

Doctoral Dissertation

E-LEARNING AIMED AT NEW HIRES IN JAPANESE COMPANIES

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日本企業における新人教育を目的とした eラーニング

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Abstract

Despite the amount of research on onboarding in Japan and e-learning, and its dissemination among Japanese companies, there is still not enough research on the relationship between those two categories. This study investigates the e-learning and onboarding environment in large Japanese companies from different sectors (n=12), it explores the potential for large Japanese companies to adopt e-learning as part of their onboarding process. The background for the research is the role of information and knowledge in the global emergence of new markets and the transformation of old ones.

Logically, the main topics of the research are: e-learning and its (complex) system nature, and onboarding process practices and theoretical foundations. In order to clarify the issues in that area, the author conducted research in the following fields: in-company e-learning; onboarding process; e-learning - onboarding in Japan; e-learning - onboarding theory model. This study identifies the need to “unpack” the concept of Japanese organizational culture which defines a much more institutionalized onboarding process rather than flexibility and proactive orientation. The study concludes that the onboarding process is not just a question of retention and turnover, but a more complex and social oriented process.

The main outcomes of that study are: holistic theoretical definition of e-learning; observational analysis of in-company e-learning and the onboarding process in large Japanese companies; theoretical e-learning – onboarding integrated model that proposes a hypothesis for the mediation role of e-learning of the onboarding process in large Japanese companies.

However, since there is not enough empirical evidence to determine, in a smoothly arranged logical scheme, how e-learning could be more or less arranged in terms of its effects upon new hires being successfully adapted, the main hypothesis of that study is an object for further research.

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Chapter 1: Introduction

1.1 Purpose and scope

This study investigates the e-learning and onboarding environment in large Japanese companies. It explores the potential for large Japanese companies to adopt e-learning as part of their onboarding process. It seeks an academic explanation (based on the theory of organizational socialization) for the relationship between e-learning and onboarding. Finally, it aims to establish a theoretical and methodological basis for future empirical research on e-learning and onboarding in enterprises.

The background for the research is the role of information and knowledge in the global emergence of new markets and the transformation of old ones. Enterprises and countries that have invested in education and in the utilization of information technologies, have managed to adapt quickly to changing economic circumstances and to offer high quality and reasonably priced services in diverse sectors. The “knowledge-based economy” and “life-long education” have become fundamental parts of company philosophies worldwide and Japanese companies have also been a part of this trend. The world famous Japanese management style is based on a significant amount of employee training, but the above mentioned trend had challenged the effectiveness of in-company learning. Japanese companies were no longer able to provide their employees with the traditional extensive training, because of the competitive advantage that countries like China and India gained, thanks to adopting technologies and knowledge-based approach in managing their human resources.

Fujiki, Kuroda-Nakada and Tachibanaki (2001) argue that Japanese companies are not strongly motivated to provide their employees with training, partly because of the risk that training and skills gained would become obsolete in a period where technology is

changing drastically, and partly because they were afraid of trained employees quitting their jobs in the future.

In order to profit from this trend towards knowledge-intensification across all industrial sectors, companies worldwide need to recruit, retain and retrain employees capable of understanding and adapting to fast-changing business processes and technologies. Enterprises are clearly investing a lot in finding the right personnel. On the other hand, assimilation of employees, which the author considers as important as recruiting, is often neglected or takes longer than companies would prefer it to last. Without effective assimilation, companies may not obtain sufficient return on their investments in expensive workers.

In today's market, where knowledge is a critical corporate asset, through the ability to deliver rapid, effective training to employees (and customers), companies gain sustainable competitive advantage. The training process is inevitably connected with the business goals of the companies and its importance has created new occupations; nowadays an increasing number of companies hire Chief Knowledge Officers (CKOs) or Chief Learning Officers (CLOs).

Globalization forces companies to educate large numbers of employees at different and distant geographical locations and they include e-learning (electronic learning) in their training programs. There is also a tendency towards the use of e-learning in the process of new hire adaptation.

HR (human resources) terminology names the process of adaptation new hires "onboarding". Martin and Saba (2008, p.16) argue that "All organizations need to make Onboarding a part of any strategy that is focused on workforce retention and productivity, as well as brand management."

Information technology implementation may lead to good results if human-technology cooperation is well defined, described, calculated and referred to as a business process linked to organization strategy. During the dot-com bubble, analysts and risk capital had exaggerated expectations of in-company technology utilization. The “bubble burst”, however, indicated that technology implementation would be a gradual process, blending with existing business ones. E-learning practice, for example, points toward better results of blended learning.

Onboarding is another business process into which new technologies are gradually being introduced. In this study the author examines the connection between onboarding and e-learning. Based on the facts that onboarding is a complex process interwoven with other business processes, on one hand, and that e-learning can be utilized in any company process related to knowledge, information and skills transfer, on the other hand, the author suggests potentialities for increasing efficient interactions between onboarding and e-learning.

1.2 Key terms of the study

The key terms of this study are “onboarding” and “e-learning”. The author defines onboarding as the adaptation process of new hires as well as business processes “naturally” interwoven with other company processes and linked to company strategy. E-learning is defined as a “system” which includes learning/ knowledge/skill transfer elements directly applicable to company/business processes.

1.3 Thesis structure

This thesis consists of four chapters and conclusions. Chapter 1 aims at introducing facts about the main topics examined. This chapter covers the area of research, key terms of the study, main approach, methodology, cases and also the main findings of that study. Chapter 1 concludes with the hypothesis of the study. Chapter 2 investigates the history and

evolution, and also the contemporary dimensions and benefits of e-learning. The main goal of the chapter is to generate a new, holistic definition of e-learning based on a wide survey of the relevant literature. Chapter 3 covers the main features of the onboarding process; investigating its flow and content. The main purpose of this chapter is to picture the reality of companies' onboarding process in Japanese as well as foreign companies. Based on the literature review in Chapter 2 and the empirical study in Chapter 3, Chapter 4 provides the theoretical grids and design of an integrated e-learning – onboarding model. Unlike Chapter 2 and Chapter 3, this chapter proposes an academic explanation of the relationship between e-learning and onboarding. This chapter also proposes variables and hypotheses for further research on the topic.

Finally in the conclusion, the author discusses the main findings of the study as well as limitations and implications of the thesis.

1.4 Japan

Dore and Sako (1998) identified employees who work at large Japanese companies as a “strategic minority”; these are the employees who contribute the most to the national economy. Although many researchers have reported changes taking place in the Japanese labor market in the last ten to fifteen years, it is still characterized by a lack of mobility and large Japanese companies still prefer to hire long-term employees especially when it comes to their core management. Based on empirical research of employees' perception of training (n=315) in the Japanese financial sector, Duignan and Yoshida (2007, p. 450) argue that:

Elements such as the long-term investment and retention of employees remain highly relevant in Japanese companies. This would appear to indicate that Japanese-style management remains dominant, even in a modern and innovative industry such as financial services.

The author chose large Japanese companies as main object of research for the following reasons:

First, employees hired in large Japanese companies are the majority of the Japanese work force and it is among their employees that the most extensive training is concentrated (Dore and Sako, 1998, p. 93).

Second, recent graduates form the main group of new hires in large Japanese companies. In order to enter the labor market, university graduates become a part of the “shyushoku katsudo”¹ system, jointly developed by large Japanese companies, universities and the state over the years. Large Japanese companies’ recruitment systems require large groups of people to be trained together during a certain period of the year – usually each April following the entry of recent graduates. That fact forces companies to conduct mass training events. Since e-learning enables synchronous or asynchronous training of large groups of people anytime and anywhere, it is a possibility for large Japanese companies to adopt e-learning in their onboarding process as an alternative for the traditional classroom system or blending those two training systems in order to gain competitive advantage in terms of time and expenses.

Third, a fully developed onboarding process is typical for the large companies and pertains to well-educated, white-collar occupations (Ashforth, Sluss and Harrison, 2007).

All large Japanese companies have similar systems for adapting and training new hires. Newcomers undergo intensive induction training which includes both skill transfer and socialization followed by on-the-job training, where new hires can experience different sides of the company environment on a rotational basis. The author argues that onboarding process activities are strongly institutionalized in Japanese companies and considers this strong

¹ Job hunting process

institutionalization as the main characteristic of the onboarding process in the large Japanese companies.

Finally, this study analyses the results of a July - August 2009 survey (questionnaires and interviews) focusing on understanding the level of adoption and utilization of e-learning tools and systems, and the quality of execution of the organizational onboarding process of new hires (referred to as ‘onboarding’) in twelve large Japanese companies (over 1,000 employees), in different sectors. The study also assumes a positive effect (acceleration and effectiveness) of e-learning utilization on the onboarding learning factors such as training, understanding, coworker support and future prospects (Taormina, 1997), suggesting a hypothetical e-learning-onboarding model for further research.

1.5 Approach

Researchers in the field of onboarding study the process by following two main directions - investigating the companies and investigating newcomers’ behavior. Although the actual adaptation of newcomers happens namely because of that interaction, researchers are often interested in the influence of organizations on newcomers’ adaptation process or newcomers’ actions, behavior and perceptions which happen during onboarding separately (Cooper-Thomas and Anderson, 2002).

There are many studies which confirm that newcomer perceptions of onboarding tactics used by the companies influence the onboarding attitudinal outcomes such as job satisfaction, organizational commitment, and intention to quit (Ashforth, Saks and Lee, 1997; Jones, 1986; Van Maanen and Schein, 1979). Furthermore Cooper-Thomas and Anderson (2002), suggest an even more detailed picture of that direct relationship proposing various mediators.

Some scholars of onboarding apply a “process approach”, where onboarding is investigated as a sequence of tasks determined by time frames (Mignerey, Rubin and Gorden,

1995, cited in Cooper-Thomas and Anderson, 2002, p. 424; Saks and Ashforth, 1997). Others use a “content approach” where newcomers’ learning² is the main mediator between the company and the onboarding outcomes (Chao, Kozlowski et al., 1994; Cooper-Thomas and Anderson, 2002). For example Cooper-Thomas and Anderson (2002) propose information acquisition as a mediator of the effect of companies’ onboarding tactics on the onboarding attitudinal outcomes, referring to information acquisition as reflecting the learning underlying organizational onboarding.

This study seeks to answer the question of whether e-learning could mediate the interaction between companies and newcomers in order to allow newcomers to act more individually during the adaptation process and thus influence their learning in the institutionalized large Japanese companies’ onboarding environment. Hence, this study uses content approach to investigate the onboarding process.

1.6 Cases

In order to meet the goals of this study, the author proposes a holistic e-learning definition after performing a qualitative analysis. E-learning literature is also reviewed in order to clarify the “systemic” nature of e-learning and its accelerating effects on organizational learning.

The author sets the frames of the contemporary onboarding process. Through literature review of the business theory of onboarding the author explains its flow and content, and clarifies onboarding interrelations with various business processes in the company.

The author conducted a survey in order to research large Japanese companies’ e-learning and onboarding environment. The survey consists of three main parts: (1) the implementation and dissemination of e-learning in large Japanese companies; (2) the

² The term “learning” in the literature of theory of onboarding is referred to as “content”.

onboarding process in large Japanese companies; (3) the relationship between e-learning and onboarding - this part of the survey covers existing e-learning utilization in the onboarding process, and also investigates e-learning characteristics (variables) that could play mediation roles in the newcomers' adaptation process.

Finally, the author proposes an integrated model of e-learning and onboarding model where hypotheses regarding effects of e-learning implementation in the onboarding process are suggested.

1.7 Method

Various methodologies are adopted in this study in order to meet its complex goals. Although longitudinal designed study is more appropriate for empirical examining of the onboarding process (Ashforth, Sluss and Harrison, 2007), the author chose observational case studies as a central method for the thesis because the aim of the study is to create rather than test a hypothesis.

A survey and, following the survey, one-hour interviews with managers of large Japanese companies (n=12) from different sectors - finance, heavy industry, manufacturing, services, mining and gas, were conducted for the aims of this study. The survey is focusing on investigating the level of adoption and utilization of e-learning tools and system and the quality of execution of the onboarding process of new hires in order to define variables for further research on e-learning utilization in the onboarding process.

Qualitative analysis is also used in order to examine e-learning definitions and to report author's findings from the survey.

1.8 Key findings and hypothesis

Data presented in this study supports the statement that e-learning is not commonly utilized in Japan (Sato, 2009), indicating low level of adoption in the examined companies.

The current research provides data that defines the onboarding process in Japan as strongly institutionalized and influences newcomers' proactive tactics and thus, onboarding results.

Based on the above findings, the author discovers a niche for future research on the relationship between e-learning and onboarding in large Japanese companies. After examination of e-learning and onboarding theories and research of practice within Japanese companies, the author created the following (hypothesis):

The adoption of e-learning in onboarding will provide (thanks to the characteristics of e-learning) to more opportunities for newcomers to act individually, without the need to individualize the large Japanese organizations' institutionalized onboarding environment, thereby improving onboarding efficiency.

A full-scale study to prove this hypothesis is beyond the scope of this thesis. Instead, using the survey as a pilot study, I aim to provide a theoretical basis and methodological framework for further research in the field.

Since the integrated model in Chapter 4 presents in detail the “e-learning – onboarding” connection, the author suggests six sub-hypotheses deducted from the main one.

Chapter 2: e-learning

“In the history of E-learning, it is important to note that there is no single evolutionary tree and no single agreed definition of E-Learning”. (Nicholson, 2007, p. 1)

The main goals of the author in this chapter are (1) to trace the origin and spelling of the term “e-learning”, (2) to follow the development of e-learning from an umbrella term to a learning method, system, approach, (3) to make analysis of e-learning definitions, (4) to cover e-learning history and contemporary trends, and (5) to create an e-learning definition.

2.1 Origin and spelling of the term e-learning

In 1998 the “new word of the year”, selected by the American Dialect Society, was not a word - it was “e-” (e hyphen), meaning “electronic”. It is just a single letter of the alphabet, but the hyphenated prefix “e-” had loomed so large in American discourse in the previous year that members and friends of the American Dialect Society voted it Word (or perhaps Lexical Entity) of the Year 1998, as well as Most Useful and Most Likely to Succeed (American Dialect Society, 1999). This decision was taken because in the middle of the nineties the prefix had started to play a vital role in everybody’s lives, being applied in all kinds of circumstances. Thus “e-” learning started to be used as a common term.

