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E-learning Practice: Case Securitas Oy

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Laurea University of Applied Sciences **Abstract**
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The thesis addresses a new, innovative training method for Securitas Oy. The company wants to explore, if a service referred to as software X (called so because of request from the commissioner of the thesis) could be used for training purposes. E-learning activities utilizing modern high-performance handheld devices offer interesting opportunities for training and improving profitability.

The research was set out to explore, if the software X could be used effectively for training purposes and if so, how. Securitas was also interested in e-learning in general and cost-effectiveness of the method.

The approach taken to solve the matter was research on theoretical background on e-learning, its features and effective use in general. The possible realm of application of the method specific to the company was also discussed. SWOT analysis was used to identify different aspects of the endeavor and to support decision-making. Finally, a pilot project was launched at a work site where the employees' experiences were gathered from practical experimentation and qualitative interview process.

The theoretical research together with the empirical findings from the pilot project suggest that the software X could be used effectively for training purposes with certain preconditions. The implication of this result is that the staff has to fully commit to the endeavor in order to achieve successful results. The company, on the other hand, has the responsibility to motivate, support and guide the employees through the process.

E-learning, interactivity, multimedia learning, private security business, effectiveness, creating content.

Laurea-ammattikorkeakoulu **Tiivistelmä**
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E-oppimiskäytäntö: case Securitas Oy

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Opinnäytetyö käsittelee uutta, innovatiivista koulutusmetodia Securitas Oy:n käyttöön. Yritys haluaa selvittää, voisiko ohjelmisto X:ää (nimi on muutettu toimeksiantajan pyynnöstä) käyttää koulutustarkoituksiin. Nykyiset modernit, suorituskykyiset mobiililaitteet yhdessä e-oppimisympäristöjen kanssa tarjoavat kiinnostavia mahdollisuuksia koulutukseen sekä kannattavuuden kehittämiseen.

Tutkimuksen tarkoituksena oli selvittää, voiko ohjelmisto X:ää käyttää tehokkaasti koulutustarkoituksiin ja jos pystyy, niin miten. Securitas oli myös kiinnostunut e-oppimisesta yleisesti ja menetelmän kustannustehokkuudesta.

Tutkimuksen lähestymistapana oli kirjallinen tutkimustyö e-oppimisesta, sen ominaisuuksista sekä tehokkaasta käytöstä. Mahdollisia yritykselle soveliaita käyttökohteita tunnistettiin pohdinnan avulla. SWOT analyysia käytettiin projektin eri ulottuvuuksien tunnistamiseen ja tukemaan päätöksentekoprosessia. Lopuksi, yrityksen vartiointikohteessa lanseerattiin pilottiprojekti, jossa kerättiin henkilökunnan kokemuksia käytännön kokeilun ja kvalitatiivisen haastatteluprosessin kautta.

Teoreettinen tutkimus yhdessä empiiristen tulosten kanssa esittävät, että ohjelmisto X:ää voidaan käyttää tehokkaasti koulutuskäyttöön tietyillä edellytyksillä. Tämän tuloksen implikaatio on se, että yrityksen henkilökunnan täytyy sitoutua täysin prosessiin, jotta toivottavat tavoitteet saavutetaan. Toisaalta yrityksen vastuulle jää henkilökunnan motivoiminen, tukeminen ja ohjaaminen prosessin aikana.

E-oppiminen, interaktiivisuus, multimediaoppiminen, yksityinen turvallisuusala, tehokkuus, sisällöntuotto.

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1 Introduction

The thesis encompasses discussion about whether Securitas Oy should deploy a new training and communication method or not. This method involves an e-learning/multimedia-learning platform, which would enable the company staff to perform all activities of the process with a single piece of software. The company is interested in the effectiveness of this specific e-learning software and the method in general. The company also requires background information on e-learning practices themselves and their efficient use.

The first chapter familiarizes the reader with the background of the thesis; the research question, methodology, the target company and the software, will be referred as "software X" from now on because the commissioner of the thesis requested so. Second chapter describes the nature of e-learning as a training tool, demonstrating the different inherent aspects such as benefits and challenges involved with its deployment as well as other features like engagement, interactivity and collaborative learning. These features are discussed from the point of view of professional literary sources.

The third chapter exhibits the effective means of creating and utilizing e-learning content. Guidelines are given in the form of best practices, which are supported by relevant theory. The theory part is based on psychological research on universal cognitive capabilities of humans.

The fourth chapter brings forth examination of the subject matter in the form of SWOT analysis addressing the positive and negative sides of internal as well as external aspects. Potential application realm of the training method is also explored.

The fifth chapter describes the empirical research phase of this thesis. Implementation activities, results and evaluation are presented. Each phase are described in detail in an objective way.

The sixth and final chapter unites the theory and empirical findings to form conclusions through discussion. The evaluation will consist of experiences and observations gained from creation of the trial content as well as findings from literary sources. These conclusions serve as suggestions based on the conducted research.

1.1 Research question

The research question of this thesis is "can software X be used effectively for training purposes of security personnel in Securitas Oy and if so, how?". This research question was devised after thorough research in to the subject matter and after discussions with thesis counselor and the commissioner of the thesis. The effectiveness of software X in training activities is measured by the efficacy of the e-learning method in general together with evaluating the results of the pilot project launched in a Securitas work site.

E-learning or the multimedia learning method in question are evaluated in consideration of their general benefits, challenges and application. The pilot project included the creation of trial training content in collaboration with staff members and interviewing them for experiences. This development project was used to gain an understanding of the actual application potential of the software X.

A part of evaluating the effectiveness of using software X as a training method included its cost-effectiveness, as it's an important consideration to any organization hoping to make a profit. This aspect is evaluated on through the use of research theory linked with practical findings from the empirical part.

As the research question states, this thesis will also answer the question of how can software X be used most efficiently to create training material. The advice given in this thesis can be used as best practices, making sure the company can avoid the most common pitfalls in e-learning. The presented instructions are backed by cognitive theory.

1.2 Methodology

Research was conducted with a number of literature found both online and from the university library. The topics of the literary primary sources included e-learning, interaction, engagement, collaborative activities and human resources. The full list of sources can be found from the reference section.

The effectiveness of multimedia learning was evaluated based on theoretical findings, the results of the pilot project and the SWOT analysis tool. The empirical part, which was the pilot project in the Securitas work site, was carried out as qualitative research. Experiences from the use of the software X as a method of creating training content were gathered through the use of observation and qualitative interview from participants.

SWOT analysis was used to evaluate the strengths, weaknesses, opportunities and threats involved in the event of Securitas deploying the software X. SWOT analysis was chosen as a method, because it can be used to support strategic decision-making. Although the method has been criticized for the lack of objectiveness, it was considered as a good supplemental tool to the observation and interview process for the thesis. SWOT analysis was also found useful to uncover information, which could be used to form and shape the questions for the interview process.

1.3 Target company

Securitas Oy has its roots in a company called Suomen Teollisuuden Vartiointi (STV) Oy, which was founded in 1959 by a group of Finnish security companies to prevent fires in industrial properties. Swedish security Company Securitas acquired STV in 1993, leading to the creation of the Finnish Securitas Oy. Securitas is the market leader in private security business in Finland.

According to the 2014 Securitas personnel report, the company's annual turnover was 138,5 million euros and the total number of personnel was 3240, both figures showing a growth from previous year. The chief executive officer is Mr. Jarmo Mikkonen and the company headquarters are based in Helsinki, Finland.

Securitas offers a wide variety of tailored security services, including event security, local manned security, doorman service, aviation security, security consulting and training, ID services, key control service, remote surveillance, reception and welcome services, special security services, rescue and fire safety service, 24/7 alarm center service, mobile patrol and home alarm systems (Securitas no date).

The company values are integrity, vigilance and helpfulness. These values guide all actions, processes and operations. Integrity implies honesty, vigilance attentiveness and helpfulness the readiness to assist. Besides these core values, Securitas strives to make sure that human rights are respected as well as laws and regulations respected. Employees are assured fair salaries, equal opportunities for everyone, safe working environment and freedom to join labor unions. The company does not accept harassment of any kind in the workplace and promotes an alcohol and drug-free working environment. Securitas considers corporate social responsibility programs such as vehicle emission reductions as a part of good business practice.

Securitas acquired the ISO 9001 quality management certificate in 2003 as the first private security company in the Finnish market and has later been awarded OHSAS 18001, ISO 14001 and ISO 28000 certificates (Securitas no date).

1.4 Target software

Software X is a cloud computing based service, which can be used to produce, edit and publish videos online. The users of the service are businesses and their employees. The user needs an electronic device, an Internet access as well as a username and password to access the software and its features.

The content created with software X can be used by businesses for training or communication activities. Any employees with user rights to the service can not only view the content, but also create it themselves. This has the potential to make internal communication more interactive and give the staff better opportunities to voice their ideas and opinions.

The service can be accessed with a variety of devices, such as a smart phone, laptop computer, Personal Computer (PC), tablet or Personal Digital Assistant (PDA). The software has a mobile application, which supports different operating systems and can be downloaded to smart phones from application service providers. Besides the mobile application, the service can be accessed using a web browser to enter the company's website.

Creating videos requires a digital camera. A normal digital camera, a video camera or a web camera can be used as well as the camera of a smart phone or other handheld device. The software also has a screen capture feature that can be used to depict actions taken on the screen of the device. The service supports 1080p full High Definition (HD) video quality.

After filming, the video can be uploaded to the software's cloud database. The software automatically transcodes the video content to be HD quality and in to a mobile friendly format. The database separates the content automatically to different folders according to its type: video, audio and images. This content can then be edited using the editing tool. The editing tool can be used to add audio, text, images, additional video feed and special effects to the video content. The length and size of the elements can be modified.

The finished content can be shared by sending it by email, embedding it on a website or by integrating it to the company's intranet. The content can be shared to previously defined user groups or a range of IP addresses. These user groups could consist of, for example, suppliers, different departments or business partners. It can also be made either public or password protected. The service is delivered through encryption methods to ensure security of infor-

mation. The control tools in the software include a statistics tool, which enables the company to see which users have seen the content and when.

