start neutral before training, but become mixed after each training. The views of the doctors become more negative during the trainings. The views of 'others' do not change during the trainings. The assistants had already been working with another part of the ECR software program; therefore the impact of the implementation of the ECR had a minimal influence on their work. The nurses also perform tasks that do not include the use of a computer; therefore the implementation of the ECR only has consequences on parts of their work. The doctors only perform consult and therefore use the ECR constantly. The impact of the implementation of the ECR is on all their work and therefore the impact of the implementation of the ECR is the biggest for this group.

*PC training*

When comparing the pre- and post pc-training evaluations the results show that the respondents believe that, on average, the people around them found participating of the respondent in the training less important, less colleagues participated in the training, it was less expected of the respondents to take part in the training. The results also show that the participants believed the training was less easy, less useful, less nice and/or less interesting than they had anticipated. It is likely that the respondents didn't see their colleagues during the training and therefore answered this question as less positive in the post training measurement.

After the training the respondents were more positive about the computer on the topics attractiveness, interest for the pc, experience with the pc, fear for the pc, user friendliness of the pc, the receiving of training in using the pc and having knowledge and skills for using the pc. Usage and possession did not change significantly.

*ECR training*

When comparing the pre and post ECR training evaluations the constructs in the Theory of Planned Behavior did not change significantly. There have been found significant differences for the constructs Motivation, Possession and Skills (Four phases of ICT access). The respondents said that there possession of the ECR software and their skills in the ECR software have increased during the training. Motivation to use the ECR became less. Usage did not change significantly. It could be that there was no increase in usage because the motivation of the respondents to use the ECR went down.

*ECR during consult training*

When comparing the pre and post training ECR during consult evaluations the results show significant differences for the constructs Attitude toward behavior and Usage. The appreciation of the respondents for the construct Attitude toward behavior has become significantly less positive. It could be that none of the other TPB-constructs changed significantly because the values were already ranked very positive. The respondents have ranked the construct Usage as more positive after the training. Which means that the respondents report they have used the ECR a lot more after the ECR during consult training than before the training. The constructs Motivation, Possession and Skills did not change significantly. It could be that these constructs did not change significantly because the values were already very positive.

**Recommendations for implementation of the ECR**

Based on this research the following recommendations are made for the implementation of the ECR.

1. With the introduction of the ECR it should be analyzed on which group the implementation has the most impact. Special attention should be given to this group of employees. In these organizations this group is the doctors because they had not been working with the computer professionally before and need to work with the computer for all their activities. This special attention can be given by extra support during the trainings, practice and when using the ECR during consult.
2. It is important that more attention is paid to the positive influence the ECR can have on the work of the employees, before they begin their training (also see: Stanley, 2001). Overall the respondents become more negative about the ECR during the trainings, which shows that the respondents start realizing what the influence of the ECR is on their work during the trainings. When people are positive about the influence of the ECR on their work before the training it will be less likely they will become negative about the ECR during the trainings. Therefore it should be attempted to influence the view the employees have about the ECR in a positive way. This can be done by focusing on the possible improvements of the ECR, on the extra information

the team can receive about their neighborhoods and by sharing the experiences of the first groups who received the trainings with the other groups.

3. The use of the pc is new for some of the employees and rare for others. To quickly increase the skills of the employees on the pc more efforts should be made to increase the usage of the pc. The organization (management) can try to increase the use of the computer by the employees by encouraging them to send emails, write memos and find documents on the intranet/internet.
4. It is possible that skills and usage would increase before the ECR training if people were allowed to practice with the ECR software before the training. Employees could practice in a save environment, like during the ECR during consult simulations, via e-learning or by practicing with a cd-rom. Support by more experienced colleagues could be helpful too.
5. Access to the ECR software is currently only allowed after the ECR training. Management should make access to the ECR software available earlier, because it is possible this will increase usage.
6. After the ECR training usage doesn't improve significantly. This means the respondents haven't practiced with the ECR software before the ECR during consult training as was expected of them. Increasing the motivation of the people or administering a test might increase the usage of the software.
7. The employees in the pilot were chosen on the enthusiasm for the ECR. It is likely that the rest of the employee are less enthusiastic, therefore more attention should be given to making the employees (not apart of the pilot) enthusiastic about the ECR.

The recommendations for further research are given in chapter 7.

## Preface

The last couple of months I have been following the behavior changes in people of a healthcare organization who were forced to start working with a computer in their daily activities. I have seen how they reacted to this challenge and how they worked together in adopting this new way of working. It has shown me that when people work together they can overcome of lot of barriers.
When things change in a person's environment, at work or in their personal lives, this can bring skepticism and fear for the unknown and the future, or the unknown future. The individuals that have these emotions need time, skill-development and understanding to be able to move forward with their lives.
It is a difficult job that takes patience to guide people towards the unknown future. It takes special people to provide this guidance. It also takes determined people to accept and use this guidance, especially when the end result is unclear or ever changing.
The desired end results of a certain change are never guaranteed and might even change along the way. It takes time and effort to stay focused on a goal and to eventually get there. A person will have to overcome the risk of failure and will have to review their self-assessment.

I would like to thank all the people that have been, and hopefully will be, supporting me. Especially my university supervisors Prof. Dr. Nelly Oudshoorn and Prof. Dr. Jan van Dijk, the project leaders Wim Burgmeijer, Gonnie Lucassen and Annette Kellenaers and on a more personal note Marian Aben and Patrick van der Velden. I am proud of my friends and family for the love, care, support, understanding and patience they have shown me over the past couple of years. I know it couldn't have been easy for them.
I am also proud of myself for keeping the promise to my father in getting this masters degree.

Sincerely,

Daniëlle M. Spoor MSc
August 2008

# Table of contents

# 1. Introduction

Because of the law on collective preventive public health (Wet collectieve preventie volksgezondheid) cities offer children up to 19 years of age integral child healthcare. Child healthcare in The Netherlands focuses on the improvement of the psychological, social, cognitive and physical development of children. Child healthcare does this at individual level by referral to adequate interventions or organizations and at population level by making child healthcare information more accessible. At this moment the registration of child healthcare is done on paper files. According to Burgmeijer (2007, p. 3) information transfer, when for example children move, is done inefficiently and the analysis of information is done minimally because of the difficulty in accessing the information. Therefore, as of 2009, the registration of children at consultation bureaus and regional health departments (GGD's) will have to be done electronically (Burgmeijer, 2007, p. 3). The minister of healthcare, policymakers and care organizations expect that the ECR can make an important contribution to improving child healthcare. The ECR is expected to make all children more visible to child healthcare organizations; to create a better transfer of documents to other organizations or departments; to support the professionalization of the healthcare providers; to facilitate a better and quicker diagnosis of the risks while growing up; to track children in risk-situations; to provide national and local insight in developments and longitudinal and epidemiological research (Burgmeijer, 2008, p. 23). This is called the Electronic Child Record (ECR).

In the Netherlands several organizations are busy implementing the ECR. Healthcare organizations ZuidZorg and De Zorgboog (see appendix 2), who are central in this research, are working together in developing and implementing (through training employees) an Electronic Child Record for children from ages 0 to 4. At age 4 the children are transferred to the GGD[1]. A social map of the actors involved in the development of the ECR is presented in appendix 1.

A risk analysis shows that the success of implementation of the ECR depends for 70% on people and for 30% on technology (Burgmeijer, 2007, p. 23). Venkatesh (2003) agrees and states 'for technologies to improve productivity, they must be accepted and used by employees in organizations'. Therefore the emphasis of this research is placed on people and their behavior (intention) with respect to the ECR. A high involvement of all the child healthcare employees is seen as of high significance for the implementation of the ECR. The two organizations mentioned above were therefore interested in knowing more about the views their employees had on the ECR. Secondly they were interested to know more about the impact of the trainings they were giving to their employees to make them more familiar with the ECR and the computer.

[1] The local departments (Zuid-Oost Brabant and Eindhoven) of this organization are also in the cooperation for the introduction of the ECR, but will not be a part of the scope of this research.

## *1.1 Studies on the Electronic Child Record*

The ECR is a new phenomenon in the Dutch IT and health care sectors. Also in other countries like the United States the ECR is still under development. Therefore when searching for research on the ECR results about EMRs (Electronic Medical Record) and EHRs (Electronic Health Record) focused on children have been included as well.

The research on ECRs, EMRs and EHRs focused on children investigated the reasons for and against the adoption of an electronic record (Gioia, 2001; Adams, Mann & Bauchner, 2003), error detection and reduction (Jacobs, 2007), usage of the EHR by professionals working with children (Menachemi, Ettel, Brooks & Simpson; 2006), pediatric growth charts (Rosenbloom, Qi, Riddle, Russell, ConLevy, Giuse, Sedman & Spooner; 2006), other special requirements (Spooner, 2007) and patients' needs (van 't Riet, Berg, Hiddema & Sol; 2001).

Gioia (2001) and Adams (2003) have suggested that the quality improved in pediatric care because of the electronic record. Menachemi et al. (2006) showed that there is a problem with the adoption of the ECR. Especially pediatricians, in Florida, were significantly slower than other doctors to adopt EHRs. This could be because an ECR 'is expensive to develop and more complicated to use' (Rosenbloom, 2006), 'eye-to-eye contact with patients was reduced' (Adams, 2003), 'the ECR increased the duration of visits' (Adams, 2003), pediatricians 'perceived disruption of a demanding clinical workflow' (Adams, 2003; Menachemi et al., 2006), pediatricians were concerned about the 'usability of available software' (Adams, 2003), pediatricians have had 'negative previous experiences using computers' (Adams, 2003), pediatricians feared 'limited support at the point-of-care' (Adams, 2003), and pediatricians feared 'high cost of available systems' (Adams, 2003; Menachemi et al, 2006).

Menachemi et al. (2006) noted that many EHR vendors may not have designed their systems around pediatric needs. Spooner (2007) has done research on the applicability of the EHR (for adults) to children. He has formulated a list of items that should be added to the EHR before it can be adequately used for children.

The question how training can shape the acceptance of the ECR by professionals in child health care has not yet been researched by other researchers.

Therefore the general research questions were:

*A. What is the impact of training in the use of the Electronic Child Record on employee's intention to use the Electronic Child Record?*

*B. What is the impact of use of ICT in general on employee's intention to use the Electronic Child Record?*

The research questions and the sub questions will be further explained in chapter 3 (method).

## *1.2 Layout of the thesis*

In the next chapters the theoretical framework of SCOT, the Theory of Planned Behavior and the Four phases of ICT access (chapter 2) for this research are presented. In chapter 3 the method for the current research is explained. The results (chapter 4), conclusions (chapter 5), discussion (chapter 6) and recommendations (chapter 7) will be presented in their respective order. In the appendices background information on the social map (appendix 1), the organizations (appendix 2), other theoretical frameworks (appendix 3), the questionnaire (appendix 4) and the SPSS results (appendix 5) can be found.

# 2. Theoretical framework

The current work processes in both organizations (ZuidZorg and Zorgboog) do not include the use of computers. Therefore it cannot be assumed that the employees have the necessary skills to use the Electronic Child Record. A digital divide between younger and older employees is possible and should be taken into account. The divide's topography is defined by psychological factors as well as access (Stanley, 2001). Non-computer users perceive the drawbacks associated with the acquisition of computer skills as quite high in three key aspects: effort, perceived ineptitude, and fear. Not wanting to risk failure, the potential users in the study of Stanley (2001) were reluctant to challenge their negative self-assessments. The willingness of non-computer users to engage with this new technology would be increased if their assumptions, fears, and preconceived ideas about computers were pre-emptively addressed.

To gain a good understanding of their views, assumptions, fears and preconceived ideas, employees will be questioned using the SCOT analysis, the Theory of Planned Behavior and the Four phases of access to ICT. The Theory of Planned Behavior will be the central theory and will be used as an acceptance model.

## *2.1 SCOT analysis*

According to the Theory of the Social Construction of Technologies (SCOT), the development of technologies does not follow a linear model. Rather, the developmental process of a technological artifact shows alternating phases of different interpretations of the meaning of a technology by different socially relevant groups and stabilization whereby the interpretative flexibility of an artifact vanishes (Naber, 2007).

In the SCOT descriptive model, relevant social groups are the key starting point. Technical artifacts do not exist without the social interactions within and among social groups. The design details of artifacts are described by focusing on the problems and solutions that those relevant social groups have with respect to the artifact. Thus, increasing and decreasing degrees of stabilization of the artifact can be traced.

A crucial concept in SCOT is interpretative flexibility. The interpretative flexibility of an artifact can be demonstrated by showing how, for different social groups, the artifact presents itself as essentially different artifacts (Bijker, 1987, p. 29-30).

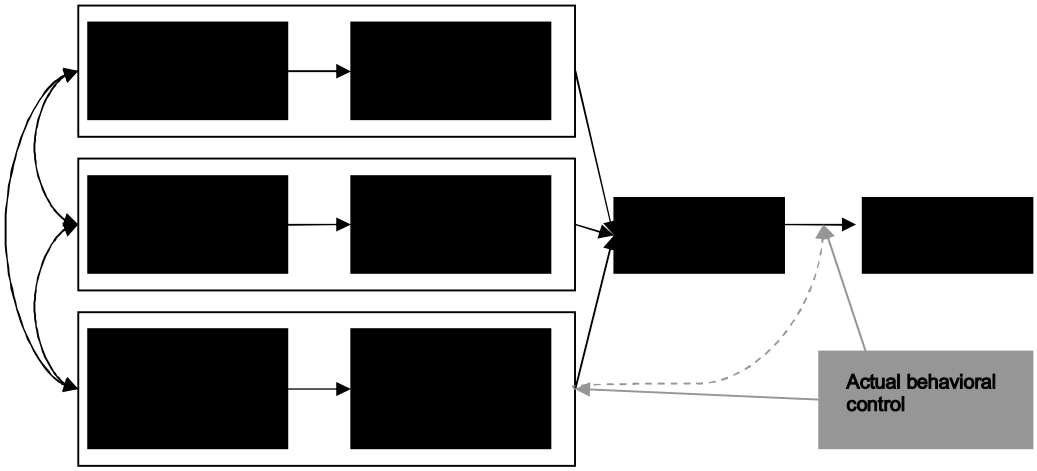
In this research SCOT is used to determine whether the interpretive flexibility (meanings employees attribute to the ECR) varies per employeegroup and if based on these groupresults particular action should and can be taken. This research will be used to assess the respondent's views about the ECR and how it is affecting their work.

## *2.2 Theory of planned behavior (TPB)*

Besides the interpretative flexibility of SCOT, the current research also looks at other possible reasons in the acceptance of the ECR.

Theoretical models like the Theory of Planned Behavior 'routinely explain over 40 percent of the variance in individual intention to use technology' (e.g. Davis et al., 1989; Taylor and Todd 1995; Venkatesh and Davis, 2000). According to the Theory of Planned Behavior (Fishbein & Ajzen) (for alternative theories see appendix 3), human action is guided by three kinds of considerations: beliefs about the likely outcomes of the behavior and the evaluations of these outcomes (Behavioral beliefs), beliefs about the normative expectations of others and motivation to comply with these expectations (Normative beliefs), and beliefs about the presence of factors that may facilitate or impede performance of the behavior and the perceived power of these factors (Control beliefs). In their respective aggregates, Behavioral beliefs produce a favorable or unfavorable attitude toward the behavior; Normative beliefs result in perceived social pressure or Subjective norm; and Control beliefs give rise to Perceived behavioral control (Ajzen, 2006). Figure 2 is a schematic representation of the theory (Ajzen, 2006).

Figure 2. Schematic representation of the Theory of Planned Behavior.




Research from Venkatesh, Morris, Davis & Davis (2003) suggests that social influences do matter; however, they are more likely to be salient to older workers, particularly to women, and even then during early stages of experience/adoption.

- Subjective norm is only significant in mandatory implementation (Venkatesh et al., 2003).
- Perceived behavioral control is significant in both voluntary and mandatory settings immediately following training (Venkatesh et al., 2003).
- The attitude construct is significant and is also the strongest predictor of Behavioral intention (Venkatesh et al., 2003).

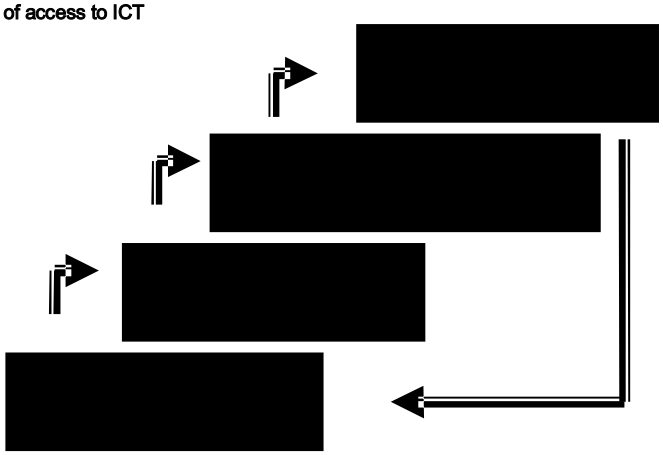
In combination, attitude toward the behavior, subjective norm, and perception of behavioral control lead to the formation of a Behavioral intention. As a general rule, the more favorable the attitude and subjective norm, and the greater the perceived control, the stronger should be the person's intention to perform the behavior in question. Finally, given a sufficient degree of actual control over the behavior, people are expected to carry out their intentions when the opportunity arises. Intention is thus assumed to be the immediate antecedent of behavior. However, because many behaviors pose difficulties of execution that may limit volitional control, it is useful to consider perceived behavior control is veridical; it can serve as a proxy for actual control and contribute to the prediction of the behavior in question.

No assumption is made that salient beliefs are internally consistent. People's attitudes toward a behavior can be ambivalent if they believe that the behavior is likely to produce positive as well as negative outcomes…Consequently, internal consistency is not a necessary feature of belief composites (Ajzen, 2006).
The Theory of Planned Behavior is used as an acceptance model to analyze whether the acceptance of the use of the ECR increases during the trainings.

## *2.3 Four phases of access to ICT*

Van Dijk has identified four types of access to ICT and has put them in sequential order: Motivation, Possession, Skill and Usage. His model (figure 3) is being developed from the viewpoint of the potential user for which the technology should be accessible (Van Dijk, 2005, p. 25).

Figure 3. Phases of access to ICT



*Motivation*

First of all the potential users should have enough motivation to use ICT. The restrictions vary from a minimal interest for or need for this technology to actual fear of a computer (Van Dijk, 2003, p. 14). Van Dijk (2001) describes motivation as a lack of attention and experience: unattractiveness of and even fear of digital technology (psychological access). With this group there is often spoken about information-want-nots instead of information-have-nots (Van Dijk, 2003, p. 16). Self-concept and/or cultural identity can significantly interfere with one's motivation to become computer literate (Stanley, 2001).

*Possession*

When people are motivated to use ICT, they should also have significant material means, like hardware, software and services (Van Dijk, 2003, p. 14). Material accessibility is grouped in possession of or public access to digital technology (Van Dijk, 2001). Material access is differentiated as physical access and conditional access. Physical access is the entry to hardware, operational software and services of computers, networks, and other digital technologies. Conditional access is the provisory entry to particular applications, programs, or contents of computers and networks (Van Dijk, 2005, p. 48). Stanley (2001) shows that cost as a primary barrier to ownership may be obscuring a more complex relationship between economics and attitudes associated with ethnicity and technology than previously examined. Non-computer users often feel embarrassed by their lack of computer literacy. Fear and self-doubt are the most formidable obstacles contributing to someone's computer literacy (Van Dijk, 2003, p. 18).

*Skills*

When owning a computer people should be able to work with the technology. Computer ownership does not always accurately reflect computer literacy (Stanley, 2001). When operational skills are present they can be used for searching, process and usage of information (information-skills) and the application of this as means of reaching a certain goal at work, during education or in spare time (strategic skills) (Van Dijk, 2003, p. 14). Van Dijk (2001) describes how a lack of digital skills can be caused by a shortage of user friendliness of the application and by a lack of education and/or training (accessibility of knowledge and skill).

*Usage*

The final phase is the actual usage of ICT in different contexts (Van Dijk, 2003, p. 14). Van Dijk (2001) emphasizes that it is important to take into account the amount of time spent on a computer, places were the computer is used, applications used and costs of usage (Van Dijk, 2003, p.33).

The places were the computer is used has not been taken into account because this research only concerns usage at work. The cost of a computer has also not been taken into account, because the computers are supplied by the organization. Differences in motivation, skill and usage are determined by the societal position a person has (van Dijk, 2001). Taking part in certain societal networks and of a culture of reading also influences the speed with which, and the extent to which, people can make the digital world their own (Van Dijk, 2003, p.8). These aspects have not been included in this research, because the societal networks and being a part of a culture of reading will, probably, not vary greatly between people who work in child care organizations.

The Theory of Planned Behavior was used as an acceptance model to analyze whether the acceptance of the use of the ECR increases during the trainings. The theory of Van Dijk was used to test the importance and influence of access to ICT on behavior and intention of behavior of using an ICT application.
In addition, the Social Construction of Technology (SCOT) theory was used to determine if the interpretive flexibility varies per employeegroup and if, based on these groupresults, particular action should and can be taken. For this research the theory was used to get a view on the respondent's visions on the ECR and how it is affecting their work.
The current research has tried to combine the Theory of Planned Behavior and Van Dijks theory of the four phases of access to ICT and develop a new theoretical model, which would make the Theory of Planned Behavior more applicable for measuring behavioral intention with the implementation of new ICT applications. The importance and influence of access to ICT on behavior and intention of behavior of using an ICT application was tested. The outcomes of these tests are given in the chapter results.