Clark (2004) defines Jay Cross (2004) as one of the pioneers in the usage of term “elearning” in 1998. Clark (2004) also references Aldo Mori’s “A bright future for distance learning: One Touch/Hughes alliance promotes interactive “e-learning” service” article to show an earlier example (in 1997) of usage the term “e-learning”

According to e-Guru’s web dictionary it “took awhile for the right term to come about, circa 1995 it was all called “Internet based Training”, then “Web-based Training” (to clarify

that delivery could be on the Inter- or Intra-net), then “Online Learning” and finally “e-learning” adopting the in vogue use of “e-” during the dot com boom”. The introduction of the term e-learning arose multiple discussions. Both its spelling and its contents gave rise to contentious issues. Declared the phenomenon which would revise the way people learned and replace the traditional classroom, e-learning was rather a term than a phenomenon. The term “e-learning”, emerged from business jargon, became popular during the dot com boom and “e-”euphoria. Though easy to remember and immediately associated with any kind of technology assisted training, e-learning was often used inconsistently or controversially. E-Guru’s web dictionary continues “The “e-” breakthrough enabled the industry to raise hundreds of millions from venture capitalists who would invest in any industry that started with this magic letter”.

Finding a “correct” way to spell the term “e-learning” is as complicated as creating a holistic definition. There is no general view of how to write and spell e-learning. Some examples are: “E-Learning”, “eLearning”, “e”Learning”, “elearning”, “e-Learning”.

In this work the author uses the spelling “e-learning”. In addition to being the most widely used spelling, the hyphen expresses the inextricable link and the small letters - the equality between the two.

The author’s main goal in this chapter is to come to a definition that can be used as a holistic approach to define e-learning and be able to prove and defend it. That definition is based on (1) research of definitions and alignment of strong key term created contexts, (2) history and contemporary trends in e-learning.

2.2 Development of e-learning from an umbrella term to a learning method, system, approach

Although widely and rapidly adopted as an umbrella term for technology delivered learning though, it was difficult for people to understand e-learning in the absence of a more precise definition of the term. E-learning development has been affected by certain factors that during the last ten to fifteen years have themselves changed drastically, thus making it difficult to create a common definition. These factors are:

- 1) Emergence of the Internet and the revolutionary impact of networking technology
- 2) Rapid development of IT
- 3) New ways of social communication and their impact on people's lives

Over time e-learning has been defined in several ways - from an umbrella term for technology enhanced learning methods to more inclusive definitions such as “more than technology - it is the social dynamics of networking” (Cognitive Design Solutions, 2005).

2.3 Analysis of e-learning definitions

For the purpose of the analysis, the author summarizes existing definitions of e-learning. There are a huge number of definitions given to e-learning over the years and it is not possible to cover them completely. The definitions used in this analysis are captured from various sources - dictionaries, definitions by researchers, definitions by e-learning manufacturers and merchants, various definitions published on the Internet.

2.3.1 Chronological analysis

The chronological analysis includes e-learning definitions according to the stage of its development. The author makes her analysis by examining the main factors that have affected e-learning development through the years (See 2.2). Over thirty years ago, Perraton concluded that “distance education has managed very well without any theory” (1981, p.13 cited in Nichols, 2003, p. 1). Nichols (2003, p. 1) added that “the vast bulk of literature in eLearning is practice-based and is typically presented in a descriptive format”. E-learning definitions have more or less followed this practice-oriented research through the years.

2.3.1.1 Emergence of the Internet and revolutionary impact of networking technology

In the late 1990s, during the initial period of euphoria after the emergence of the Internet, e-learning definitions were mainly focused on delivery via the Internet. This was the age of Internet-enabled instruction. E-learning concepts during this period were network utilization oriented and focused on the potential for content storage and distribution. Terms like “the Internet”, “web-based” and “network delivered” were the foundation of the definitions. Some examples follow:

eLearning / E-Learning - learning that is accomplished over the Internet, a computer network, via CD-ROM, interactive TV, or satellite broadcast. (World Wide Learn, 1999) eLearning / e-Learning - Any learning that utilizes a network (LAN, WAN or Internet) for delivery, interaction, or facilitation. This would include distributed learning, distance learning (other than pure correspondence), CBT delivered over a network, and WBT. Can be synchronous, asynchronous, instructor-led or computer-based or a combination. (eLearners.com, 1999)

An umbrella term that is used for providing computer instruction (courseware) online over the public Internet, private distance learning networks, or in-house via an intranet. (Weizman Software Localization)

2.3.1.2 Rapid development of IT

In the early 2000s specialists started expressing the opinion that merely uploading content on to the web could not be defined as e-learning. As Clarke (2002) states, “People in the field of e-learning began to realize that you simply cannot put information on the web without a learning strategy for the users” Therefore new elements, such as supporting technologies and methodologies, were introduced to e-learning and they were clearly reflected by the definitions of that period. The definitions included on-line collaboration, assisted learning, interactive learning environments. Examples are:

Learning that is enabled by the use of digital tools and content. Usually involving interactivity between the learner and their teacher or peers and often via the web. (Stilton Studios, 2000)

E-learning includes not only Internet-published courseware, but also the tools for managing, modularizing and handling the following: (1) different kinds of content and learning objects (including both electronic and non-electronic forms, and even traditional classroom instruction); (2) just-in-time and asynchronous learning, such as virtual labs, virtual classrooms and collaborative work spaces; (3) simulations, document repositories and publishing programs; (4) tools for prescribing learning, managing development pathways and goals and handling e-commerce and financial transactions related to learning; (5)

The utilities and capabilities for supporting informal learning, mentoring, communities of practice and other “non-training” interventions; (6) in other words, elearning does most everything in the corporate world related to learning except for training! (Manville, 2003)

E-Learning means the delivery of learning with the assistance of interactive, electronic technology, whether offline or online. (Institute of IT Training: e-Learning Standards, 2001)

2.3.1.3 The new ways of social communication and their impact on people’s lives

Technologies not only accelerate the flow of information, not only make it easier for processing and usage, but through new platforms they also change the way people communicate. Learning plays an important role in the world’s transition from Industrial to the Information Age. Economy is knowledge-based and knowledge is one of its main capitals. “E-Learning is not simply about technology, it is about a new social network to support learning” (Cognitive Design Solutions, 2005). Some definitions of e-learning very clearly reflect these changes in social dynamics, social relationships and culture.

E-learning is the use of internet technologies to deliver a broad array of solutions that enhance knowledge and performance. It is based upon three fundamental criteria (1) networked, (2) delivered to the end-user via a computer using standard internet technology, (3) focuses on the broadest view of learning. (Rosenberg, 2001, p. 28)

The delivery of individualized, comprehensive, dynamic learning content in real time, aiding the development of communities of

knowledge, linking learners and practitioners with experts. (LiNE Zine, 2000)

E-Learning can be used to deliver online courses and/or establish online learning communities. It supports flexible learning anywhere, anytime for anyone. Web-based training (e-Learning) allows instructors to update lessons and materials while CD-ROM based training caters for people who don't have internet access. These two e-Learning delivery methods provide students with interactive, cost-effective training. (Queensland Media Group)

2.3.2 Definitions Trends

Through qualitative analysis (see Appendix 1), the author tries to find the ideas behind the definitions and thus summarize her findings. The analysis shows several trends that mark the influences of various participants in e-learning theory and practice and help the author to build up a holistic enough e-learning definition.

- 1) Umbrella term – definitions that describe, encompass or embody processes happening under its “umbrella”.

e-Learning is a portmanteau term covering (1) style of learning with a particular focus on technology-mediated interactivity and collaboration, (2) the use of computer technology in leaning with a particular focus on internet technology, (3) the set of skills that enables learners to exploit technology in order to develop understanding or capability. (University of Sussex, 2004)

e-Learning is a very broad and nebulous term that means different things to different people. For the purposes of the Benchmarking Exercise we are considering e-learning as follows: The use of electronic technologies in an integrated and directed way to encourage students to engage actively with their learning. (Wikipedia, n.d, E-learning)

Gaining popularity in the early 2000s, the term e-learning refers to any electronically assisted instruction, but is most often associated with instruction offered via computer and the Internet. (Poulin, n.d)

- 2) In some definitions e-learning equals web-based training, online training or older forms of training which narrow its scope.

Web-based training (WBT), also known as elearning and on-line learning, is training that resides on a server or host computer that is connected to the World Wide Web. (Rossett and Sheldon, 2001, p. 274)

E-learning is a general term that relates to all training that is delivered with the assistance of a computer. Delivery of e-learning can be via CD, the Internet, or shared files on a network. Generally, CBT and E-learning are synonymous, but CBT is the older term, dating from the 1980s. The term E-learning evolved from CBT along with the maturation of the Internet, CDs, and DVDs. E-learning also includes Internet-based Learning, Web-based Learning, and Online Learning. (Education Resources, 2006)

E-learning is the unifying term to describe the fields of online learning, web-based training, and technology-delivered instruction. (Ageless Learner, 2006)

- 3) Although there is no single definition for e-learning, a lot of key terms are continually repeated no matter the sector of application or source of definitions. There are, for example, “electronic” context definitions, or “learning” context definitions³. The author has chosen these common terms in order to sort out the definitions according to the context they have been written in. She does not agree with definitions that are strongly influenced by the meaning of these key terms and are giving narrow and specific directions to e-learning.

a. “Technology” context:

Those kinds of definitions often describe the technological nature of e-learning.

The delivery of a learning, training or education program by electronic means. E-learning involves the use of a computer or electronic device (e.g. a mobile phone) in some way to provide training, educational or learning material. E-learning can involve a greater variety of equipment than online training or education, for as the name implies, “online” involves using the Internet or an Intranet. CD-ROM and DVD can be used to provide learning materials. (Stockley, 2003)

³ See Appendix 1

Any technologically mediated learning using computers whether from a distance or in face to face classroom setting (computer assisted learning). (The University of South Dakota, Library, Glossary, 2000)

eLearning / E-Learning - Broad definition of the field of using technology to deliver learning and training programs. Typically used to describe media such as CD-ROM, Internet, Intranet, wireless and mobile learning. Some include Knowledge Management as a form of e-learning. (E-learning Guru, 2002)

Networks are one of the most important e-learning prerequisites, still sometimes authors use the term “internet” to fully define the e-learning network.

E-learning is the convergence of the Internet and learning, or Internet-enabled learning. (Block and Dobell, 1999, p. 7)

E-learning -Web-based training (WBT), also known as elearning and on-line learning, is training that resides on a server or host computer that is connected to the World Wide Web. (Rossett, 2001)

E-learning - training or learning that takes place via the web. Training programmes can be conducted partially or fully using the Internet. (Graduate Recruitment Bureau, n.d)

b. “Knowledge” context

Knowledge is a final goal of e-learning. Knowledge context definitions, often describe that result neglecting the e-learning process.

A phenomenon delivering accountability, accessibility, and opportunity to allow people and organizations to keep up with the rapid changes that define the Internet world. (Ageless Learner, 2006)

Social, technological and economic drivers are transforming education around the world. As globalization encompasses local economies like never before, the development of a skilled workforce becomes a genuinely international concern. And as human capital becomes the chief source of economic value, education and training become lifelong endeavors for the vast majority of workers. E-learning offers these individuals a potentially less expensive and more convenient way of becoming educated – and of coming into contact with a more diverse group of fellow learners than ever before. (Stokes, 2000, p2)

A learning environment supported by continuously evolving, collaborative processes focused on increasing individual and organizational performance. Effective eLearning thrives at the nexus of web usability, communication, relationship, document, and Knowledge Management tools. (Managers forum, n.d)

Some definitions stress on learning environment rather than other e-learning components.

A learning environment supported by continuous and collaborative processes focused on increasing individual and organizational performance. (The Training Foundation, 2005)

E-learning is pedagogy that is empowered by digital technology.
(Nichols, 2008)

With good design and delivery, e-learning does all these things. But, at its heart, it is, simply, learning. Too bad most interpretations focus on the technology (the “e”) and not on the learning. (Ageless Learner, 2006)

- 4) Definitions created by scholars are the most precise since they are based on thorough analysis and research. One of the most comprehensive definitions is provided by Rosenberg (2001, p.28). He confines e-learning to the Internet:

E-learning is the use of Internet technologies to deliver a broad array of solutions that enhance knowledge and performance. It is based upon three fundamental criteria: (1) networked; (2) delivered to the end-user via a computer using standard internet technology; (3) focuses on the broadest view of learning.

Nichols (2008, p.4), meanwhile, defines e-learning as:

E-learning, eLearning, (e)learning: the use of technological tools (primarily those that can be made available over networks such as the internet) for education. E-learning is pedagogy that is empowered by digital technology. It may be offline (and non-networked) technologies on CD-Rom or DVD. E-learning usually includes digital resources and computer-interfaced communications as tools for learning.”

Bloomsburg University (2006, p. 19) defines e-learning as:

E-learning is a means of education that incorporates self-motivation, communication, efficiency, and technology. Because there is limited social interaction, students must keep themselves motivated. The isolation intrinsic to e-learning requires students to communicate with each other and the instructor frequently to accomplish their assigned tasks. E-learning is efficient as it eliminates distances and subsequent commutes. Distance is eliminated because the e-learning content is designed with media that can be accessed from properly equipped computer terminals, and other means of Internet accessible technology.