The appearance of channels where the content is displayed can be modified to reflect the company's visual brand. Software X also supports Single Sign-On (SSO) access control system, designed to reduce password fatigue and administrative workload. The software can also be integrated in to the Microsoft SharePoint platform.

2 E-learning as a training tool

2.1 Definitions

E-learning differs from traditional classroom learning. Liebowitz and Frank define learning as "a phenomenon in which a new behavior or piece of information is incorporated by an individual in a way that results in a change of their conceptual knowledge or practiced behaviors" (2011, 45). The particular study mode discussed at length in this thesis is e-learning. A company called CBT Systems introduced the term e-learning in the year 1999, describing computer-based training (CBT) implemented in a more interactive way, over a network (Hubbard, 2013). E-learning is a commonly used term, which is can be defined in a number of different ways.

The European Commission (EC) defined e-learning as "the use of new multimedia technologies and the Internet to improve the quality of learning by facilitating access to resources and services as well as remote exchanges and collaboration" in its e-learning Action Plan (2001). Alamäki & Luukkonen define e-learning as "acquiring knowledge, skills and competencies required to accomplish a particular task by utilizing digital communication technology solutions" (2002, 13) - translation by author. Simply described, e-learning is instruction intended to support learning delivered through a digital device (Clark & Mayer 2011).

Training is defined as "consisting of planned programs designed to improve performance at the individual, group, and/or organizational level" (Cascio 2013, 290). Cascio argues, that training can be further examined on macro- or structural level on matters such as the economic effects and training expenditures or also on micro-level issues such as training needs, training methods and types of evaluation (2013). Cascio further describes the effective training process to require the top managements' commitment to include training to their corporate culture, to administer necessary resources, to tie the training goals to the organization's strategy and to promote giving feedback (2013, 295).

2.2 Nature of e-learning

E-learning environments are diverse: training can be delivered through CD-ROM, DVD, USB, apps or cloud service via web-browser and accessed with different hardware such as personal computers, laptops, tablets or smart phones. Web learning tools include wikis, blogs, social networking sites as well as social bookmarking - so called tags, which enable the categorization of bookmarks for searches (Liebowitz & Frank 2011).

According to Clark and Mayer, e-learning can have two types of methods: designed either to inform or to perform (2011). Inform program is an e-learning lesson used to convey information, commonly referred to as a briefing. An example of an inform program could be communicating a new business partnership. Perform programs can be divided in to two subcategories, procedural and strategic. Procedural perform program consists of training skills that are similar or identical to the actual work experience, while a strategic perform program focuses on developing strategic skills by making the trainees to solve problems which do not have a right answer (Clark & Mayer 2011, 21).

From these described methods, inform programs have the lowest amount of interactivity involved whereas strategic perform programs have the highest. If the training content is effective and a sufficient level of learner engagement is reached, learning can happen in either of these methods.

Simply implementing e-learning activities does not guarantee positive training results, but rather the effective delivery of instruction (Clark & Mayer 2011). This fact also naturally applies to all types of learning, whether it is classroom training or in book form. The performance of the trainees participating in the e-learning program should be evaluated on, which should also be connected to the anticipated development of organizational effectiveness (Liebowitz & Frank 2011, 52).

Workplace learning consists of two different types: formal and informal learning. Formal learning, which is traditionally considered more valuable by employers, consists of a specified curriculum, designated teacher and individual assessment, while informal learning is defined as any learning activity lacking these features (Seel 2012, 1557). Alamäki & Luukkonen argue, that informal learning is the key to staff members developing in to experts - the job content being the best teacher (2002, 53). E-learning differs from traditional learning by expecting the trainees to have a more self-motivated and disciplined approach to learning (Liebowitz & Frank 2011, 51).

An important part of e-learning is feedback, because it enables the learners to identify the actions leading to desirable learning outcomes and improves their level of motivation. Feedback should be given as soon as possible after trainees' actions, since it will be most effective then. Feedback should be given precisely for high-performance actions and less precisely for poor performance.

In order to achieve the best results in the e-learning process, it is very important to provide meaningful content for learners. The content can be made more meaningful by including familiar illustrations and examples to facilitate learning. The learners should be given an introduction to the overview of the content in order to display the coherency and achievement of set goals. The training should be arranged in a logical way, with easier skills taught first and the difficult ones later. The process will have a more positive outcome if the provided content is easy to understand and assimilate.

2.3 Benefits

The social network aspect in e-learning enables the trainees to communicate, team-work and give feedback to each other. Alamäki & Luukkonen argue, that the opinions and commentary given in social training networks are more concise, deep and premeditated than in traditional fast paced face-to-face discussion - with the added benefit of all conversation being recorded as notes (2002, 48). Then again, social networks do have issues associated with intellectual property, copyrights, privacy and information security (Liebowitz & Frank 2011, 212).

E-learning is more flexible in nature than the traditional class room teaching - it does not require a beforehand designated time, place or instructor. The e-learner requires just sufficient time, technological means to carry out the learning and the right mindset. The management has the responsibility for arranging the aforementioned resources. Training might have to be organized within working hours; the required hardware might need to be allotted and the staff needs to be motivated to carry out the training. Although smart phones and tablets are becoming more widespread, not all staff members may have them. However, all those who do, could utilize them to carry out training even while commuting to work. Because of their flexibility, e-learning activities enable organizations to better focus their training efforts to staff subgroups, making the learning process more personal.

Training conducted through e-learning can be utilized at any time. There might be a great time gap between a traditional training event and the actual time the staff needs to utilize the learned procedures. With e-learning, the staff can be trained at exactly the required time and they can even revisit the training content at any time.

E-learning can be highly cost-effective. Creating an e-learning platform or purchasing a license for one is an evident investment, but the administration costs must be divided for several years, because the cost-effectiveness is directly proportional to the number of users or gained benefits (Alamäki & Luukkonen, 2002). E-learning platforms create more savings, the more users they have. This is achieved through the practically unlimited number of staff that can be trained by using the platform and because of the nonexistent expenditure on training pamphlets and handouts. Traditional classroom training requires resources to be used on the space, teacher, handouts and the administrative tasks to organize them. The e-learning process removes the need for these functions. Clark and Mayer further argue, that cost-effectiveness depends partly on the quality of the instruction content (2011, 15).

Another benefit of e-learning is that the training content is easy to create, update and distribute to the trainees, fast. New, up-to-date information can be added or the existing content can be edited. The updated content can be distributed to specific subgroups within the e-learning platform. The swiftness of the e-learning process also makes launching new services and products more efficient, since staff adopts the new policies and operating procedures faster.

E-learning enables employees to train and prepare for rare or infrequent situations. Some of these problems might not present themselves for most employees, so it is beneficial to prepare for them in a simulated environment. These problems might include giving first aid, utilizing unfamiliar equipment or facing a difficult customer-service situation.

E-learning platforms usually include the possibility for tracking the users' performance, e.g. when the trainee has last logged in and which parts of the training he/she has accomplished. This enables management to find out, which parts of the content are seen as interesting and which parts are avoided in general.

Employee training in general may promote better, more concise staff performance, possibility for innovation, more effective team communication, stakeholder satisfaction, quality of the workforce, improved technical skills and cross-cultural awareness (Cascio 2013).

By developing the employees' skills, they become more capable. Some companies fear this improvement of employability, because their competitors might recruit the most capable staff members. However, this is not always the case. Cascio (2013, 295) describes it as the training paradox: by improving the staff member's employability, their motivation to stay with the company is increased at the same time.

2.4 Challenges

Many of the challenges described in this part could be simply avoided by including pedagogical point-of-view in the content and the trainings' planning process. True learning is not about memorizing facts, but rather perceiving the subject matter and its significance to working processes. Efficient training content presents all the different pieces of information as part of a larger entity, making memorizing and understanding them easier (Alamäki & Luukkonen 2002, 58).

A major challenge in the e-learning process is the poor quality of learning content. If the users find the content boring and monotonous, they will quickly lose interest and the learning goals will not be met. For example, the features of e-learning are surely not capitalized on if the content is composed of walls of text and nothing else.

E-learning content requires a certain amount of guidance included within. Otherwise the users might find themselves browsing the content or learning platform aimlessly, not really knowing what to do. Good e-learning content is clearly presented, illustrative and proceeds logically with a storyline that steers the learners thinking forward (Alamäki & Luukkonen 2002, 58).

The e-learning platform itself should be easy to use as well. If the user interface is too complicated or confusing, new users might find operating the platform intimidating. When dealing with any kind of technology, technical problems are always an issue. In e-learning, these issues may materialize as inefficient hardware, out-of-date software, problems in installing programs, weak user access rights or network issues.

Many companies pay little attention on assessment of e-learning. The company should identify the key skills needed to achieve the organizational goals and build their instruction around the skills (Clark & Mayer 2011). If the company makes decisions based on a technological base instead of taking into consideration cognitive issues and human mental limitations, it is unlikely that the organizational goals are met.

2.5 Interactivity and collaborative learning

Interactivity is a necessity in e-learning, as it is in any learning (Matikainen 2001). Part of the message delivered through e-learning, such as nonverbal communication, might be lost if the method of delivery is only text-based interaction. Matikainen (2001, 27) describes text-based interaction as something between formal written text and speech. Mäkitalo (2006, 18) argues,

that learners do not receive immediate feedback in text-based interaction, hindering the creation of social contacts and thus hampering the learning process.

However, recent technologies and social networking tools have created significant possibilities to communicate by voice and visual methods of communication, such as video feeds. Education and training are currently experiencing a transformation, as learners are developing from consumers of prefabricated content in to creators of knowledge, working in interactive environments (Wankel & Blessinger 2013). Matikainen (2001, 47) argues, that it is fruitless to compare traditional face-to-face interaction with web-based one, both having similarities and differences.

Interaction between learners in e-learning environments is hampered by the lack of an essential communication method found in face-to-face interaction - non-verbal communication. The absence of non-verbal communication affects the social distance between learners, because of the lack of immediate feedback. Mäkitalo (2006, 14) argues that not only cognitive skills are required in the work life but also social and interactive skills prove to be highly useful for collaborative e-learning activities. Promoting and supporting an interactive, social exchange of information is therefore crucial.