# 3. Method

A literature study was conducted and revealed the theoretical framework above. This framework is used to evaluate the implementation of the Electronic Child Record in the organizations during the trainings qualitatively (SCOT) and quantitatively (TPB and accessibility to ICT). The main method consisted of a questionnaire that will be described in section 3.4.

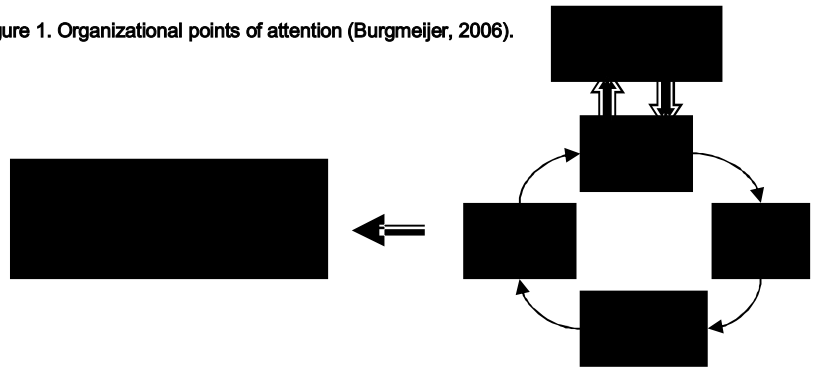
## *3.1 Electronic Child Record*

In the ECR information about the child, their family and their environment is included. Currently each organization can choose their own ECR software package (from a selected group). In the future these software packages are going to be linked to each other. Different organizations can then enter their signals into a child's file without other organizations being able to view the content of the file. This is done to protect the child's privacy. When a certain amount of signals have been put into a child's record a notice will be sent to all the participating organizations which says they need to assemble for a meeting.

## *3.2 Problem statement*

For the introduction of the ECR into the organizations an adjusted PDCA-cycle (Plan, Do, Check, Act) was used, see figure 1 (Burgmeijer, 2007). The two main axes were the hard axis (plan and check) and the soft axis (do and act). The steps Plan, Do and Check have been established during the exploration phase of the implementation of the ECR within the organizations ZuidZorg and Zorgboog. The focus of this research is mainly on the Act phase in which attitude and behavior(intention) during the training of the employees for the ECR is central. This research will not use or test this model. The model is given to explain why the focus of this research is on attitude and behavior (ACT, cultuur).

Figure 1. Organizational points of attention (Burgmeijer, 2006).



## *3.3 Training*

The current work processes in both organizations (ZuidZorg and Zorgboog) do not include the use of computers. Only consultation bureau assistants at ZuidZorg had been using the computer for some tasks. The employees could miss the necessary skills to use the Electronic Child Record; therefore the employees received trainings before the introduction of the ECR.

The implementation of the ECR within the organizations took place after the healthcare staff had received three trainings (computer skill training, ECR-software training and a usage training of the software during a consult). The organizations first gave the trainings to a pilot group which worked at several consultation bureau locations in Eindhoven (1 location), Bladel (3 locations) and Mierlo (2 locations). During this period the current research was done.

After each training the trainees were given two weeks to practice what they had learned. After this two-week period the next training was given. The computer skill training and the ECR-software training were practiced in a digital learning environment; the usage training was practiced in a work setting. The trainings were given in March and April of 2008. During and after the summer the other locations of the organizations are given the trainings.

The participants (n = 42) of the pilot are all respondents in this research, which consisted of six teams (locations). The pilot teams were chosen by the organization based on two criteria. Firstly the cities in which the teams worked had to be willing and able to financially support the pilot training. Secondly, the teams were selected on their enthusiasm. The respondents can be placed into four categories, namely doctors, nurses, assistants and others (mainly support staff).

## *3.4 Operationalization of evaluation*

The respondents were given an evaluation form. This form was based on the standard questionnaire for the Theory of Planned Behavior with added questions based on the Four phases of access to ICT and open-ended questions in line with the SCOT model.

*SCOT*

The open ended questions used for the SCOT analyses were 'what is your view on the Electronic Child Record?' and 'does the ECR change the work processes? If so, how?'. For the SCOT model the social groups identified were doctors, nurses, assistants and others. The answers were categorized on a scale as shown in table 1.

Table 1. Categories of responses

| | Response |
|---|---|
| 1 | Negative |
| 2 | Minimally negative |
| 3 | Neutral |
| 4 | Minimally positive |
| 5 | Positive |
| 9 | No answer |

*Four phases of ICT access*

The topic of the questionnaire differed per training. The topic of the first two questionnaires was on the PC, the third and fourth on the ECR and the fifth and sixth on the use of the ECR during consult. Therefore the questions in the questionnaire varied, especially for the fourth phase of ICT adoption (usage). In table 2 usage of the PC, ECR and ECR during consult is operationalized. The questions in the PC questionnaire were derived from Van Dijk (2001). The questions in the ECR questionnaire were derived from the manual of the ECR. The questions in the ECR during consult questionnaire were derived from a procedure developed by the organization for usage of the ECR during consult.

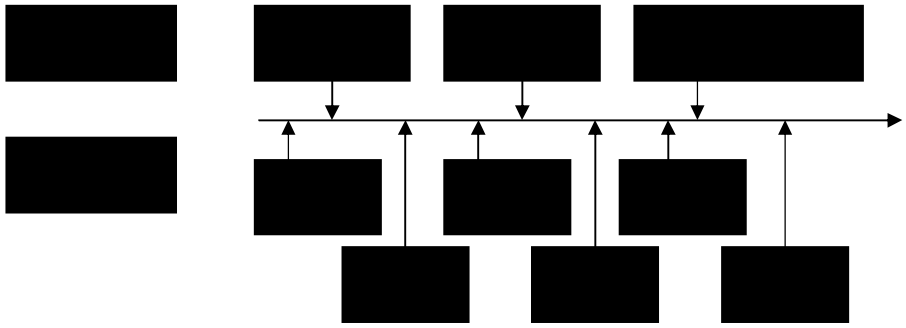
Table 2. Operationalization of Usage

| **Usage in PC evaluation form** | **Usage in ECR evaluation form** | **Usage in ECR during consult training** |
|---|---|---|
| 1. I use the computer | 1. I use the ECR | 1. I use the ECR during consult |
| 2.... for internet/email | 2. … for registration activities | 2. I use an open approach / eye contact during consult |
| 3. … for (Word/Excell) | 3. … for registration interventions | 3. I let parents view the ECR during consult |
| 4. … for presentations | 4. … for registration 'episodeblad' | 4. I can 'park' questions during consult for later. |
| 5. … for imaging | 5. … for registration in 'logboek' | 5. I register globally except for special things. |

*The questionnaire*

The questionnaire was evaluated by a bachelor student in psychology and a professor technology dynamics and healthcare and was adjusted based on their input. The respondents were asked to fill out the questionnaire before the training and two weeks after the training (see figure 4). Because there were three different trainings the respondents were asked to fill out six questionnaires in total. The results of the questionnaire were analyzed using SPSS 13.0.

Figure 4. The trainings with moments of evaluation



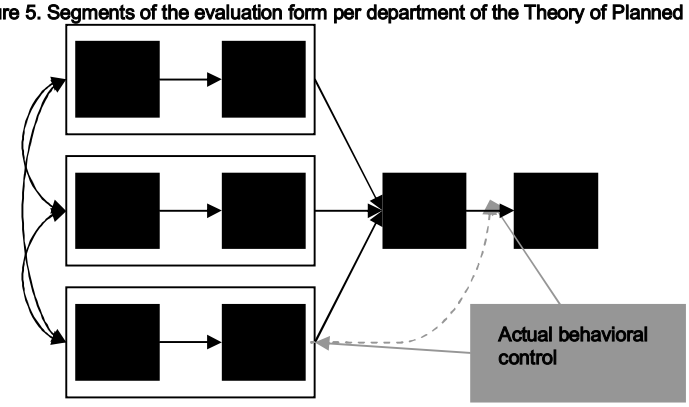
## *3.5 Analysis*

The results were analyzed by:

- scoring the outcomes of the SCOT related questions,
- testing the descriptive statistic for abnormalities,

- certain questions were recoded using SPSS, so all the answer scales went from negative to positive
    - Perceived behavioral control: question 3;
    - Subjective norm: questions 1, 2, 4, 5, 6;
    - Attitude toward behavior: questions 2, 3, 4, 5, 6;
    - Control beliefs: questions 1, 2, 3, 4, 5;
    - Normative beliefs: questions 1, 2, 3, 4;
    - intention: question 1;
    - pc Skills: questions 2, 3, 5, 6, 7, 8, 9,10)
- the pre- and post-training results were compared (t-test) to find significant differences,
- correlations were tested for the TPB-constructs with Behavioral intention (see figure 5) and Motivation (see figure 6) and
- correlations were tested for the constructs of the different phases of accessibility to ICT with Behavioral intention (see figure 7).

Figure 5. Segments of the evaluation form per department of the Theory of Planned Behavior



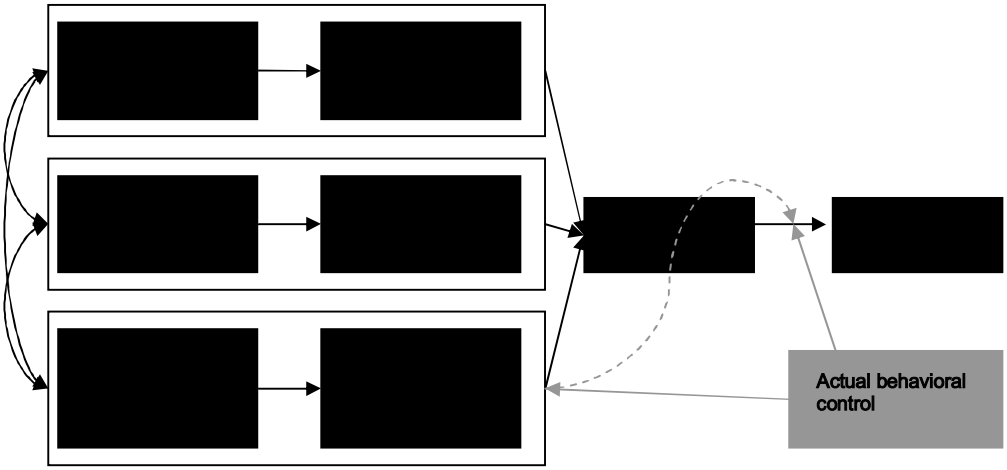

*Sub question 4*

When looking at the Theory of Planned Behavior and the Four phases of ICT accessibility Behavioral intention (construct of TPB) can be replaced by Motivation (phase 1 of 4 phases of ICT accessibility) (see figure 6). Intention was measured by an individual question. This is a very limited approach. The concept Motivation is based on several questions (see table 3).

Table 3. Constructs Behavioral intention and behavior

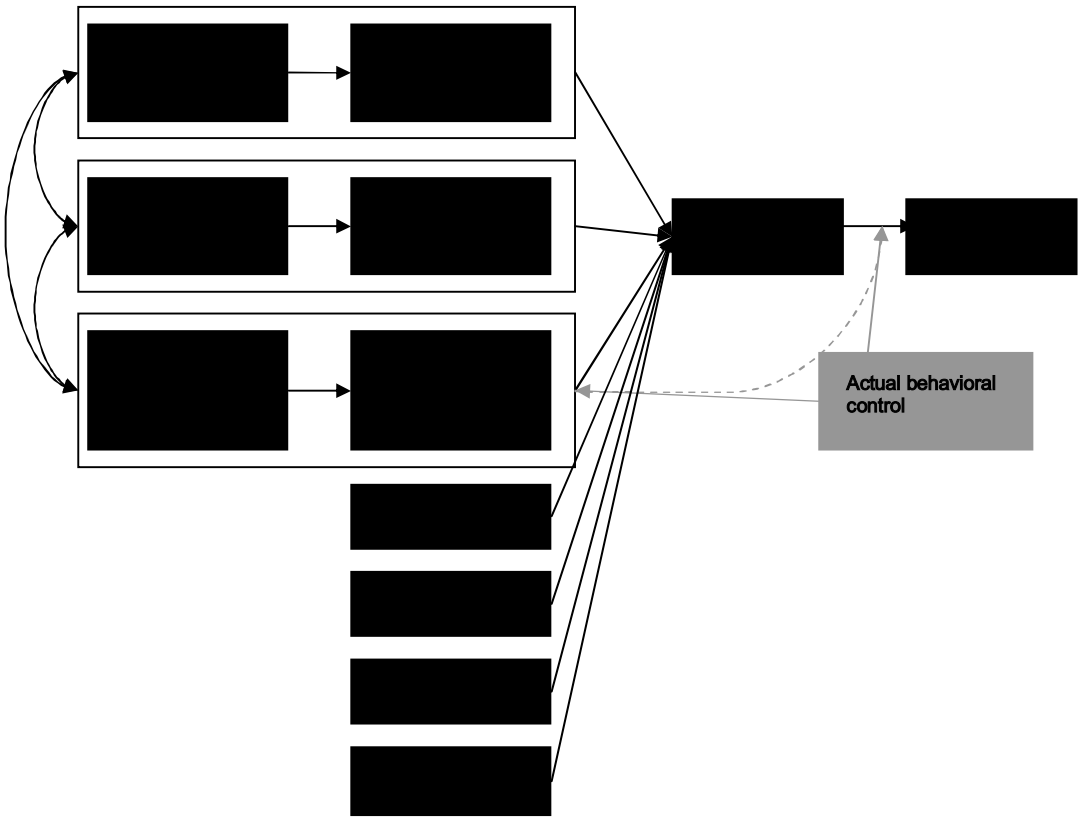
| **Behavioral intention** | |
|---|---|
| Before | After (Motivation) |
| I plan on using the ECR program. | 1. I find the ECR attractive<br>2. I have interest in the ECR<br>3. I have experience with the ECR<br>4. I have fear for the ECR |

Figure 6. Adjusted model for Theory of Planned Behavior 1 (TPB1)




A second proposed model was also tested (figure 7). The Four phases of access to ICT are added in predicting Behavioral intention. The phases are not put in sequential order because of the mandatory nature of the introduction of the ECR into the organization.

Figure 7. Adjusted model for theory of planned behavior 2 (TPB2)



## *3.6 Research questions*

The research questions and sub questions were:

*A. What is the impact of training in the use of the Electronic Child Record on employee's intention to use the Electronic Child Record?*

This question was answered by answering the sub questions below.

*1. How do different actors view the ECR and does training have an influence on this?*
This question was answered by using the SCOT model to find out what the vision of the respondents was on the ECR and how they believed their work was affected by the introduction of the ECR. These are the open-ended questions asked in the questionnaire.

Sub questions 2a, 2b and 2c were answered by the responses given by the respondents in the pre-training evaluation forms.

*2a. What beliefs do employees attribute to their own behavioral intention with using computers?*
The TPB was used to see which parts of the model were significant in explaining behavior intention in using a computer. This was firstly divided into the constructs Attitude toward the behavior, Subjective norm and Perceived behavioral control. After this the changes in the answers to the questions in the significant constructs were determined.

*2b. What beliefs do employees attribute to their own behavioral intention with using the ECR?*
The TPB was used to see which parts of the model were significant in explaining behavior intention in using the ECR software. This was firstly divided into the constructs Attitude toward the behavior, Subjective norm and Perceived behavioral control. After this the changes in the answers to the questions in the significant constructs were determined.

*2c. What beliefs do employees attribute to their own behavioral intention with the use of the ECR during a consult?*
The TPB was used to see which parts of the model were significant in explaining behavior intention in using ECR during a consult. This was firstly divided into the constructs Attitude toward the behavior, Subjective norm and Perceived behavioral control. After this the changes in the answers to the questions in the significant constructs were determined.

Sub questions 3a, 3b and 3c were answered by comparing the responses given by the respondents in the pre-training and post-training evaluation forms.

*3a. What was the impact of the training on the beliefs employees attribute to their own behavioral intention with using computers?*

The TPB was used to see which parts of the model were significant in explaining behavior intention in using a computer. This was firstly divided into the constructs Attitude toward the behavior, Subjective norm and Perceived behavioral control. After this the changes in the answers to the questions in the significant constructs were determined. The pre- and post training responses were compared. The answers to the constructs that changed significantly were determined.

*3b. What was the impact of the training on the beliefs employees attribute to their own behavioral intention with using the ECR?*

The TPB was used to see which parts of the model were significant in explaining behavior intention in using an ECR. This was firstly divided into the constructs Attitude toward the behavior, Subjective norm and Perceived behavioral control. After this the changes in the answers to the questions in the significant constructs were determined. The pre- and post training responses were compared. The answers to the constructs that changed significantly were determined.

*3c. What was the impact of the training on the beliefs employees attribute to their own behavioral intention with the use of the ECR during a consult?*

The TPB was used to see which parts of the model were significant in explaining behavior intention in using an ECR during consult. This was firstly divided into the constructs Attitude toward the behavior, Subjective norm and Perceived behavioral control. After this the changes in the answers to the questions in the significant constructs were determined. The pre- and post training responses were compared. The answers the constructs that changed significantly were determined.

*B. What is the impact of use of ICT in general on employee's intention to use the Electronic Child Record?*

This question was answered by answering the sub questions below.

*4a. Does access to ICT have an impact on the beliefs employees attribute to their own behavioral intention with using ICT?*

*4b. Does access to ICT have an impact on the beliefs employees attribute to their own behavioral intention with using ICT after the employees have received training in this?*

*4c. Does access to ICT have an impact on the beliefs employees attribute to their own behavioral intention with using the Electronic Child Record?*

*4d. Does access to ICT have an impact on the beliefs employees attribute to their own behavioral intention with using the Electronic Child Record after the employees have received training in this?*

*4e. Does access to ICT have an impact on the beliefs employees attribute to their own behavioral intention with the use of the Electronic Child Record during a consult?*

*4f. Does access to ICT have an impact on the beliefs employees attribute to their own behavioral intention with the use of the Electronic Child Record during a consult after the employees have received training in this?*

In these sub questions the two proposed new models TPB1 and TPB2 (see figure 6 and 7) were tested with the use of the pre- and post measurements of the ECR training.

# 4. Results

## *4.1 Respondents*

The respondents of the questionnaire varied slightly between the three trainings, see table 4. Not all pilot employees where obliged to take part in the pc training, all pilot employees were obliged to take part in the ECR training and only the nurses and doctors took part in the ECR during consult training. The evaluation included nine doctors, 21 nurses, nine assistants and six others. The average age of the respondents is 42 years.

Table 4. Respondents per training

| | Pretraining | Posttraining |
|---|---|---|
| PC training | 34 | 22 |
| ECR training | 42 | 19 |
| ECR during consult training | 32 | 11 |

## *4.2 Sub question 1*

The sub question is:

1. How do different actors view the ECR and does training have an influence on this?

The questions in the questionnaire used for the SCOT analysis and answering sub question 1 were:

- A. What is your vision on the ECR?
- B. Does the ECR change your work? If so, how?

The answers have been categorized as shown in appendix 5 (tables 8a, 8b, 8c). The answercategories have been ranked as negative, minimally negative, neutral, minimally positive and positive.

*Negative*

Examples of answers included in the category negative are often based on fears for the future, for example: 'I am afraid that care will hide behind protocols and the ECR' (nurse, post pc training). 'ECR is necessary to keep up with current times, but I doubt the targets are being met. Does this really focus on children at risk?' (doctor, post pc training).

*Minimally negative*

Examples of answers included in the category minimally negative are often based on practicalities and children at risk, for example: 'I am curious how it will be implemented, because not everybody will receive a laptop. It will mean some things will have to be done twice, first writing it down than entering it into the system.' (nurse, pre ECR training).

*Neutral*

Examples of answers included in the category neutral are answers that do not show an opinion or answers which are equally positive and negative, for example: 'Nice, but gives me less to do' (assistants, post ECR training). 'I am curious', (assistant, pre ECR during consult training). 'No idea yet', (nurse, pre ECR during consult training).

*Minimally positive*

Examples of answers included in the category minimally positive are answers that are positive but careful, for example: 'Interesting, but I still have questions', (nurse, pre ECR during consult training). 'Good development, that takes extra effort of the participants', (nurse, pre PC training).

*Positive*

Examples of answers included in the category positive are answers that are positive, for example: 'Handy system to use and share', (doctor, post ECR during consult training). 'Good development', (nurse, post ECR during consult training).

*Results*

None of the *assistants* are (minimally) negative about the ECR in general or the effect the ECR has on their work. The opinions of the assistants change slightly during the trainings from 'no answer' to 'neutral' and 'minimally positive'.

*Nurses* start out mixed (positive, negative and no answer) about the ECR in general. During the trainings they become positive, but after the last training the nurses are mixed again. The effect of the ECR on their work is seen as less positive than their vision on the ECR. Their view of the effect of the ECR on their work changes during the trainings. Before each training the effect on their work is seen as neutral after the training the responses are more mixed.