- 5) Definitions created by institutions (universities included) are often very general since institutions usually conduct policies based on a set of specific strategies.

eLearning is the European programme in the field of ICT for education and training which promotes the inclusion of ICT in all learning systems and environments (formal, non-formal, informal - school higher and adult education and training). (EACEA, 2006)

E-learning is a learning that is delivered, enabled or mediated using electronic technology for the explicit purpose of training in organizations. (CIPD, 2009)

A learning environment supported by continuous and collaborative processes focused on increasing individual and organizational performance. (The Training Foundation, 2005)

- 6) Definitions created by e-learning manufacturers and retailers are often incomplete or relate to the product's main asset.

e-learning is just-in-time education integrated with high velocity value chains. (Delphi Group, 2001)

Learning that is done via a computer. (FastFind, 2004)

In this report e-learning refers to the provision, administration and support for “off-the-job” and “on-the-job” training using information and communication technologies such as stand-alone and networked computers, Internet-based technologies and mobile devices. (e-Learning in Industry)

Based on the analysis of e-learning definitions (see also Appendix 1) the author thinks that e-learning definitions should fit in the following frame:

- 1) E-learning should be defined as a phenomenon – a result of technology development and social relations changes over the past twenty years, but its definition should mainly reflect its contemporary trends.
- 2) E-learning definition should be widely applicable.
- 3) E-learning definition should be easily understood even by the non-experienced.
- 4) In order to be as objective as possible, e-learning definition should balance the influence of technology, learning, society and other aspects that would burden it in a certain direction.

2.4 History and contemporary trends

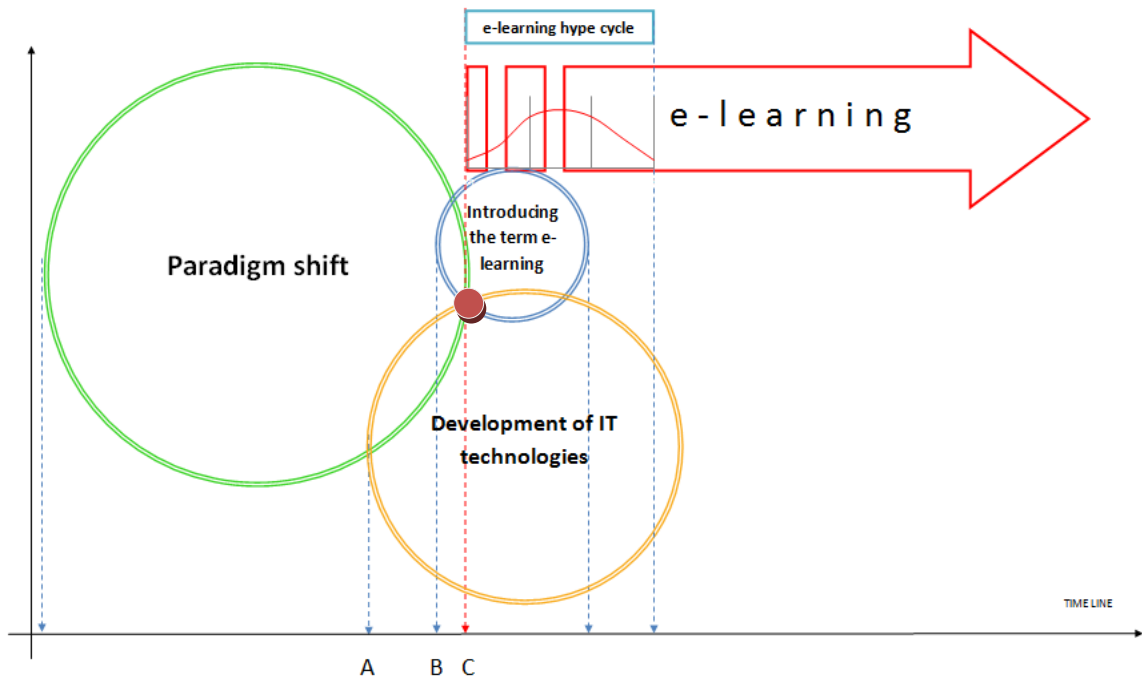
2.4.1 Prerequisites of emerging of e-learning

E-learning emerged from a combination of theoretical, technical and economic factors. For example, educational content, learning methodology and communication enabled by technology, all linked to a certain educational goal, constitute e-learning. There are moments in history which are critical prerequisites for the emerging of e-learning:

- 1) Paradigm shift in education - development of theories, which present the learner as an active part in the training process (rather than a passive listener). The first case when a tutor and a learner are not physically at the same location.
- 2) Rapid information technology development influencing every aspect of peoples' lives including learning.

E-learning is very often perceived as a new method of training enabled by rapid technology development. Given the fact that the formation of a process as complex as e-learning is interwoven with certain circumstances and events over time, this point of view sounds as Nicholson (2007, p.1) points out, "incomplete and historically disconnected from its antecedent instantiations, failing to recognize the extensive links between developing educational theories and practices that had shaped the use of E-learning over the past forty years". Figure 1 illustrates the prerequisites for the emerging of e-learning.

Figure 1 Prerequisites for the emerging of e-learning



The paradigm shift covers the longest period⁴ of time. When it meets information technologies, their combination (A) results in computer-based training, later web-based training and finally e-learning (C). When the term e-learning is introduced (point B), it is simply a term covering learning methods like CBT and WBT.

2.4.2 Paradigm Shift

“The eclectic history of E-learning means that constructs and paradigms in and across fields of use have merged and developed as part of the following trends in a progressive and incremental manner rather than being a

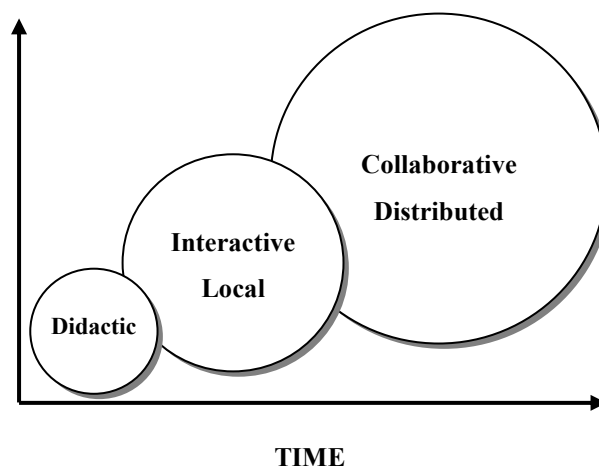
⁴ The size of the circles in this *Figure 2-1* is indicative only; they are not based on particular data.

new “killer app” or “a new way of learning”
(Nicholson, 2007, p. 1)

Paradigm shift in pedagogy aims at the change in attitude toward the learner. At the same time, it covers learning environment changes. Nicholson (2007, p. 6) argues that, “the increased scale of adoption of social constructivism (Palincsar, 1998), distributed constructivism (Resnick, 1996), and the uptakes of constructivist pedagogies (Forman, 1988; Ridgway and Passey, 1991)” lead to major changes in the learning process:

- 1) Changes in the psychological foundations of learning - granting the learner an active role in knowledge transfer as well as changing the teacher’s role - from leading to assisting the process.
- 2) Changes in learning environments – the pedagogical focus of the learning environment have been moved from didactic to collaborative ways of learning.

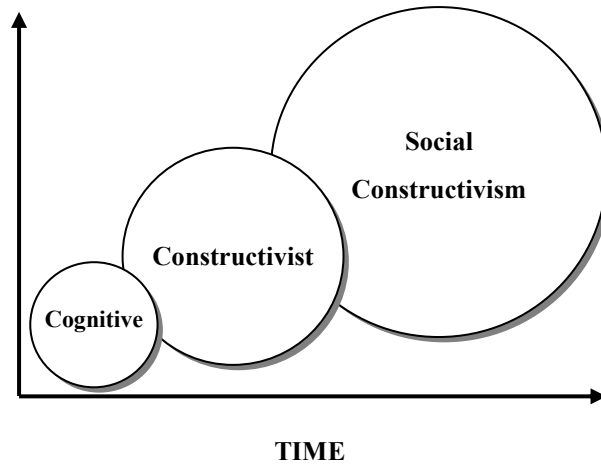
Figure 2 *Trends in pedagogical stances over time*



Note: Adopted from Nicholson and McDougall (2005).

⁵ The size of the circles in this *Figure 2-2*, and *Figure 2-3* is indicative only; they are not based on particular data.

Figure 3 *Development of learning paradigms over time*

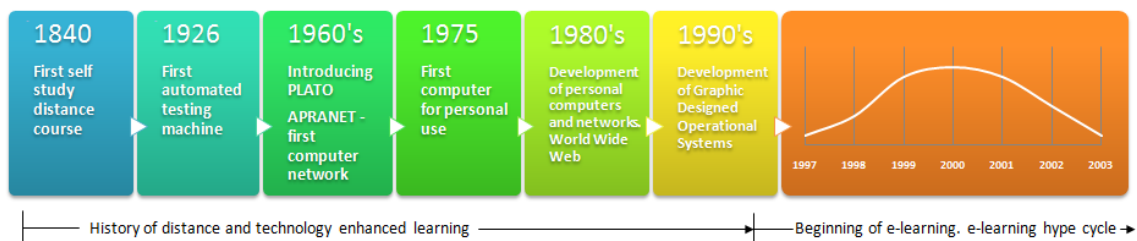


Note: Adopted from Nicholson and McDougall (2005)

2.4.3 Development of information technologies

As an inseparable part of the “technology world”, e-learning is influenced by the history of technological development. That is the reason why important moments in IT development are also prerequisites for e-learning.

Figure 4 *IT development as a prerequisite for the emerging of e-learning*



Note: After Deleeuwe, 2007; Nicholson, 2007; Aldrich, 2001

It took a long time before computers made a revolutionary impact on education, though. The main reason is the high cost of computers. In the 1960s, there were few educational applications of computers in universities, with most performing routine computational tasks (Nicholson, 2007).

The pioneers of e-learning were Patrick Suppes at Stanford University and Donald Bitzer of the University of Illinois. Others, such as Douglas Porter and William Uttal were also active early in this field (Fletcher, 2002), but only Suppes and Bitzer clearly situated the use of technology within a broader educational agenda (e.g., Suppes, 1964, 1966, 1986 cited in Nicholson, 2007, p. 3).

Suppes (1966) firmly believed that the computer would change the way of learning and would offer “privacy” to students. He was convinced that the biggest advantages of the computer were its individualized instruction and its support for dialogue. Suppes (1966) conducted a number of surveys based on a constructivist approach to learning. Based on his research, Suppes (1966) created and developed a Computer Managed Instruction System (cited in Nicholson, 2007, p. 3) and used it widely in his courses. He also established the Computer Curriculum Corporation at Stanford as a part of his ongoing inquiry into the nature, benefits and effectiveness of computer enhanced learning.

In 1960 Bitzer created a timeshared computer system to address concerns about student literacy and names it PLATO. PLATO developed and delivered computer-based education, including literacy programs. It allowed educators and students to use high resolution graphics terminals and an educational programming language called TUTOR to create and interact with educational courseware and to communicate with other users by means of electronic notes. Besides its achievements in the educational arena, PLATO was a forerunner of contemporary online conferencing systems (Bitzer, Braunfeld et al., 1962 cited in Nicholson, 2007, p. 4).

Nicholson (2007) argues that the application of the ideas of Suppes and Bitzer went through four stages, as follows in Table 1, Table 2. He also thinks that e-learning practice over time superior methodology. Table 1 and Table 2 provide a historical perspective based

on macro-level features and explain little about the processes occurring under the various categories.

Table 1 *The changing focus of educational technology over the past 30 years (part1)*

Era	Focus	Educational characteristics
1975-1985	Programming; Drill and practice; Computer-assisted learning – CAL.	Behaviorist approaches to learning and instruction; programming to build tools and solve problems; local user-computer interaction.
1983-1990	Computer-Based Training; Multimedia;	Use of older CAL models with interactive multimedia courseware; Passive learner models dominant; Constructivist influences begin to appear in educational software design and use.

Note: after Charp, 1997; Herrington, Reeves et al., 2005; Leinonen, 2005; Mortera-Gutiérrez, 2006; Nicholson and McDougall, 2005; Pilla, Nakayama et al., 2006; THOMSON, 2005.

Rosenberg (2001) argues that in the area of corporate training, to continue moving forward, people need to transform their perceptions of learning. He suggests five major areas of transformation:

- 1) From training to performance – trainers must be more accountable; they must demonstrate a positive impact on worker performance in ways that benefit the company. Training must be accountable for the same primary measure as any other function: business value.
- 2) From the classroom to anytime ... anywhere – learning must be available on a 24/7 basis, with delivery to the office, home and hotel room. Employees want and need to learn as fast as possible according to their schedule, not the schedule of the training organization.

- 3) From paper to on-line – people have come to rely more and more on what is on their computers.
- 4) From physical facilities to networked facilities – while there continues to be strong arguments for classroom learning, and for outstanding training facilities to support it, companies are now taking advantage of digital age to link their facilities and their people through the Internet, and, more specifically, through intranets.
- 5) From cycle to real time – cycle times, especially around knowledge, are so short that we are all but working in real time mode. Going forward, learning will be a continuous process, not only because the content is changing, but because the needs of learners, as well as the need of the organizations, are also constantly changing. (Rosenberg 2001, p.9)

2.5 E-learning hype cycle

This period of e-learning development is well illustrated by the continuation of the table showed above.

Table 2 *The changing focus of educational technology over the past 30 years (part 2)*

Era	Focus	Educational characteristics
1990-1995	Web-based Training	Internet-based content delivery; Active learner models developed; Constructivist perspectives common; Limited end-user interactions.
1995-2005	E-Learning	Internet-based flexible courseware deliver; Increased interactivity; Online multimedia courseware; Distributed constructivist and cognitivist models common; Remote user-user interactions.