Many e-learning platforms include a social network aspect. According to Liebowitz & Frank, social network services "provide users the necessary tools to interact with other members through various web-based means, as well as to create, find and connect with common interest subgroups within the larger social networking site membership group" (2011, 208). The modern, so-called Web 2.0 technologies - applications that create more value depending on the amount of users - enable social learning activities, which are more meaningful, purposeful and authentic for the trainees, making learning deeply engaging (Wankel & Blessinger 2013, 4).

Mäkitalo defines collaborative learning as "an active process where learners enter into a joint activity and adopt common goals that bring them together to perform tasks or solve problems" (2006, 17). Computer-Supported Collaborative Learning (CSCL) engages learners in just that, utilizing computers as the method of delivery. Communication activities through computers can be either synchronous, where all of the learners are simultaneously online; or asynchronous, where learners can communicate at any chosen time.

Collaborative learning can be used as a tool to create and share knowledge between participants. Learners communicating through chat rooms or via email must consider the structure and style of their messages beforehand in order not to be misunderstood or hurtful to others. This is also beneficial for the quality of the discussion and feedback, since arguments are bet-

ter constructed. Feedback is an essential part of collaborative learning and should be advocated. At its very minimum, feedback should be at least an acknowledgement that the other participating party has seen the communiqué.

However, first the learners have to find a common ground in a so-called grounding process, where the learners share their knowledge, beliefs and understanding (Mäkitalo 2006, 32). Creating and fostering a common ground helps the learners to come up with shared objectives and processes, thus supporting the collaborative learning process. Finding a common ground is naturally easier in physical, face-to-face meeting benefiting from social cues than over text-based interaction, but nevertheless its possible in both circumstances.

2.6 Engagement

Engagement is an important factor to be considered when implementing e-learning activities. This was demonstrated in a survey conducted for university students utilizing the Second Life virtual learning platform in 2010. The results of the case study communicated a definite relationship between engagement and improved performance; greater interest towards the material increased the time spent on assignments and sparked a better understanding of the subject matter (Wankel & Blessinger 2013, 39-40). The case study shows that learner engagement can have a profound effect on achieving the set learning goals.

Engagement can be improved, for example, through the use of learner control strategies. Learner control enables the learners themselves to have control over the learning contents sequence, pace, flow, amount and review (Seel 2012, 1748). Wankel & Blessinger describe learner control in two independent dimensions: instructional control and scheduling control (2013). These engagement improving dimensions and their applications are presented in table 1.

Instructional control	
Dimension	**Application**
Sequence	Learner has the control over the sequence of the content, allowing him or her to start from specific modules that are most interesting/engaging.
Pace	Learner has the control over the pace of the content, allowing him or her to skip the modules that are already highly familiar or unchallenging.
Content	Learner has the control over the content, allowing him or her to learn only the specific instruction needed immediately, without having to browse through irrelevant content.
Feedback	Learner has the control over the feedback process, allowing him or her to choose how and when the feedback is presented.
Design	Learner has the control over the design, allowing him or her to customize the visual appearance of the content, such as voice, color scheme or subtitles.
Scheduling control	
Dimension	**Application**
Time	Learner has the control over the time, allowing him or her to flexibly choose when the instruction will take place.
Location	Learner has the control over the location, allowing him or her to flexibly choose where the instruction will take place.

Table 1: Learner control dimensions according to Wankel & Blessinger (2013)

Learning control strategies can give trainees more independence, flexibility and choice over their learning style and environment. However, this freedom of choice can be abused, if the trainee lacks motivation or is overconfident in their knowledge or skill level. The freedom of choice might also overwhelm and distract the trainees, resulting in decreased engagement. That is why the degree of learner control should be contemplated on. Overall, the benefits of learner control are highly debated over in the science world. All learners are individuals, with personal differences and capabilities.

Learner control measures are especially efficient when the learners are familiar with the content and the required skills, the content is not complex and the learners possess good metacognitive skills, which involve mental self-awareness and self-regulation capabilities (Clark & Mayer 2011, 319). Learners with weak metacognitive skills suffer from high learner control measures, because they may lay too much emphasis on unessential material and skip essential ones. Giving learners control over the pace of animated content means that it's processing will consume more time, but with the benefit of better learner transfer.

Learning control practices should be considered case-by-case. Wankel & Blessinger recommend that the organization's needs, the purpose of the training and the learners' needs should be taken in to account (2013, 78). For example, low learner control produces better results when there is a tight schedule or the trainees are expected to carry out work assignments in an identical way. Knowing the staff members' level of motivation, characteristics and capabilities can also help in the design process.

3 Effective creation and use of e-learning content

3.1 Cognitive theory of e-learning

The recommendations for the effective creation and use of e-learning content described in this chapter are all based on cognitive theory of e-learning, devised by Ruth Colvin Clark and Richard E. Mayer. The cognitive process of e-learning is depicted in illustration 1.

The multimedia presentation that includes written and spoken information is received by the respective human senses, seeing and hearing. Words and pictures are divided in to their own channels. Some of the received information is selected for additional processing in to the working memory. The working memory only has a limited space for processing in both of the channels and some of the information is organized further; sounds in to a verbal model and images in to a pictorial model.

These models are then integrated with prior knowledge from the long-term memory. Selecting, organizing and integrating information as depicted by the arrows in the figure are crucial cognitive processes that facilitate effective learning. Any organization hoping to conduct efficient training operations should therefore engage the trainees with these aforementioned cognitive processes.

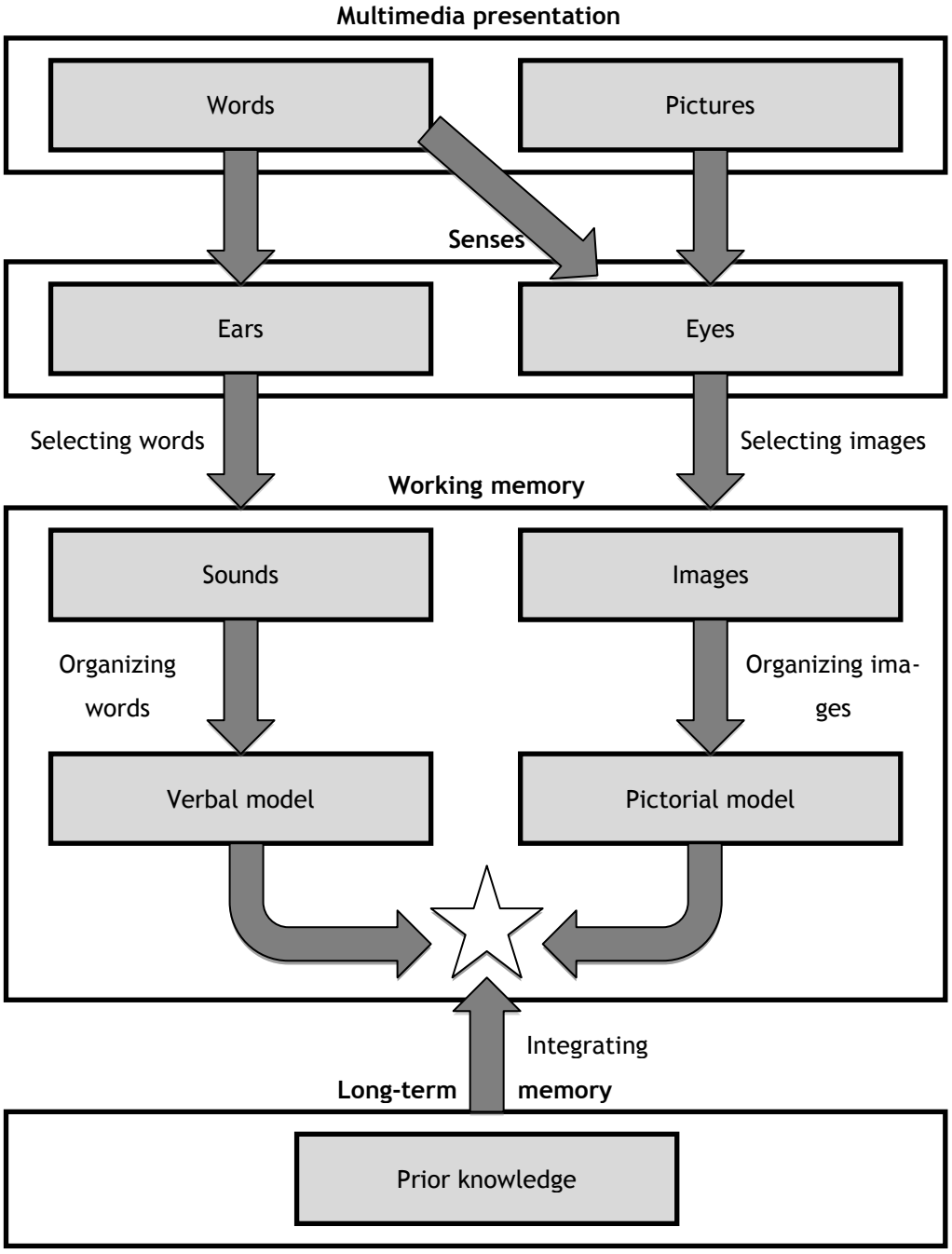

Illustration 1: Cognitive theory of e-learning according to Clark & Mayer (2011, 36).

The cognitive theory can be utilized in content design. For example, the trainee can be directed to select the essential content by the use of color, circling, or by using underlined or bolded text. Having verbal and pictorial content presented simultaneously together facilitates the integration of learned material with the long-term memory. Including examples associated with the work tasks is important. This action develops the trainees' capability to retrieve

the learned content from long-term memory during actual work tasks; it is called the transfer of learning.

According to Clark & Mayer (2011), the limited cognitive capacity humans have can result in the following challenges: too much essential processing, too much extraneous processing and inadequate generative processing. Too much essential processing means that the content is simply too complicated to comprehend. Too much extraneous processing is caused by the presence of too much extraneous content, making it impossible process the essential material. Inadequate generative processing happens when the trainee is not engaging in the processing for psychological reasons.

A long or complex e-learning lesson can easily overload the learner's cognitive capabilities. This can be managed by utilizing pre-training to familiarize the learners' with key concepts or by dividing the content in to suitable segments.