The view of *doctors* on the ECR is mixed (negative and positive) but never neutral. They always have an opinion. In general this opinion does not alter during the trainings. The effect of the ECR on their work is, before the trainings, seen as neutral. After the trainings the doctors are more negative about the influence the ECR has on their work.

The others, staff, trainers and support staff, are positive about the ECR in general. During the training this does not change. The effect of the introduction of the ECR to the workplace is viewed as positive or neutral by the group others.

## *4.3 Sub questions 2 and 3*

The validity of the constructs was not tested because the constructs of the Theory of Planned Behavior have been validated in the past.

### 4.3.1. Statistics pc Skills training

Of all of the respondents (N=34) there was only 1 male. This number is to low to be able to make any analyses or recommendations based on gender. Therefore gender wasn't a topic in the study.
Education was grouped into three categories, namely: labor (mavo/mbo), college (havo/hbo) and university (vwo/universiteit). 60% of the respondents were educated at a college level, almost 30% at a university level and a bit over 10% at a labor level. The age of the respondents varied from 22 years to 63 years, with a mean of 43 years. Most of the respondents ages were between 41 and 51 years. 50% of the respondents are nurses, almost 25% are doctors, 15% are assistants and the others are managers or ICT support staff.
Working hours, before the pc training, with the computer vary from 1 to 100% of the working time, with a mean of 29.9% and a standard deviation of 28.9. Working hours, after the pc training, with the computer vary from 2 to 100%, with a mean of 33.4% and a standard deviation of 31.3. This shows that the hours work behind the computer during working time did not increase during the computer training.

***Results before the PC training***

Sub question 2a:

*What beliefs do employee's attribute to their own behavioral intention with using computers?*

The means of the constructs as measured before the pc Skills training are all above four and therefore are all positive (see appendix 5, table 9). The higher the mean the more positive the construct. The TPB-constructs Attitude toward behavior and Behavioral beliefs are overall always above four and therefore always positive. Normative beliefs is the lowest ranked construct, but still positive on average.

*Linear regression*

A linear regression was done to test the relationship between intent to participate in the training (Behavioral intention) and the constructs Perceived behavioral control, Subjective norm and Attitude toward behavior. The quality of the model is given by the multiple correlation coefficient R = .564. The amount of variance explained by the constructs is .318 (R square). The adjusted R Square is .242 and shows the correlation after adjusting for the number of constructs and the number of observations. This means that 24.2% of the variance can be explained by the model. This shows that other factors influence intent to participate in the training (Behavioral intention) besides the constructs. The standard error of the estimate is .90917.
The analysis of variance (see appendix 5, table 10) shows that a least one regression coefficient significantly (sig. = .015) differs from zero. The results that the constructs Subjective norm (sn) and Attitude toward behavior (atb) are significant (because a positive relation was hypothesized the significance is divided by 2). This means that the constructs Subjective norm ($t = -2.774$, $p = 0.10$)

and Attitude toward behavior (t = 1.966, p = .060) predict intent to participate in the training (Behavioral intention).

*Results*

The Attitude of the employees towards using the computer, their Subjective norm and Perceived behavioral control are positive. The influence of the constructs Subjective norm and Attitude toward behavior are significant on intent to participate in the training (Behavioral intention).

The results of the questions answered by the respondents for the significant constructs were (also see appendix 5, see tables 11, 12):

For the construct Subjective norm it shows that respondents are the least positive about the expectations of their colleagues taking part in this training, more positive about other people believing they should take part in this training and most positive about the expectance for taking part for this training. The result of this last question is predictable because participating in the training was mandatory for the participants.

For the construct Attitude toward behavior it shows that the expectation of participating in the training is least positive for easy, more positive for nice and useful and most positive for interesting.

***Results after PC Skills training***

Sub question 3a:

*What was the impact of the training on the beliefs employees attribute to their own behavioral intention with using computers?*

The mean of the construct Normative beliefs is negative on average. The other means of the constructs as measured after the PC Skills training are all positive (see appendix 5, table 13).

*Linear regression*

A linear regression was done to test the relationship between intent to use the computer more frequently (Behavioral intention) and the constructs Perceived behavioral control, Subjective norm and Attitude toward behavior. The quality of the model is given by the multiple correlation coefficient R = .307. The amount of variance explained by the constructs is .094 (R square). The adjusted R Square is -.056 and shows the correlation after adjusting for the number of constructs and the number of observations. This means that -5.6% of the variance can be explained by the model. This shows that other factors influence intent to use the computer more frequently (Behavioral intention) besides the TPB-constructs. The standard error of the estimate is .1.92707.

The analysis of variance (see appendix 5, table 14) shows that none of the regression coefficients significantly (sig. = .608) differ from zero. The coefficients (see appendix 5, table 15) show the same. This means after the pc training none of the constructs predict intent to use the computer more frequently (Behavioral intention) significantly.

*Paired samples T test*

The results show (also see appendix 5, table 16) that there have been found significant differences between the pre- and post training measurements of the pc Skills training for the TPB-constructs Subjective norm ($t = 2.695$, $p = 0.014$) and Attitude toward behavior ($t = 2.202$, $p = 0.039$). The appreciation of the respondents of the constructs Subjective norm and Attitude toward the behavior have become less positive. This means that the respondents are less positive about the topics (see appendix 4) asked in the constructs Subjective norm and Attitude toward the behavior after the training than before the training.

*Results*

The Attitude of the employees towards using the computer, their Subjective norm and Perceived behavioral control is positive. None of the constructs predict intent to use the computer more frequently (Behavioral intention) significantly.

During the pc Skills training the response given on the constructs Subjective norm and Attitude toward behavior changed significantly and became less positive. The change in the construct Perceived behavioral control was almost significant.

The results of the questions answered by the respondents for the significant constructs were (also see appendix 5, table 17):

For the construct Subjective norm it shows that respondents are the least positive about the expectation of their colleagues taking part in this training, more positive about other people believing they should take part in this training and most positive about the expectance for taking part for this training. The result of this last question is predictable because participating in the training was mandatory. After the training the responses were less positive overall for the construct Subjective norm. This change can be ascribed to all three of the questions, which are all less positive. The response to colleagues taking part in this training is even negative.

For the construct Attitude toward behavior it shows that the expectation of participating in the training is increasingly more positive for easy, nice, useful and interesting. After the training the responses are less positive overall for the construct Attitude toward behavior. This change can be ascribed to the questions about usefulness, nice and interesting, which are all less positive. The response to the question easy is more positive. This shows that the pc Skills training turns about to be less useful, less nice, less interesting and easier than expected.

### 4.3.2. Statistics ECR training

Of all of the respondents (N=42) there were only 2 males. This number is too low to be able to make any analyses or recommendations based on gender. Therefore gender wasn't a topic in the study.

Education was grouped into three categories, namely: labor (mavo/mbo), college (havo/hbo) and university (vwo/universiteit). 61% of the respondents were educated at a college level, almost 27%

at a university level and a bit over 12% at a labor level. The age of the respondents varied from 22 years to 63 years, with a mean of 42 years. Most of the respondent's ages were between 41 and 51 years. 50% of the respondents are nurses, almost 22% are doctors, 14% are assistants and the others are managers of ICT support staff.
Working hours, before the ECR training, with the ECR software vary from 0 to 95% of the working time, with a mean of 10% and a standard deviation of 20.6. Working hours, after the ECR training, with the ECR software vary from 0 to 100%, with a mean of 24% and a standard deviation of 32.7. This shows that the hours worked with the ECR software increased during the ECR training.

***Results before ECR training***

Sub question 2b:

*What beliefs do employee's attribute to their own behavioral intention with using the ECR?*

The means, as measured before the ECR training, of the constructs Behavioral beliefs, Attitude toward the behavior, Subjective norm, Control beliefs and Perceived behavioral control are all above four and therefore are all positive (see appendix 5, table 18). The higher the mean the more positive the construct.

*Linear regression*

A linear regression was done to test the relationship between intent to participate in the training (Behavioral intention) and the constructs Perceived behavioral control, Subjective norm and Attitude toward behavior. The quality of the model is given by the multiple correlation coefficient R = .521. The amount of variance explained by the constructs is .272 (R square). The adjusted R Square is .205 and shows the correlation after adjusting for the number of constructs and the number of observations. This means that 20.5% of the variance can be explained by the model. This shows that other factors predict intent to participate in the training (Behavioral intention) besides the constructs. The standard error of the estimate is .79073.
The analysis of variance (see appendix 5, table 19) shows that a least one regression coefficient significantly (sig. = .014) differs from zero. The results (see appendix 5, table 20) show that the construct Subjective norm (sn) and Attitude toward the behavior (atb) are significant (because a positive relation was hypothesized the significance is divided by 2). This means that these constructs influence intent to participate in the training (Behavioral intention).

*Results*

The Attitude of the employee's towards using the ECR, their Subjective norm and Perceived behavioral control is positive. The constructs Subjective norm and Attitude toward behavior influence intent to participate in the training (Behavioral intention) significantly.
The results of the questions used for the significant constructs are (also see appendix 5, table 21):

For the construct Subjective norm it shows that respondents are the least positive about the expectation of their colleagues taking part in this training, more positive about other people believing they should take part in this training and most positive about the expectance for taking part in this training. The result of this last question is predictable because participating in the training was mandatory for the participants.
For the construct Attitude toward behavior it shows that a positive attitude for the expectation of participating in the training is increasingly positive for easy, nice, useful to interesting.

***Results after ECR training***

Sub question 3b:

*What was the impact of the training on the beliefs employees attribute to their own behavioral intention with using the ECR?*

The means (see appendix 5, table 22) of the TPB-constructs as measured after the ECR training are all positive. Which means that the answers on average are positive for the three constructs.

*Linear regression*

A linear regression was done to test the relationship between intent to use ECR more frequently (Behavioral intention) and the constructs Perceived behavioral control, Subjective norm and Attitude toward behavior. The quality of the model is given by the multiple correlation coefficient R = .212. The amount of variance explained by the constructs is .045 (R square). The adjusted R Square is -.160 and shows the correlation after adjusting for the number of constructs and the number of observations. This means that -16.0% of the variance can be explained by the model. This shows that other factors predict intent to use ECR more frequently (Behavioral intention) besides the TPB-constructs. The standard error of the estimate is 1.08035.
The analysis of variance (see appendix 5, table 23) shows that none of the regression coefficients significantly (sig. = .881) differs from zero. The coefficients (see appendix 5, table 24) show the same results. This means after the ECR training none of the TPB-constructs predict intent to use ECR more frequently (Behavioral intention) significantly. Which means that other factors predict intent to use ECR more frequently (Behavioral intention) than the topics of the three TPB-constructs.

*Paired samples T test*

There have been found no significant differences between the pre- and post training measurements of the ECR trainings (also see appendix 5, table 25). Which means that the ECR training did not influence the opinions about the ECR of the respondents on the topics of the questions of the TPB-constructs.

*Results*

The Attitude of the employee's towards using the ECR, their Subjective norm and Perceived behavioral control is positive. None of the constructs predict intent to use ECR more frequently (Behavioral intention) significantly. Which means that it can not be ascertained what predicts intent to use the ECR more frequently.

During the training the response given on the constructs did not change significantly. Therefore the training had no influence on the meaning employees attribute to their own capabilities with the ECR.

### 4.3.3. Statistics ECR during consult training

Of all of the respondents (N=29) there was only 1 male. This number is too low to be able to make any analyses or recommendations based on gender. Therefore gender will not be a topic in this research.

The education of the respondents was grouped into three categories, namely: labor (mavo/mbo), college (havo/hbo) and university (vwo/universiteit). 64% of the respondents were educated at a college level, almost 32% at a university level and a bit over 4% at a labor level. The age of the respondents varied from 22 years to 63 years, with a mean of 40 years. Most of the respondent's ages were between 38 and 52 years. 69% of the respondents are nurses, almost 24% are doctors, 3% are assistants and the others are managers of ICT support staff.

Working hours, before the ECR training, with the ECR software vary from 0 to 20% of the working time, with a mean of 2% and a standard deviation of 4.9%. Working hours, after the ECR training, with the ECR software vary from 0 to 50%, with a mean of 16% and a standard deviation of 19%. This shows that the hours worked with the ECR during consult increased during the ECR during consult training time.

***Results before ECR during consult training***

Sub question 2c:

*What beliefs do employee's attribute to their own behavioral intention with the use of the ECR during a consult?*

The means (see appendix 5, table 26) of the TPB-constructs as measured before the ECR during consult training are positive. The higher the mean the more positive the respondents are about the questions in the construct.

*Linear regression*

A linear regression was done to test the relationship between intent to participate in the training (Behavioral intention) and the constructs Perceived behavioral control, Subjective norm and Attitude toward behavior. The quality of the model is given by the multiple correlation coefficient R = .267. The amount of variance explained by the constructs is .071 (R square). The adjusted R

Square is -0.055 and shows the correlation after adjusting for the number of constructs and the number of observations. This means that -5.5% of the variance can be explained by the model. This shows that other factors influence intent to participate in the training (Behavioral intention) besides the constructs. The standard error of the estimate is 1.11379.
The analysis of variance (see appendix 5, table 27) shows that none of the regression coefficients significantly differs from zero. The coefficients (see appendix 5, table 28) show the same results. This means before the ECR training none of the TPB-constructs predict intent to participate in the training (Behavioral intention) significantly and other topics than the questions in the TPB-constructs predict intent to participate in the training (Behavioral intention).

*Results*

The Attitude of the employee's towards using the ECR during consult, their Subjective norm and Perceived behavioral control were positive. None of the constructs influence intent to participate in the training (Behavioral intention). This means before the ECR training none of the TPB-constructs predict intent to participate in the training (Behavioral intention) significantly and other topics than the questions in the TPB-constructs predict intent to participate in the training (Behavioral intention).

***Results after ECR during consult training***

Sub question 3c:

*What was the impact of the training on the beliefs employees attribute to their own behavioral intention with the use of the ECR during a consult?*

The means of all the constructs as measured after the ECR during consult training are positive on average (see appendix 5, table 29). The higher the mean the more positive the respondents are about the questions in the construct. This means that the respondents are on average positive about the topics of the questions asked in the TPB-constructs.

*Linear regression*

A linear regression was done to test the relationship between intent to use the ECR during consult more frequently (Behavioral intention) and the constructs Perceived behavioral control, Subjective norm and Attitude toward behavior. The quality of the model is given by the multiple correlation coefficient R = .667. The amount of variance explained by the constructs is .445 (R square). The adjusted R Square is .207 and shows the correlation after adjusting for the number of constructs and the number of observations. This means that 20.7% of the variance can be explained by the model. This shows that other factors predict intent to use the ECR during consult more frequently (Behavioral intention) besides the constructs. The standard error of the estimate is 1.72727.
The analysis of variance (see appendix 5, table 30) shows that none of the regression coefficients significantly (sig. = .223) differ from zero. The coefficients (see appendix 5, table 31) show the

same results. This means that after the ECR training none of the constructs predict intent to use the ECR during consult more frequently (Behavioral intention) significantly. This shows that other factors predict intent to use the ECR during consult more frequently (Behavioral intention) besides the constructs.

*Paired samples T test*

The results (see appendix 5, table 32) show that there has been found a significant difference between the pre- and post training measurements of the ECR during consult trainings for the construct Attitude toward behavior ($t = 3.413$, $p = 0.007$). The appreciation of the respondents of the construct Attitude toward behavior has become less positive.

*Results*

The Attitude of the employee's towards using the ECR during consult, their Subjective norm and Perceived behavioral control is positive. None of the constructs predict intent to use the ECR during consult more frequently (Behavioral intention) significantly. This means that other topics than the questions asked in the TPB-constructs predict intent to use the ECR during consult more frequently (Behavioral intention).

During the training the response given on the construct Attitude toward behavior changed significantly. The results of the questions used for the significant construct Attitude toward behavior are (also see appendix 5, table 33):

For the construct Attitude toward behavior it shows that the expectation of participating in the training is increasingly more positive for easy, nice, useful to interesting. After the training the responses are less positive overall for the construct Attitude toward behavior. This change can be ascribed to usefulness, nice and interesting, which are all less positive after the training than before the training. The question about the difficulty of the training showed that the training was easier than expected. This shows that the ECR during consult training turns about to be less useful, less nice, less interesting and easier than expected.

## *4.4 Sub question 4*

The validity of the constructs Motivation, Possession, Skill and Usage was not tested for validity with a factor analysis. The constructs should have been tested, but were not because of the small number of respondents.

### 4.4.1. Statistics pc Skills training

***Results before the PC training***

Sub question 4a:

*Does access to ICT have an impact on the beliefs employees attribute to their own behavioral intention with using ICT?*

The means of the constructs Motivation, Possession, Skill and Usage (see appendix 5, table 34) as measured before the PC Skills training are all above four and therefore all positive. The higher the mean the more positive the construct. Possession has the highest mean, but also a large difference between the minimum and the maximum. Therefore it can be said that most respondent have Possession of a computer, but there are also respondents that clearly don't posses a computer. Usage is the lowest ranked construct, but still positive on average.

*Adjusted model for Theory of Planned Behavior 1 (TPB1)*

In the adjusted model for TPB1 the dependent variable intent to participate in the training (Behavioral intention) was replaced by the construct Motivation (see figure 6). A linear regression was done to test the relationship between Motivation and the TPB-constructs Perceived behavioral control, Subjective norm and Attitude toward behavior.

The quality of the model is given by the multiple correlation coefficient R = .465. The amount of variance explained by the constructs is .216 (R square). The adjusted R Square is .129 and shows the correlation after adjusting for the number of constructs and the number of observations. This means that 12.9% of the variance can be explained by the model. This shows that other factors influence Motivation besides the TPB-constructs. The standard error of the estimate is 1.00590.

The analysis of variance (see appendix 5, table 35) shows no regression coefficient significantly differs from zero. The coefficients show the same results (see appendix 5, table 36). This means that before the PC Skills training none of the TPB-constructs predict Motivation significantly.

Two of the three constructs did predict intent to participate in the training (Behavioral intention) significantly and therefore the three TPB-constructs better predict Behavioral intention than Motivation.

*Adjusted model for theory of planned behavior 2 (TPB2)*

In the adjusted model for TPB2 the four phases of ICT access were added as predictors of intent to participate in the training (Behavioral intention, see figure 7).

A linear regression was done to test the relationship between intent to participate in the training (Behavioral intention) and the constructs Perceived behavioral control, Subjective norm, Attitude toward behavior, Motivation, Possession, Skills and Usage. The quality of the model is given by the multiple correlation coefficient R = .611. The amount of variance explained by the constructs is .373 (R square). The adjusted R Square is .174 and shows the correlation after adjusting for the number of constructs and the number of observations. This means that 17.4% of the variance can

be explained by the model. This shows that other factors influence intent to participate in the training (Behavioral intention) besides the constructs. The standard error of the estimate is .95293. The analysis of variance (see appendix 5, table 37) shows no regression coefficient significantly differs from zero. The coefficients (see appendix 5, table 38) show a significant influence of Subjective norm on intent to participate in the training (Behavioral intention). This means that the three constructs better explain Behavioral intention than when the three constructs are matched with the four phases of ICT access.

***Results after PC Skills training***

Sub question 4b:

*Does access to ICT have an impact on the beliefs employees attribute to their own behavioral intention with using ICT after the employees have received training in this?*

The means of the constructs (see appendix 5, table 39) as measured after the PC Skills training are all positive. The higher the mean the more positive the construct. This means that the respondents are, on average, positive about the questions asked for the TPB-constructs.

*Adjusted model for theory of planned behavior 1*

In the adjusted model for TPB1 the dependent variable intent to use the pc more frequently (Behavioral intention) was replaced by the construct Motivation (see figure 6).

A linear regression was done to test the relationship between the construct Motivation and the constructs Perceived behavioral control, Subjective norm and Attitude toward behavior. The quality of the model is given by the multiple correlation coefficient R = .414. The amount of variance explained by the constructs is .172 (R square). The adjusted R Square is .025 and shows the correlation after adjusting for the number of constructs and the number of observations. This means that 2.5% of the variance can be explained by the model. This shows that other factors influence Motivation besides the constructs. The standard error of the estimate is .98689.

The analysis of variance (see appendix 5, table 40) shows no regression coefficient significantly differs from zero. The coefficients show the same results (see appendix 5, table 41). This means that after the pc training none of the TPB-constructs predict Motivation significantly. Which means that other topics predict Motivation better than the TPB-constructs.

The same results were found after the pc training when the influence of the constructs was tested on Behavioral intention. Therefore it can be said that the TPB-constructs don't predict Motivation or intent to use the pc more frequently (Behavioral intention).

*Adjusted model for theory of planned behavior 2*

In the adjusted model for TPB2 the four phases of ICT access were added as predictors of intent to use the pc more frequently (Behavioral intention, see figure 7).

A linear regression was done to test the relationship between intent to use the pc more frequently (Behavioral intention) and the constructs Perceived behavioral control, Subjective norm, Attitude toward behavior, Motivation, Possession, Skills and Usage. The quality of the model is given by the multiple correlation coefficient R = .495. The amount of variance explained by the constructs is .245 (R square). The adjusted R Square is -.162 and shows the correlation after adjusting for the number of constructs and the number of observations. This means that -16.2% of the variance can be explained by the model. This shows that other factors influence intent to use the pc more frequently (Behavioral intention) besides the constructs. The standard error of the estimate is 2.00573.