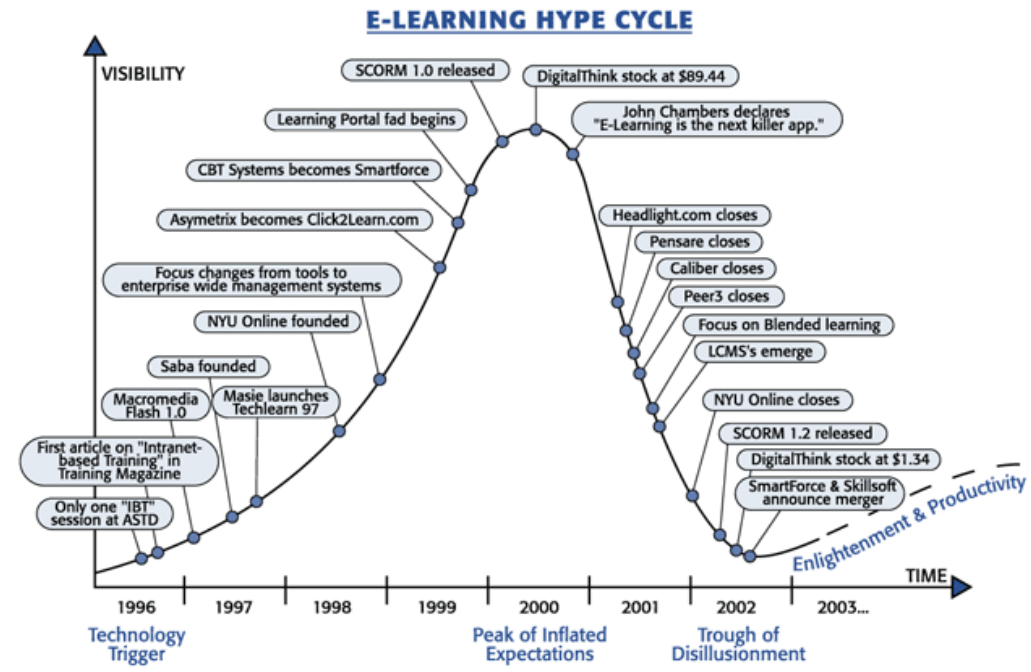
Knowledge dissemination enabled by computers was widely adopted by the mid-1990s, but it was not until 1996 that people started seriously considering network utilization

as an option (Dam, 2003). The role of information technologies in both corporate and university training became significantly larger. The first companies, focusing on e-learning, were established and their research departments, together with universities, laid the foundation of the e-learning industry. Driven by the business demand for new training solutions, the corporate sector turned its risk capital investments into Learning Management Systems, authoring tools, portals, academic degree programs, testing and assessment tools (Dam, 2003). The executive director of Cisco Systems, John Chambers, exclaimed: “e-Learning is the new killer app” (Kruse, 2002). After Dam (2003) the expectations from the “new industry” could be summarized as follows:

- 1) All classroom training will be replaced by e-Learning.
- 2) It is very easy and cheap to design and develop e-Learning courseware.
- 3) e-Learning systems are very easy to use and integrate.
- 4) e-Learning technology infrastructure is easy to implement.
- 5) Employees from almost all cultures like e-Learning.
- 6) e-Learning is mostly about how to use technology.
- 7) Significant cost savings can be made by adoption of e-Learning.
- 8) The e-Learning market will at least quadruple annually

The e-learning “hype cycle” created by Clark Aldrich (2000) and developed by Kruse (2002), fully illustrates the events and trends in the e-learning world. These are the milestones of e-learning, defining its future development.

Figure 5 *The E-learning hype cycle*



Note: Source: Kruse, 2002

The first publication on e-learning appears on the pages of Training Magazine - "Internet -based Training" in 1997. Again in 1997 Elliot Masie established Tech Learn Conference.

Many companies started investing in e-learning solutions and developing of e-learning technologies and courseware. The e-Learning market grew from a few million dollars in 1995, to US\$3.4 billion worldwide in 2000 (IDC, 2003). These were amazing results for such a new industry, but the data did not support the over-hyped expectations projected earlier for the industry.

It took only a few years for the industry to develop but it suddenly shrank after 2001 due to the collapse of the market caused by investors' excessive expectations. Many of the e-learning manufacturers could not make the estimated revenues and were forced to close down.

2.6 Contemporary trends in e-learning

In the final section of this chapter the author describes contemporary e-learning by creating her own definition. The definition is based on analysis of the key factors determining contemporary e-learning as well as on its historical development.

Combining the advantages of traditional forms of education with the advantages of information technologies, today e-learning is a complex system offering (1) overcoming of time and place barriers in education - synchronous and asynchronous learning/e-learning, (2) blended learning - combination of traditional methods of training with technological, (3) complex technology architecture – implemented technology components offering multiple services, (4) aligning e-learning with Business – cost optimization and creating benefits to meet the unique needs of customers.

2.6.1 Overcoming of time and place barriers

Constructivists and social constructivists support the idea that learners working alone or in conjunction with others internally generate unique knowledge structures (Phillips, 1995, cited in Clark, 2000, p. 34). These theories suggest the introduction of asynchronous learning and the emergence of distance learning is one of their proofs.

The greatest achievement of e-learning is the support of both synchronous and asynchronous learning elements through utilization of on-line technologies. Thus e-learning offers more flexible forms of collaborative learning. E-learning can be delivered in either a self-paced (and primarily asynchronous) format or through a virtual classroom with live (or synchronous) access (CIO Supplement, 2001). At the same time, it may require more dedicated and disciplined learners as well as those who have the motivation and confidence to succeed (Urdan and Weggen, 2000 cited in Bonk, 2002, p. 23). Combining tools of synchronous and asynchronous learning (See Table 3) e-learning offers solutions for training

in and out of the organization – training of employees, employees with special needs as well as training of external suppliers, customers, potential employees, etc.

Table 3 *Tools of synchronous and asynchronous learning*

	Synchronous	Asynchronous
Online	<ul style="list-style-type: none"> • Virtual Classroom • Video/Teleconferencing • Chat/Instant Messaging 	<ul style="list-style-type: none"> • Online Learning Tools • Discussion Groups • Recorder Live Events
Offline	<ul style="list-style-type: none"> • Classroom • Hands-on Labs • Field Trips 	<ul style="list-style-type: none"> • Online Documents • e-mail • Books • Videos, Audio Records

Note: Adopted from Cognitive Design Solutions (2005)

2.6.2 Blended learning

The concept of blended learning is based on the idea that learning is not just a one-time event but a continuous process. The combination of different learning methods, which is the essence of blended learning, guarantees an effective learning process. Masie (2001) argues that people are rather blended than single-method learners. Blended learning options are formal and informal, technology and people-based, independent and convivial, directive and discovery-oriented (Rossett, Douglass, Frazee, 2003).

According to Masie (2001), in the dawn of e-learning, there is a tendency for the marketplace and even internal training professionals to choose single-method based e-learning training. As e-learning develops, though (see Figure 4 and Figure 5), it is combined with traditional learning methods to enable synchronous and asynchronous learning. Driscoll (2002) argues that blended learning allows organizations to gradually move learners from traditional classrooms to e-learning, in small steps, making change easier to accept. She finds that the term “blended learning” refers to four different concepts: (1) combination or mixture of modes of web-based technology (e.g., live virtual classroom, self-paced instruction,

collaborative learning, streaming video, audio, and text) to accomplish an educational goal; (2) combination of various pedagogical approaches (e.g., constructivism, behaviorism, cognitivism) to produce an optimal learning outcome with or without instructional technology; (3) combination of any form of instructional technology (e.g., videotape, CD-ROM, web-based training, film) with face-to-face instructor-led training; (4) mixture or combination of instructional technology with actual job tasks in order to create a harmonious effect of learning and working. (Driscoll, 2002); (5) according to Davies (2003) blended learning combines training, coaching, and self help. It involves more management, accepting that people development is a continual process, through which experience doing the work is gained (Davies, 2003, cited in Alonso, Lopez, Manrique and Vines, 2005).

Masie (2001) suggests combinations such as blending classroom instructions with on-line instruction, blending on-line instruction with access to a coach or faculty member, blending simulations with structured course, blending on-the-job training with brown bag informal sessions, blending managerial coaching with e-learning activities.

Cognitive Design Solutions (2005) defines “blended”, as the composition and sequence of learning activities that relates to: (1) different delivery modes: online, offline; synchronous, asynchronous; (2) different learning architectures — Receptive, Directive, Guided Discovery, and Exploratory Learning; (3) different instructional methods and use of media that engage learning style preferences; (4) different social learning dynamics that affect motivation

Blended learning tools can be grouped as follows:

Table 4 *Blended learning tools*

<p>Live face-to-face (formal)</p> <ul style="list-style-type: none"> • Instructor-led classroom • Workshops • Coaching/Mentoring • On-the-job (OJT) training 	<p>Live face-to-face (informal)</p> <ul style="list-style-type: none"> • Collegial Connections • Work teams • Role Modeling
<p>Virtual Collaboration/Synchronous</p> <ul style="list-style-type: none"> • Live e-learning Classes • E-mentoring 	<p>Virtual Collaboration/Asynchronous</p> <ul style="list-style-type: none"> • Email • Online Bulletin Boards • Listservers • Online Communities
<p>Self-paced Learning</p> <ul style="list-style-type: none"> • Web Learning Modules • Online resource links • Simulations • Scenarios • Video and Audio CD/DVDs • Online Self-assessments • Workbooks 	<p>Performance Support</p> <ul style="list-style-type: none"> • Help Systems • Print Job Tasks • Knowledge Databases • Documentation • Performance/Decision Support Tools

Note: Adapted from “Strategies for Building Blended Learning”, by Rossett et al. (2003)

The power of the blend is in sequencing the activities, engaging the learner in different ways, and then optimizing the combined learning effect (Cognitive Design Solution, 2005).

2.6.3 Complex technology architecture

E-learning technology architecture is a combination of technology components which creates an environment for the initiation, planning, organization and control of the learning process. E-learning technology architecture should be realized not only through technology, but also various educational services. A well constructed system depends on active communication between learning process holders, developers and end-users at the planning and development stage.

Many authors share the view that a successful e-learning architecture should conform to on the following principles:

- 1) Flexibility - To support content from different sources and multiple vendors and also support major learning standards (AICC, SCORM, IMS and IEEE).
- 2) Scalability - to grow depending on number of users and content volume.
- 3) Accessibility - to be accessible at as many locations as possible, as well as to offer 24/7 synchronous and asynchronous services.
- 4) Adaptability - to be able to meet the constantly changing requirements of end users - learners, administrators, content builders and instructors.
- 5) Usability - to be user friendly oriented.
- 6) Security - to limit and control the access to online content, resources and functions.

E-learning architecture should support the uploading, updating and upgrading of content, basic and additional services related to conduct, monitoring and evaluation of the learning process, as well as social and technological communication within and outside of the system. An e-learning architecture should ideally provide:

- 1) Network environment for general communication. Internet/intranet. Contemporary e-learning architecture is based on internet/intranet solutions and through multiple web services provides training to the end users. Web services, being the upper layer of the architecture, serve as communication tools for the end users. Common learning services such as (1) User management (each user possesses an unique username, to which different roles can be assigned - learner, instructor, IT administrator, tutor, author, content manager, etc), (2) collaboration (these are synchronous and asynchronous services providing communication and collaboration opportunities to the users. For example: virtual classroom (with

audio-visual, and whiteboard resources), virtual meeting rooms, and chat; email, threaded discussion, peer-to-peer instant messaging, etc), (3) event Management.

- 2) Environment for development, delivery and tracking of educational content – it provides the necessary information and manages the training process flow. There are two management systems conducting these processes - (1) LCMS (Learning Content Management System) - Upload and management, tracking and modification of content. The system also provides indexing for the easy search of certain content in the database, (2) LMS (Learning Management System) provides Content Delivery (Enroll/Track/Report). It is the automation that supports e-learning. The system is linked to User Management services - giving learners access to content that their profile allows, and establishing necessary student tracking.

Whereas an LMS manages the processes surrounding learning, an LCMS manages the process of creating and delivering learning content, just as the names indicate.

- 1) Technology Communication environment – communication with other e-business applications – Customer Relationship Management Systems, Enterprise Resource Planning Systems, Human Resources Systems.
- 2) Technology Infrastructure - internet/intranet servers - HTTP, FTP, SMTP, TCP-IP; web standards - XML, SOAP or AQ; major learning standards (AICC, SCORM, IMS, IEEE)

2.7 Benefits of e-learning for businesses

Henry (2001) states that successful implementation of e-learning requires the same management commitment as other “mission-critical organization-wide initiatives”. As a business process, e-learning contributes to the improvement of the main business indicators of the company. E-learning can be aimed at achieving the strategic, tactic or operational goals of the company (Cognitive Design Solution, 2005). The benefits of e-learning are:

- 1) Increasing of company productivity – improving the capacity and skills of the employees, e-learning contributes to the entire company.
- 2) Reduction in training cost – e-learning reduces time expenses, transportation expenses, rent of facilities expenses, materials expenses and tutor remuneration expenses.
- 3) Change management improvement – information on new decisions and strategies can be easily disseminated. Reduction of skill transfer time.
- 4) Due to user-friendly learning environment, e-learning increases employees’ interest in the company learning process.

2.8 Final definition

After the research the author has done, the conclusion is that the building factors in the set up of a definition are: technology, knowledge, network and users.

- 1) Technology - an important factor that distinguishes e-learning from other types of education. Technology is the environment where communication with customers is established.

- 2) Knowledge - Rosenberg (2006) defines the learning process as an internal process by which we take in information and experience and then translate it into knowledge or skills (new capabilities).
- 3) Network - in my opinion this factor should not only be limited to the meaning of a technological network. Technological, social, business or a blend of the above mentioned networks may exist in e-learning environment.
- 4) User - not only consumes but is also curious and active in searching the best solution for dissemination or gaining of knowledge (skills). E-learning meets user needs by offering integral package of services that enables access to the whole set of knowledge. It is often characterized by active learner-centered pedagogies. (e.g., Harel, 1991; McDougall and Betts, 1997 cited in Nicholson, 2007, p. 2). Suppes (1966) argued that the single most powerful argument for the use of computers in education is individualized instruction and the dialogue that it supports. (cited in Nicholson, 2007, p. 3).

Based on the above mentioned factors, the author suggests the following definition:

E-learning is a networked learning system which communicates in an information technology environment and meets changing user expectations with a set of learning, learning support and assessment services, thereby creating automation and support for the learning process.