3.2 Guidelines

3.2.1 Using graphics to support learning

Cognitive theory dictates that relevant graphics facilitate learning by augmenting the cognitive process (Clark & Mayer 2011). Therefore, e-learning content consisting of words becomes considerably more efficient when graphics are included. This fact has been verified by a number of contemporary researches, although researchers also found that novices benefit more than experts, who are familiar with the topic and do not necessarily require visualizations (Clark & Mayer 2011).

The designers of the content should therefore know the skill level of the trainees in advance. Appropriate graphics that support learning should be chosen in the design phase of the content. Choosing the graphics when the content is finished should be avoided, for it risks producing unwanted cognitive load.

As previously discussed, humans perceive multimedia presentations in dual channels, as words and graphics. There are a number of different graphics that can be used in e-learning content, as introduced in table 2.

Different types of graphics and their functions				
Type	**Function**	**Example**	**Recommended content type**	**Facilitates learning**
Decorative	Aesthetic visual	Amusing or irrelevant graphic	None	No
Representational	Illustration of appearance	Picture of an object	Facts, concepts	No
Organizational	Illustration of a qualitative relationship	Matrix	Facts, concepts	Yes
Relational	Illustration of a quantitative relationship	Pie chart	Process	Yes
Transformational	Illustration of change	Video of administering first-aid	Process, procedure, principle	Yes
Interpretive	Illustration of intangible phenomena	Picture of the effects of smoking on lungs	Concepts, principle	Yes

Table 2: Different types of graphics and their functions, adapted from Clark & Mayer (2011,73-75).

In the table it can be seen that organizational, relational, transformational and interpretive types of graphics are efficient tools that will support the cognitive learning process. However, decorative and representational types are generally seen as distractive elements, which might have a negative effect on learning and of which use should be minimized. E-learning material can be divided in to five different kinds of content: facts, concepts, process, procedure and principle.

Clark & Mayer define facts as "unique and isolated information"; concepts as "categories of objects, events or symbols designated by a single name"; process as "a description of how something works"; procedure as "a series of steps resulting in completion of a task" and principle as "guidelines that result in completion of a task" (2011, 75). The table 2 describes which graphic type is recommended to use with each of the five content types. Animated graphic or a video is generally the most effective tool to teach procedures, while non-animated graphic works best for illustrating processes.

3.2.2 Placement of words and speech related to graphics

The placement of graphical elements related to words or speech should be taken in to account. If the words are placed far away from the graphic, the trainee is forced to go back and forth in the content, using cognitive resources that could otherwise be harnessed to meaningful learning (Clark & Mayer 2011). Placing words near graphics is advisable, because it reduces the cognitive load on the learner. The nearer the words are to the corresponding graphic, the better. The content should not include both animation and text being displayed simultaneously. Links containing graphics should not be used, unless the links open in small, movable windows. The use of a caption or a legend should also be avoided.

In the same way as words, speech should be integrated with the graphics in the content (Clark & Mayer 2011). Playing the narrative speech and displaying the graphic element separately is not supporting the cognitive process. If the content is presenting a procedure, the narrative should play simultaneously as the task is displayed in the animation or video. Research shows that the appropriate placement of words or speech relating to graphics is most crucial, when the video is long (Clark & Mayer 2011).

3.2.3 Preferance of speech over words in regard of graphics

When the e-learning content is presenting information concentrating on graphics, speech should be preferred over written words (Clark & Mayer 2011). Cognitive theory of e-learning divides the human perception in to dual channels according to the sensory organs; hearing and seeing, as depicted in illustration 1. Part of the cognitive process is the gathering of information through both of these senses. If the visual organs are forced to gather information simultaneously from both text and graphics, it means the hearing organs remain unused and there is a risk of cognitive overload. Utilizing speech is more efficient to explain graphics than written text, because it reduces the cognitive load on the learner. Trainees will have more time to look at the graphics and process them, resulting in more meaningful learning.

Using speech over text is particularly useful, when the content is fast-paced or complex and the verbal material is short or familiar (Clark & Mayer, 116). There are some exceptions, when the written words should be displayed during speech: all technical, foreign or unfamiliar words as well as important keywords. As with the use of graphics in general, using speech in e-learning is more beneficial for novices than experts.

However, if only written text is presented in the content without any graphics, there are no advantages in using speech. The reason for this is that since there are no graphics displayed with the text, there is no chance of cognitive overload.

3.2.4 Explicating graphics with either on-screen text or speech

If the e-learning content includes graphics that need to be explicated, one should do this by using either on-screen text or speech. According to the cognitive theory of e-learning, using both of them leads to overloading of the visual channel, because learners cannot focus on looking at both text and graphics simultaneously (Clark & Mayer 2011). This is also called extraneous processing. Another issue is that the learners may spend limited cognitive resources in comparing speech and text to each other. However, if only graphics and speech are used, both pictorial and verbal channels can process the information and the learning is supported. This effect is particularly visible when the e-learning content is fast-paced, words are familiar and there is a large number of on-screen words being presented.

There are some exceptions when including both speech and on-screen text in explaining graphics is beneficial. First, if the specific content does not include any graphics whatsoever, there are no disadvantages in using both. Secondly, if the manner of presentation is sufficiently slow, the learners have an abundant opportunity to process the graphics as well. Third, if the content is such that the learner might experience difficulties in processing it, such as foreign words, long and complex material or strange key words. The benefits from these exceptions are gained because extraneous processing is minimized and the sensory dual channels are both utilized.

3.2.5 Avoiding extranous audio, graphics or words

One should avoid using extraneous sounds or music in the e-learning content. Utilizing extraneous audio may strain the learner's cognitive capabilities, especially when not dealing with familiar content, pace of the presentation is fast or the pace is fixed (Clark & Mayer 2011). This can be explained by the limited nature of the working memory. If the learner must engage cognitive resources on listening to music, they cannot fully commit to the e-learning content.

Graphics that are decorative or irrelevant to the exact topic in question should be avoided as well, because they may obstruct the processing of the essential content (Clark & Mayer 2011). Graphics are often used with a hope of arousing an emotional response, supposedly leading to a better cognitive engagement of the learner - a commonly perceived theory debunked by the fact that uninteresting content with added extraneous graphics do not support deep learning (Clark & Mayer 2011). Clark & Mayer further argue, that simple graphics are more efficient than highly realistic ones for explicating a process or a principle and that minimizing the

amount of extraneous graphics is especially beneficial for learners with low information processing capability (2011,164).

E-learning content can also suffer from extraneous words, unnecessarily placed in the hope of generating additional interest, elaborating upon the key words or giving technical details (Clark & Mayer 2011). Extraneous words direct the learner's attention away from the essential content and disrupt the cognitive engagement process. However, it is thought that this applies mainly to novices and that experienced learners may actually benefit from additional words (Clark & Mayer 2011). Designers of e-learning content need to identify the means to generate interest without utilizing extraneous material.

3.2.6 Avoiding formal style of presentation

Formal, impersonal way of presentation should be avoided. One should instead use a conversational, informal way of presentation, resembling inter-human communication (Clark & Mayer 2011). One could say that the learner will not take an informal tone of instruction seriously. Clark & Mayer argue, that the human mind aspires "to make sense of the presented material by applying appropriate cognitive processes and thus instruction should not only present information but also prime the appropriate cognitive processing in the learner" (2011,184).

Conversational presentation style engages the learner, making them feel like the learning process is more interactive. Including these so-called social cues to the e-learning content activates a social response in the learner, resulting in more active cognitive processing of the material and finally more efficient learning (Clark & Mayer 2011). One should nevertheless avoid being too informal.

4 Opportunities for utilizing software X

4.1 SWOT Analysis

SWOT analysis (sometimes also referred to as SWOT matrix) is a method of identifying and assessing the Strengths, Weaknesses, Opportunities and Threats to a project, organization, product, place or person. The goal of SWOT analysis is to provide a better insight of the subject, which can then be utilized in strategic decision-making. It is essential to know all the different factors affecting the business in order to make informed decisions. Strengths and weaknesses are considered as internal factors of the subject of analysis, i.e. things that can be controlled. Opportunities and threats on the other hand are external factors, i.e. things that cannot be controlled. Another aspect of examination is positive factors, which are strengths and opportunities; and negative factors, which are weaknesses and threats. SWOT

analysis has been criticized for its subjective nature. SWOT analysis was utilized in this report to find the strengths, weaknesses, opportunities and threats for Securitas deploying the software X, listed in table 3. SWOT analysis was not the sole method of evaluating the software's suitability for the company. A pilot project was also used in evaluation, launched on a Securitas work site. This project is described more closely later on the report.

Strengths	**Weaknesses**
• Supports organizational culture & achieving strategic goals • Software is easy-to-use • Training can take place any time, any where • Reduced training expenditure • Software is already in wide use - benchmarking • Possibly cost-effective training method • Companies have already established a line of communication	• Possible lack of commitment of staff • Possible lack of or unsatisfactory quality of training content • Uncertain employee access to equipment • Possible technical difficulties on company equipment • Software does not include a practice feature • Cost of deploying the software, without immediately visible token of cost-effectiveness • Pitching the software to employees and their guidance requires resources
Opportunities	**Threats**
• Improved company brand • Improved profit • A new service offered to customers • Improved internal communication • Valuable partnership with one of the fastest growing ICT companies • Demonstration that the company is following and utilizing the latest innovative technologies and training solutions	• Information security concerns • Customers may not be prepared to pay for the new service • Possible technical difficulties on employee equipment • Software has similar, competing products • Competitors offering similar service to customers • Dependence of training processes on an external entity

Table 3: SWOT analysis on Securitas deploying the software X.

Strengths for Securitas deploying the software are as following. The features and gained benefits from the software X support Securitas' organizational culture and helps in achieving a number of the company's strategic goals. These goals are not further discussed in this report, since they are confidential and business sensitive matters. Another strength is the ease of using the software. The user interface is very simple and the users do not have to possess more than basic computer skills. Since 51,8 percent of Securitas employees are between 18 and 29 years old according to the company's 2014 personnel report, it is safe to assume that a majority of employees possess at least basic computer skills. The software does not require any supporting programs to run it besides a basic operating system of whichever platform is used. This eliminates the need for image processing software such as Adobe Photoshop or video editing software such as Pinnacle Studio.