The analysis of variance (see appendix 5, table 42) shows no regression coefficient significantly differs from zero. The coefficients shows the same results (see appendix 5, table 43). This means that the seven construct don't predict intent to use the pc more frequently (Behavioral intention).

There were also none significant result when intent to use the pc more frequently (Behavioral intention) was predicted by the three constructs. This means that both the TPB and the TPB2 model don't predict intent to use the pc more frequently (Behavioral intention).

*Paired samples T test*

The results (see appendix 5, table 44) show that there have been found significant differences between the pre- and post training measurements of the pc trainings for the constructs Motivation (t = -2.400, p = 0.027) and Skills (p = -3.581, p = 0.002). The respondents have ranked the constructs Motivation and Skills as more positive after the training than before the training. This means that during the trainings their perceived motivation and perceived skills have increased.

### 4.4.2. Statistics ECR training

***Results before ECR training***

Sub question 4c:

*Does access to ICT have an impact on the beliefs employee's attribute to their own behavioral intention with using the Electronic Child Record?*

The means of the construct Motivation, as measured before the ECR training, is above four and therefore positive. The higher the mean the more positive the construct. The constructs Possession, Skills and Usage, as measured before the ECR training, are less than four and therefore negative (see appendix 5, table 45). This means that the respondents are positive about their motivation, but negative about their possession, skills and usage when it comes to the Electronic Child Record.

*Adjusted model for theory of planned behavior 1*

In the adjusted model for TPB1 the dependent variable intent to participate in training (Behavioral intention) was replaced by the construct Motivation (see figure 6).

A linear regression was done to test the relationship between Motivation and the constructs Perceived behavioral control, Subjective norm and Attitude toward behavior. The quality of the model is given by the multiple correlation coefficient R = .467. The amount of variance explained by the constructs is .218 (R square). The adjusted R Square is .147 and shows the correlation after adjusting for the number of constructs and the number of observations. This means that 14.7% of the variance can be explained by the model. This shows that other factors predict Motivation besides the TPB-constructs. The standard error of the estimate is .92102.
The analysis of variance (see appendix 5, table 46) shows that at least one of the regression coefficients significantly (sig. = .041) differs from zero. The coefficients (see appendix 5, table 47) show that the construct Attitude toward behavior (atb) is significant. This means that the construct Attitude toward behavior positively predicts Motivation. In the original TPB model the constructs Subjective norm and Attitude toward behavior predicted intent to participate in training (Behavioral intention). In the adjusted TPB1 model only Attitude toward behavior significantly predicts Motivation. This means that the TPB-constructs are better at predicting Behavioral intention than Motivation.

*Adjusted model for theory of planned behavior 2*

In the adjusted model for TPB2 the four phases of ICT access were added as predictors of intent to participate in training (Behavioral intention, see figure 7).
A linear regression was done to test the relationship between intent to participate in training (Behavioral intention) and the constructs Perceived behavioral control, Subjective norm, Attitude toward behavior, Motivation, Possession, Skills and Usage. The quality of the model is given by the multiple correlation coefficient R = .771. The amount of variance explained by the constructs is .594 (R square). The adjusted R Square is .465 and shows the correlation after adjusting for the number of constructs and the number of observations. This means that 46.5% of the variance can be explained by the model. This shows that other factors predict intent to participate in training (Behavioral intention) besides the constructs. The standard error of the estimate is .64867.
The analysis of variance (see appendix 5, table 48) shows that at least one of the regression coefficients significantly (sig. = .003) differs from zero. The coefficients (see appendix 5, table 49) show that the constructs Attitude toward the behavior and Skills significantly predict intent to participate in training (Behavioral intention).
There were two constructs that significantly predicted intent to participate in training (Behavioral intention) when it was predicted by the three TPB-constructs. These significant results were found with the constructs Subjective norm and Attitude toward the behavior. In both models two variables significantly predicted intent to participate in training (Behavioral intention). Therefore they are equally strong as models.

***Results after ECR training***

Sub question 4d:

*Does access to ICT have an impact on the beliefs employee's attribute to their own behavioral intention with using the Electronic Child Record after the employees have received training in this?*

The results of the evaluation after the ECR training shows that the mean of the construct Usage is negative on average. The other means are all positive (see appendix 5, table 50). This means that the respondents are negative about their own usage of the ECR software program.

*Adjusted model for theory of planned behavior 1 (TPB1)*

In the adjusted model for TPB1 the dependent variable intent to use the ECR more frequently (Behavioral intention) was replaced by the construct Motivation (see figure 6).

A linear regression was done to test the relationship between Motivation and the constructs Perceived behavioral control, Subjective norm and Attitude toward behavior. The quality of the model is given by the multiple correlation coefficient R = .535. The amount of variance explained by the constructs is .286 (R square). The adjusted R Square is .133 and shows the correlation after adjusting for the number of constructs and the number of observations. This means that 13.3% of the variance can be explained by the model. This shows that other factors predict Motivation besides the TPB-constructs. The standard error of the estimate is .61224.

The analysis of variance (see appendix 5, table 51) shows no regression coefficients significantly differs from zero. The coefficients (see appendix 5, table 52) show the same. This means that none of the TPB-constructs significantly predict Motivation.

When the three constructs were used to predict intent to use the ECR more frequently (Behavioral intention) after the ECR training none of the constructs were significant either. Therefore the three construct neither predict Behavioral intention nor Motivation.

*Adjusted model for theory of planned behavior 2*

In the adjusted model for TPB2 the four phases of ICT access were added as predictors of intent to use the ECR more frequently (Behavioral intention, see figure 7). A linear regression was done to test the relationship between intent to use the ECR more frequently (Behavioral intention) and the constructs Perceived behavioral control, Subjective norm, Attitude toward behavior, Motivation, Possession, Skills and Usage.

The quality of the model is given by the multiple correlation coefficient R = .911. The amount of variance explained by the constructs is .830 (R square). The adjusted R Square is .591 and shows the correlation after adjusting for the number of constructs and the number of observations. This means that 59.1% of the variance can be explained by the model. This shows that other factors influence intent to use the ECR more frequently (Behavioral intention) besides the constructs. The standard error of the estimate is .61451.

The analysis of variance (see appendix 5, table 53) shows that at least one of the regression coefficients significantly (sig. = .095/2 = 0.5) differs from zero. The coefficients (see appendix 5, table 54) show that the constructs Motivation and Skills significantly predict intent to use the ECR more frequently (Behavioral intention) with the after ECR training measurements.
When the three TPB-constructs were used to predict intent to use the ECR more frequently (Behavioral intention) after the ECR training none of the constructs were significant. Therefore after the ECR training the adjusted TPB2 is a better predictor of Behavioral intention than the original TPB.

*Paired samples T test*
The results (see appendix 5, table 55) show that there have been found significant differences between the pre- and post training measurements of the ECR trainings for the constructs Motivation (t = 4.049, p = 0.001), Possession (t = -3.547, p = 0.002) and Skills (t = -7.413, p = 0.000).
The appreciation of the respondents of the construct Motivation has become more negative. The respondents have ranked the constructs Possession and Skills as more positive after the training than before the training. This means that during the training in the ECR the motivation of the respondents went down and the possession and the skills of the respondents increased.

### 4.4.3. Statistics ECR during consult training

***Results before ECR during consult training***
Sub question 4e:
*Does access to ICT have an impact on the beliefs employees attribute to their own behavioral intention with the use of the Electronic Child Record during a consult?*
The means of all the constructs (see appendix 5, table 56), as measured before the ECR during consult training, are positive except for Motivation. The higher the mean the more positive the construct. That Motivation is negative and the higher constructs are positive goes against the four Phases of ICT access which states that the lower construct should be positive before a higher construct can be positive.

*Adjusted model for theory of planned behavior 1*
In the adjusted model for TPB1 the dependent variable intent to participate in the training (Behavioral intention) was replaced by the construct Motivation (see figure 6). A linear regression was done to test the relationship between Motivation and the constructs Perceived behavioral control, Subjective norm and Attitude toward behavior.
The quality of the model is given by the multiple correlation coefficient R = .583. The amount of variance explained by the constructs is .340 (R square). The adjusted R Square is .245 and shows the correlation after adjusting for the number of constructs and the number of observations. This

means that 24.5% of the variance can be explained by the model. This shows that other factors predict Motivation besides the constructs. The standard error of the estimate is .59718.
The analysis of variance (see appendix 5, table 57) shows that at least one of the regression coefficients significantly (sig. = .031) differs from zero. The coefficients (see appendix 5, table 58) show that the construct Attitude toward the behavior significantly predicts Motivation.
When the three TPB-constructs were used to predict intent to participate in the training (Behavioral intention) after the ECR training none of the constructs were significant. Therefore the three constructs are a better predictor of Motivation than Behavioral intention.

*Adjusted model for theory of planned behavior 2*

In the adjusted model for TPB2 the four phases of ICT access were added as predictors of Behavioral intention (see figure 7).
A linear regression was done to test the relationship between Behavioral intention and the constructs Perceived behavioral control, Subjective norm, Attitude toward behavior, Motivation, Possession, Skills and Usage. The quality of the model is given by the multiple correlation coefficient R = .629. The amount of variance explained by the constructs is .395 (R square). The adjusted R Square is .011 and shows the correlation after adjusting for the number of constructs and the number of observations. This means that 1.1% of the variance can be explained by the model. This shows that other factors influence intent to participate in the training (Behavioral intention) besides the constructs. The standard error of the estimate is 1.04839.
The analysis of variance (see appendix 5, table 59) shows none of the regression coefficients significantly differ from zero. The coefficients (see appendix 5, table 60) show that Possession significantly predicts intent to participate in the training (Behavioral intention) with the before the ECR during consult training measurements.
There were no significant difference when intent to participate in the training (Behavioral intention) was predicted by the three TPB-constructs. Therefore before the ECR during consult training the adjusted TPB2 is a better predictor of Behavioral intention than the original TPB.

***Results after ECR during consult training***

Sub question 4f:
*Does access to ICT have an impact on the beliefs employees attribute to their own behavioral intention with the use of the Electronic Child Record during a consult after the employees have received training in this?*
The means of all the constructs, as measured after the ECR during consult training, are positive on average (see appendix 5, table 61). This means that the respondents are positive about their motivation, possession, skill and usage of the ECR during consult after the ECR during consult training.

*Adjusted model for theory of planned behavior 1*

In the adjusted model for TPB1 the dependent variable intent to use the ECR during consult more frequently (Behavioral intention) was replaced by the construct Motivation (see figure 6). A linear regression was done to test the relationship between Motivation and the TPB-constructs Perceived behavioral control, Subjective norm and Attitude toward behavior.

The quality of the model is given by the multiple correlation coefficient R = .360. The amount of variance explained by the constructs is .129 (R square). The adjusted R Square is -.197 and shows the correlation after adjusting for the number of constructs and the number of observations. This means that -19.7% of the variance can be explained by the model. This shows that other factors influence intent to use the ECR during consult more frequently (Behavioral intention) besides the constructs. The standard error of the estimate is .70303.

The analysis of variance (see appendix 5, table 62) shows none of the regression coefficients significantly (sig. = .759) differs from zero. The coefficients (see appendix 5, table 63) show the same results. This means that the TPB-constructs don't significantly predict Motivation.

When the three constructs were used to predict intent to use the ECR during consult more frequently (Behavioral intention) after the ECR training none of the constructs were significant either. Therefore the three TPB-constructs neither predict Behavioral intention nor Motivation.

*Adjusted model for theory of planned behavior 2*

In the adjusted model for TPB2 the four phases of ICT access were added as predictors of intent to use the ECR during consult more frequently (Behavioral intention, see figure 7). A linear regression was done to test the relationship between intent to use the ECR during consult more frequently (Behavioral intention) and the constructs Perceived behavioral control, Subjective norm, Attitude toward behavior, Motivation, Possession, Skills and Usage. The quality of the model is given by the multiple correlation coefficient R = .902. The amount of variance explained by the constructs is .813 (R square). The adjusted R Square is .376 and shows the correlation after adjusting for the number of constructs and the number of observations. This means that 37.6% of the variance can be explained by the model. This shows that other factors predict intent to use the ECR more frequently (Behavioral intention) besides the constructs. The standard error of the estimate is 1.53215.

The analysis of variance (see appendix 5, table 64) shows none of the regression coefficients significantly (sig. = .328) differs from zero. The coefficients (appendix 5, table 65) show the same results. This means that none of the constructs significantly predicted intent to use the ECR during consult more frequently (Behavioral intention).

There were no significant results when intent to use the ECR during consult more frequently (Behavioral intention) was predicted by the three TPB-constructs. Therefore neither TPB nor TPB2 predict Behavioral intention.

*Paired samples T test*

The results (see appendix 5, table 66) shows that there have been found significant differences between the pre- and post training measurements of the ECR during consult trainings for the construct Usage (t = -2.773, p = 0.020). The respondents have ranked the construct Usage as more positive after the training than before the training. This means that during the ECR during consult training the usage of the ECR during consult has increased.

## *4.5 Results TPB, TPB1 and TPB2*

*TPB-model*

The results of the original TPB (see table 5) show that Behavioral intention is significantly predicted by two of the three TPB-constructs in the pre pc training evaluation and the pre ECR evaluation. In these two evaluations only the constructs Subjective norm and Attitude toward behavior significantly predict Behavioral intention.

Table 5. Significant results of constructs on Behavioral intention (TPB)

| | Pre pc | Post pc | Pre ECR | Post ECR | Pre consult | Post consult |
|---|---|---|---|---|---|---|
| pbc | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. |
| sn | **.010** | n.s. | **.066** | n.s. | n.s. | n.s. |
| atb | **.060** | n.s. | **.011** | n.s. | n.s. | n.s. |

n.s. is not significant.

*TPB1-model*

The results of the TPB1 model (see table 6) show that Motivation is significantly predicted by the three TPB-constructs in the pre ECR evaluation and the pre ECR during consult evaluation. In these two evaluations only the construct Attitude toward behavior significantly predicts Motivation. Which shows that the constructs Perceived behavioral control and Subjective norm are not relevant as predictors for Motivation.

Table 6. Significant results for the TPB-constructs with Motivation (TPB1)

| | Pre pc | Post pc | Pre ECR | Post ECR | Pre consult | Post consult |
|---|---|---|---|---|---|---|
| pbc | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. |
| Sn | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. |
| atb | n.s. | n.s. | **.036** | n.s. | **.006** | n.s. |

n.s. is not significant.

The results of the questions (see appendix 5, table 67) asked for the significant construct Attitude toward the behavior show positive relationships. This means that when intent to participate in the ECR training or the ECR during consult training increases so do the result to the questions in the construct. With the construct Attitude toward behavior it shows that for the respondents the expectation of participating in the ECR training and the expectation for participating in the ECR during consult training is increasingly more positive for easy, nice, useful to interesting.

*TPB2-model*

In the results of the TPB2 model (see table 7) show that Behavioral intention is significantly predicted by the seven constructs in the pre pc evaluation, the pre ECR evaluation, the post ECR evaluation and the pre ECR during consult evaluation. In these four evaluations the constructs Subjective norm, Attitude toward behavior, Motivation, Possession and Skills significantly predict Behavioral intention. Which shows that three of four phases of ICT access (Motivation, Possession and Skills) are predictors of Behavioral intention.

Table 7. Significant influence of constructs and phases of ICT access on Behavioral intention

| | Pre pc | Post pc | Pre ECR | Post ECR | Pre consult | Post consult |
|---|---|---|---|---|---|---|
| pbc | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. |
| sn | **.042** | n.s. | n.s. | n.s. | n.s. | n.s. |
| atb | n.s. | n.s. | **.000** | n.s. | n.s. | n.s. |
| Motivation | n.s. | n.s. | n.s. | **.096** | n.s. | n.s. |
| Possession | n.s. | n.s. | n.s. | n.s. | **.069** | n.s. |
| Skills | n.s. | n.s. | **.045** | **.009** | n.s. | n.s. |
| Usage | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. |

n.s. is not significant.

The results of the questions (see appendix 5, table 68) asked for the significant constructs predicting Behavioral intention in the TPB2 model showed the following results:

With the construct Subjective norm, in the before pc training evaluation, it shows that the respondents are the least positive about the expectation of their colleagues taking part in the training, more positive about other people believing they should take part in the training and most positive about the expectance for taking part in this training. The results of this last question are predictable because participating in the pc Skills training was mandatory.

For the construct Attitude toward behavior, in the before ECR training evaluation, it shows that a positive attitude for the expectation of participating in the training increases from nice, easy, useful to interesting. The expectation before the ECR training is negative for nice. Which means the respondents believe the training will be bad.

For the construct Skills, in the before ECR training evaluation, it shows that respondents have a negative expectation on the questions: having received ECR training, knowing how to use the ECR and being able to use the ECR. Positive is the expectation that the ECR will be user-friendly.

For the construct Motivation, after the ECR training evaluation, it shows that respondents have great fear for the ECR, don't have experience with the ECR, but do find the ECR interesting and attractive.

For the construct Skills, after the ECR training evaluation, it shows that respondents are positive about the user friendliness of the ECR, agree that they have received training in the ECR, acknowledge that they know how to use the ECR and acknowledge that they can use the ECR.

For the construct Possession, before the ECR during consult training evaluation, it shows that the respondents acknowledge that they own the ECR and have access to the ECR.

# 5. Conclusion

The conclusions are presented per training and per sub question.

## *5.1 Overall conclusion*

*1. How do different actors view the ECR and does training have an influence on this?*

This research shows that the respondents are positive toward the ECR but less positive about the influence the ECR has on their work. The views of the assistants become slightly more positive during the trainings. The views of the nurses start neutral before training, but become mixed after each training. The views of the doctors become more negative during the trainings. The views of 'others' do not change during the trainings.

Before the pilot the respondents weren't negative about the ECR. They probably had no reason to be, because there was still little known about the ECR. During the trainings the respondents began to see the pros and cons of the ECR, therefore they had a reason to become more positive but also a reason to become more negative. The minimally changing response of the assistants can be explained by the fact that the assistants at ZuidZorg were already using the ECR software program for other tasks. Therefore the impact of the use of the ECR on their work is smaller than for the nurses and the doctors. The nurses using the ECR also have tasks that do not include the use of the ECR, like home visits; this could have a positive impact on their view on the use of the ECR because they don't have to use it all the time. The doctors using the ECR have to use the ECR for all their activities. So for this last group the implementation of the ECR has the most impact on their work.

## *5.2 Conclusions PC training*

*2a. What beliefs do employee's attribute to their own behavioral intention with using computers?*

The results from the evaluations before the pc training show that the means of the TPB-constructs are positive, which means that the respondents on average weren't negative on the topics control beliefs, behavioral beliefs, normative beliefs, attitude toward behavior, perceived behavioral control and subjective norm. It also shows that the TPB partially explains the intention to participate in training (Behavioral intention). The construct Attitude toward behavior has a positive influence on intent to participate in training (Behavioral intention), the influence of the construct Perceived behavioral control is not significant and the influence of the construct Subjective norm is negative. This, for the construct Subjective norm, means that when the people around the respondent find participating in the training important, the majority of the colleagues participate in the training and the respondents believe it is expected of them to participate in the training the intention to participate in the training (Behavioral intention) decreases, which is contradictory to the assumptions of the TPB, which state that if the answers to the questions in the constructs become

more so does intent to participate in training (Behavioral intention). It could be that when the participants feel there is being placed pressure on them to participate in the training they are less enthusiastic about participating in the training.

*4a. Does access to ICT have an impact on the beliefs employees attribute to their own behavioral intention with using ICT?*

The means of the constructs Motivation, Possession, Skills and Usage (phases of ICT access) in the pre pc training are all positive. According to the theory of the four phases of ICT access a lower phase should be positive before the next construct can be positive. This has been confirmed in this evaluation.

The results show that before the pc training none of the TPB-constructs influence Motivation (see figure 6 TPB1-model) significantly. Two of the three constructs did influence intent to participate in training (Behavioral intention) significantly and therefore the three constructs of the TPB-model predict intent to participate in training (Behavioral intention) better than the three constructs predict Motivation, which means that in this case the TPB model is better than the TPB1-model.

The results of the pre pc training evaluation show a significant influence of Subjective norm on intent to participate in training (Behavioral intention) in the TPB2-model (see figure 7). The relationship of the three constructs with Behavioral intention in the TPB-model was stronger (significant for both Subjective norm and Attitude toward behavior). This means that the three TPB-constructs better explain intent to participate in training (Behavioral intention in the TPB model) separated from the four phases of ICT access (TPB2-model).

*3a. What was the impact of the training on the beliefs employees attribute to their own behavioral intention with using computers?*

After the pc skills training the means of the construct Normative beliefs is negative on average; the other means are all positive, which means that the respondents on average weren't negative on the topics control beliefs, behavioral beliefs, attitude toward behavior, perceived behavioral control and subjective norm. After the pc training none of the constructs influence intention to use pc more frequently (Behavioral intention) significantly. This means that other variables influence intention to use pc more frequently (Behavioral intention) more frequently after the pc skills training than the constructs in the TPB.