2.9 E-learning in Japan

According to the “E-learning white paper 2005/2006” (Asia e-Learning Network, 2005), e-learning started to be adopted by Japanese corporations around 2000. In 2001 the Japanese government introduced the first strategy for wider IT development and utilization in Japan called “e-Japan”. The objective of this strategy was to turn Japan into “the world’s most advanced IT nation within five years” (e-Japan Strategy, 2001), including e-learning deployment as a part of the development of the country’s human resources potential.

While the strategy adopted in 2001 implemented policies on creating basic infrastructure and IT promotion, “e-Japan 2004” emphasized policies and preparation of systems for achieving human resources development goals (Asia e-Learning Network, 2005). The “E-Learning White Paper 2005/2006” (Asia e-Learning Network, 2005) referred to the 2000 – 2005 period as the “birth of e-learning in Japan”, followed by “development period of e-learning in Japan” – both part of the Japanese government strategy. The main users on the market were the corporate and educational sectors; other counterparties were e-learning manufacturers and the government, which carried out policies for e-learning development. According to the Ministry of Education (Asia e-Learning Network, 2005) “while e-Learning gradually permeates into a variety of educational fields and areas, it is said that the area covered in the largest scale is enterprise education”. (p. 1)

Main government policies include (1) education for adults and employees; (2) civil servant training; (3) higher education; (4) primary and secondary education and (5) lifelong learning.

The government also executes two control functions related to e-learning dissemination: (1) policies related to copyrights and (2) policies related to the protection of private information (Asia e-Learning Network, 2005).

According to the same source, investments in e-learning were increasing and the outlook for the e-learning market for the 2003 – 2009 period was that the value of ¥890 million for FY2003 would surpass ¥1.5 billion in FY2009.

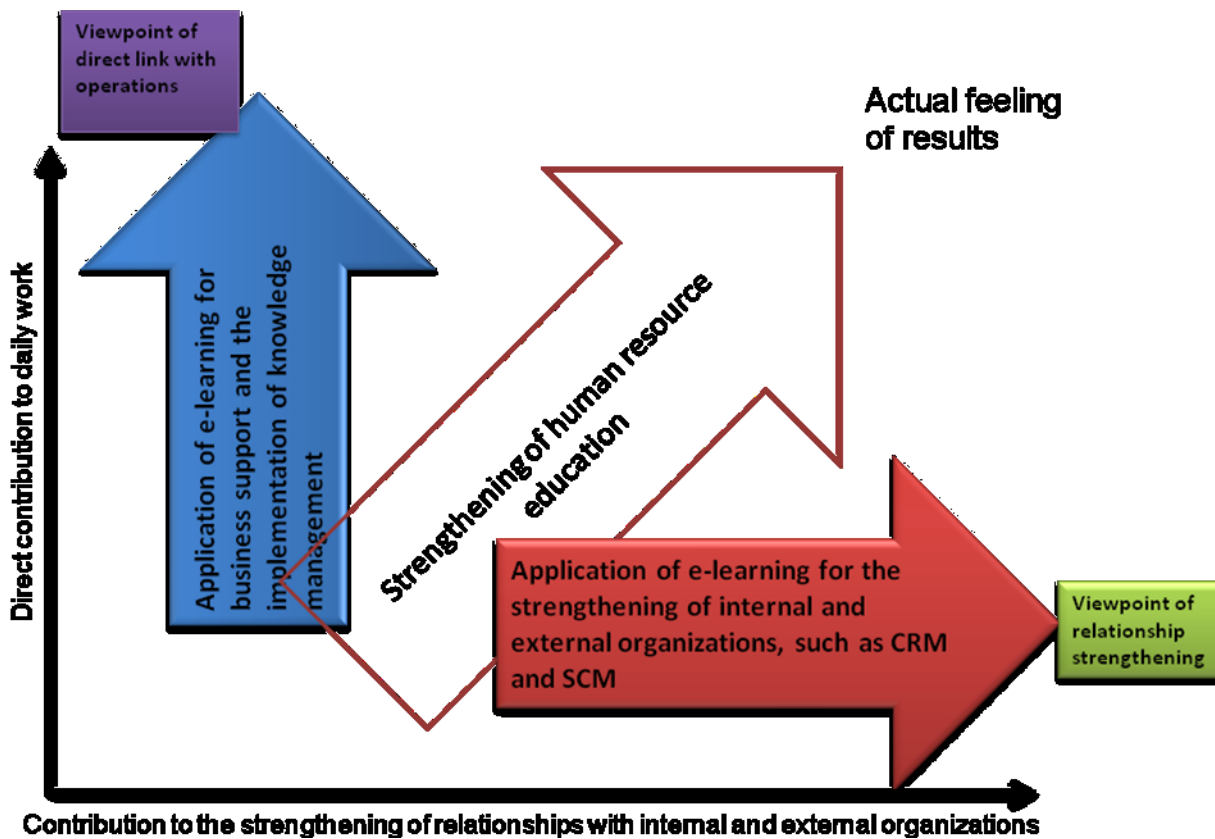
2.9.1 E-learning in the corporate sector

In 2004 the level of e-learning implementation in the corporate sector was over 50% for companies with more than one thousand employees and about 26% for companies with less than one thousand employees⁶. The “E-learning white paper 2005/2006” (Asia e-Learning Network, 2005) defined two basic approaches to the utilization of e-learning in Japanese companies (See Figure 6):

- 1) enterprise education: e-learning utilized in everyday tasks performance related to new corporate policies promotion, new business processes implementation and new technical equipment introduction.
- 2) strategic utilization: e-learning increasing the quality and speed of communication between the company and its external environment – suppliers and customers.

⁶ “E-Learning White Paper 2005/2006” measures the main “goals” of introducing e-learning of 95 Japanese companies.

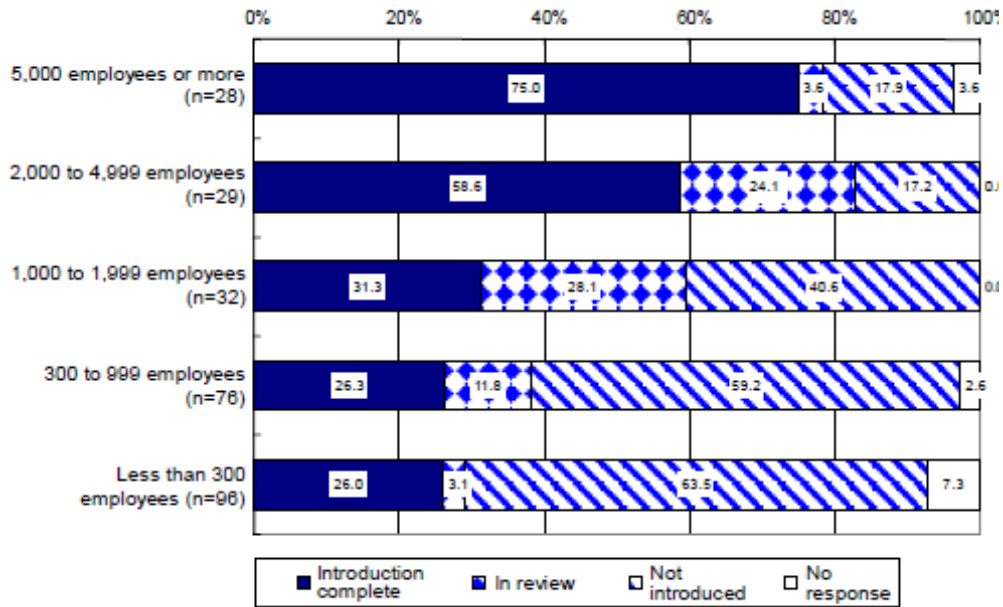
Figure 6 *Utilization of e-learning in Japanese companies*



Note: Source: Asia e-Learning Network, 2005

A successful combination of the above mentioned e-learning approaches facilitates improvements in human resource training, which is the main purpose of e-learning, and provides a variety of effects for corporate activities (Asia e-Learning Network, 2005).

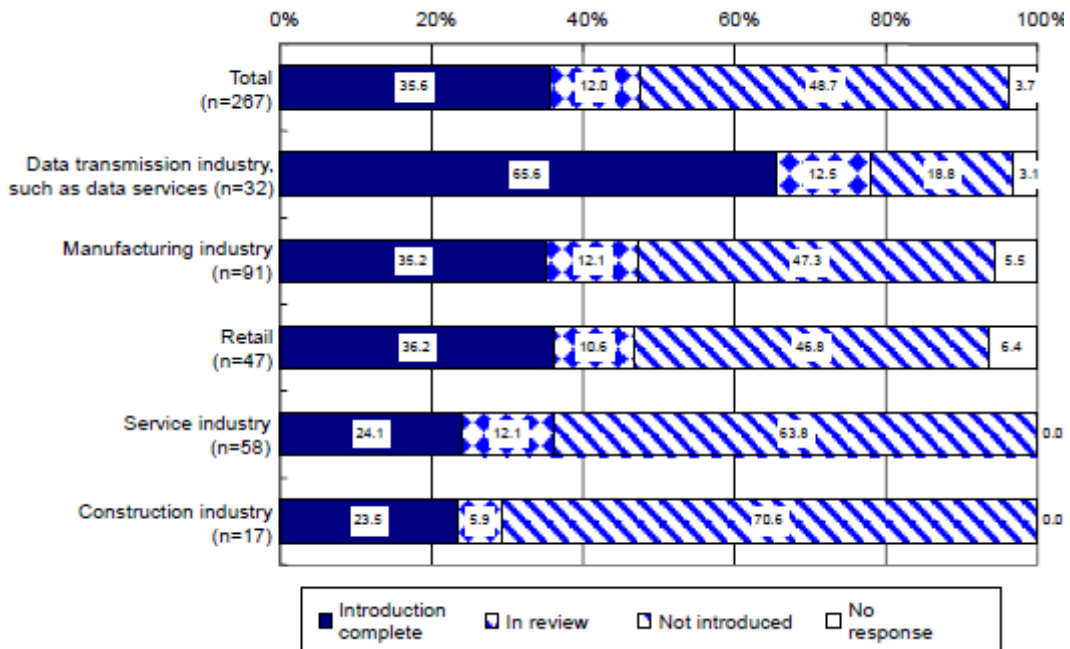
Figure 7 Introduction ratio of e-learning by number of employees



Note: Source: Asia e-Learning Network, 2005

E-learning dissemination by industry is depicted in Figure 8:

Figure 8 Introduction ratio of e-learning by industry



Note: Source: Asia e-Learning Network, 2005

2.9.2 E-learning in the onboarding process

There are several changes in Japanese human resource development that could be considered as indirect reasons for large Japanese companies to adopt e-learning in their onboarding processes.

First, large Japanese companies' recruitment system requires large groups of people to be trained together during a certain period of the year – usually in April every year a lot of recent graduates enter the companies. That fact urges companies to conduct mass training events. Since e-learning enables synchronous or asynchronous training of large groups of people anytime and anywhere, it is a possibility for large Japanese companies to adopt e-learning in their onboarding process as an alternative for the traditional classroom system or blending those two training systems in order to gain competitive advantage in terms of time and expenses.

Second, according to Muroyama (2004), nowadays there is a wide discussion going on and a lot of papers dedicated to the topic of young Japanese" attitude toward "working styles". He argues that young Japanese are changing their attitude towards the job as a whole. As a result of that change, Muroyama (2004) reports an increasing of the number of graduates who do not move into steady employment. In this context, e-learning may be utilized to send socialization signals from companies to potential employees from the above mentioned non-steady employment oriented group.

Third, the main aim of university career assistance system is to help students find jobs at corporations, and career development after graduation is left to training programs provided by corporations. According to Kosugi, Hamanaka, Hori and Nakajima, (2007), universities should incorporate into their career development support requirements known as "pleasant personality". These requirements should be recognized by universities as the requirements companies expect from new graduates. Companies define "pleasant personality" as an

employee who meets the following criteria: “ability to take initiatives”, “ability to identify a problem”, and “ability to listen to others and to deliver own opinions”. Kosugi et al. (2007) state that the need for vocational training in the universities has increased and new ways to perform vocational training in the university career centers are needed. In their research they found that, “the number of “non-workers” who are neither in employment, nor in an educational program at the time of their graduation has not come down to the level seen in the early 1990s. (i.e. the level is too high). Another finding is that students’ way of thinking has changed in recent years, with universities facing a situation where the number of prospective students is lower than the university’s enrollment limit. Kosugi et al. (2007) studied the vocational training the students received in the universities, the way new graduates look for a job, and compared that to the companies’ expectations of new hires. The expectations of the companies have changed from “pleasant personality” to a personality indicating competencies. Universities, however, understand companies’ expectations of professional knowledge, but do not really understand the requirements implied by the term “pleasant personality”.

Fourth, Miyamoto (2005) states that, recently the period when a person shifts from youth to maturity, is getting longer and a new stage in the lives of young Japanese is emerging. Miyamoto (2005) explains the above by the Japanese social system principle (family, school, companies) of rather protecting young Japanese than giving them independence. That principle, together with the economic circumstances raised in the 1990s, are reasons for emerging of a new categories on the Japanese labor market – “young people who are reluctant to work” (Miyamoto, 2005, p. 86) and “people who work for an extremely small number of working days, and young people who remain jobless for longer than a certain period (Miyamoto, 2005, p. 88). Miyamoto (2005) argues that these categories would

cause issues in the future. Since the above mentioned group is extensively using computers, e-learning could be utilized as both socialization and job notice tool.

Fifth, Kawasaki (2006) found that some students, who have received a job offer early, sometimes start to have doubts about whether the offer still stands, and start another job search in the meantime. There are scenarios where some students decline their job offer right before graduation. Although there is a vocational training system in Japanese universities, responsible for the period from job offer to graduation, Kawasaki (2006) found it insufficient. Universities concentrate more in finding job offers for every student than in providing them with vocational training during the period after they accept the offer and before they enter the company. In this case e-learning could be utilized as a communication channel for students during this period.