Another definitely visible strength is reduced training expenditures. The training conducted through the software can replace physical training events. Savings are created from not having to pay compensation to participating employees and trainers, savings from the use of the training space and conserving other resources, such as time and organizational needs of everyone concerned. Flexibility of the software is another positive factor. Training can be conducted any time, any place. Each employee can choose when to conduct the training, which is especially valuable feature for those working night shifts. Employees can even do training activities while commuting to or from the work site on their smart phones or laptops.

Benchmarking is a valuable tool to identify the best practices from the market. The software X is used by many large enterprises and organizations, both national and international, which is an appreciable trait not to be dismissed. It is apparent that these organizations have found value in the product, so it is likely possible that Securitas will also do.

Cost-effectiveness is a major requirement for any purchase in the business world and one that should be taken in to consideration in this case as well. As discussed in the chapter involving the benefits of e-learning, the software's level of cost-effectiveness is directly proportional to the amount of its users. The more users the software has, the more employees can be trained through it and more savings are made. Should Securitas choose to utilize the software for training purposes, efforts should be made to maximize the number of users through raising awareness, user commitment and user engagement. Finally, it should be seen as strength, that the two companies have already established lines of communication as well as preliminary negotiations have been made.

Weaknesses for Securitas deploying the software are as following. A major concern is the possible lack of commitment of the staff. Will the staff accept and utilize the software for train-

ing purposes? Another weakness is the possible lack of content or the unsatisfactory quality of the content. Will the staff commit to create content? The company wishes that the cornerstone of the training process would be user-generated content. If the employees do not want create content or do not know how to, training goals are not met. The content created by the users might prove to be unsatisfactory quality, if no consideration is laid on pedagogical aspects in the creation process.

Uncertain employee access to required equipment is another weakness, albeit doubtful. Many work sites are equipped with computers that can be used to view or create the training content, not to mention widespread ownership of personal computers or smartphones. Smart phones are increasingly common and they can be used for both viewing and creating content. However common, it is unlikely that every single staff member has access to this hardware. This deficit could be compensated for by the company's local administration, borrowing the required equipment to the work sites if needed.

Technical difficulties are a possible weakness when dealing with any electronic system. The employees might experience technical difficulties even with company equipment, be it weak user rights, defunct hardware or interruption in the Internet access. Another weakness in the software is a missing feature usually found in e-learning environments: practice mode. The company can, however, compensate for this by using other services to create questionnaires or quizzes. A highly visible weakness for the deployment of the software is the deployment cost: purchasing the service and license with no immediate tangible results over its cost-effectiveness. The company has to just commit to the business venture fully and rely that the benefits will be visible later on, assuming the implementation process is done effectively.

Lastly, the launch of the new software might prove to be a weakness. The company's administration has to commit resources for informing and selling the idea of the new software to the employees and provide sufficient guidance to employees. These resources include working time of management on different levels and possibly also resources of the IT support department. The responsibility for these actions should be laid on employees who have sufficient know-how, motivation and time to perform them.

Opportunities for Securitas deploying the software are as following. Securitas has an opportunity to improve its brand. It is mentioned in the company website that Securitas pursues to constantly develop its services and offer a wide range of versatile and tailored services. Utilizing the software X in training and communication processes offers the company to demonstrate these aspirations and support the achievement of the set goals.

Securitas also has the opportunity to improve their profits. Profits can be improved through the reduced training costs, selling training & communication services to customers and better customer satisfaction gained by having a more effective and capable staff. Customer satisfaction may well result in retaining customers for longer periods of time and help to secure a contract in cases of competitive tendering.

Another opportunity is that the company can gain a new service by incorporating the software to current services or sell the service as a separate entity. Securitas could for example create occupational health & safety instructional videos to be sold as a training service or create customized security training tailored to the customers' needs. The latter point also supports the company's aspirations of offering tailored services. The software can be used as a selling point in business negotiations.

Improving the internal communication is a definite opportunity as well. The software X could supplement the already existing internal communication practices. Current conventional internal communication methods include company intranet, wiki, discussion forum, integrity line, email, phone, training events, meetings and work site memorandums. The software's features include creating different user access groups or channels, so specific training content or communiqués can be directed any way, from companywide announcements to work site specific messages.

Another opportunity lies in creating a potentially valuable partnership with one of the fastest growing technology companies in Finland. Software company X is the market leader in the Nordic region, has been recognized with industry awards and has established a formidable customer base. The rapid growth is an indication of improved profits and thus ultimately of business survivability. These traits can be used as selling points for including the content created through the software in the service offering of Securitas.

Finally, the company has an opportunity to demonstrate to their customers that they are not old fashioned or technologically impeded by utilizing the latest, innovative technologies and training solutions. This can have positive effects on the company image and can be used a selling point to customers.

Threats for Securitas deploying the software are as following. Information security threats are a genuine threat to the company's or the customers' sensitive information and operations. Denial-of-Service (DoS) attacks, hacking, trojans, viruses, worms and malware are some threats to ICT systems and operations. If these threats are realized, training and communication activities can be seriously interrupted or hindered. It should be also taken in to consideration, that the company can control information security measures on company hardware, but

not on the employees' personal devices. Even worse, the company's business sensitive information or the customers' information could get in to the wrong hands. This information would be valuable and sought after by competitors, hacktivists or criminals. According to the software company X website, the company has taken multiple steps to ensure the safety of information, such as SSL secured connections, IP restrictions, passwords and tightly secured servers.

Another threat is the possibility that customers of Securitas might not be ready to pay for the new service. It would limit the software's usability and value, if the training and communication activities could not be sold to customers as a separate service or that it would not add revenue from being included in the existing services. Naturally the software could still be used for internal communication and training activities, but a great deal of value would be lost in that case. The company needs to demonstrate the value of the software to the customers in order to make them pay for it. Best way to illustrate the added value that customers can gain from the use of the software, is to deploy it efficiently and use the success stories and customer references as selling points.

If the employees are using their personal equipment to create, view and edit content such as cameras or laptops, there is a threat of technical difficulties. If the company is relying solely on employee equipment to conduct training, there is a possibility that these activities can be interrupted, hindered or even become impossible due to technical difficulties. However, it would be a considerable investment to provide every work site with hardware purchased by the employer.

The software has similar competitive products, which can be seen as a threat as well. There are a number of products available that provides the possibility to create training videos or have a social network training environment. Different products should be compared along with their features, effectiveness and expenses. However, the fact that software company X is the market leader and that their product is already widely used, supports selecting them.

Competitors' offering a similar service to customers is another threat. Securitas might lose the edge gained from offering a new service, if competitors in the private security market offer identical or similar services and especially if the services are offered for a lower cost. According to the software X website, one of Securitas' competitors is mentioned to be a user of the software. However, this competitor offers a multitude of services besides private security, ranging from cleaning to maintenance, so it's unsure how and where they utilize the software.

Finally, there is the threat of entrusting the success of training processes on an external entity. A considerable price increase by the software supplier could make the training activities unsustainable financially. Disruptions in the software X service would directly affect the training activities of Securitas. These disruptions could be caused by a physical threat to the software X servers, such as a fire, power outage, water damage or vandalism or possible financial issues that affect the service provider's capability to offer the service. These concerns should be addressed in the supplier risk assessment and contingency planning. However, it should be noted that the software X runs on the servers of one of the largest content delivery network in the world, making these concerns less feasible.

4.2 Potential applications

4.2.1 Internal communication

The software X could be used as an internal communication channel. Currently, Securitas employs a wide array of communication methods, such as company intranet, wiki, discussion forum, integrity line, email, phone, training events, meetings and work site memorandums. The created training videos do not need to necessarily substitute these aforementioned ways of communication; rather the videos can supplement and enhance the already existing methods. For example, announcements by the management can be filmed and published in the company intranet as an alternative to text. This could help the staff to identify with the management better.

Software X offers flexibility in its publication methods. If the announcement was very important and time sensitive, a link to the video could be sent directly to the employees' email addresses. The employees could then view the communiqué on personal devices such as on a smart phone or Personal Computer (PC). This way, the staff could be kept aware of any important announcements.

Almost any kind of announcements could be made through video, such as information on new products, available training, human resources practices, personnel surveys, company events, job vacancies, promotion news, media matters, marketing campaigns, workplace health and safety practices, employee benefits and new corporate policies. Different messages can be targeted to different employee target groups. This will ensure effective communication activities and lack of redundant messages. Resources such as time and money could be potentially saved by video communication. This could be achieved by substituting corporate briefing events by video communication.

The company could also internally publish video blogs. For example, employees could share their experiences and connect to each other or the unit manager could give monthly/quarterly updates on performance levels and new developments. This would increase interaction between employees and the management. Better interaction could create more valuable feedback and possible new innovations from the staff.

Securitas could also create a sort of video-wiki, where employees themselves could add training videos and search them by specific keywords. The training videos in the wiki could be about any general work related topic, such as administering first-aid or using a radio communication system. If the staff members engage in creating new content, training activities would be more interactive and effective.

4.2.2 External communication

The software X could be also used as an external communication channel. Created video content could be used to inform different external stakeholders including customers, business partners, suppliers, creditors, the general public, competitors, government entities, private security industry organizations, labor unions, trade associations, academic institutions and the media.

The external stakeholders could be informed from a variety of topics such as stock market updates, new products and service range, special offers and promotions, job vacancies, Public Relations (PR) enquiries, blogs, annual reports, employee reports and newsletters. Utilizing videos in communication activities is a message itself: the company is engaged in developing its activities with the latest technologies and innovations. This is beneficial for the company brand as the market leader in the Finnish market.

4.2.3 Induction training

The software X could be utilized for conducting induction training for new employees. The content could be used to introduce the new employees to the company's corporate ethics, code of conduct, human resources practices and other company policies. The content could also be used to familiarize the employee to the customer business that is specific to his/her work site. A thorough video presentation offering all the necessary facts about the subject matter can speed up the induction process. The employee can be even asked to watch the video at home. However, the inductee should be given the chance to ask any questions about the practices.

The positive aspect about this method of delivery is that people, who do not usually read company policies or similar communiqués, might be reached with a well-constructed video. At its worst, a company policy statement might be a tedious read, but a training video could well work to sustain the interest of the inductee.