When comparing the pre- and post pc-training evaluations, for the TPB-constructs, the results show significant differences for the constructs Subjective norm and Attitude toward behavior. The appreciation of the respondents of the constructs Subjective norm and Attitude toward behavior have become less positive. This means that the respondents believe that on average the people around them found participating of the respondent in the training less important, less colleagues participated in the training, it was less expected of the respondents to take part in the training and/or the training was less easy, less useful, less nice and/or less interesting than they had

anticipated. It is likely that the respondents didn't see their colleagues during the training and therefore answered this question as less positive in the post training measurement.

*4b. Does access to ICT have an impact on the beliefs employees attribute to their own behavioral intention with using ICT after the employees have received training in this?*

The means of the constructs Motivation, Possession, Skills and Usage in the post pc training are all positive. According to the phases of ICT access a lower construct should be positive before the next construct can be positive. This is true for this evaluation.

The results show that after the pc training none of the constructs influence Motivation (see figure 6 TPB1-model) significantly. The same results were found after the pc training when the influence of the constructs was tested on intent to use the pc more frequently (Behavioral intention). Therefore neither the TPB-model (original model) nor the TPB1-model show significant results. This means that the TPB-constructs do not predict intent to use the pc more frequently or that the TPB-constructs predict Motivation.

The results of the post pc training evaluation show no significant influence of the seven constructs on intent to use the pc more frequently (Behavioral intention). Therefore neither the TPB-model (original model) nor the TPB2-model (see figure 7) show significant results and explain intent to use the pc more frequently (Behavioral intention) in the post pc training evaluation.

There have been found significant differences between the pre- and post training measurements of the pc trainings, for the constructs of the four phases of ICT access, for the constructs Motivation and Skills. The respondents have ranked the constructs Motivation and Skills as more positive after the training. Usage and Possession did not change significantly. This means that after the training the respondents were more positive about the computer on the topics attractiveness, interest for the pc, experience with the pc, fear for the pc, user friendliness of the pc, the receiving of training in using the pc and having knowledge and skills for using the pc.

## *5.3 Conclusions ECR training*

*2b. What beliefs do employees attribute to their own behavioral intention with using the ECR?*

The results from the evaluations before the ECR training show that the means of the TPB-constructs are positive. It also shows that the TPB partially explains intent to participate in training (Behavioral intention). The constructs Attitude toward behavior and Subjective norm have a positive influence on intent to participate in training (Behavioral intention). The influence of the construct Perceived behavioral control is not significant. This is in accordance with the assumptions of the TPB, which state that if the constructs increase so does intent to participate in training (Behavioral intention).

*4c. Does access to ICT have an impact on the beliefs employees attribute to their own behavioral intention with using the Electronic Child Record?*

The results of the constructs of the four phases of ICT access show that the mean of the construct Motivation is positive before the ECR training. The constructs Possession, Skills and Usage are negative. This is logical when knowing that the respondents were not allowed to use the ECR software before the ECR training. According to the phases of ICT access a lower construct should be positive before the next construct can be positive. This is true for this evaluation; Possession is negative and so are the consequential phases Skills and Usage.

The results show that before the ECR training the construct Attitude toward behavior influences Motivation (the TPB1-model, see figure 6) significantly. Two of the three constructs (Attitude toward behavior, Subjective norm) influenced intent to participate in the ECR training (Behavioral intention) significantly. Therefore the three constructs predict intent to participate in the ECR training (Behavioral intention, original TPB-model) better than the three constructs predict Motivation (TPB1-model, see figure 6).

The results of the pre ECR training evaluation show a significant influence of Attitude toward the behavior and Skills on Behavioral intention. This means that Behavioral intentions is significantly influenced by two constructs in the TPB2-model (see figure 7) and so is the TPB-model (Attitude toward behavior, Subjective norm). Which means that TPB and TPB2 both partially explain intent to participate in the ECR training (Behavioral intention).

*3b. What was the impact of the training on the beliefs employees attribute to their own behavioral intention with using the ECR?*

After the ECR training the constructs Behavioral beliefs, Control beliefs and Perceived behavioral control are ranked positive. After the ECR training none of the TPB-constructs influenced intent to use the ECR more frequently (Behavioral intention) significantly. This means that other variables influence intent to use the ECR more frequently (Behavioral intention) after the ECR Skills training than the constructs in the TPB.

When comparing the pre and post training evaluations results show no significant differences with the TPB-constructs. Which means that the constructs in the TPB-model did not change significantly.

*4d. Does access to ICT have an impact on the beliefs employees attribute to their own behavioral intention with the Electronic Child Record after the employees have received training in this?*

The results of the constructs of the four phases of ICT access show that the means of the constructs Motivation, Possession and Skills in the post ECR training are positive. Usage is negative. According to the phases of ICT access a lower construct should be positive before the next construct can be positive. This is true for this evaluation.

The results show that after the ECR training none of the constructs influence Motivation (TPB1) significantly. The same results were found after the ECR training when the influence of the constructs was tested on intent to use the ECR more frequently (Behavioral intention). Therefore neither TPB nor TPB1 show significant results.
The results of the post ECR training evaluation show significant influence of the constructs Motivation and Skills on intent to use the ECR more frequently (Behavioral intention). Therefore the TPB2-model (see figure 7) explains intent to use the ECR more frequently (Behavioral intention) better than the TPB-model (the original model).
There have been found significant differences between the pre- and post training measurements of the ECR trainings for the constructs Motivation, Possession and Skills. The respondents have ranked the constructs Possession and Skills as more positive after the training. Motivation became more negative. Usage did not change significantly. It could be that there was no increase in Usage because the Motivation of the respondents went down.

## *5.4 Conclusion ECR during consult training*

*2c. What beliefs do employees attribute to their own behavioral intention with the use of the ECR during a consult?*

The results from the evaluations before the ECR during consult training show that the means of the TPB-constructs are positive. They also show that the TPB doesn't explain intent to participate in training (Behavioral intention). This is contradictory to the assumptions of the TPB which state that if the constructs increase so does intent to participate in training (Behavioral intention). This means that other variables influence intention to participate in training (Behavioral intention) before the ECR during consult training than the TPB-constructs.

*4e. Does access to ICT have an impact on the beliefs employees attribute to their own behavioral intention with the use of the Electronic Child Record during a consult?*

The results of the constructs of the theory of the four phases of ICT access show that the means of the constructs Possession, Skills and Usage in the pre ECR during consult training are positive. The construct Motivation is negative on average. According to the phases of ICT access a lower construct should be positive before the next construct can be positive. This is not confirmed in this research.
The results show that before the ECR during consult training one of the constructs (Attitude toward behavior) influenced Motivation (the TPB1-model, see figure 6) significantly. None of the TPB-constructs influenced intent to participate in the ECR during consult training (Behavioral intention) significantly. Therefore the three constructs better predict Motivation (the TPB1-model, see figure 6) than intent to participate in the ECR during consult training (Behavioral intention, original model).

The results of the pre ECR during consult training evaluation show a significant influence of Possession on intent to participate in the ECR during consult training (Behavioral intention). This means that the seven constructs better explain intent to participate in the ECR during consult training (Behavioral intention, see TPB2-model, figure 7) together than the three constructs from TPB. The intent to participate in the ECR during consult training (Behavioral intention) is predicted by the Possession and access to the ECR during consult. This could indicate that the use of the ECR software would increase earlier if the ECR software was available earlier during the trainings.

*3c. What was the impact of the training on the beliefs employees attribute to their own behavioral intention with the use of the ECR during a consult?*

The results from the evaluations after the ECR during consult training show that the means of the PTB-constructs are positive. After the ECR during consult training none of the constructs influence intent to use the ECR during consult more frequently (Behavioral intention) significantly. This means that other variables influence intent to use the ECR during consult more frequently (Behavioral intention) after the ECR during consult training than the TPB-constructs.

When comparing the pre and post training ECR during consult evaluations, for the TPB-constructs, the results show significant differences for the construct Attitude toward behavior. The appreciation of the respondents for the construct Attitude toward behavior has become significantly less positive. It could be that none of the other constructs changed significantly because the values were already ranked very positive.

*4f. Does access to ICT have an impact on the beliefs employees attribute to their own behavioral intention with the use of the Electronic Child Record during a consult after the employees have received training in this?*

The means of the constructs Motivation, Possession, Skills and Usage in the post ECR during consult training are all positive. According to the phases of ICT access a lower construct should be positive before the next construct can be positive. This is true for this evaluation.

The results show that after the ECR during consult training none of the TPB-constructs influence Motivation (TPB1-model, see figure 6) significantly. The same results were found after the ECR during consult training when the influence of the constructs was tested on intent to use the ECR during consult more frequently (Behavioral intention). Therefore neither TPB nor TPB1 show significant results. Which means that the TPB-constructs don't predict intent to use the ECR during consult more frequently (Behavioral intention) or Motivation.

The results of the post ECR during consult training evaluation show no significant influence of the seven constructs on intent to use the ECR during consult more frequently (Behavioral intention). Therefore neither TPB (original model) nor TPB2 (see figure 7) show significant results and explain intent to use the ECR during consult more frequently (Behavioral intention).

There have been found significant differences between the pre- and post training measurements of the ECR during consult trainings, for the constructs of the four phases of ICT access, for the construct Usage. The respondents have ranked the construct Usage as more positive after the training. Which means that the respondents report they have used the ECR a lot more after the ECR during consult training than before the training. The constructs Motivation, Possession and Skills did not increase significantly. It could be that these constructs did not change significantly because the values were already very positive.

Main research questions:

*A. What is the impact of training in the use of the Electronic Child Record on employee's intention to use the Electronic Child Record?*

During the training the respondents became less positive about the effect the ECR had on their work. This change was strongest for the doctors. During the pc training the TPB-constructs attitude toward the behavior and subjective norm have become less positive.

The results show that attitude toward the behavior and subject norm are predictors for behavioral intention. This means that a favorable or unfavorable attitude toward the behavior of the respondent and perceived social pressure by the respondent predicts intention to or intention not to participate in the training. Which according to the Theory of Planned Behavior is caused by beliefs about the likely outcomes of the behavior and the evaluations of these outcomes (Behavioral beliefs) and beliefs about the normative expectations of others and motivation to comply with these expectations (Normative beliefs).

The Theory of Planned Behavior, used to test the intention to use the ECR more frequently, turns out not to predict the intention to use the ECR more frequently significantly for any of the constructs. Therefore it can be said that the Theory of Planned Behavior is not a good model to test if employees intent to use the ECR more frequently.

In addition the following was formulated to answer research question A.

This research has shown that Perceived behavioral control doesn't have a significant influence on Behavioral intention before or after any of the trainings. This shows that the topics: the training was mandatory, the difficulty of taking part in the training and (being able to) practice weren't a significant influence on Behavioral intention. Changing the conditions of the training; the mandatory nature, the difficulty of taking part in the training or (being able to) practice might make the construct a significant predictor of Behavioral intention. This means that when the trainings aren't mandatory, employees are allowed to pick their own training date and time and being able the practice becomes easier this might increase the Behavioral intention to participate in the training and/or the use the ECR more frequently.

The testing of the TPB1 model shows that the constructs Perceived behavioral control and Subjective norm are not relevant as predictors for Motivation, but the construct Attitude toward behavior is significant as a predictor for Motivation.
This shows that the topics: the training was mandatory, the difficulty of taking part in the training and (being able to) practice weren't a significant influence on Motivation. Changing the conditions of the training; the mandatory nature, the difficulty of taking part in the training or (being able to) practice might make the construct Perceived behavioral control a significant predictor of Motivation. Changing what other people believe about the participation of the employee in the training, the participation of the colleagues in the training and/or the expectation of the employee taking part in the training might make the construct Subjective norm a significant predictor of Motivation. This means that when the trainings aren't mandatory, employees are allowed to pick their own training date and time, being able the practice becomes easier, more people find participating of the employee in the training important, more colleagues participate in the training and the expectation of the participating of the employee changes this might increase the Motivation of the employees about participating in the training and/or to use the ECR more frequently.

*B. What is the impact of use of ICT in general on employee's intention to use the Electronic Child Record?*
The results show that the Four phases for ICT access do not significantly predict intention to use the pc more frequently or use the ECR during consult more frequently. The two phases, motivation and skills, do predict intent to use the ECR more frequently significantly. Possession and usage weren't significant predictors for intention to use the ECR more frequently. Perhaps this was the case because possession was provided by the organization and usage did not occur until after the ECR during consult training. Motivation and skills are significant predictors of the Behavioral intention to use the ECR more frequently. Therefore it can be stated that the development of motivation and skills is necessary for employee's willingness to use the ECR more frequently.

In addition the following was formulated to answer research question B.
The testing of the TPB2 model shows that the constructs Perceived behavioral control and Usage are not relevant as predictors for Behavioral intention, but the constructs Subjective norm, Attitude toward behavior, Motivation, Possession and Skills are significant as a predictor for Behavioral intention. Therefore it can be stated that the four phases of ICT access are a good improvement of the Theory of Planned Behavior for the implementation of ICT applications.

# 6. Discussion and restrictions of this research

*Results*

During the trainings the respondents became less positive about the influence of the ECR on their work. It is not certain that this change in opinion is because of the trainings. It is more likely that the opinions of the employees changed because they were introduced to the topic more thoroughly than before. The employees have stated that before the trainings they knew little or nothing about the ECR.

The change of opinion is the strongest for the doctors. The ECR has a bigger impact on the work of the doctors than on the work of the assistants or the nurses. The assistants had already been working with a different part of the software program and the nurses have tasks that do not include the computer. Therefore it is presumable that doctors are most reluctant to use the ECR.

The organizations give trainings to their employees frequently. Therefore it is presumable that the employees are not enthusiastic about trainings and as a result are not very motivated to practice with the ECR outside of the training.

The ECR training was given to a mix of assistants, nurses and doctors. The assistants said that they learned little useful skills from this training because the training focused mainly on the activities done by the nurses and the doctors. Therefore it is necessary that the trainings focus on the skills needed by the employees to do their work.

*Restrictions*

Because the respondents work together in the same teams they might have discussed the trainings with each other. This might have resulted in a lower or higher fear and/or anxiety for the trainings with the people who took part of the training on a later date.

The number of respondents in this research is relatively low, therefore repeating this research on a bigger population is important for the significance of the results.

The results and therefore also the conclusions are based on self report of the respondents. Self report is not the most impartial way of getting certain information.

The participants of the pilot (the respondents) were picked on their enthusiasm for being a pilot group, were called ECR-ambassadors and were a part of the developmental process of the ECR. They were asked to talk about the ECR with other employees (outside of the pilot) introduce them to the topic and make them enthusiastic. During the pilot phase the ambassadors were also listened to when they had suggestions and wanted changes to be made. Therefore it can be expected that the pilot group is more enthusiastic about the ECR than the rest of the employees will be.

Being a part of different networks is, according to Van Dijk (2003, p.7), more important than having a certain education, cognitive skills or other individual characteristics. The networks of the

respondents were not included in this research. Therefore the influence of this cannot be determined by this research.
The validity of the constructs Motivation, Possession, Skills and Usage was not tested with a factor analysis. The constructs should have been tested, but weren't because of the small number of respondents. Therefore the validity of the constructs is uncertain.
Not all the questions of the TPB-constructs were part of the questionnaire. Therefore the reliability of the constructs as predictors of Behavioral intention is not certain.
The proposed models should have been tested with structural equation modeling. This wasn't done because the amount of respondents was to low for this type of testing.

*The models*

The construct Perceived behavioral control never significantly predicts Behavioral intention or Motivation. This could be because the trainings were mandatory. Venkatesh et al. (2003) have stated that the construct Subjective norm is only significant in a mandatory implementation; this could indicate that if the trainings aren't mandatory the expectations of others would not be significant when introducing the ECR into the workplace.
Behavioral intention in the post training evaluations was operationalized as increased usage of the pc, the ECR software and the ECR during consult. None of the post training evaluations have shown any significant prediction by the three constructs of the TPB, therefore it is possible that the operationalization of Behavioral intention after the trainings was not done correctly.
The proposed models both gave significant results for several training. Overall it can be said that the second proposed model (TPB2), the theory of the Four phases of ICT access was added as influence on Behavioral intention, was the best proposition of the two. Originally in the theory of the Four phases of ICT access the phases were in sequential order. This sequential order wasn't part of the new model because the implementation of the ECR was mandatory. Perhaps putting the phases in sequential order would shed additional light on a newly developed model.
It is possible that other variables influenced the outcomes besides the TPB-constructs and the accessibility to ICT. Examples are given in the lily model. The lily model states that the skills required to support full engagement with eHealth resources aimed at supporting population health and patient care are organized into two central types: analytic (traditional literacy & numeracy, media literacy and information literacy) and context-specific (computer literacy, science literacy and health literacy) (see appendix 3). These literacy aspects were not included in the current research but appear to be relevant to research in the future.
The core constructs of the model of PC utilization (MPCU) (1977) are job-fit, complexity, long-term consequences, affect towards use, social factors and facilitating conditions. Unified Theory of Acceptance and Use of Technology (UTAUT) (Venkatesh, Morris, Davis & Davis; 2003) includes the three direct determinants of intention of use (performance expectancy, effort expectancy, and social influence) and two direct determinants of Usage behavior (intention and facilitating

conditions). Significant moderating influences of experience, voluntariness, gender, and age were confirmed as integral features of UTAUT. Some of these items were not included in the current research but could also have an influence on ECR use. Often said by the respondent was that they realized the usefulness of the ECR in organizing the care for children or that they doubted the usefulness of the ECR software in organizing the care for children, therefore performance expectancy could have been an influence on intent to use the ECR (during consult).

In this research the constructs subjective norm and attitude toward the behavior were significant predictors of Behavioral intention and the construct perceived behavioral control was not a significant predictor of Behavioral intention. Participating in the trainings was mandatory for the respondents.

- The construct subjective norm, as suggested by Venkatesh et al. (2003), was only significant in mandatory implementation, this would explain the significant results in this research.
- The construct perceived behavioral control was significant in both voluntary and mandatory setting immediately following training. The questionnaires were not administered immediately after the training which could explain why the construct perceived behavioral control was never a significant predictor of Behavioral intention.
- In this research the construct attitude toward the behavior was a significant predictor more frequently than the other constructs and therefore the strongest predictor of Behavioral intention.

# 7. Recommendations

The recommendations based on this research are divided into recommendations for the organization and recommendations for further theoretical research.

## *7.1 Recommendations organization*

*PC training*

The pc training was an individual training of one and a half hours and was mandatory for all employees. Some employees believed they did not need this training to be able to work with the ECR.

*1.* With the introduction of the ECR it should be analyzed on which group the implementation has the most impact. Special attention should be given to this group of employees. Is these organizations this group is the doctors because they had not been working with the computer professionally before and need to work with the computer for all their activities. This special attention can be given by extra support during the trainings, practice and when using the ECR during consult.

2. It is important that more attention is paid to the positive influence the ECR can have on the work of the employees before they start their training (also see: Stanley, 2001). Overall the respondents become more negative about the ECR during the trainings, which shows that the respondents start realizing what the influence of the ECR is on their work during the trainings. When people are positive about the influence of the ECR on their work before the training it will be less likely they will become negative about the ECR during the trainings. Therefore it should be attempted to influence the view the employees have about the ECR in a positive way. This can be done by focusing on the possible improvements of the ECR, on the extra information the team can receive about their neighborhoods and by sharing the experiences of the first groups who received the trainings with the other groups.

3. The use of the pc is new for some of the employees and rare for others. To quickly increase the skills of the employees on the pc more efforts should be made to increase the usage of the pc. The organization (management) can try to increase the use of the computer by the employees by encouraging them to send emails, write memos and find documents on the intranet/internet.

*ECR training*

The ECR training was a group training of four hours and was mandatory for all employees. The assistants expressed that they weren't taught skills they could not use in their work.

4. It is possible that skills and usage would increase before the ECR training if people were allowed to practice with the ECR software before the training. Employees could practice in a

save environment, like during the ECR during consult simulations, via e-learning or by via practicing with a cd-rom. Support by more experienced colleagues could be helpful too.

5. Access to the ECR software is currently only allowed after the ECR training. Management should make access to the ECR software available earlier, because it is possible this will increase usage.
6. After the ECR training usage doesn't improve significantly. This means the respondents haven't practiced with the ECR software before the ECR during consult training as was expected of them. Increasing the motivation of the people or administering a test might increase the usage of the software.

*ECR during consult training*

The ECR during consult training was a group training of four hours in which practicing with parent and child was most important. The training was mandatory for nurses and doctors. The respondent expressed that they were happy being able to practice in a safe environment.

7. The employees in the pilot were chosen on the enthusiasm for the ECR. It is likely that the rest of the employee are less enthusiastic, therefore more attention should be given to making the employees (not apart of the pilot) enthusiastic about the ECR.

## *7.2 Recommendations research*

1. When developing a model to predict motivation the constructs Attitude toward behavior as operationalized by the TPB should be taken into account.
2. When further developing the TPB model the constructs Motivation, Possession and Skills as operationalized by the four phases to ICT access should be taken into account.
3. Further research should try to explain why Subjective norm had a negative influence on intent to participate in the pc training (Behavioral intention) in the evaluation before the pc Skills training.
4. Further research should try to determine which factors influence Behavioral intention for intent to use the pc, ECR and ECR during consult more frequently.
5. The results for the construct Normative beliefs (other people finding participating in the training important) went from positive (pre training) to negative (post training). Further research should try to explain why people first believe others would want them to take part before the training but not after the training.
6. Further research should try to uncover why none of the TPB-constructs significantly changed during the ECR trainings.
7. Further research should try to uncover why only the construct Attitude toward behavior changed significantly during the ECR during consult training and why none of the other constructs changed significantly.