Finally, Adachi (2006) argues that in the coming years graduates will be required to have the skills necessary to develop a career by themselves. Based on research on career decision among university graduates about 30% of university graduates quit their job within the first three years, and finding employment at a corporation is no longer the goal of career decision (Adachi, 2005). Recruit Works Institute (2004, cited in Adachi, 2005) states that, “more and more companies are shifting from the traditional pattern of recruiting new university graduates at once to mid-career recruitment in recent years”. Mid-career employees could easily and rapidly be adapted to their new positions through e-learning.

2.10 Conclusions

Several research areas connected with e-learning were covered in that chapter. First, research on e-learning definitions on one hand, and e-learning content on the other, was performed. The study illustrates e-learning evolution - from an umbrella term for technology-enhanced learning to a complex system consisting of several important dimensions:

information technology environment, service-network environment, automation of learning processes, and customer satisfaction.

Second, chronological analysis of e-learning definitions demonstrated that e-learning has passed through several stages: the spread of the Internet (increased network utilization, plus easier and cheaper content storage and distribution); the growth in amount of e-learning services (including the development of supporting technologies and methodologies); and the development of tools and methods of social communication.

Third, the content analysis of e-learning demonstrated bigger role of e-learning in companies' learning processes, possessing unique characteristics such as: overcoming time and place barriers; blended learning capabilities; and complex technology architecture.

Fourth, corporate e-learning, its implementation and adoption among Japanese companies was covered, by examination of reports from the Japanese government and non-government organizations. It was concluded that e-learning in Japanese companies is applied mainly as a training and communication tool.

Fifth, this study contributed to the e-learning literature by developing its own definition of e-learning.

Finally, the author assumes that certain changes in the Japanese human resources practice could play role as indirect reasons for adoption of e-learning.

Chapter 3: Onboarding

Companies spend a lot on recruitment. Efforts put into the hiring of new employees, however, are just the beginning of a complex business process, which aims at the rapid adaptation of employees to the company, logically leading to their full competency.

Globalization has augmented the capacity of individuals, enabling their personal identification, rather than identification through the state or the company (Friedman, 2007). Information technologies have enhanced communication, learning and information access, concentrating them in a single spot. Individuals have become more inquisitive, so one of the biggest challenges companies face is to create a good impression, not only on customers, but also on employees.

Attainment of strategic goals depends on strong bonds between employees and company. In the second half of the twentieth century, many Japanese companies, for example, gained a competitive advantage through their successful employee integration policies. However, life-long employment system, which guaranteed rapid adaptation and loyalty of employees, has undergone changes (Dore and Sako, 1998). The globalizing economy requires changes in the efforts aimed at gaining employee trust, employees also change their attitude toward the company, but the strategic goal remains the same – rapid adaptation process, leading to full competency. Companies realize that faster adaptation to the workplace directly reflects the quality of the product, its delivery and, respectively, company profit (Bauer, 2009). Furthermore, clearly outlined company vision, expectations and career development sets goals for the new hires (Moran, 2000). Thus, new hires feel connected to corporate strategy and culture. This translates into engagement and a feeling of belonging (Wheeler, 2009). The above mentioned factors have always played important roles in human resources development but now companies need not only to recruit “the right new employee”, but also rapid and quality adaptation process for all of them. However, “Generation Y” and “freeters”

in Japan (Sako, 1997) are a real challenge for “the right person at the right time and place” system and the Japanese life-long employment system (Stefanov, 2009).

3.1 Definition

Recruiting is a costly process for every company. Companies put an emphasis on it, but often neglect the follow-up process of new hire adaptation. According to a survey conducted in Corning Glass Works (Lee, 2006), employees who attended a structured orientation program were sixty nine percent more likely to remain with the company after three years than those who did not go through such a program. Sullivan (2008) states that most new employee adaptation programs are poorly designed and even more poorly executed. Companies usually do not have a clear business process for new employee assimilation and that is why time to competency takes longer than they expect. A survey of Texas Instruments showed that employees, whose orientation process was carefully attended to, reached “full productivity” two months earlier than those whose orientation process was not (Ganzel, 1998 cited in Lee, 2006, p. 2). Ineffective raw recruit utilization directly affects business results and competitiveness. According to a research conducted by Aberdeen Group (Tarquino, 2006), companies need to make improvements in the following areas:

- 1) Eliminate the extra costs of a paper based process
- 2) Improve retention rates
- 3) Facilitating the management and collection of forms
- 4) Improve time to productivity
- 5) Improve company brand
- 6) Improve overall customer satisfaction

These are the main reasons for companies to invest in the creation of a measurable adaptation process directly linked to strategy. Human resources theory names this process “onboarding”. According to Taleo (2006, p.1), “Onboarding is the bridge from the promise of talent and output anticipated from a new employee to the attainment of actual productivity”.

In 2005, nearly sixty percent of companies worldwide implement or did not plan to implement an onboarding initiative. This number has decreased dramatically in 2006 – only 24% of companies now do not implement or do not plan to implement a formal onboarding process (Tarquinio, 2006). In a more recent research of Aberdeen Group (Martin and Saba, 2008) the above mentioned factors are revised to the following:

- 1) New employee retention
- 2) New employee productivity
- 3) Company reputation /brand in recruiting top talent

Onboarding is a relatively new term introduced to human resources after organizational researchers have been investigating “new employee orientation programs” and “socialization techniques” (Dai and Meuse, 2007, p. 2). Onboarding, however, is much more than initial orientation (Employee Onboarding, 2007). An investment in effective onboarding is an investment in employee retention, morale, and productivity (Lee, 2007). Wheeler (2009) states that there are at least three things that orientation or assimilation programs can do: (1) help new hires feel that they are part of a larger organization and that they are important; (2) help convey the culture of the organization so that decisions get made that are more in line with accepted practices and that help the organization function more smoothly; (3) help new employees get up to speed more quickly.

There are two key performance indicators of successful onboarding - time to productivity and engagement and retention (Dai and Meuse, 2007). There are two high-level

goals of the onboarding process – (1) to make new employees feel welcome and comfortable in their new surroundings; (2) to minimize the time before new employees are productive members of their new workgroup (Employee Onboarding, 2007). Tarquinio (2006) argues that the need to retain new hires and enable them to more quickly perform productively in their new capacity and environment, makes organizations look beyond traditional new hire orientation programs and towards formalized onboarding strategies.

However, onboarding is defined in numerous ways:

According to Bauer (2009), “Onboarding is the process of getting of new employers adjusted to the job”. Tarquino (2006) found onboarding as:

Onboarding is a process involving forms management, tasks management, and socialization in the company culture. Companies that incorporate these three components are those companies that will achieve optimal ROI from their onboarding process.”

Practitioners define onboarding as:

A strategic deliberate business process to enable, facilitate and assure that each employee is successfully immersed into the company culture, quality, and operational systems. (Director, Large, North American-based Medical Device Company, cited in Martin and Saba, 2008, p. 2)

or

Onboarding is the period in which we are giving the employee information about the job. We look at onboarding as the pre-hire process, the hiring process, and the first year of employment. (HR

consultant, Mid-sized, US-based Energy Provider, cited in Martin and Saba, 2008, p. 4)

and also as:

Onboarding is the process of getting new employees fully up to speed in the job, the culture, and organizational processes so that their value can be fully felt as quickly as possible in the organization. (Director of HR, Mid-sized, US-based Financial Services Company, cited in Martin and Saba, 2008, p. 10)

An Asia-Pacific based practitioner even adds an emotional side to onboarding:

It's actually the emotional bond we create to our work lives /places - it never stops. Onboarding is a continuous ever-changing cycle of needs being met. (Learning Consultant, Large, Asia/Pacific-based Telecommunications Company, cited in Martin and Saba, 2008, p. 17)

A tendency to disregarding the recruits' active role is noticeable in onboarding definitions. The efficient process is not only a company goal but also new hires' personal goal which puts both sides into a win-win situation. Watkins (2003) argues that failing a new assignment can ruin a promising career, but making a successful transition is about more than just avoiding the failure.

Based on the above definitions, the author makes several conclusions that set the direction and scope of onboarding:

- 1) The main principles of onboarding are: socialization, interconnections and wide comprehension.

- 2) Onboarding is a business process distributed over time. It is interwoven with other business processes and assigning tasks to certain structures of the company.
- 3) Onboarding is linked to company strategy. It is aimed at rapid new employee adaptation, job satisfaction, low retention rate, long term employee commitment.

The importance of onboarding is understood differently by different companies. One of the reasons for that are companies often mistaking their existing “welcome” procedures for an adaptation process. Bauer (2009) divides companies into three levels according to the stage of development of the onboarding process:

- 1) Level 1: Passive onboarding; safety regulations, compliance documents
- 2) Level 2: High potential onboarding; stress on the performance side, less attention on the social aspect
- 3) Level 3: Proactive onboarding; perfect basics plus attention on the “connection” process (connect new employees with other people and goals of the organization)

Another company classification based on improvement in several categories is made by Martin and Saba (2008). The categories new employee retention, new employee productivity and company reputation in recruiting top talent, indicate the stage of development of onboarding in companies. Martin and Saba (2008, p.20) divide the respondent companies into:

- 1) 20% of aggregate performance scorers are “Best-in-Class”;
- 2) 50% of aggregate performance scorers are “Average”;
- 3) 30% of aggregate performance scorers are “Laggards”.

3.2 Scope of onboarding

In this part of the chapter I address the following questions:

- 1) Why is onboarding necessary and what are the rules and principles to be followed in its construction and implementation?
- 2) Who are the main participants and what are their roles in the process?
- 3) What is the timeframe of the process?
- 4) Where in the organization is the process situated?

The creation of an adequate onboarding process requires both strategic and operational information, as well as time and workforce investments. On the other hand, the efforts made for its development and implementation do not differ from these made for any other business process.

In the definitions section, the author defined the direction and scope of onboarding as follows (1) onboarding is based on certain principles, (2) onboarding is a business process distributed over time, (3) onboarding is linked to company strategy.

3.2.1 Onboarding principles

Onboarding is based on several principles which guarantee its strategic direction and alignment:

3.2.1.1 Connection to the organization's main values

Every newcomer should be acquainted with the mission, vision and values of the organization. Understanding of these principles, however, is not sufficient for new employees to feel a part of the organization. That is why onboarding leads the new employees into the “broad picture”, where they can identify themselves as company employees and understand their contribution to the whole. It is difficult for employees to make this connection by themselves.

3.2.1.2 Understanding of corporate culture, goals and priorities

Onboarding should execute a “socialization function” and a “performance proficiency function” within the company. The author refers to these two terms in order to examine the

double nature of the process. The author studies the processes within onboarding as well as the processes interwoven with it based on execution of these two main functions:

- 1) performance proficiency – introduction of the new hire to work, duties and job performance expectations from the management body of the company which is connected to the company key goals
- 2) socialization – adjustment of the new hire to the company culture and environment, creation of a positive attitude towards it.

Bauer (2009) refers to these to as to “two sides of onboarding – socialization and performance”. She states that effective onboarding depends on valuable content of both sides, but special attention should be given to the socialization side, since it is the “connection” between the company and the new hire and thus plays a strategic business role.

Martin and Saba (2008) stress the “human element” of onboarding. They advise companies to “focus on the human element of onboarding and include socialization as a primary focus”.

Ros (2008a) divides onboarding into two – transactional onboarding and acculturation onboarding. His division is based on research into IT onboarding products. Transactional onboarding focuses on automating the data transactions and processes related to moving the candidate into their new role. Acculturation focuses on making the process of moving the candidate into their new role as quick and as efficient as possible. Acculturation is about making sure the employee understands their new role and organization and helping them achieve productivity quickly. Acculturating a candidate is also known as socializing, or indoctrinating, a candidate.

Dai and Meuse (2007) define onboarding as a process covering six main new hire needs, related to their job performance and organization “connection” - performance proficiency; people; politics; language; organizational vision and values.

3.2.1.3 Interconnection

Onboarding is interwoven with other company business processes, sharing common resources with them. For example, the IT department is responsible for providing the new employee with a computer or the new employee’s training results should be transferred from the training department to the line manger.

3.2.1.4 Flexibility

Onboarding should be designed to fit different new employee groups. Some parts of the process may be common, but other parts should be carefully selected according to the employee’s background.

3.2.2 The onboarding process

The onboarding process begins before recruitment and finishes with full competency achievement. It includes socialization of new employees; job performance instructions and measuring the effectiveness of the new employees, etc. One of the most recent definitions of onboarding describes the sequence within the process with five verbs. Bradt (2009) defines onboarding as the process of acquiring, accommodating, assimilating and accelerating new team members, whether they come from outside or inside the organization. The prerequisite to successful onboarding, Bradt argues, is getting the organization aligned around the need and the role.

Since the main verbs in that definition (Bradt, 2009) start with the letter “a”, I will refer to them as the “five As” of onboarding.

- 1) Align: Before recruiting, align the organization around the need and role
- 2) Acquire: Identify, recruit, select and get people to join the team

- 3) Accommodate: Give new team members the tools they need
- 4) Assimilate: Help them join with others so they can work together
- 5) Accelerate: Help them (and their team) deliver better results faster

The “five As” of onboarding form a unique time-action framework which also represents its scope. Onboarding is a business process consisting of various tasks, timely distributed and assigned to different company departments. Onboarding can be detected in the recruiting - new hire onboarding - employee exiting chain, which belongs to the human resources department, but this is only one of its axes. Since onboarding is also linked to learning and talent management, it can be detected in the training department. Other departments throughout the company also perform onboarding tasks, for example - the financial department (new employee pay roll) and IT (new employee set up). The process may even spread out of the company’s premises. The author will now examine the scope of onboarding in two directions: timeframe of onboarding process and roles in onboarding process.

3.2.2.1 Timeframe of onboarding process

The onboarding timeframe includes the beginning, the end, as well as the duration and stages of the process. Each company decides the appropriate time for the beginning of onboarding. Researchers, however, suggest that the process should begin as soon as jobseekers accept the company offer. According to Martin and Saba (2008), companies should start onboarding immediately after their offer is accepted. Reese (2005, p. 24) suggests an even earlier start - “An effective on-boarding program starts during the recruitment process and becomes formal when an offer is accepted”.