4.2.4 Work site training

Training videos could be used to complement the work site training activities. Usually staff members spend multiple shifts in the new work site as extra employees, learning how to accomplish all the demanded assignments and tasks. However, these extra shifts can sometimes be far apart from each other so the new employee might forget some things. Even worse, it can occur that the employee's actual first normal shift might be weeks from the training. This can hinder the effectiveness of the staff member's performance and result in inferior service quality. Therefore, efficient training activities have a direct link to business performance.

Securitas has a multitude of clients and usually the employees' work in the client premises. All work sites have written instruction manuals, giving specific instructions on tasks and responsibilities unique to each site. Securitas could utilize the software by creating instructional training videos, which would be easily understood and assimilated by the new employees. This content could be used to instruct how to carry out all the required work tasks in the site. The training videos could complement the already existing training measures and further support the development of the staff and operations.

4.2.5 Customer staff training

Securitas could utilize the software X to create training videos for the staff of the customer companies. The training could be offered as an additional service or to supplement an already provided service. This could create additional revenue for the company. Training could be conducted from all kinds of different corporate security or safety topics, such as fire safety or loss prevention training.

Securitas could also train customer staff on how to use the security services, such as alarm call buttons. Training customer staff with traditional methods might prove difficult because due to employee shift rotation everyone is seldom available simultaneously. Training each customer employee individually would also be a waste of resources. With the training video method, staff members can view the video on their own time, making the training activities more efficient.

4.2.6 Technical system training

Training employees on the use of technical systems is another application for the software X. Training content could be created to train staff in the use of different software. These could include software used for basic information processing, communication, accounting, billing, database management and other, internal corporate applications. In addition to giving training in general office administration applications, staff members could be trained in branch specific software, such as different alarm systems, surveillance camera operating systems, surveillance camera recording systems, fire alarm systems, key control systems and access control systems. These software systems may also have physical aspects, which require training activities that could be implemented by the use of the software X.

Besides software education, training activities could benefit the efficient operation of mechanical systems, such as fire alarm control panels, smoke removal systems or lock systems. Securitas staff members would benefit from knowing at least the basics of operation from these important systems in case of emergencies. It would reduce the employees' dependence on external parties such as technicians or maintenance workers and develop their expertise.

Staff members also have to manage and coordinate maintenance related issues in many worksites, such as matters involving the operation of elevators, escalators, folding doors, air-conditioning and lighting. Guidelines for operating these technical systems could prove to be useful and worth the effort of creating the training content, since issues with the aforementioned systems can occur even daily. Securitas employee with sufficient know-how on the operation of maintenance systems could also save the customer's resources if the issue can be resolved without the need of utilizing maintenance services.

4.2.7 Tools & equipment training

Securitas staff members have access to branch-specific special tools and equipment, which they need to be able to operate efficiently. These tools are work site specific and vary in number and by their features. Some of the equipment includes, for example, radios that are connected to a closed network or to a law enforcement network, metal detectors used to conduct security inspections and guard tour patrol systems, logging the time of fulfilled work tasks.

In order to use this equipment to its full potential and to operate in general as efficiently as possible, the staff needs a sufficient training on its use. Good thing about training videos is

their flexible nature, so the employees can view them at any time. This supports the employees' potential to carry out work tasks effectively.

4.2.8 Emergency situation training

The software could be used to educate the staff to operate in different emergency situations. This emergency situation training could include administering first aid or cardiopulmonary resuscitation (CPR), dealing with health issues such as epidemics, seizures as well as exposure to hazardous and poisonous substances. The training content could also be used to showcase the necessary procedures in cases of fire, natural disasters and major accidents or in man-made threats such as violence, robberies or acts of extreme violence such as terrorism.

The training for emergency situations could be used to educate or maintain the level of knowledge of staff members. The training could make the staff members to react and act more efficiently in these types of special circumstances. Training content will not be very useful if viewed during an emergency situation, since rapid actions are usually required on those times. That is why the emergency situation training should be used proactively.

Low reaction times to emergency situations demonstrate the professionalism, vigilance and effectiveness of the Securitas employees and can be beneficial to incite confidence from the customers. Less experienced staff members might find themselves perplexed in emergency situations, especially if they have no experience from similar events. Thus, giving training on these matters can be also linked on business performance.

5 Pilot project

5.1 Implementation

The pilot project consisted of creating trial content with the software X in a Securitas work site. The work site consists of a commercial business premise with one major customer and a few smaller customers operating as subtenants in the property. Multiple Securitas staff members conduct tasks in the premises such as customer service, camera surveillance, manned security, key control, access control, assisting customer staff in a variety of ways, opening and closing the premises daily, delegating maintenance and cleaning related tasks to appropriate actors, responding to fire alarms and bomb threats, assisting authorities, responding to security alarms, ensuring customer staff members' safety, removing individuals engaged in anti-social behavior from the premises and apprehending individuals perpetrating criminal activity. The author of thesis works in the site.

Since the filming of the training videos occurred in the customer's property, permission to film was needed. The top management of the customer company in the worksite was approached through email and the circumstances were explained. Certain conditions and ground rules were agreed on. These conditions included that filming activities would be performed before or after closing hours, no customer staff members would be filmed, person in charge of filming and the project liaison would be the creator of this report, filming activities would not be performed during this person's work time, the created material would be used for internal purposes only and that it would be handled confidentially. Permission for filming was subsequently granted.

The topic of the trial content was to create a practical guide on how to perform the necessary activities related to opening the business premises' doors each morning. The reason why this was chosen as the topic is because these activities are always performed alone, so new employees engaged in these activities might need all the support that is available. The employees are given training to perform these tasks and there is a written guide available as well, but sometimes there is a time gap between the training and the actual event when the employees have to operate alone. Therefore a training video can prove useful in inducting these new staff members.

The aforementioned morning activities require approximately half an hour to complete normally. Because of limited employee resources and the desire to involve as many Securitas staff members in the process as possible, the activities were divided in to four equal parts, according to different parts of the premises. The same process was used for all participants, with two separate meetings.

Participants to the pilot project were recruited from the work site in person. All of the employees asked to participate were willing to partake. Because of the conditions to the research activities agreed upon with the customer and the staff resources, four participants were recruited to the project. This sample size might seem inadequate, but the number of the participants sufficiently represents and reflects the actual workforce in this specific work site.

The size of the sample does not allow for drawing conclusions of the whole department. Rather, the results of this pilot project should be considered as experiences gained from one specific work site. These findings can be used as preliminary indicators for decision-making. More comprehensive research requires a larger, more representative sample of the population.

The recruited participants are the most experienced staff members relevant to this worksite currently, so they have a deeper understanding about the site matters than others. Moreover, since the project operations had to be carried out outside business hours, the more junior staff members were not available to participate, because they mainly work during normal working hours in less demanding tasks.

During the first meeting, the participants were first introduced to the project. The participants were explained what are the contents and goals of the project; what is the trial content for, how will it be created and why is it being created. Then, discussion ensued on how to execute the tasks, responsibilities agreed on and schedule defined. The script for the training material was acquired directly from the written guideline for the opening activities, which was followed during the filming. After the planning process, filming activities could begin. Each participant was encouraged to participate by either filming or performing the functions while on-camera. All participants except one chose to film in the project instead of performing for the camera.

Equipment used in the process included a pen and paper for making notes, written guidelines as the script, consumer grade digital camera for filming and a laptop for editing. Additionally, a smart phone was used as a wireless access point to share Internet to the laptop for uploading content and editing purposes. The digital camera which was utilized was few years old and capable of filming 1080p full-HD quality video. It was chosen as equipment because it was readily available and generic, therefore matching the presumable features of the typical equipment utilized in such a project.

During the second meeting, the participants were introduced to the use of software X. They were allowed to try different features of the software and its general use. The participants were given a task to edit a small part of the training video, which required the utilization of the most important tools and features. Other features such as creation of channels and the videos' publication methods of the video were explained and displayed briefly. The participants were also told about the possibility to create, edit and publish content with a variety of different devices and platforms. After the editing process, the participants were shown the video in order to display to them how the finished content looks.

Finally, the participants were interviewed. Qualitative interview was chosen as the method of research. King & Horrocks describe the general characteristics of qualitative interview as flexible, open-ended, balanced proportions between the interviewer and the interviewee power-wise and focus on the interviewees' actual experiences rather than opinions (2010, 3).

Qualitative interviews do not rely on a rigid regime of fixed questions. Instead, qualitative interviews utilize an interview guide, which, according to King & Horrocks "outlines the main topics the researcher would like to cover, but is flexible regarding the phrasing of questions and the order in which they are asked, and allows the participant to lead the interaction in unanticipated directions" (2010, 35).

The interview technique used was semi-structured interview, because it allowed uncovering deeper experiences and answers. Format of the questions were decided to be full sentences with additional questions asked when necessary to support the findings. The research question of the interview was "what are the employees' experiences about multimedia learning as a method, their level of commitment and evaluation on activities conducted during the pilot project?" The scope of the questions in the interview was divided in to different categories according to the particular subject field being assessed. These categories of questions were called background information of the participant, communication feature of software X, interaction feature of software X, the participant's commitment, experiences gained from the filming process, assessment of the learning method and the effectiveness of application of the software X.

The whole process with each staff member required time approximately two hours. The length of the first meeting varied from about 45 minutes up to one hour. The second meeting needed a similar amount of time. The reserved time proved to be sufficient to perform all activities and accomplish set tasks.

5.2 Results and evaluation

The participants of the pilot program were first asked a series of background questions. The interviewees' working experience in the private security business ranged from three and a half years up to seventeen years. This means that all interviewees have a sufficient experience to voice informed opinions about matters relating to this business sector. Moreover, the employees had worked in the particular work site in question for a long period, ranging from 11 months to 10 years. The staff has a good understanding about working conditions and company operations due to their expertise and can bring forth valuable information.

The staff members were then asked about their preconceptions about using video content in training activities. None of the interviewees had ever participated in training, where videos were used as a primary method of delivery. However, all interviewees did have positive preconceptions about using videos in training. Merit was given to the method for its illustrative feature, which would support learning by demonstrating the subject being taught. Therefore,

the staff members are open-minded about learning through video and have positive preconceptions about its use, which would support utilizing the method.