8. It is recommended to repeat this evaluation on a larger population.
9. Further research should try to develop a different way of testing behavior(intention) than by self report to see if self report has a significant influence on the results.
10. Further research should focus on different networks the respondents are a part of (the four types of access to ICT).
11. Further research should focus on the constructs used in the lily model and UTAUT.

# 8. References

Adams, W. G., Mann, A. M. Bauchner, H. (2003). Use of an electronic medical record improves the quality of urban pediatric primary care. *Pediatrics*. 111 (3).

Ajzen, I. (2006). Constructing a TpB Questionnaire: Conceptual and Methodological Considerations. Seen on 28 February 2008.
Website: http://people.umass.edu/aizen/pdf/tpb.measurement.pdf

Bijker, W.E., Hughes, T.P., Pinch, T.J., The social construction of technological systems; New directions in the sociology and history of technology, Cambridge, Mass.: MIT Press, 1987. Seen on 26 may 2008
Website: http://mitpress.mit.edu/catalog/item/default.asp?tid=7151&ttype=2
and http://books.google.com/books?q=interpretative+flexibility&ie=ISO-8859-1&vid=9780262521376&sourceid=ca-print-mitpress#PPA30,M1

Bijker, W. E. (2000). The social construction of fluorescent lighting, or how an artifact was invented in it diffusion stage. In Shaping technology Building society, studies in sociotechnical change. MIT Press, London, England.

Burgmeijer, W. (2007). Plan van Aanpak Project EKD Z2B: Invoering Elektronisch Kinddossier De Zorgboog en ZuidZorg.

Burgmeijer, W. (2008). Presentation ZuidZorg Vista(VIsion, STrategy and Action)-day.

Cooper, C.P., Roter, D.L., Langlieb, A.M., (2000). User entertainment television to build a context for prevention new stories. Preventive Medicine 31, 225–231.

Gioia, P. C. (2001). Quality improvement in pediatric well care with an electronic record. Proc AMIA Symposium 2001;:209-13.

Institute of Medicine. Health Literacy: A Prescription to End Confusion. Washington, DC: The National Academies Press; 2004. Accessed on may 26 2008
http://books.google.nl/books?id=rAeq4gzavQUC&dq=health+literacy+a+prescription+to+end+confusion&pg=PP1&ots=tsc2Tc3Hlh&sig=Abo7n_FRunpOgB0Or1a5JqCdu3I&hl=nl&prev=http://www.google.nl/search%3Fhl%3Dnl%26q%3D%2527Health%2BLiteracy:%2BA%2BPrescription%2Bto%2BEnd%2BConfusion%2527&sa=X&oi=print&ct=title&cad=one-book-with-thumbnail

Jacobs, B. (2007). Electronic medical record, error detection, and error reduction: A pediatric critical care perspective. *Pediatric Critical Care Med*. 8 (2) Suppl..

Plan van aanpak (n.d.). Concept Plan van aanpak Project EKD Z2B. ZuidZorg. Presentation (n.d.). Project Electronisch Kinddossier, EKD, het belang. Vista-dag project EKD Z2B.

Menachemi, N., Ettel, D. L., Brooks, R.G. & Simpson L. ( 2006). Charting the use of electronic health records and other information technologies among child health providers. *BMC Pediatrics*. 6:21.

Naber, A. (2007). Scot analysis of medical video-communication systems. Assignment 2 – Introduction to Science and Technology Studies.

Norman, C.D. & H.A. Skinner (2006). eHealth Literacy: Essential Skills for Consumer Health in a Networked World. J. Med. Internet Res, 8 (2), e9.

Rosenbloom, S., Qi, X., Riddle, W. R., Russell, W. E., ConLevy, S. C., Giuse, D., Sedman, A. B. & Spooner S.A. (2006). Implementing pediatric growth charts into an electronic health record system. *J Am med Inform Assoc*. 13, 302-308.

Severin, W.J., Tankard Jr.., J.W., (2001). Communication Theories, fifth ed. Addison Wesley/Longman Inc./University of Texas at Austin, Reading, MA/London/Austin, TX.

Spooner, S. A. (2007). Special requirements of electronic health record systems in pediatrics. *Pediatrics*, 119 (3).

Taylor, S., and Todd, P. A. "Understanding Information Technology Usage: A Test of Competing Models," *Information Systems Research* (6:4), 1995, pp. 144-176.
Seen on website http://ebiz.bm.nsysu.edu.tw/seminar/pom/phd/UTAUT-Intranet/TPB-Taylor%20&%20Todd-1995b.pdf on 26 may 2008.

Thompson, R. L., Higgins, C. A., and Howell, J. M. "Personal Computing: Toward a Conceptual Model of Utilization," *MIS Quarterly* (15:1), 1991, pp. 124-143.

Triandis, H. C. (1977) *Interpersonal Behavior,* Brooke/ Cole, Monterey, CA.

Van Dijk, J.A.G.M. (2001). De toegankelijkheid van ICT en de kwaliteit van infrastructuur en diensten. Een bijdrage aan de beleidsagenda van V&W. In Ministerie van V&W, Dir. GT&P (Ed.), Mensen in Netwerken, een discussiebijdrage aan het 'digitale kloof debat'. Pp 5-17. Den Haag, Ministerie van Verkeer en Waterstaat.

Van Dijk, J.A.G.M. (2003). De digitale kloof wordt dieper. Van ongelijkheid in bezit naar ongelijkheid in vaardigheden en gebruik van ICT. SQM en Infodrome, United Knowledge, Den Haag / Amsterdam.

Van Dijk, J.A.G.M. (2005). The deepening divide. Inequality in the information society.
Sage Publications, London.

Van 't Riet, A., Berg, M., Hiddema, F. & Sol, K. (2001). Meeting patients' needs with patient information systems: potential benefits of qualitative research methods. *International journal of medical informatics*. 64, 1-14.

Van Setten, M.; M. Veenstra, A. Nijholt & B. van Dijk (2006). Goal-based structuring in recommender systems. Interacting with Computers, 18, pp. 432–456. Seen on 18th march 2008 on website:
http://eprints.eemcs.utwente.nl/8583/01/sdarticle%5B1%5D.pdf

Venkatesh, V; M.G. Morris; G.B. Davis & F.D. Davis (2003). User acceptance of information technology: toward a unified view. MIS Quarterly, vol. 27, no. 3, pp. 425-478.

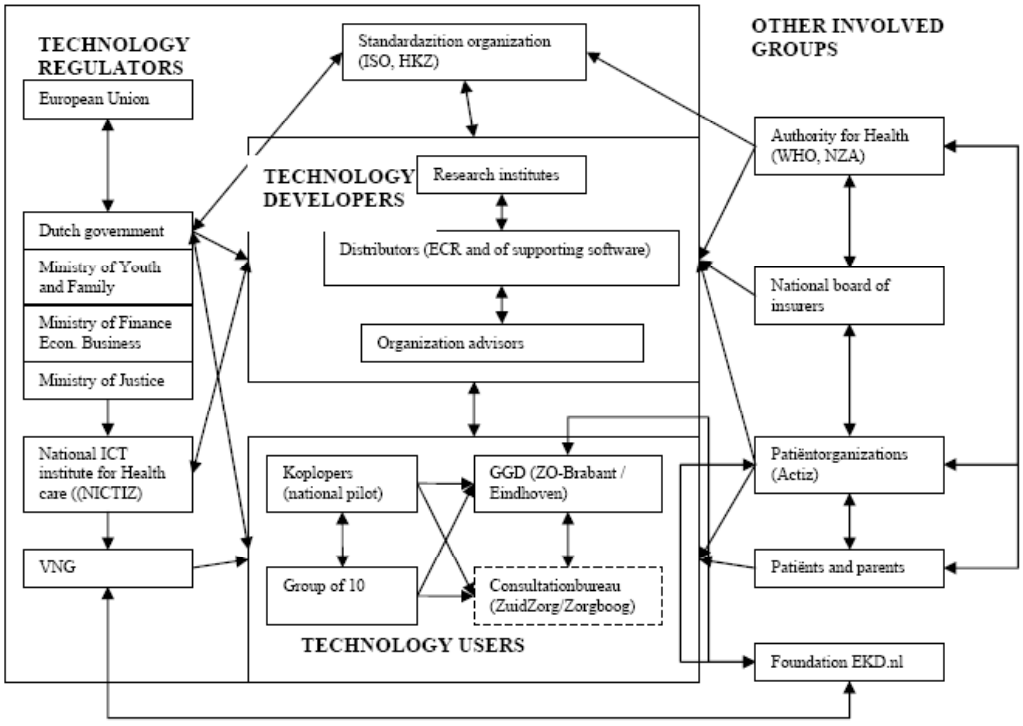
Venkatesh, V., and Davis, F. D (2000). "A Theoretical Extension of the Technology Acceptance Model: Four Longitudinal Field Studies," *Management Science* (45:2), pp. 186-204.

Zorgboog (n.d.). Vacatures. Seen on 28 February 2008. Website: http://www.zorgboog.nl/

ZuidZorg (n.d.). Over ZuidZorg. Seen on 28 February 2008. Website:
http://www.zuidzorg.nl/

# Appendix 1

Social map




= the scope of the research

## Appendix 2

Background information on ZuidZorg and De Zorgboog (Plan van aanpak, n.d.)

*ZuidZorg*

ZuidZorg is the biggest and most experienced provider of maternity care, child healthcare, home care (cleaning, care and nursing), nutritional education and diet advising in Eindhoven and the surrounding cities. They also provide several services and trainings in the field of health and well-being (ZuidZorg, n.d).

-number of clients 0-1 years: 5.773
-number of clients 1-4 years: 16.871
-number of consults/year doctor: 43.750
-number of consults/year nurse: 40.072
-number of employees: 85,4 fte (172 employees)
-number of locations: 28

*The Zorgboog*

The Zorgboog is a care organization in the region Helmond. Young and old can receive maternity care, child healthcare, rehabilitation, care, nursing, treatment, guidance, living with care and terminal care. Care is provided in nursing homes, Zorgboogcentres, home care-shops and from several community buildings by community teams for home care and child healthcare (Zorgboog, n.d.).

-number of clients 0-1 years: 2.436
-number of clients 1-4 years: 7.746
-number of consults/year doctor: 31.668
-number of consults/year nurse: 24.630
-number of employees: 26,3 fte (69 employees)
-number of locations: 20

## Appendix 3

Information technology acceptance research has yielded many competing models, each with different sets of acceptance determinants (Venkatesh, 2003). The relevant and widely accepted models for this research are discussed and it is explained why the theory of planned behavior was chosen.

*Technology Acceptance Model (TAM)*

TAM is tailored to IS (information systems), and was designed to predict information technology acceptance and Usage on the job. The final conceptualization of TAM excludes the attitude construct in order to better explain intention parsimoniously. TAM2 extended TAM by including Subjective norm as an additional predictor of intention in the case of mandatory settings. TAM has been widely applied to a divers set of technologies and users (Venkatesh et al., 2003).
This model is not chosen because it is desired to know what the influence of attitude towards the technology has on acceptance of that technology.

*Model of PC utilization (MPCU)*

Derived largely from Triandis' (1977) theory of human behavior, this model presents a competing perspective to that proposed by the Theory of Planned Behavior. Thompson et al. (1991) adapted and refined Triandis' model for IS contexts and used the model to predict PC utilization. However, the nature of the model makes it particularly suited to predict individual acceptance and use of a range of information technologies. Thompson et al. (1991) sought to predict Usage behavior rather than intention. The core constructs are job-fit, complexity, long-term consequences, affect towards use, social factors and facilitating conditions. The core constructs do not fit the desire to get a clear picture of the attitude towards the new technology.

*Unified Theory of Acceptance and Use of Technology (UTAUT)*

This theory is first presented by Venkatesh, Morris, Davis and Davis in 2003. It is developed from a combination of the theories: theory of reasoned action, the technology acceptance model, the Motivational model, the theory of planned behavior, a model combining the technology acceptance model and the theory of planned behavior, the model of PC utilization, the innovation diffusion theory, and the social cognitive theory (Venkatesh et al., 2003). The model includes the three direct determinants of intention of use (performance expectancy, effort expectancy, and social influence) and two direct determinants of Usage behavior (intention and facilitating conditions). Significant moderating influences of experience, voluntariness, gender, and age were confirmed as integral features of UTAUT. UTAUT was able to account for 70 percent of the variance (adjusted R.) in Usage intention. The measures for UTAUT should be viewed as preliminary and future

research should be targeted at more fully developing and validating appropriate scales for each of the constructs with an emphasis on content validity, and then revalidating the model specified herein (or extending it accordingly) with the new measures (Venkatesh, 2003). Gender is an important part of this model. Because gender is not an issue in the current research this affects the Usage of this model negatively. Also because this model is still under development it was not used for this research.

*Uses and gratification theory*

The uses and gratification theory can help to determine the goals of people when accessing information. In 1959, Elihu Katz first introduced the uses and gratifications theory (Severin & Tankard, 2001, p. 293). This theory states that people choose the types of media (TV, newspapers, radio, etc.) that they will expose themselves to based on certain gratifications or some sense of personal satisfaction that they expect to receive; this has later been extended to choosing content within and over media; i.e. individuals actively seek out media and content that provide them with useful information or psychological gratifications, such as entertainment or emotional comfort, and avoid media or content with displeasing characteristics (Cooper et al., 2000).

Because the employees were not free to choose their software program of choice (this was done on management-level) is theory is not appropriate for this research.

*The lily model*

The lily model is a model for eHealth literacy comprised of multiple literacy types, including an outline of a set of fundamental Skills consumers require to derive direct benefits from eHealth. eHealth literacy is defined as the ability to seek, find, understand and appraise health information form electronic sources and apply to knowledge gained to addressing or solving a health problem (Norman & Skinner, 2006). Several studies have shown that literacy has an influence on computer use, internet use and disease management (Veenhof, Clermont & Sciadas, 2005; Institute of Medicine, 2004). The Skills required to support full engagement with eHealth resources aimed at supporting population health and patient care are organized into two central types: analytic (traditional literacy & numeracy, media literacy and information literacy) and context-specific (computer literacy, science literacy and health literacy).

This model was not used in the current research because the model is not yet been tested frequently.

## Appendix 4

Evaluation form (in Dutch)

### Evaluatie PC vaardigheden training

Deze evaluatie is een onderdeel van de evaluatie van trainingen voor de implementatie van het Elektronisch Kinddossier (EKD). We zijn vooral geïnteresseerd in uw persoonlijke mening over het EKD.
Lees aub elke vraag zorgvuldig door en antwoord zo goed als mogelijk is. Er zijn geen goede of foute antwoorden. We zijn alleen geïntereseerd in uw persoonlijke mening.
Vul aub bovenaan deze pagina de datum en uw naam in. Uw naam is nodig voor vervolg onderzoek. Ondanks dit worden alle antwoorden geanonimiseerd en strikt vertrouwelijk behandeld. De trainingsleider krijgt uw antwoorden niet te zien. Daarnaast zullen geen medewerkers van ZuidZorg en/of De Zorgboog individuele uitkomsten van deze evaluaties onder ogen krijgen.

Bijvoorbaat dank voor uw deelname aan dit onderzoek.

Instructie
Veel vragen in deze evaluatie maken gebruik van een schaal met 7 antwoordmogelijkheden.
Omcirkel aub het nummer dat het meest overeenkomt met uw antwoord.

Voorbeeld:

Als gevraagd werd om 'het weer in Eindhoven' op zo'n schaal aan te geven, moeten de zeven plaatsen als volgt worden geïnterpreteerd.

Het weer in Eindhoven is:
goed :___1___:___2___:___3___:___4___:___5___:___6___:___7___: slecht
extreem behoorlijk best gemiddeld best behoorlijk extreem

Indien u vindt dat het weer in Eindhoven extreem goed is omcirkelt u nummer 1.

Bij het beantwoorden van de vragen, denk dan aan het volgende:
* Zorg dat u alle vragen beantwoordt – sla niets over.
* Omcirkel nooit meer dan 1 nummer per regel.

Achtergrondinformatie:
Geslacht: man / vrouw
Opleidingsniveau: mavo/mbo, havo/hbo, vwo/universiteit
Leeftijd:___ jaar
Huidige functie:_____

Beantwoord a.u.b. de onderstaande vragen door het nummer te omcirkelen dat het beste bij uw mening past. Sommige vragen lijken over hetzelfde te gaan, maar ze verschillen altijd iets van elkaar. Lees zorgvuldig de vraag.

B. 1. Tijdens de afgelopen 2 weken, heb ik ongeveer ____ % van mijn werktijd doorgebracht achter de pc.

C1 1. Deelname aan deze training mag ik helemaal zelf bepalen.
extreem mee oneens : 1 : 2 : 3 : 4 : 5 : 6 : 7 : extreem mee eens
2. Deelname aan deze training is
onmogelijk : 1 : 2 : 3 : 4 : 5 : 6 : 7 : mogelijk
3. Indien ik het zou willen zou ik de komende twee weken de training kunnen oefenen
zeker waar : 1 : 2 : 3 : 4 : 5 : 6 : 7 : zeker niet waar

C2 1. De meeste mensen die ik belangrijk vind, vinden dat ik
wel : 1 : 2 : 3 : 4 : 5 : 6 : 7 : niet moet deelnemen aan deze training.
2. De meerderheid van mijn collega's neemt deel aan deze training.
Helemaal waar : 1 : 2 : 3 : 4 : 5 : 6 : 7 : helemaal niet waar
3. Het wordt van mij verwacht dat ik deel neem aan deze training.
Helemaal waar : 1 : 2 : 3 : 4 : 5 : 6 : 7 : helemaal niet waar

C3 1. Deelname aan deze training is voor mij…
extreem moeilijk : 1 : 2 : 3 : 4 : 5 : 6 : 7 : extreem makkelijk
2. Deelname aan deze training is voor mij…
extreem waardevol : 1 : 2 : 3 : 4 : 5 : 6 : 7 : extreem zinloos
3. Deelname aan deze training vind ik…
heel fijn : 1 : 2 : 3 : 4 : 5 : 6 : 7 : heel erg
4. Deelname vind ik…
Zeer interessant : 1 : 2 : 3 : 4 : 5 : 6 : 7 : Zeer oninteressant

C4 1. Ik ben van plan deel te nemen aan deze training en de opdrachten te maken
extreem waarschijnlijk : 1 : 2 : 3 : 4 : 5 : 6 : 7 : extreem onwaarschijnlijk

| E.<br><br>Door deelname aan deze training… | Extreem onwaarschijnlijk | Behoorlijk onwaarschijnlijk | Best onwaarschijnlijk | Neutraal | Best waarschijnlijk | Behoorlijk waarschijnlijk | Extreem waarschijnlijk |
|---|---|---|---|---|---|---|---|
| 1. kan ik mijn werkzaamheden beter uitvoeren. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2. kan ik communiceren met de trainer | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3. mis ik andere werkzaamheden | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 4. leer ik beter omgaan met de pc. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 5. krijg ik informatie en uitleg over de pc. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

| H. | Extreem waarschijnlijk | Behoorlijk waarschijnlijk | Best waarschijnlijk | Neutraal | Best onwaarschijnlijk | Behoorlijk onwaarschijnlijk | Extreem onwaarschijnlijk |
|---|---|---|---|---|---|---|---|
| 1. De trainer vind dat ik deel moet nemen aan de training | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2. Mijn familie vind dat ik deel moet nemen aan de training | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3. Mijn vrienden vinden dat ik deel moet nemen aan de training | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 4. Mijn collega's vinden dat ik deel moet nemen aan de training | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

| G. | Extreem waar | Behoorlijk waar | Best waar | Neutraal | Best niet waar | Behoorlijk niet waar | Extreem niet waar |
|---|---|---|---|---|---|---|---|
| 1. Indien onverwachte zaken meer tijd in beslag nemen, kan ik minder tijd aan de training besteden | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2. Indien ik moe of ziek ben is het voor mij moeilijker om deel te nemen aan de training | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3. Indien ik familiezaken heb, is het voor mij moeilijker om deel te nemen aan de training | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 4. Indien ik onverwachts moet werken, is het voor mij moeilijker om deel te nemen aan de training | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 5. Indien ik onverwachts tijd moet steken in andere trainingen, is het voor mij moeilijker om deel te nemen | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

I. Aantal uren in training gestoken. ___ uur (alleen invullen indien training al heeft plaatsgevonden)

J. Ik vind de pc onaantrekkelijk:___1__:___2__:___3__:___4__:___5__:___6__:___7__: aantrekkelijk
Ik heb belangstelling :__1__:__2__:__3__:___4__:___5__:___6__:___7__: geen belangstelling voor de pc
Ik heb ervaring :___1__:___2__:___3__:___4__:___5__:___6__:___7__: geen ervaring met de pc
Ik heb extreme angst:___1__:___2__:___3__:___4__:___5__:___6__:___7__: geen angst voor de pc
Ik ben in het bezit v an een pc. Mee eens:__1__:__2__:__3__:___4__:__5__:___6__:___7__: mee oneens.
Ik heb toegang tot een pc. Mee eens:__1__:__2__:__3__:__4__:__5__:__6__:__7__: extreem mee oneens.
Ik vind de pc gebruiksvriendelijk:___1__:___2__:___3__:___4__:___5__:___6__:___7__: -onvriendelijk
Ik ben onderwezen/heb training gehad in het gebruik van de pc
Mee eens:___1__:___2__:___3__:___4__:___5__:___6__:___7__: mee oneens
Ik weet hoe ik een pc moet gebruiken
Mee eens:___1__:___2__:___3__:___4__:___5__:___6__:___7__: mee oneens
Ik kan een pc gebruiken
Mee eens:___1__:___2__:___3__:___4__:___5__:___6__:___7__: mee oneens

| | Extreem zelden | Behoorlijk zelden | Best zelden | Neutraal | Best vaak | Behoorlijk vaak | Extreem vaak |
|---|---|---|---|---|---|---|---|
| 1. Ik gebruik de pc | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2. Ik gebruik de pc voor internet/email | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3. Ik gebruik de pc voor tekstverwerking (bv. Word / excell) | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 4. Ik gebruik de pc voor presentaties (bv. powerpoint) | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 5. Ik gebruik de pc voor beeld (bv. foto/filmbewerking) | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

K.
1. Wat is je visie op het EKD?

_____
_____
_____

2. Verandert het EKD de werkpraktijk? Zoja, hoe?

_____
_____
_____

# Appendix 5

Tables per sub question

1. How do different actors view the ECR and does training have an influence on this?

Table 8a. Response per category for PC training

| **PC training** | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Pretraining | | | | | | | | Post training | | | | | | | |
| | A | | | | B | | | | A | | | | B | | | |
| | a | b | c | d | a | b | c | d | a | b | c | d | a | b | c | d |
| Negative | | 1 | | | | | | | | | 1 | | | 1 | | |
| Minimally negative | | 1 | | | | 2 | 1 | | | | | | | 3 | 1 | 1 |
| Neutral | | | | | 1 | | | | 1 | 1 | | | 2 | 4 | 2 | 2 |
| Minimally positive | 1 | 1 | 1 | | | | | | 1 | 4 | 1 | 4 | | 1 | | |
| Positive | | 2 | | 1 | | 3 | | 1 | | 5 | 2 | | | 2 | 1 | |
| No answer | 4 | 11 | 7 | 4 | 4 | 11 | 7 | 4 | 1 | 1 | | | 1 | | | 1 |

A = question A, B = question B, a = assistant, b = nurse, c = doctor, d = others.