Onboarding signals can be sent even to potential job applicants. Information on company mission, vision, culture, values, etc., can be disseminated in different directions.

Utilizing the right communication channels, the company can build its brand, and be successful among people who generally are not interested in working for it but who would be successful employees.

There are various interpretations on the duration of onboarding. The process can last from two days, including only initial orientation, to one year (and more), including precisely structured onboarding stages. As a result of their research Martin and Saba (2008) recommend, “All organizations should begin the onboarding process before the actual employment start date and extend (at least portions of) the process up to six months for select stakeholder groups.”

Menkina and Partners (n.d.) states that, “Typical On-Boarding engagements usually last six months, but they produce significant results within the critical period of the first three months.”

Onboarding is a process of new hires adaptation which leads to their full productivity. Since full productivity is a direct result of onboarding, once achieved, it can determine the end of the process. Therefore, Lee (2006) defines the flexibility of its duration as follows, “Onboarding lasts from three to six months, however long it takes to get the new manager “up to speed” in a particular company or discipline”.

In order to determine the timeframe of onboarding, the author summarizes the statements of Reese (2005) and Lee (2006) as follows: Onboarding is a structured new hire adaptation process which begins before recruitment but becomes formal after the job offer is accepted. Onboarding depends on the sufficient period of time for different groups of new employees to reach full competency and usually lasts from three to six months.

The stages of onboarding suggest another aspect of its timeframe. The onboarding stages are a sequence of actions aiming at new hire adaptation. Below are some examples of how different authors interpret the stages of the process.

According to Bob Lavigna (Partnership for Public Service and Booz Allen Hamilton, 2008; Lavigna, 2009) onboarding is not just the first day or two of orientation. Good onboarding has five phases, beginning when the employee accepts the job offer and continuing through the end of the first year: (1) before First Day; (2) first day/orientation; (3) first week; (4) first 90 days; (5) first year.

Each phase of this model is filled with relevant activities working in accordance with established principles, aiming at relevant results.

Table 5 Onboarding phases

Before First Day	➔	First Day/Orientation	➔	Firs Week	➔	First 90 Days	➔	First Year	➔
<ul style="list-style-type: none"> • Extend personal welcome to employee • Communicate first day logistics to employee • Prepare for employee 		<ul style="list-style-type: none"> • Focus on sharing the mission and values • Incorporate senior leadership • Orient employee to organization and office norms • Introduce employee sponsor • Meet immediate requirements for employment 		<ul style="list-style-type: none"> • Ensure direct managerial involvement • Set performance expectations and job scope • Assign meaningful work • Communicate resources or networks required for work 		<ul style="list-style-type: none"> • Provide essential training • Monitor performance and provide feedback • Obtain feedback through new hire survey and other means 		<ul style="list-style-type: none"> • Recognize positive employee contributions • Provide formal and informal feedback on performance • Create employee development plan 	

Note: Adapted from Partnership for Public Service and Booz Allen Hamilton (2008).

According to Monster and Benchmark Partners' five-stage model (adapted from Harriott and Pogorzelski, 2007), onboarding is based on involvement of the employee, monitoring of the process and employee commitment, as a guarantee for retention. The model's duration is one year, and the stages are:

- 1) Stage 1: First Week, First Impressions -
- 2) Stage 2: Getting Acquainted (the First 30 days)
- 3) Stage 3: Settling In (90 Days)

- 4) Stage 4: Adjusting (Six Months)
- 5) Stage 5: Fully Engaged

Monster and Benchmark Partners do not mention an onboarding stage, covering the period before the first working day of new employee in the company. In stage one, however, they report workplace preparation necessity (work area, phone, computer, email, “tools of the trade”). This suggests the above mentioned preliminary stage.

Stage two includes a thorough introduction – the new employee is getting acquainted with company mission and vision; his or her position in the company and contribution to the company. Stage three is very similar to the “first 90 days” phase suggested by Lavigna (2009) since it includes basic training as well as first measurements of the process through monitoring and feedback. The main feature of stage four is the critical, according to many researchers, period when team coordination, communication and relations with management accomplishments are measured. The key aspect of this stage is the new employee career plan development. In the fifth stage the new employees reach their full engagement point. This is the stage when Monster and Benchmark Partners recommend observation of seven main factors which define the level of engagement:

- 1) Leadership and Culture
- 2) Work Satisfaction
- 3) Work Life
- 4) Work Relationships
- 5) Employee Value Proposition
- 6) Personal and Professional
- 7) Growth

A very important moment in the onboarding timeframe is the first working day of the new employee. It is the moment when all of the efforts made during recruitment, and after acceptance of the offer, have to present their first results. Taleo Research (2006) describes a sequence of tasks, which belong to onboarding, taking place both before and after the first working day of the new employee in the company.

Before the first working day: (1) forms and enrollment; initiate payroll and establish direct deposit/deductions; (2) parking permit and parking space designation; (3) assign and set up workspace, distribute supplies needed to perform work; (4) process and provide badges or other documentation for access to building and additional secure areas as appropriate; (5) sign-up and delivery of job-specific training; (6) general orientation, tour of offices and facilities, introduction to other employees; (7) allotment of computer hardware and software, pagers, PDAs, telephone and telephone number.

After the first working day: (1) update “Talent Master File” (Documentation Process); (2) greet and office tour; (3) attend training and orientation; (4) fill new hire survey; (5) monitor quality of hire. (p. 4)

Taleo Research (2006) argues that utilization of technology in the onboarding process is a critical factor in its improvement. Their suggested onboarding process is composed of three components:

- 1) The implementation phase includes configuration of the onboarding technology with, for example, a new hire and administration portal, workflow, correspondence management, and custom forms.
- 2) The integration component includes the deployment of onboarding new hire information integration with external systems.
- 3) The reporting component should be designed to push key metrics and analytics for monitoring the process and driving continuous improvement.

According to Martin and Saba (2008, p. 5), onboarding is a process that involves forms management, tasks management, and socialization in the company culture. They refer to the onboarding tasks as “capabilities”:

- 1) Provide a formal new hire training program
- 2) Pre-assign office space, supplies, and equipment
- 3) Formalize a structured orientation process
- 4) Gain support and buy-in from senior management
- 5) Managers set clear expectations and goals for new hires

3.2.2.2 Roles in the onboarding process

The onboarding process is aimed at new hires as well as employees who change their positions within the company, including managers and CEOs. An inseparable part of onboarding are the people who design and execute it. Since onboarding is a complex process defined by the strategic business goals of the company, the people who play the main roles in the process are HR departments, learning teams, line managers, other department members and last but not least the new hires who are supposed to play an active role in the process. Responsibility should be shared among the supervisory manager, HR manager, newly-hired executive and professional coach (Menkina and Partners, 2005). Recently more and more managers are taking part in the onboarding process. O’Leonard (2005) states that the onboarding process should become the responsibility of line managers. The future of onboarding is in the hands of line managers and is definitely becoming a core management skill.

Onboarding is a complex process with many participants engaged in it. The more structured it is, the better defined the roles of these participants are. However, participants, regardless of the department they are working in, should be aware of the fact that they are a

part of an integral process, leading to achievement of strategic goals. The roles in the onboarding process are distributed between process owners, process performers and new employees. Process managers structure and coordinate the process; process performers execute assigned onboarding tasks; new employees play an active role in the process since it is aimed at their adaptation.

Reese (2005) refers to process roles distribution as to “fielding a team”. She states that the onboarding process should be considered a partnership among the new hire, an administering HR professional, and a responsible manager who should be senior to or on the same reporting level as the new hire.

According to Lavigna (2009) while many onboarding activities are routinely performed within each responsible office, few organizations view these activities as part of a coordinated process. He identifies three key roles:

- 1) Process owners - process owners must take accountability for executing the mechanical aspects of onboarding while coordinating with others.
- 2) Process champions - process champions are primarily responsible for motivating new employees and helping them understand how their jobs are critical to the fulfillment of the agency’s mission.
- 3) New employee - new employees are responsible for being active participants in their own onboarding. (p. 8)

Table 6 Onboarding roles

Onboarding Roles	
Process Owners <ul style="list-style-type: none">• Human Capital• Information Technology• Security• Training• Facilities	Process Champions <ul style="list-style-type: none">• Senior Leadership• Manager/Supervisor• Sponsor• Human Capital Liaison
EMPLOYEE	

Note: Adopted from Partnership for Public Service and Booz Allen Hamilton (2008).

Taleo Research (2006) describes the primary participants in the onboarding process as the new hire, the hiring manager, and the human resource department.

Onboarding is a complex process and its implementation depends on many people, whose roles are equally important for the outcome of the process. All employees are inevitably directly or indirectly related to onboarding, since it is a business process interwoven with other business processes, and linked to company strategies. Lavigna (2009, p.9) summarizes the roles of participants in the onboarding process as follows:

Onboarding is a two-way process that requires new employees to actively participate. The organization provides information, resources, and equipment, and the new employee needs to be engaged and ready to contribute.

3.2.2.3 New employees platform

Companies divide their onboarding programs according to the following new employee groups⁷:

- 1) Freshmen - recently graduated people without any working experience: university graduates; school graduates
- 2) Internal Job Transfers - people that change their job, position inside of the company
- 3) Mid-career - experienced people that come from outside of the company. Other company or employees that have joined a company through a merger or acquisition
- 4) New leaders
- 5) Virtual team members (after Jones 2007)

3.2.2.4 Onboarding elements⁸

The main aim of onboarding is to complete some basic tasks. Tarquino (2006) and Martin and Saba (2008) refer to these tasks as basic onboarding elements:

- 1) forms management
- 2) tasks management
- 3) socialization

⁷ This classification is based on a survey of Japanese companies conducted in May-August 2009 by the author. See Chapter 4.

⁸ After Martin and Saba, 2008

These elements are needed to help new employees get introduced to the company, entered into its systems (payroll) and programs (medical/dental), scheduled to receive required office equipment and delivered with information about the culture and history of the company in order to make employees feel more engaged and connected to the organization (Martin and Saba, 2008). The author adds another onboarding element, related to the performance proficiency onboarding functions⁹:

- 4) Employee performance management: Involves introduction of the new hire to work, duties and job performance expectations from the management body of the company which is connected to the company key goals; Involves development of new employee career plans as well as measuring an progress against these plans.

3.2.2.5 Measuring onboarding

“An investment in effective Onboarding is an investment in employee retention, morale, and productivity” (Lee, 2007).

Induction is a perishable commodity; its coverage becomes out of date very quickly as the organization, its marketplace and the laws covering it evolve and change (Rankin, 2006). Each onboarding process should incorporate key metrics and analytics for monitoring the process and driving continuous improvement (Taleo, 2006). There are different approaches for onboarding evaluation. According to Martin and Saba (2008), there are several important factors which influence company decision for investment in onboarding - new employee retention; new employee productivity; company reputation/brand in recruiting top talent.

⁹ See 2.1 Onboarding principles: Understanding of corporate culture, goals and priorities - socialization and performance proficiency function of onboarding.

The evaluation of the above mentioned factors indicates the results of onboarding. Tarquino (2006) concludes that companies are not always recognizing the correlation between the treatment of a new hire and improved return on investment. Companies still cite succession planning and training as having a greater impact on retention rates than onboarding.

O'Leonard (2005) states that organizations should carefully plan how the program will be evaluated and establish a process for capturing and reporting this data. Their onboarding evaluation methodology consists of the following components:

- 1) Key Questions – (1) what is the time to competency; (2) does the treatment group outperform the control group; (3) what is the attrition of the control and treatment groups; (4) what is the effect of manager ownership in the onboarding process.
- 2) Onboarding task completion – (1) completed self-evaluations; (2) completed manager evaluations; (3) completed courses; (4) completed knowledge tests; (5) completed end of onboarding evaluations.
- 3) Competency – (1) time to competency; (2) level of productivity; (3) correlation to manager perception; (4) retention
- 4) First year retention – (1) correlation to success; (2) correlation to quitters and stayers; (3) difference between agents leaving after one year with those leaving before one year.
- 5) Evaluations (1) new hire evaluation of managers execution of process; (2) manager evaluation of new hire performance
- 6) Productivity – (1) gross margin dollars; (2) talent working; (3) correlation between onboarding success and productivity; (4) correlation between manager execution and productivity; (5) comparison of onboarded new hire with existing population segments (p. 9)

According to Rankin (2006) who performed research on one hundred thirty four organizations executing onboarding, the following methods of onboarding evaluation were found:

- 1) Asking employees immediately after induction - 68%
- 2) Asking employees some time later - 46%
- 3) Feedback from inductees' line managers - 39%
- 4) Information/results from performance reviews - 27 %
- 5) From employee attitude surveys - 28 %
- 6) Retention rates - 32%
- 7) Dismissal rates - 8%
- 8) Exit interviews - 53 %
- 9) Other - 5% (p. 45)

The percentage indicates the level of utilization of the respective method.

The results show that onboarding evaluation is limited to questionnaires aimed at new hires, distributed at the end of the onboarding process, as well as data from exit interviews. Few of the respondents reported retention rates of new recruits or new hire attitude as important.

Taleo Research (2006) suggests automation of the onboarding evaluation process. Technology typically handles data gathering from the new hire and from within the organization, internal and external communications such as service requests and reminders, data transfer to the human resource information system (HRIS), and sometimes orientation and training.

3.3 Utilization of technology to improve onboarding

Information technology is a catalyst for business development. Information technology utilization might cut expenses and save time but the main question companies have to answer is where and when in the process to include it. Information technologies automate business process activities. There are good examples of information technology utilization in the onboarding process. The number of companies which incorporate information technology in their onboarding process grows every year (Martin and Saba, 2008). According to Tarquino (2006), companies which implement information technology in their onboarding process will gain a significant competitive advantage.

Ros (2008b) uses the term “onboarding system”¹⁰. He elaborates on the term as follows: “An onboarding system is the automation that supports onboarding tasks”. In the previous section of this chapter I divided onboarding tasks into four main groups: forms management; tasks management; socialization and employee performance management.¹¹ Based on a survey conducted in 2008, Martin and Saba (2008, p. 14) conclude that while, for the most part, the automation of onboarding is still in its infancy, automation is expanding rapidly, especially in the areas of forms management and career development.