Next, the interviewees were asked about the using videos for communication purposes. All of the staff members responded positively about using videos for internal communication in the work site. One staff member suggested that videos could be used for debriefing purposes, for example to illustrate the good or poor performance in use of force situations. The illustrative feature of videos could be capitalized on in the debriefings. Another staff member said that a video would be better to relay information than a phone call or a piece of paper, since it would also leave a electronic note, making sure the matter is not forgotten. A few concerns of using videos were also voiced: a staff member argued, that it would not be a very efficient method for relaying urgent messages; another staff member was worried that not everyone would participate in making the videos. To contradict this, yet another staff member's opinion was that due to the ease of use and the fresh approach, utilizing videos would increase motivation in communication activities. All employees stated that they own a smart phone, which would enable them to watch video communiqués at any time or place.

All interviewees also though that video communication could be used as a mean of internal communication in the business unit. One staff member was concerned about using videos to give appraisal: giving feedback through video would make the whole process impersonal and make it harder for the employees to identify with the management. The staff member would prefer personal, face-to-face feedback. Another staff member was concerned if there will be enough resources to make the videos or not. A few staff members mentioned that videos would be an effective and timesaving method to make announcements.

The interviewees were asked if communication activities would be enhanced by adding videos and all but one thought so. A staff member thought that videos would support communication by illustrating matters more concisely, while another employee mentioned that videos such as announcements could be easily viewed from mobile devices, spreading information faster. One staff member thought that current means of internal communication are sufficient and using videos as a communication method is not completely necessary. Despite the few concerns, the staff members think videos could be used for internal communication activities both in the work site and the business unit.

Next, the interviewees were questioned about their interaction possibilities related to internal communication activities or the training material. All but one interviewee stated that they do not have any means to affect the communication or training content. One interviewee argued that everyone does have the possibility to affect the content, but they lack either the motivation or courage to do so. Despite the perceived low possibilities to affect the con-

tent, all interviewees recognized that there is a chance to give feedback about the content. The feedback channels included face-to-face input or email. One interviewee stated, that so far he had not found giving feedback about the content necessary. Another interviewee thought, that the company needs to develop its internal communication, by informing better about the possibility to give feedback and about which channels to use. All of the interviewees said that it would be a positive development to include the staff members more to both the communication and training activities. Interviewees all agreed that interactivity would be beneficial to the aforementioned processes, because staff members could bring forth new useful ideas and innovations as well as would get a chance to have their opinions voiced. Overall, the majority of staff members found their current interaction possibilities low and would value more opportunities to affect the communication and training content as well as to give feedback.

Next, the interviewees were asked about their levels of commitment to participate in the process in the case Securitas would choose to deploy the software. Half of the staff members stated that they would be willing to create videos if necessary and the other half also said that they would, if the topic was worthwhile enough and they had motivation to do it. All but one employee was ready to appear on video. The employee said that he would perhaps appear on the video, depending on its topic. All of the interviewees announced that they would be willing to watch the video content and participate also otherwise, by giving feedback and advice. Majority of the staff members have professed the will to commit in to the creation, publishing and viewing of the videos, as long as the content they are asked to produce is meaningful and useful. The staff should be motivated to make the videos by support and feedback.

The employees were asked to assess the use of the software X. All of the interviewees found using the software easy. An employee commented that the software is user friendly, while another employee argued that if one is familiar to basic editing software, use of this software can be learned fast as well. All interviewees found the user interface and especially the editing feature easy to use and could access and utilize all necessary features that they were introduced to. The software X has been therefore found easy to use by Securitas staff members and can be operated by anyone with basic computer skills. Considering the fact that according to the Securitas' 2014 employee report, more than half of the staff members are between 18 and 29 years old, it is safe to assume that the majority of the work force will be able to operate software X efficiently.

Next line of questioning concerned the filming process of the videos. All interviewees found filming the content easy. Staff members described the process with expressions such as natural, convenient and achievable. One employee noted that it helped a lot to plan all the activi-

ties beforehand. Then, the interviewees were asked if it's possible to create videos during normal working hours. This question received contradicting opinions: half of the employees thought it to be possible and the other half did not find it feasible. Employees who found the activities possible said that early morning hours or late evening hours can be used for filming or that videos created by a single employee are viable. The other employees who did not find creating videos during working hours feasible, supported their arguments by saying that creating good quality content requires a good amount of time or that it would not be practical, because work tasks might interrupt the process.

Another question inquired from the employees if they thought that creating the videos would take too much working time or not. All but one of the interviewees thought that generally it would not take too much working time. Factors influencing this are the type of work site, available working hours and the scope of the content being created. Half of the employees stated that a creating a short video would not require too much working time, but comprehensive content such as a work site guide would. One employee added that creating good quality content might require too much refining, thus ending up taking up too much working time. Majority of interviewees also recognized that creating videos might be a hindrance to performance in work sites, where the employees work alone. To conclude, the majority of interviewees do not generally believe that creating videos would be detrimental to working performance or would consume too much working time, depending on the scope, available time and type of work place.

Following questions addressed the method of utilizing videos in training. Employees were asked, which is the easier method to learn new practical work processes and procedures, video or written text guideline? Half of the interviewees stated that they think video is easier to learn from than written text. One employee suggested that both methods are as easy and should be used to support each other, while another stated that written text would be easier to learn because of habit. When asked which method do they personally prefer, half of the employees answered that they would prefer video, while the other half stated that they have no preference over the two methods. One interviewee argued that written text guide and video would work best together, while another one commented that video can bring the learner a feeling of personal interaction and guidance. Overall, the staff thinks positively about using the video training method, be it with only video or written text and video being used in conjunction.

Next question concerned if the staff felt capable to create, edit and publish the videos independently. All interviewees felt capable to be able to perform these functions independently. One employee hoped for a basic familiarization for the software's use, another expressed their concern over the quality of the content they would be able to create and third one stat-

ed that performing the functions would depend on having the required motivation by having a worthwhile topic of content. All interviewees also stated that they could also successfully perform the functions in cooperation with a colleague. All in all, the staff members have confidence to perform all phases of the process either independently or in cooperation with others.

Finally, the interviewees were asked for general comments about using videos in training for Securitas. One employee argued that videos would potentially be an extremely fast method at best to train practical matters, since a quick video would be filmed in an instant and it could be published without much or any editing. The benefit would be that all required information could be relayed more easily and more understandably than with written communiqués. The employee continued that more comprehensive video guides could be then created with more planning and care.

Another employee commented that video communication and training could be used as a better and faster way of reaching the staff members in the modern age of smart phones than more conventional ways. The employee believes that the software X will work for its intended purposes in Securitas, if the staff can be recruited and motivated as users.

One employee stated that utilizing videos in training activities is the right step forward and that it's good to look for innovations to develop the company operations. The employee also stated that in order to make the system work, the company has to provide the necessary support for the staff members. This support would be needed in the form of basic training of the software, giving guidance and feedback. The employee sees the prospect as an opportunity to develop the performance of Securitas work sites and staff members. New equipment such as smart phones and tablets could be acquired to the work sites. The employee sees this as a possibility to improve the operations and funding for the said equipment could be petitioned from the customer as well in exchange for services offered.

It can be deduced from the comments that the staff members find value and opportunities from deploying the software X. Great amount of innovations and valuable ideas could be discovered and capitalized on from its use. The employees also recognize the modern and innovative nature of the method and appreciate the fact that Securitas takes interest in developing its staff.

6 Conclusions

Current economic situation in the world and the ever-continued development or technology makes e-learning an attractive alternative to more traditional training methods. The thesis has explored the features and opportunities of using video training method for Securitas through contemporary theoretical research and empirical findings from pilot project in the company work site.

Securitas can use SWOT analysis presented in chapter 4.1 to discover a viewpoint about the strengths, weaknesses, opportunities and threats related to the company deploying the software X. One of the weaknesses to the company deploying the software X was identified with SWOT analysis as possible lack of employee commitment. Since video training is a relatively new innovation, it will be opposed with a certain level of change resistance. The need to motivate the employees and to improve their levels of commitment is emphasized even more. The results of the pilot project conveyed, that all of the employees in the work site would be willing to participate in creating videos, but half of them declared that only if the subject of the video was worthwhile and interesting enough. All of the employees declared their commitment to view training videos and give feedback about them. The empirical findings and the SWOT analysis therefore support each other. The findings of the pilot project somewhat support the deployment of software X, but with important considerations. Motivating the staff members to create the videos will be crucial and sufficient amount of support and guidance should be given to them.

One of the strengths identified by the SWOT analysis was that the software X is easy to use. Software X enables Securitas staff members to create e-learning training content by managing, editing and publishing videos. The results of the pilot project support the findings of the SWOT analysis: all the interviewed employees in the work site find using the software easy. The interface was found user friendly and the features accessible and applicable. The results also conveyed that all staff members that were interviewed felt capable of performing the whole process independently or with a colleague. Both the empirical findings and the SWOT analysis about the ease-of-use therefore support the successful deployment of software X.

Training is important for any organization, since the investment in it can bring many benefits. It is important for better performance of work force and improved motivation, communication and stakeholder satisfaction. Investing to training activities is therefore crucial for also Securitas. Training videos made with software X are a new, innovative dimension of Human Resources (HR) activities for the company, identified as an opportunity by the SWOT analysis. None of the participants of the pilot project had participated in training, where videos were used as the primary method of delivery, but all of them had positive preconceptions about

their use. The employees are willing to embrace new innovations, since half of the interviewees declared that they would prefer learning practical processes from video rather than text, while the other half had no preference of the two methods. The comments received from the interviewees were all appreciative about the innovative, modern nature of the proposed training method and the development of staff & operations. SWOT analysis was also used to identify another opportunity, improved brand from innovation. The positive feedback about the innovativeness from the staff members supports this. The findings from theoretical standpoint and the empirical research therefore support these statements about the positive effects of innovations.

The informal and more personalized nature of e-learning videos can support the professional development of the staff on a whole another level than more traditional training methods. The instruction will be extremely specific instead of general and some matters can be intermediated through video, which could not be otherwise addressed because of their intangible nature. Employees could immediately think of several example situations, which could be easily illustrated by training videos better than through written text, such as debriefings made with Closed-Circuit Television (CCTV) recordings. One employee stated that videos could bring forth the feeling of personal interaction and guidance. According to the findings of the pilot project, the staff members at the work site appreciate the illustrative feature of training videos.