Table 8b. Response per category for ECR training

| **ECR training** | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Pretraining | | | | | | | | Post training | | | | | | | |
| | A | | | | B | | | | A | | | | B | | | |
| | a | b | c | d | a | b | c | d | a | b | c | d | a | b | c | d |
| Negative | | | | | | | 2 | | | | | | | | | |
| Minimally negative | | | 1 | | | 2 | 1 | | | | 1 | 1 | 1 | 1 | | |
| Neutral | 2 | 2 | | | 4 | 10 | 3 | 6 | 1 | | | | 2 | 2 | | 3 |
| Minimally positive | 1 | 3 | | 6 | | 1 | | | | 1 | | 2 | 1 | 1 | 1 | 2 |
| Positive | | 8 | 3 | 1 | | 2 | | | 2 | 3 | | 2 | | 1 | | 1 |
| No answer | 3 | 6 | 5 | 1 | 1 | 5 | 4 | | 1 | 4 | 1 | 1 | | 3 | 1 | |

A = question A, B = question B, a = assistant, b = nurse, c = doctor, d = others.

Table 8c. Response per category for ECR during consult training

| **ECR during consult training** | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Pretraining | | | | | | | | Post training | | | | | | | |
| | A | | | | B | | | | A | | | | B | | | |
| | a | b | c | d | a | b | c | d | a | b | c | d | a | b | c | d |
| Negative | | | | | | | 2 | | | 2 | | | | 1 | | |
| Minimally negative | | | 2 | | | | | | | 1 | 1 | | | 1 | 1 | |
| Neutral | 1 | 5 | | | 1 | 10 | 6 | 2 | | | | | | | 1 | |
| Minimally positive | | 4 | 4 | | | 1 | | | | | | | | 1 | | |
| Positive | | 4 | 2 | 3 | | 2 | | 1 | | 1 | 1 | | | 1 | 1 | |
| No answer | 1 | 6 | | 1 | 1 | 6 | | 1 | | 2 | 2 | 1 | | 2 | 1 | 1 |

A = question A, B = question B, a = assistant, b = nurse, c = doctor, d = others.

*2a. What meanings do employee's attribute to their own capabilities with computers?*

Table 9. Descriptive Statistics of the constructs pre PC training

| | Mean | N | Min. | Max. | SD |
|---|---|---|---|---|---|
| Attitude toward behavior | 5,6010 | 33 | 4,00 | 6,67 | ,69714 |
| Subjective norm | 5,2108 | 34 | 3,00 | 6,83 | ,96862 |
| Behavioral beliefs | 4,9327 | 33 | 4,00 | 6,33 | ,46642 |
| Control beliefs | 4,6235 | 34 | 3,00 | 6,00 | ,97703 |
| Perceived behavioral control | 4,4470 | 33 | 2,50 | 7,00 | ,99561 |
| Normative beliefs | 4,1875 | 32 | 2,25 | 6,25 | 1,05494 |

Table 10. Analysis of variance

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Regression | 10,392 | 3 | 3,464 | 4,190 | **,015** |
| Residual | 22,318 | 27 | ,827 | | |
| Total | 32,710 | 30 | | | |

Table 11. Coefficients

| | Unstandardized Coefficients | | Standardized Coefficients | | |
|---|---|---|---|---|---|
| | B | Std. Error | Beta | t | Sig. |
| (Constant) | 6.320 | 2.099 | | 3.011 | .006 |
| pbc | -.073 | .170 | -.072 | -.429 | .672 |
| sn | -.462 | .166 | -.459 | -2.774 | **.010** |
| atb | .491 | .250 | .318 | 1.966 | **.060** |

Table 12. Descriptive Statistics of the questions of the pre PC training

| | Mean | N | Min. | Max. | SD |
|---|---|---|---|---|---|
| **Subjective norm (p1)** | 5,5294 | 34 | 3 | 7 | 1,11349 |
| The people whom I find important, believe I should participate in this training. | 5.5000 | 34 | 1 | 7 | 1.76240 |
| Most of my colleagues are taking part in this training. | 4.7059 | 34 | 1 | 7 | 2.27675 |
| It is expected of my that I take part in this training. | 6.3824 | 34 | 2 | 7 | 1.10137 |
| **Attitude toward behavior (p1)** | 5,4545 | 33 | 4 | 6,5 | 0,70283 |
| For me participating in this training is…difficult / easy | 4.7059 | 34 | 2 | 6 | 1.19416 |
| For me participating in this training is …useless / useful | 5.6765 | 34 | 4 | 7 | .97610 |
| For me participating in this training is … bad / nice | 5.4545 | 33 | 3 | 7 | 1.03353 |
| Participating in this training is…not - / interesting | 6.0303 | 33 | 4 | 7 | 1.01504 |

*3a. What was the impact of the training on the meaning employees attribute to their own capabilities with computers?*

Table 13. Descriptive Statistics of the constructs post PC training

| | Mean | N | Min. | Max. | SD |
|---|---|---|---|---|---|
| Behavioral beliefs | 5.3182 | 22 | 4.40 | 6.20 | .56115 |
| Attitude toward behavior | 5.1136 | 22 | 3.50 | 6.25 | .70173 |
| Control beliefs | 4.8333 | 6 | 4.00 | 6.00 | .88015 |
| Subjective norm | 4.7727 | 22 | 3.00 | 7.00 | 1.17463 |
| Perceived behavioral control | 4.5000 | 22 | 3.00 | 6.00 | .78848 |
| Normative beliefs | 3.7159 | 22 | 1.00 | 5.25 | 1.10544 |

Table 14. Analysis of variance

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Regression | 6,973 | 3 | 2,324 | ,626 | ,608 |
| Residual | 66,845 | 18 | 3,714 | | |
| Total | 73,818 | 21 | | | |

Table 15. Coefficients

| | Unstandardized Coefficients | | Standardized Coefficients | | |
|---|---|---|---|---|---|
| | B | Std. Error | Beta | t | Sig. |
| (Constant) | 1.037 | 3.800 | | .273 | .788 |
| pbc | .237 | .543 | .100 | .437 | .667 |
| sn | -.200 | .370 | -.125 | -.539 | .597 |
| atb | .735 | .629 | .275 | 1.168 | .258 |

Table 16. Paired Samples Test PC trainings

| | Paired Differences | | | | | t | df | Sig. (2-tailed) |
|---|---|---|---|---|---|---|---|---|
| | Mean | SD | Std. Error Mean | 95% Confidence Interval of the Difference | | | | |
| | | | | Lower | Upper | | | |
| Perc. behavioral control | ,36364 | 1,01267 | ,21590 | -,08535 | ,81263 | 1,684 | 21 | ,107 |
| Subjective norm | ,65152 | 1,13379 | ,24172 | ,14882 | 1,15421 | 2,695 | 21 | **,014** |
| Attitude toward behavior | ,31818 | ,67780 | ,14451 | ,01766 | ,61870 | 2,202 | 21 | **,039** |
| Control beliefs | -,86667 | 1,12190 | ,45802 | -2,04403 | ,31070 | -1,892 | 5 | ,117 |
| Normative beliefs | ,32143 | 1,56553 | ,34163 | -,39119 | 1,03405 | ,941 | 20 | ,358 |
| Behavioral beliefs | ,02857 | ,65509 | ,14295 | -,26962 | ,32676 | ,200 | 20 | ,844 |

Table 17. Descriptive Statistics of the questions of the pre / post PC training

| | Mean | N | Min. | Max. | SD |
|---|---|---|---|---|---|
| **Subjective norm (p1)** | 5,5294 | 34 | 3 | 7 | 1,11349 |
| The people whom I find important, believe I should participate in this training. | 5.5000 | 34 | 1 | 1 | 1.76240 |
| Most of my colleagues are taking part in this training. | 4.7059 | 34 | 1 | 7 | 2.27675 |
| It is expected of my that I take part in this training. | 6.3824 | 34 | 2 | 7 | 1.10137 |
| **Attitude toward behavior (p1)** | 5,4545 | 33 | 4 | 6,5 | 0,70283 |
| For me participating in this training is…difficult / easy | 4.7059 | 34 | 2 | 6 | 1.19416 |
| For me participating in this training is …useless / useful | 5.6765 | 34 | 4 | 7 | .97610 |
| For me participating in this training is… bad/ nice | 5.4545 | 33 | 3 | 7 | 1.03353 |
| Participating in this training is…Not - / interesting | 6.0303 | 33 | 4 | 7 | 1.01504 |
| **Subjective norm (p2)** | 4,7727 | 22 | 3 | 7 | 1,17463 |
| The people whom I find important, believe I should participate in this training. | 4.9545 | 22 | 2 | 7 | 1.46311 |
| Most of my colleagues are taking part in this training. | 3.6818 | 22 | 1 | 7 | 2.23365 |
| It is expected of my that I take part in this training. | 5.6818 | 22 | 3 | 7 | 1.32328 |
| **Attitude toward behavior (p2)** | 5,1136 | 22 | 3,5 | 6,25 | 0,70173 |
| For me participating in this training is…difficult / easy | 5.0455 | 22 | 2 | 7 | 1.21409 |
| For me participating in this training is …useless / useful | 4.6818 | 22 | 2 | 7 | 1.28680 |
| For me participating in this training is… bad/ nice | 5.0909 | 22 | 3 | 7 | 1.06499 |
| Participating in this training is…Not - / interesting | 5.6364 | 22 | 3 | 7 | 1.00216 |

*2b. What meanings do employee's attribute to their own capabilities with the ECR?*

Table 18. Paired Samples Statistics pre ECR training

| | Mean | N | Min. | Max. | SD | Std. Error Mean |
|---|---|---|---|---|---|---|
| Behavioral beliefs | 5,6000 | 19 | 2.20 | 7.00 | ,51640 | ,11847 |
| Attitude toward behavior | 5,5000 | 19 | 3.50 | 7.00 | ,78617 | ,18036 |
| Subjective norm | 5,2778 | 18 | 2.67 | 7.00 | 1,34917 | ,31800 |
| Control beliefs | 4,7474 | 19 | 2.60 | 7.00 | ,86369 | ,19814 |
| Normative beliefs | 4.4868 | 19 | 2.25 | 6.25 | .83945 | .19258 |
| Perceived behavioral control | 4,4561 | 19 | 3.00 | 6.33 | ,91091 | ,20898 |

Table 19. Analysis of variance

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Regression | 7,691 | 3 | 2,564 | 4,100 | **,014** |
| Residual | 20,633 | 33 | ,625 | | |
| Total | 28,324 | 36 | | | |

Table 20. Coefficients

| | Unstandardized Coefficients | | Standardized Coefficients | | |
|---|---|---|---|---|---|
| | B | Std. Error | Beta | t | Sig. |
| (Constant) | 2.416 | 1.233 | | 1.960 | .058 |
| pbc | -.046 | .159 | -.044 | -.289 | .774 |
| sn | .214 | .113 | .289 | 1.904 | **.066** |
| atb | .468 | .173 | .412 | 2.712 | **.011** |

Table 21. Descriptive Statistics of the questions of the pre ECR training

| | Mean | N | Min. | Max. | SD |
|---|---|---|---|---|---|
| **Subjective norm (e1)** | 5,3417 | 40 | 2,67 | 7 | 1,16082 |
| The people whom I find important, believe I should participate in this training. | 5.0488 | 41 | 2 | 7 | 1.37752 |
| Most of my colleagues are taking part in this training. | 4.8333 | 42 | 1 | 7 | 1.93702 |
| It is expected of my that I take part in this training. | 6.0488 | 41 | 2 | 7 | 1.26395 |
| **Attitude toward behavior (e1)** | 5,3537 | 41 | 3,5 | 7 | 0,79052 |
| For me participating in this training is…difficult / easy | 4.6905 | 42 | 2 | 7 | 1.38789 |
| For me participating in this training is …useless / useful | 5.4762 | 42 | 3 | 7 | 1.15269 |
| For me participating in this training is… bad/ nice | 5.3171 | 41 | 2 | 7 | 1.21324 |
| Participating in this training is…Not - / interesting | 5.9048 | 42 | 2 | 7 | 1.03145 |

*3b. What was the impact of the training on the meaning employees attribute to their own capabilities with the ECR?*

Table 22. Paired Samples Statistics post ECR training

| | Mean | N | Min. | Max. | SD |
|---|---|---|---|---|---|
| Attitude toward behavior | 5.5000 | 19 | 3.750 | 6.750 | .677003 |
| Behavioral beliefs | 5.4316 | 19 | 2.40 | 7.00 | 1.01601 |
| Subjective norm | 5.1852 | 18 | 2.33 | 7.00 | 1.47406 |
| Control beliefs | 4.7684 | 19 | 3.40 | 7.00 | .91957 |
| Perceived behavioral control | 4.4912 | 19 | 2.67 | 6.00 | 1.00841 |
| Normative beliefs | 4.3684 | 19 | 2.25 | 6.25 | .83902 |

Table 23. Analysis of variance

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Regression | ,771 | 3 | ,257 | ,220 | ,881 |
| Residual | 16,340 | 14 | 1,167 | | |
| Total | 17,111 | 17 | | | |

Table 24. Coefficients

| | Unstandardized Coefficients | | Standardized Coefficients | | |
|---|---|---|---|---|---|
| | B | Std. Error | Beta | t | Sig. |
| (Constant) | 6.756 | 3.016 | | 2.240 | .042 |
| pbc | -.214 | .280 | -.219 | -.762 | .459 |
| sn | -.065 | .199 | -.095 | -.326 | .749 |
| atb | .136 | .407 | .091 | .335 | .742 |

Table 25. Paired Samples Test ECR training

| | Paired Differences | | | | | t | df | Sig. (2-tailed) |
|---|---|---|---|---|---|---|---|---|
| | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference | | | | |
| | | | | Lower | Upper | | | |
| per. behavioral control | -,03509 | 1,21663 | ,27911 | -,62148 | ,55131 | -,126 | 18 | ,901 |
| Subjective norm | ,09259 | ,79051 | ,18633 | -,30052 | ,48570 | ,497 | 17 | ,626 |
| Attitude toward behavior | ,00000 | 1,027402 | ,235702 | -,495192 | ,495192 | ,000 | 18 | 1,000 |
| Control beliefs | -,02105 | ,78851 | ,18090 | -,40110 | ,35900 | -,116 | 18 | ,909 |
| Normative beliefs | ,11842 | ,92559 | ,21235 | -,32770 | ,56454 | ,558 | 18 | ,584 |
| Behavioral beliefs | ,16842 | 1,02905 | ,23608 | -,32757 | ,66441 | ,713 | 18 | ,485 |

*2c. What meanings do employee's attribute to their own capabilities with the use of the ECR during a consult?*

Table 26. Paired Samples Statistics ECR during consult training

| | Mean | N | Min. | Max. | SD |
|---|---|---|---|---|---|
| Subjective norm | 5,6667 | 10 | 3.67 | 6.67 | ,80123 |
| Control beliefs | 5,4182 | 11 | 2.80 | 7.00 | ,96521 |
| Attitude toward behavior | 5,2500 | 11 | 3.50 | 6.50 | ,68920 |
| Behavioral beliefs | 5,0909 | 11 | 2.00 | 6.20 | 1,13266 |
| Perceived behavioral control | 4,2727 | 11 | 2.67 | 6.67 | ,98678 |
| Normative beliefs | 4,1250 | 10 | 3.00 | 6.00 | ,80147 |

Table 27. Analysis of variance

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Regression | 2,093 | 3 | ,698 | ,562 | ,645 |
| Residual | 27,291 | 22 | 1,241 | | |
| Total | 29,385 | 25 | | | |

Table 28. Coefficients

| | Unstandardized Coefficients | | Standardized Coefficients | | |
|---|---|---|---|---|---|
| | B | Std. Error | Beta | t | Sig. |
| (Constant) | 2.247 | 2.897 | | .776 | .446 |
| pbc | .399 | .347 | .253 | 1.151 | .262 |
| sn | .078 | .238 | .070 | .327 | .746 |
| atb | .295 | .345 | .188 | .855 | .402 |

*3c. What was the impact of the training on the meaning employees attribute to their own capabilities with the use of the ECR during a consult?*

Table 29. Paired Samples Statistics ECR during consult training

| | Mean | N | Min. | Max. | SD |
|---|---|---|---|---|---|
| Behavioral beliefs | 5,3818 | 11 | 3.20 | 6.80 | ,97347 |
| Control beliefs | 5,3455 | 11 | 3.20 | 7.00 | 1,20695 |
| Subjective norm | 5,3000 | 10 | 3.33 | 6.67 | ,94868 |
| Attitude toward behavior | 4,8182 | 11 | 3.25 | 5.75 | ,63335 |
| Perceived behavioral control | 4,1212 | 11 | 2.33 | 5.00 | ,82020 |
| Normative beliefs | 4,0750 | 10 | 2.50 | 5.50 | ,89015 |

Table 30. Analysis of variance

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Regression | 16,752 | 3 | 5,584 | 1,872 | ,223(a) |
| Residual | 20,884 | 7 | 2,983 | | |
| Total | 37,636 | 10 | | | |

Table 31. Coefficients

| | Unstandardized Coefficients | | Standardized Coefficients | | |
|---|---|---|---|---|---|
| | B | Std. Error | Beta | t | Sig. |
| (Constant) | -.407 | 5.171 | | -.079 | .939 |
| pbc | -.969 | .925 | -.417 | -1.048 | .329 |
| sn | .846 | .508 | .501 | 1.664 | .140 |
| atb | 1.275 | 1.062 | .455 | 1.200 | .269 |

Table 32. Paired Samples Test ECR during consult training

| | Paired Differences | | | | | t | df | Sig. (2-tailed) |
|---|---|---|---|---|---|---|---|---|
| | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference | | | | |
| | | | | Lower | Upper | | | |
| Perceived behavioral control | ,15152 | ,89893 | ,27104 | -,45240 | ,75543 | ,559 | 10 | ,588 |
| Subjective norm | ,36667 | ,61764 | ,19532 | -,07517 | ,80850 | 1,877 | 9 | ,093 |
| Attitude toward behavior | ,43182 | ,41969 | ,12654 | ,14987 | ,71377 | 3,413 | 10 | **,007** |
| Control beliefs | ,07273 | ,58837 | ,17740 | -,32255 | ,46800 | ,410 | 10 | ,690 |
| Normative beliefs | ,05000 | 1,02605 | ,32447 | -,68399 | ,78399 | ,154 | 9 | ,881 |
| Behavioral beliefs | -,29091 | 1,48691 | ,44832 | -1,28983 | ,70801 | -,649 | 10 | ,531 |

Table 33. Descriptive Statistics of the questions of the pre / post ECR during consult training

| | Mean | N | Min. | Max. | SD |
|---|---|---|---|---|---|
| **Attitude toward behavior (c1)** | 5,2155 | 29 | 3,5 | 6,5 | 0,71565 |
| For me participating in this training is…difficult / easy | 4.4138 | 29 | 2 | 7 | 1.52403 |
| For me participating in this training is …useless / useful | 5.5172 | 29 | 2 | 7 | 1.12188 |
| For me participating in this training is… bad/ nice | 5.2759 | 29 | 2 | 7 | 1.22172 |
| Participating in this training is…Not - / interesting | 5.6552 | 29 | 2 | 7 | 1.28940 |
| **Attitude toward behavior (c2)** | 4,8958 | 12 | 3,25 | 5,75 | 0,66108 |
| For me participating in this training is…difficult / easy | 4.6667 | 12 | 3 | 6 | 1.07309 |
| For me participating in this training is …useless / useful | 5.2500 | 12 | 2 | 6 | 1.13818 |
| For me participating in this training is… bad/ nice | 4.7500 | 12 | 4 | 6 | .75378 |
| Participating in this training is…Not - / interesting | 4.9167 | 12 | 4 | 6 | 379296 |

*4a. Does access to ICT have an impact on the meanings employees attribute to their own capabilities with using ICT?*

Table 34. Descriptive Statistics of the constructs pre PC training

| | Mean | N | Min. | Max. | SD |
|---|---|---|---|---|---|
| Possession | 6,5000 | 33 | 2,00 | 7,00 | 1,34048 |
| Motivation | 5,2121 | 33 | 3,00 | 7,00 | 1,09709 |
| Skills | 5,0682 | 33 | 2,50 | 7,00 | 1,36684 |
| Usage | 4,2294 | 34 | 1,60 | 6,40 | 1,26120 |

Table 35. Analysis of variance TPB1

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Regression | 7,535 | 3 | 2,512 | 2,482 | ,082 |
| Residual | 27,320 | 27 | 1,012 | | |
| Total | 34,855 | 30 | | | |

Table 36. Coefficients TPB1

| | Unstandardized Coefficients | | Standardized Coefficients | | |
|---|---|---|---|---|---|
| | B | Std. Error | Beta | t | Sig. |
| (Constant) | 4.345 | 2.390 | | 1.818 | .080 |
| pbc | .262 | .189 | .257 | 1.391 | .176 |
| sn | -.305 | .209 | -270 | -1.463 | .155 |
| atb | .240 | .262 | .158 | .917 | .367 |

Table 37. Analysis of variance TPB2

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Regression | 11,889 | 7 | 1,698 | 1,870 | ,124 |
| Residual | 19,978 | 22 | ,908 | | |
| Total | 31,867 | 29 | | | |

Table 38. Coefficients TPB2

| | Unstandardized Coefficients | | Standardized Coefficients | | |
|---|---|---|---|---|---|
| | B | Std. Error | Beta | t | Sig. |
| (Constant) | 6.247 | 2.478 | | 2.520 | .019 |
| Pbc | -.144 | .199 | -.143 | -.722 | .478 |
| Sn | -.461 | .213 | -.412 | -2.163 | **.042** |
| Atb | .321 | .290 | .210 | 1.108 | .280 |
| Motivation | -.074 | .230 | -.077 | -.321 | .751 |
| Possession | .112 | .155 | .149 | .721 | .479 |
| Skills | .155 | .189 | .197 | .820 | .421 |
| Usage | .057 | .177 | .063 | .323 | .750 |

*4b. Does access to ICT have an impact on the meanings employee's attribute to their own capabilities with using ICT after the employees have received training in this?*

Table 39. Descriptive Statistics of the constructs post PC training

| | Mean | N | Min. | Max. | SD |
|---|---|---|---|---|---|
| Possession | 6.7500 | 22 | 4.00 | 7.00 | .68574 |
| Skills | 5.6591 | 22 | 3.00 | 7.00 | 1.13532 |
| Motivation | 5.5595 | 21 | 3.75 | 7.00 | .99970 |
| Usage | 4.2727 | 22 | 1.40 | 6.00 | 1.14733 |

Table 40. Analysis of variance TPB1

| | Sum of Squares | Df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Regression | 3.431 | 3 | 1.144 | 1.174 | .349 |
| Residual | 16.557 | 17 | .974 | | |
| Total | 19.988 | 20 | | | |

Table 41. Coefficients TPB1

| | Unstandardized Coefficients | | Standardized Coefficients | | |
|---|---|---|---|---|---|
| | B | Std. Error | Beta | t | Sig. |
| (Constant) | 3.407 | 2.175 | | 1.567 | .136 |
| pbc | .520 | .305 | .380 | 1.706 | .106 |
| sn | -.103 | .192 | -.122 | -.537 | .598 |
| atb | .067 | .328 | .046 | .203 | .842 |

Table 42. Analysis of variance TPB2

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Regression | 16,940 | 7 | 2,420 | ,602 | ,745(a) |
| Residual | 52,298 | 13 | 4,023 | | |
| Total | 69,238 | 20 | | | |

Table 43. Coefficients TPB2

| | Unstandardized Coefficients | | Standardized Coefficients | | |
|---|---|---|---|---|---|
| | B | Std. Error | Beta | t | Sig. |
| (Constant) | 8.140 | 6.063 | | 1.343 | .202 |
| pbc | .601 | .720 | .236 | .834 | .419 |
| sn | -.147 | .456 | -.094 | -.323 | .752 |
| atb | .543 | .727 | .201 | .748 | .468 |
| Motivation | -.204 | .769 | -.110 | -.265 | .795 |
| Possession | -.616 | .717 | -.232 | -.859 | .406 |
| Skills | -.378 | .511 | -.231 | -.739 | .473 |
| Usage | -.153 | .734 | -.095 | -.209 | .838 |

Table 44. Paired Samples Test PC trainings

| | Paired Differences | | | | | t | df | Sig. (2-tailed) |
|---|---|---|---|---|---|---|---|---|
| | Mean | SD | Std. Error Mean | 95% Confidence Interval of the Difference | | | | |
| | | | | Lower | Upper | | | |
| Motivation | -,48750 | ,90857 | ,20316 | -,91272 | -,06228 | -2,400 | 19 | **,027** |
| Possession | -,26190 | 1,13599 | ,24789 | -,77900 | ,25519 | -1,057 | 20 | ,303 |
| Skills | -,69048 | ,88355 | ,19281 | -1,09266 | -,28829 | -3,581 | 20 | **,002** |
| Usage | -,17273 | ,89930 | ,19173 | -,57146 | ,22600 | -,901 | 21 | ,378 |

*4c. Does access to ICT have an impact on the meanings employee's attribute to their own capabilities with using the Electronic Child Record?*

Table 45. Paired Samples Statistics pre ECR training

| | Mean | N | Min. | Max. | SD | Std. Error Mean |
|---|---|---|---|---|---|---|
| Motivation | 4,9868 | 19 | 3.25 | 6.75 | ,91467 | ,20984 |
| Possession | 3,3333 | 18 | 1.00 | 7.00 | 2,22948 | ,52549 |
| Skills | 3,0313 | 16 | 1.00 | 6.75 | 1,64792 | ,41198 |
| Usage | 2,3692 | 13 | 1.00 | 5.60 | 1,66703 | ,46235 |

Table 46. Analysis of variance TPB1

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Regression | 7.818 | 3 | 2.606 | 3.072 | **.041** |
| Residual | 27.993 | 33 | .848 | | |
| Total | 35.811 | 36 | | | |

Table 47. Coefficients TPB1

| | Unstandardized Coefficients | | Standardized Coefficients | | |
|---|---|---|---|---|---|
| | B | Std. Error | Beta | t | Sig. |
| (Constant) | .770 | 1.437 | | .536 | .596 |
| pbc | .270 | .184 | .233 | 1.463 | .153 |
| sn | .127 | .131 | .152 | .968 | .340 |
| atb | .436 | .199 | .344 | 2.191 | **.036** |

Table 48. Analysis of variance TPB2

| | Sum of Squares | Df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Regression | 13.543 | 7 | 1.935 | 4.598 | **.003** |
| Residual | 9.257 | 22 | .421 | | |
| Total | 22.800 | 29 | | | |

Table 49. Coefficients TPB2

| | Unstandardized Coefficients | | Standardized Coefficients | | |
|---|---|---|---|---|---|
| | B | Std. Error | Beta | t | Sig. |
| (Constant) | .222 | 1.491 | | .149 | .883 |
| pbc | -.009 | .173 | -.008 | -.049 | .961 |
| sn | .148 | .138 | .193 | 1.074 | .295 |
| atb | .776 | .187 | .632 | 4.141 | **.000** |
| Motivation | .313 | .250 | .353 | 1.252 | .224 |
| Possession | -.124 | .083 | -.304 | -1.493 | .150 |
| Skills | -.218 | .103 | -.432 | -2.121 | **.045** |
| Usage | .060 | .111 | .101 | .539 | .595 |

*4d. Does access to ICT have an impact on the meanings employee's attribute to their own capabilities with using the Electronic Child Record after the employees have received training in this?*

Table 50. Paired Samples Statistics post ECR training

| | Mean | N | Min. | Max. | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|---|---|
| Skills | 5.9688 | 16 | 4.25 | 7.00 | .78462 | .19615 |
| Possession | 5.2222 | 18 | 1.50 | 7.00 | 1.80051 | .42438 |
| Motivation | 4.2763 | 19 | 3.25 | 5.25 | .6612 | .15282 |
| Usage | 3.2000 | 13 | 1.00 | 6.20 | 1.77200 | .49147 |

Table 51. Analysis of variance TPB1

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Regression | 2.103 | 3 | .701 | 1.870 | .181 |
| Residual | 5.248 | 14 | .375 | | |
| Total | 7.351 | 17 | | | |

Table 52. Coefficients TPB1

| | Unstandardized Coefficients | | Standardized Coefficients | | |
|---|---|---|---|---|---|
| | B | Std. Error | Beta | t | Sig. |
| (Constant) | 3.478 | 1.709 | | 2.035 | .061 |
| pbc | -.030 | .159 | -.046 | -186 | .855 |
| sn | -.161 | .113 | -.361 | -1.428 | .175 |
| atb | .326 | .230 | .333 | 1.416 | .179 |

Table 53. Analysis of variance TPB2

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Regression | 9.189 | 7 | 1.313 | 3.476 | .095 |
| Residual | 1.888 | 5 | .378 | | |
| Total | 11.077 | 12 | | | |

Table 54. Coefficients TPB2

| | Unstandardized Coefficients | | Standardized Coefficients | | |
|---|---|---|---|---|---|
| | B | Std. Error | Beta | t | Sig. |
| (Constant) | -3.618 | 3.807 | | -.950 | .386 |
| Pbc | .234 | .250 | .267 | .934 | .393 |
| Sn | .306 | .188 | .491 | 1.628 | .164 |
| Atb | .516 | .435 | .400 | 1.185 | .289 |
| Motivation | -.720 | .353 | -.516 | -2.043 | **.096** |
| Possession | .011 | .140 | .020 | .076 | .942 |
| Skills | 1.305 | .318 | .962 | 4.108 | **.009** |
| Usage | -.101 | .133 | -.186 | -.756 | .484 |

Table 55. Paired Samples Test ECR training

| | Paired Differences | | | | | t | df | Sig. (2-tailed) |
|---|---|---|---|---|---|---|---|---|
| | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference | | | | |
| | | | | Lower | Upper | | | |
| Motivation | ,71053 | ,76496 | ,17549 | ,34183 | 1,07922 | 4,049 | 18 | **,001** |
| Possession | -1,88889 | 2,25933 | ,53253 | -3,01243 | -,76535 | -3,547 | 17 | **,002** |
| Skills | -2,93750 | 1,58509 | ,39627 | -3,78213 | -2,09287 | -7,413 | 15 | **,000** |
| Usage | -,83077 | 1,63879 | ,45452 | -1,82108 | ,15954 | -1,828 | 12 | ,093 |

*4e. Does access to ICT have an impact on the meanings employee's attribute to their own capabilities with the use of the Electronic Child Record during a consult?*

Table 56. Paired Samples Statistics ECR during consult training

| | Mean | N | Min. | Max. | SD | Std. Error Mean |
|---|---|---|---|---|---|---|
| Possession | 4,5000 | 11 | 1.00 | 7.00 | 2,01246 | ,60678 |
| Skills | 4,5000 | 11 | 1.00 | 7.00 | ,85878 | ,25893 |
| Usage | 4,3091 | 11 | 1.00 | 5.40 | ,67150 | ,20246 |
| Motivation | 3,9091 | 11 | 2.50 | 5.00 | ,60490 | ,18239 |

Table 57. Analysis of variance TPB1

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Regression | 3.851 | 3 | 1.284 | 3.599 | **.031** |
| Residual | 7.489 | 21 | .357 | | |
| Total | 11.340 | 24 | | | |

Table 58. Coefficients TPB1

| | Unstandardized Coefficients | | Standardized Coefficients | | |
|---|---|---|---|---|---|
| | B | Std. Error | Beta | t | Sig. |
| (Constant) | -.558 | 1.606 | | -.347 | .732 |
| pbc | .298 | .205 | .277 | 1.459 | .159 |
| sn | .064 | .131 | .089 | .490 | .630 |
| atb | .583 | .189 | .596 | 3.088 | **.006** |

Table 59. Analysis of variance TPB2

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Regression | 7.910 | 7 | 1.130 | 1.028 | .464 |
| Residual | 12.090 | 11 | 1.099 | | |
| Total | 20.000 | 18 | | | |

Table 60. Coefficients TPB2

| | Unstandardized Coefficients | | Standardized Coefficients | | |
|---|---|---|---|---|---|
| | B | Std. Error | Beta | t | Sig. |
| (Constant) | 4.251 | 4.035 | | 1.054 | .315 |
| pbc | .549 | .505 | .291 | 1.086 | .301 |
| sn | -.208 | .285 | -.178 | -.727 | .482 |
| atb | .311 | .568 | .148 | .547 | .595 |
| Motivation | -.226 | .527 | -.130 | -.429 | .676 |
| Possession | .340 | .169 | .605 | 2.019 | **.069** |
| Skills | -.089 | .256 | -.105 | -.347 | .735 |
| Usage | -.244 | .544 | -.129 | -.448 | .663 |

*4f. Does access to ICT have an impact on the meanings employee's attribute to their own capabilities with the use of the Electronic Child Record during a consult after the employees have received training in this?*

Table 61. Paired Samples Statistics ECR during consult training

| | Mean | N | Min. | Max. | SD | Std. Error Mean |
|---|---|---|---|---|---|---|
| Skills | 5,2727 | 11 | 1.50 | 6.75 | 1,57104 | ,47369 |
| Usage | 5,0000 | 11 | 3.60 | 6.60 | ,76420 | ,23041 |
| Possession | 4,8182 | 11 | 1.00 | 7.00 | 2,60070 | ,78414 |
| Motivation | 4,0909 | 11 | 3.25 | 5.25 | ,61515 | ,18547 |

Table 62. Analysis of variance TPB1

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Regression | .588 | 3 | .196 | .396 | .759 |
| Residual | 3.954 | 8 | .494 | | |
| Total | 4.542 | 11 | | | |

Table 63. Coefficients TPB1

| | Unstandardized Coefficients | | Standardized Coefficients | | |
|---|---|---|---|---|---|
| | B | Std. Error | Beta | t | Sig. |
| (Constant) | 1.934 | 2.073 | | .933 | .378 |
| pbc | .087 | .374 | .108 | .232 | .823 |
| sn | .160 | .201 | .279 | .798 | .448 |
| atb | .211 | .432 | .217 | .488 | .639 |

Table 64. Analysis of variance TPB2

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Regression | 30,594 | 7 | 4,371 | 1,862 | ,328 |
| Residual | 7,042 | 3 | 2,347 | | |
| Total | 37,636 | 10 | | | |

Table 65. Coefficients TPB2

| | Unstandardized Coefficients | | Standardized Coefficients | | |
|---|---|---|---|---|---|
| | B | Std. Error | Beta | t | Sig. |
| (Constant) | 12.052 | 7.955 | | 1.515 | .227 |
| pbc | .715 | 1.218 | .308 | .587 | .599 |
| sn | 1.151 | .623 | .682 | 1.847 | .162 |
| atb | 1.262 | 1.049 | .450 | 1.202 | .315 |
| Motivation | -2.504 | 1.503 | -.858 | -1.666 | .194 |
| Possession | .579 | .311 | .756 | 1.863 | .159 |
| Skills | -.433 | .394 | -.350 | -1.099 | .352 |
| Usage | -2.254 | 1.268 | -.859 | -1.778 | .174 |

Table 66. Paired Samples Test ECR during consult training

| | Paired Differences | | | | | t | df | Sig. (2-tailed) |
|---|---|---|---|---|---|---|---|---|
| | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference | | | | |
| | | | | Lower | Upper | | | |
| Motivation | -,18182 | ,83734 | ,25247 | -,74435 | ,38071 | -,720 | 10 | ,488 |
| Possession | -,31818 | 3,16443 | ,95411 | -2,44408 | 1,80771 | -,333 | 10 | ,746 |
| Skills | -,77273 | 1,93796 | ,58432 | -2,07467 | ,52921 | -1,322 | 10 | ,215 |
| Usage | -,69091 | ,82638 | ,24916 | -1,24608 | -,13574 | -2,773 | 10 | **,020** |

*Models TPB1 and TPB2*

Table 67. Descriptive Statistics of the questions of the significant constructs of TBP1 model

| | Mean | N | Min. | Max. | SD |
|---|---|---|---|---|---|
| **Attitude toward behavior (e1)** | 5,3537 | 41 | 3,5 | 7 | 0,79052 |
| For me participating in this training is…difficult / easy | 4.6905 | 42 | 2 | 7 | 1.38789 |
| For me participating in this training is …useless / useful | 5.4762 | 42 | 3 | 7 | 1.15269 |
| For me participating in this training is … bad / nice | 5.3171 | 41 | 2 | 7 | 1.21324 |
| Participating in this training is…not - / interesting | 5.9048 | 42 | 2 | 7 | 1.03145 |
| **Attitude toward behavior (c1)** | 5,2155 | 29 | 3,5 | 6,5 | 0,71565 |
| For me participating in this training is…difficult / easy | 4.4138 | 29 | 2 | 7 | 1.52403 |
| For me participating in this training is …useless / useful | 5.5172 | 29 | 2 | 7 | 1.12188 |
| For me participating in this training is … bad / nice | 5.2759 | 29 | 2 | 7 | 1.22172 |
| Participating in this training is…not - / interesting | 5.6552 | 29 | 2 | 7 | 1.28940 |

Table 68. Descriptive Statistics of the questions of the significant constructs of TBP2 model

| | Mean | N | Min. | Max. | SD |
|---|---|---|---|---|---|
| **Subjective norm (p1)** | 5,5294 | 34 | 3 | 7 | 1,11349 |
| The people whom I find important, believe I should participate in this training. | 5.5000 | 34 | 1 | 7 | 1.76240 |
| Most of my colleagues are taking part in this training. | 4.7059 | 34 | 1 | 7 | 2.27675 |
| It is expected of my that I take part in this training. | 6.3824 | 34 | 2 | 7 | 1.10137 |
| **Attitude toward behavior (e1)** | 5,3537 | 41 | 3,5 | 7 | 0,79052 |
| For me participating in this training is…difficult / easy | 4.6905 | 42 | 2 | 7 | 1.38789 |
| For me participating in this training is …useless / useful | 5.4762 | 42 | 3 | 7 | 1.15269 |
| For me participating in this training is … bad / nice | 3.3171 | 41 | 2 | 7 | 1.21324 |
| Participating in this training is…not - / interesting | 5.9048 | 42 | 2 | 7 | 1.03145 |
| **Skills (e1)** | 3,3472 | 36 | 1 | 6,75 | 1,71472 |
| I find the ECR user-friendly | 4.4722 | 36 | 1 | 7 | 1.23024 |
| I have received training in the ECR | 2.5250 | 40 | 1 | 7 | 2.03794 |
| I know how to use the ECR | 2.8750 | 40 | 1 | 7 | 2.19776 |
| I can use the ECR | 2.9250 | 40 | 1 | 7 | 2.24622 |
| **Motivation (e2)** | 4,2763 | 19 | 3,25 | 5,25 | 0,66612 |
| I find the ECR attractive | 5.7895 | 19 | 4 | 7 | .91766 |
| I have interest in the ECR | 6.0000 | 19 | 1 | 7 | 1.37437 |
| I have experience with the ECR | 3.6842 | 19 | 1 | 7 | 2.26207 |
| I have fear for the ECR | 1.6316 | 19 | 1 | 5 | 1.01 |
| **Skills (e2)** | 5,9474 | 19 | 4,25 | 7 | 0,76185 |
| I find the ECR user-friendly | 5.5263 | 19 | 4 | 7 | .96427 |
| I have received training in the ECR | 6.5789 | 19 | 5 | 7 | .69248 |
| I know how to use the ECR | 5.8421 | 19 | 3 | 7 | 1.21395 |
| I can use the ECR | 5.8421 | 19 | 3 | 7 | 1.16729 |
| **Possession (c1)** | 4,037 | 27 | 1 | 7 | 2,14353 |
| I own the ECR during consult | 3.8571 | 28 | 1 | 7 | 2.35253 |
| I have access to the ECR during consult | 4.2759 | 29 | 1 | 7 | 2.40381 |