Learner engagement is linked to improved performance. One way to enhance the level of engagement is to utilize user learner control strategies, as discussed in chapter 2.6. Giving the learners control over the sequence, pace, content, feedback and design can improve engagement. However, it should be noted that these strategies are most efficient when the content is simple and familiar; the strategies are least efficient when the learner have low motivation or low metacognitive skills. Because the company intends to enable employees to create content independently, thus utilizing high learner control strategies, staff motivation remains an important factor. Motivation should be generated in order to foster engagement.

Another way to enhance engagement is add interactivity. As research described in chapter 2.6 shows, learning becomes more effective when a social aspect is added and learners have the possibility to interact. Due to the development of technology and new learning methods in the form of interactive learning environments, modern learners have evolved from consumers of ready-made training content in to creators of knowledge, sparking innovations. Activities related to the video content created with software X could be used in convention of a social network. Securitas staff members could communicate, teamwork and give feedback to videos in one of the already existing internal communication channels, such as the company discussion forum. The results of the pilot project supports enhancing the level of interactivity in the

company's communication and training activities. According to the interviews, majority of the staff members feel like they do not have any means to affect these activities. All of the interviewed employees would appreciate the chance to affect the communication and training activities more, because they would be able to voice their opinion better and spark innovation. The findings concerning interactivity therefore support Securitas deploying software X.

Feedback is important in training activities, because of its positive effects for motivation and personal development. Both social interaction and feedback are crucial for creating a meaningful, engaging and authentic learning environment for the employees. Securitas should support these activities to the fullest by providing a platform that enables interaction. It is also important for the company to inform the employees about the existence of such platforms. Instruction is also needed on how to find these channels and on how to use them. According to the results of the pilot project, the staff in the work site believes they could give feedback face-to-face to their superiors about the content if necessary, but there is a need to inform and develop the feedback channels. The theoretical background and empirical findings about feedback support Securitas deploying software X.

The training content should be of good quality: clear, illustrative, adequately paced, logically organized and divided in to small segments that create a comprehensive entity together. To ensure sufficient quality and to achieve the best results, the company should instruct and advice the staff members with guidelines to create efficient content. The instruction should include basic training to the use of the software X and practical guidelines based on cognitive theory.

The cognitive theory of multimedia learning described in chapter 3.1 and the best practices induced from the theory should be considered in the process of creating video content. The guidelines are particularly beneficial in the planning, filming and editing phases of the process. See appendix 1 for a checklist of the best practices. The guide is in Finnish and it is intended to support the Securitas employees in creating efficient training videos from the cognitive point of view. The contents of the quick guide should be distributed to employees in case the company decides to deploy the software X.

Cost-effectiveness of utilizing the software X is closely related to the number of users and the gained benefits such as efficiency and saved timed resources. The more users the software has, more savings are made, as discussed in chapter 2.3. Possible cost-effectiveness was also identified as strength in SWOT analysis. The number of employees that can be trained with training videos is practically unlimited and savings are made from not needing handouts, training space or a teacher; not needing to pay salaries for the duration of training and to organize all the aforementioned activities. Cost-effectiveness also depends partly on the

quality of the instruction content (Clark & Mayer 2011, 15). Therefore to achieve cost-effective utilization of software X, Securitas has to maximize the number of users of the software and to ensure good quality of the video content.

Engagement and commitment, as discussed before, are linked to the cost effectiveness of software X. Findings about these aspects were positive to the deployment of the software, but with certain considerations. Time resources are naturally also connected to the cost-effectiveness. Although the employees participating in the pilot project found the filming process easy, there was disagreement whether the creation process would take too much working time or not. The factors influencing this were identified as the type of the work site and tasks, available working hours and the scope of the created content. In the particular work site, creating videos during normal working hours were thought as achievable, but majority of the staff recognized that the process could prove to be problematic in sites, where employees work alone. Generally, creating short videos were seen as viable, but more comprehensive ones were seen as more problematic. To conclude, according to majority of the findings from the particular work site, software X could be successfully deployed and utilized within normal working hours. Hindrance to working tasks is completely work site specific. In work sites where the employees are continuously occupied with work tasks, the video creation process could be divided in to short occasions over a longer period.

Securitas should assess the training activities that are conducted through the use of software X. The gained benefits should be evaluated on and compared to the company's strategic goals and to the key skills needed to achieve them. Evaluation could be performed, for example, by qualitative observation or through interviews, measuring stakeholder satisfaction.

Potential applications for training videos created with software X as explored in chapter 4.2 were identified as internal & external communication activities, induction training, work site training, customer staff training, technical systems training, tools & equipment training and emergency situations training. Securitas can apply the video training method to some or all of these practices. Because of the innovative nature of the training method, new application conventions may well materialize. New ideas gained from the employees can be utilized either locally or more widely. Best ideas can be harnessed nationwide. If good results are gained from deploying the software X in Finland, the same method can be even introduced in other countries, where the parent company Securitas Group has operations.

As mentioned before, software X could be used as a communication tool. According to the findings of the interview process, Securitas staff members' thought that videos could well be used in internal communication at both the work site and the business unit. The employees did have concerns about using videos as a channel for appraisal, possible lack of motivation

and resources available to create videos and the perceived unsuitability of video communication method to relay urgent messages. These concerns should be taken in to account and further consideration made on how to avoid these issues. The majority of the employees participating in the pilot project also believed that adding videos would enhance the current internal communication activities. The empirical findings about communication therefore support the deployment of software X, although with some concerns.

To answer the research question, software X can be used effectively for training purposes of security personnel in Securitas according to the theoretical research, empirical findings and discussion, but with the considerations discussed in chapters 5.2 and 6. To perform the training and communication activities successfully, the company and the staff have to fully commit to the process. Securitas also wanted to know more about e-learning as a training method. Introduction to e-learning and its features were addressed in chapter 2.

The research question also contained the question of how to use the software X for training purposes. This question was answered from the theoretical standpoint in chapter 3 and through discussion in chapters 4.2, 5 and 6. Cognitive theory of multimedia learning should be utilized when creating videos to ensure effective learning from the scientific point of view. Securitas can review the list of potential applications offered in the thesis and make decisions to which of them to deploy software X, if they choose to do so. The interviews in the pilot project revealed new standpoints to the realm of applications so it is extremely likely that new, innovative ways to use the software will materialize if it is deployed.

Cost-effectiveness of software X was a subtopic in the thesis. According to the findings of the research and empirical data, the software X can be cost-effective, depending on the number of users, their commitment, quality of the content and available resources such as time and equipment. To achieve cost-effectiveness, Securitas needs to inform, motivate and support the staff members to use the software X, allocate resources when needed and to commit to the use of the training method.

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Appendix 1: Checklist for designing and creating training videos (in Finnish)

Muistilista koulutusvideoiden suunnitteluun ja luomiseen

Lähde: Clark, R., Mayer, R. 2011. E-learning and the science of instruction: Proven guidelines for consumers and designers of multimedia learning. San Francisco: Pfeiffer.

Ensin:

- Aseta koulutustavoitteet, tunnista kohdeyleisö ja taitotaso
- Valmista (lyhyt) käsikirjoitus
- Harjoittele

Grafiikoiden käyttö koulutuksen tukena:

- Käytä tarkasti valittua grafiikkaa tekstin/puheen tukena.
- Havainnollista asioiden välisiä mitattavissa olevia suhteita ympyräkaavion avulla.
- Havainnollista asioiden välisiä mittaamattomissa olevia suhteita taulukon avulla.
- Havainnollista näkymättömiä ilmiöitä muutoksen esittävällä kuvasarjalla.
- Käytä liikkuvaa videokuvaa/animaatiota käytännönläheisten toimintatapojen/prosessien havainnollistamiseen.
- Muista, että monimutkaisia grafiikoita esitettäessä yksinkertainen esitystapa on parempi kuin erittäin realistinen.

Tekstin/puheen asettelu grafiikoita selittäessä:

- Aseta teksti/puhe aina samaan ruutuun, mahdollisimman lähelle selitettävää grafiikkaa.
- Vältä kuvan alle asetettavia kuvatekstejä ja merkkiselitteitä.
- Vältä liikkuvan kuvan ja tekstin samanaikaista esittämistä.

Puheen käyttö tekstin sijasta grafiikoita selittäessä:

- Kun koulutusaineistossa käytetään grafiikoita, se tulisi selittää puheena tekstin sijasta. Tämä pätee varsinkin kun aineisto on nopeatempoista, monimutkaista ja puheen sisältö on tuttua ja lyhytkestoista.
- Poikkeus: kun teksti on teknistä, vierasperäistä tai koulutettaville vierasta sanastoa, tulisi se sisällyttää kirjoitusmuodossa aineistoon. Myös tärkeät avainsanat kannattaa lisätä tekstinä.

Grafiikoiden selittäminen joko puheen tai tekstin avulla:

- Käytä joko puhetta tai tekstiä grafiikoiden selittämiseen; ei molempia.
    - Huomioi puheen olevan etusijalla.
- Poikkeus: sekä puhetta että tekstiä voidaan käyttää, jos koulutettavalle annetaan tarpeeksi aikaa prosessoida materiaali, jos aineisto sisältää vierasperäisiä sanoja tai vieraita avainsanoja tai jos aineistossa ei ole grafiikoita.

Epäolennaisten äänien, grafiikoiden ja tekstin välttäminen:

- Vältä epäolennaisia ääniä, kuten äänitehosteita tai musiikkia.
    - Tämä pätee varsinkin kun aineisto on vierasta ja esityksen tempo on nopea.
- Vältä epäolennaisia, koristeellisiksi tarkoitettuja grafiikoita, kuten kuvia tai videoita.
- Vältä epäolennaista tekstiä, kuten ammattislangia, teknistä sanastoa tai kertomuksia.

Muodollisen esitystavan välttäminen:

- Käytä epämuodollista, keskustelevaa esitystapaa.
- Vältä kuitenkin liian epämuodollisesti esittäytymistä.