In the table below (Table 7) I summarize the results of three studies on onboarding which indicate how companies utilize technology in the onboarding process.

¹⁰ Ros (2008b) discusses the difference between “onboarding process” and “onboarding system”, which is not related to the topic of this theses.

¹¹ See 3.2.2.4 Onboarding elements

Table 7 *Information Technology Tools usage in onboarding processes of the companies*

Application Area	Aberdeen Group (2006-2008)	Taleo Research (2006)	US Federal Government (2009)
Forms Management	<ul style="list-style-type: none"> Tools that automate the forms process of onboarding 	<ul style="list-style-type: none"> Data entry can be accomplished once and flow to many forms and systems Number of paper forms has been reduced from four to one (other than the forms required by the government) 	<ul style="list-style-type: none"> New employee paperwork: Automation can expedite this process and allow employees to complete forms before their first day, allowing the first day to be spent on more inspirational and substantive content. Automation also reduces the workload of the process owner
Task Management	<ul style="list-style-type: none"> Measure the performance of employees Technology that notifies the individual of the needs of new employees. Tools to track HR compliance rates Technology that relies on data used during the recruiting stages 	<ul style="list-style-type: none"> New hires have required equipment (phone, PC, workspace) on day one More immediate and accurate data is fed to payroll Onboarding solutions that are part of talent management system enable companies to take advantage of data collected during the recruiting process and ensure that the onboarding process is initiated prior to the employee start data 	<ul style="list-style-type: none"> Case management: Automated case management systems can streamline and track onboarding activities, ensuring they are all being completed before the new employee shows up for work
Socialization	<ul style="list-style-type: none"> Tools to automate the candidate communication Personalized portal for employees 		
Employee performance management	<ul style="list-style-type: none"> Measure the performance of employees Reporting tools to track the progress in getting the new hire up to speed Assessment tools for skills, knowledge, attributes and/or behavior 		

Note: After Tarquino (2006); Martin and Saba (2008); Taleo (2006); Partnership for Public service and Booz Allen Hamilton (2008).

Companies invest much more in tools that automate the forms process and tasks management than in socialization. Taleo (2006, p.5) argues that:

Onboarding technology platforms cannot perform the socialization activities that are so integral to successful onboarding. However, the

technology platform can move onboarding from a haphazard paper and pencil checklist to a systematic workflow which drives the process.

The tendency toward information gathering and forms management automation can also be found in the Partnership for Public Service and Booz Allen Hamilton (2009) report on US federal government administration onboarding. It suggests two directions for improving the onboarding process:

- 1) New employee paperwork: Federal employees must complete a vast amount of forms and paperwork. When performed manually, this may take several hours and is often done on the new employee's first day of work. Automation can expedite this process and allow employees to complete forms before their first day, allowing the first day to be spent on more inspirational and substantive content. Automation also reduces the workload of the process owner.”
- 2) Case management: Agencies typically need to perform a specific set of activities to provide new employees with necessary assets and accounts. This may include assigning and preparing a workspace, providing computers and telephones, or setting up e-mail accounts. Automated case management systems can streamline and track these activities, ensuring they are all being completed before the new employee shows up for work. (p. 12)

The tendency explained above is based on the fact that companies underestimate the importance of socialization in the onboarding process concluded by Tarquinio (2006, p. 15) as, “Majority of companies are investing in forms management, they have not yet recognized the importance of socialization in the company culture.”

Martin and Saba (2008, p.6) think, “The socialization aspect of onboarding, however, does not receive the same focus across organizations, and the importance of providing it cannot be understated.”

3.4 The Japanese labor market

According to Mouer and Kawanishi (2005) globalization influences Japanese companies in the following way: (1) company need for a more complex mix of employees - long term employees, as well as temporary and short-term ones; (2) shorter turnaround – fewer permanent employees in supervisory positions, more non-permanent employees in repetitive work positions, as well as more individually specialized professionals; (3) company need for employees who possess a greater range of conceptual and interpersonal skills.

According to Ito et al. (2007) there are three main factors that influenced Japanese labor market in the last ten to fifteen years: (1) changes in long-term employment practice – there is a tendency to gradually narrow down the number of long-term employees even in major large Japanese companies; (2) changes in employee assessment and compensation systems. In the early 1990s “Seikashugi”, a performance-oriented employee assessment and compensation system, was rapidly introduced and became popular. “Seikashugi,” based as it is on short-term assessment of the individual instead of group results, is in contradiction with the traditional seniority-based system; (3) increased numbers of non-regular employees - a result of the utilization of the so-called “employment portfolios” to combine diverse personnel groups.

According to Dore and Sako (1998, p. 93), work force distribution in the middle of the 1990s in Japan could be described as follows:

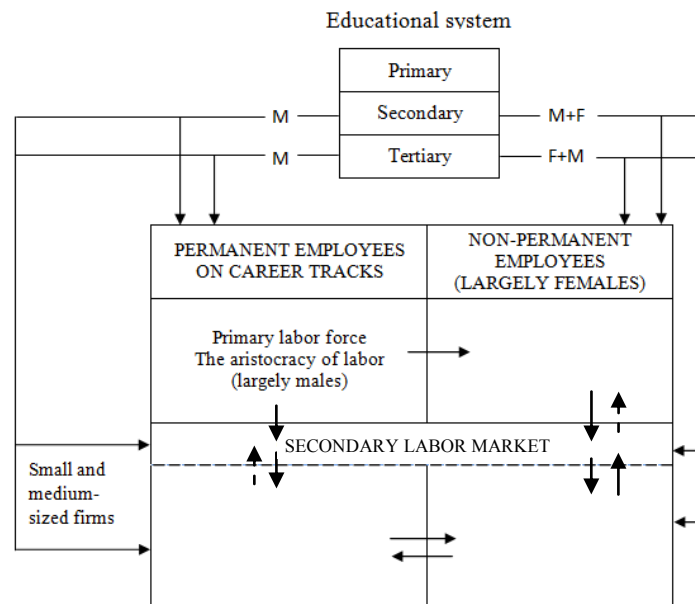
There were over a 100 million Japanese aged 15 and over in Japan at that time. Something like 65 percent of them were gainfully employed

or seeking to be so. Over 20 per cent of those were self-employed or family workers and another 17—18 percent were temporary or part-time workers. That left just over 40 million regular full-time workers, of whom a little under a quarter were in private enterprises employing over 1,000 workers. The public sector with similar conventions and conventions of service accounted for another 5 million. So the 15 million or so employed in the large company and public enterprise/public administration sector were by no means a majority of the Japanese work force. This situation continues today.

Employees who work at large companies are defined as a majority of the Japanese work force and “strategic minority” at the same time; however, in order to maintain these employees’ high productivity, companies have to invest a lot in training.

Figure 9 indicates mobility of the Japanese labor market during the 1990s - large companies are its main characteristic. They are the core of the economy, and often, small and medium companies are suppliers of the large companies. Career paths in large companies are characterized by a strong influence that “guides” employees’ development in the way desired by the company. Back then mobility of the market was low and mainly outside of the so-called “privileged positions” offered by large companies. On the other hand, access to the “elite market” (Mouer and Kawanishi, 2005) was possible only for well-educated male graduates of top universities or elite professional schools. That in turn, was the reason for strong competition among graduates.

Figure 9 Japanese labor market mobility



Note: adopted from Mouer and Kawanishi, 2005

3.4.1 The labor market for new graduates

Before 1996 there was a formal agreement between employers and universities in Japan. According to this agreement companies could not start their job interviews with university students before August, and could not make final selection decisions before November. The agreement was supervised by the Ministry of Labour and the names of the companies which broke the agreement were publicly announced by the same ministry.

In the latter part of the 1980's, when the labor market for university graduates became very tight, many companies tried to start recruitment activities among students of elite universities before August. The agreement began to be ignored, and the Ministry of Labour officially abolished it in 1996. Thereafter, the situation of recruitment activities became chaotic, and some companies and employers' organizations sought to establish new rules to control the situation.

In 2003, the Nihon Keidanren—one of the largest employers' organizations in Japan—published an ethical code to restrict early recruitment activities for university graduates. The code has now been signed by some nine hundred companies. However, it is generally believed that the effect of the ethical code is weak and that the rule is a very vulnerable one.

In the Japanese labor market for university graduates students conduct job-seeking activities according to job-seeking manuals. As a result of an analysis, however, Kosugi et al. (2007) argue that students adopt different manners and processes in their job-seeking depending on the rank of their university. Lower ranked university students start their job-seeking activities a little later than others and carry out fewer activities. They obtain informal job offers from companies later than top university students and their job-seeking activities are relatively longer.

3.4.2 Training of new graduates

All major Japanese companies have similar systems for adaptation and training of new hires. They usually conduct intensive induction training which includes both skill transfer and socialization. It is based on a standard training program lasting from several weeks to several months and usually followed by several years of on-the-job training, when new hires can experience different sides of the company environment on a rotational basis. Thus employees get acquainted with the general picture as the company builds not only commitment to the job, but also a solid internal network of employee relations.

Companies also expect that new hires will commit to the company for a long period of time, a commitment which automatically leads to the tradition of Japanese companies' low staff turnover. This, in turn, means companies gain returns on their major training investments but, on the other hand, leads to bigger problems when companies are unable to successfully adapt prospective employees (Rohlen 1998). Rohlen (1998) suggests that

traditional Japanese long-term employment leads to company preference for new hires who can be taught work-related skills in the course of their work at the company.

On the other hand, because of the presumption of long-term employment, companies tend to hire people who possess common knowledge and skills and to train them in specialized job-related skills during their adaptation. There are a lot of examples where graduates begin their careers with a period of several months on the assembly line (Honda, as cited in Rohlen, 1998, p. 31) or at the ticket gates of Tokyo Station (East Japanese Railroad Company, as cited in Robinson and Stern, 1998, p. 232). As Rohlen (1998, p. 31) states:

The point is that Japanese firms have creatively sought to develop intensive means for shaping their new workers' attitudes and skills, the better to integrate them into the firm. The process is hardly casual, for it defines the moral relationship of the individual, his fellow workers, and the company.

3.5 Conclusions

Onboarding has become extremely popular over the last decade. A large number of companies have put a lot of effort into the implementation, development and improvement of the process. As "Generation Y" (born between 1980 and 1994) enters the labor market, companies are forced to quickly adapt the existing socialization processes in order to meet their expectations and to increase employee retention. Even labor markets with traditionally high retention rates, such as that of Japan, are undergoing changes which affect the human resources paradigm.

Chapter 4: e-learning and onboarding

4.1. Introduction

Despite the popularity of e-learning, its implementation in Japanese companies is not as wide as many vendors, researchers, HR managers, even employees, would like it to be (Sato, 2009). The aim of this research is to suggest a position for e-learning utilization in the onboarding process. E-learning positioning in that complex process would give all stakeholders a wider conception of why and how e-learning is capable of improving business processes in general. In this chapter, based on the reviews of the e-learning and onboarding literatures in Chapters 2 and 3, and also on social cognitive theory, social information processing theory, social exchange theory, and signaling theory (to be introduced below - 4.3), I present a model of how the relationship between onboarding factors and onboarding outcomes could be mediated (or partly mediated) by e-learning and its characteristics. This model is refined through a pilot study are conducted in large Japanese companies, as I try to build a bridge between western onboarding theory and Japanese labor market “low turnover” reality, supporting the statement that “socialization¹² is the same across national cultures” (Ashforth, Sluss and Harrison, 2007, p.53).

Many of the recent changes in Japanese human resource development have already been discussed but some of them, those particularly relevant to the introduction of e-learning to the onboarding process, are worth revisiting here. Although the success of the Japanese management practices of consensus decision-making and team working is well documented (Duignan and Yoshida, 2006), a logical beginning to onboarding process modifications would be the debate concerning westernization of Japanese companies that has become

¹² Following Bauer (2009), I refer to the term “socialization” as “onboarding”.

prevalent in the last ten to fifteen years (Delouisis, 2001; Kubo and Saka, 2002). The rapid development of IT technologies is another reason to examine the question of how Japanese companies can enhance their onboarding processes.

In their research on the differences between onboarding of Japanese workers hired by Japanese, US and European companies operating in Japan, Duignan and Yoshida (2006) describe Japanese HRD as having:

- 1) Cultural concerns - including strong Japanese group identity, indirect communication style and more specific issues such as the comparative absence of after-hours socializing in foreign companies (after Keeley, 2001; Pearson, Chatterjee and Okachi, 2003).
- 2) The importance of training in Japanese companies - the fact that traditionally a higher number of college graduates are hired by Japanese companies compared to foreign companies, forces them to consider its importance of training.
- 3) Rewards - rewards are often based on a group or team basis so it is in the interest of employees to assist each other (Keeley, 2001)

In this chapter I propose an integrated (theoretical) model for e-learning implementation in the onboarding process that suggests more opportunities for employee proactive behavior during the onboarding process, while still taking into account the specifics of Japanese management culture.

4.2. Methodology

Based on a review of the business and academic literature, I suggest an integrated model of the position and role of e-learning in onboarding theory and practice. Some of the model components are extracted from literature; some of them are deducted from my research conducted in twelve large Japanese companies in the period July - August 2009. Psychological and onboarding theories are the base of the model. Previous research in the onboarding area has been utilized to explain the relation between variables. The author has conducted research in order to reflect Japanese onboarding and e-learning reality.

4.3. The theoretical base of the model

The onboarding process is a question of both company management and psychology. Therefore, the goals of the companies, on one hand, and new employees' attitudes, on the other are considered by the author when building the model.

E-learning is a complex system companies use to deliver automated training and enhance collaboration between new employees. New employees' proactivity behavior and certain (computer) skills are needed for the system to run smoothly. I suggest a model for an effective utilization of e-learning in the onboarding process, combining company (institutionalized) instruments and human/new employees' characteristics/features such as curiosity and self-improvement.

4.3.1 Social Cognitive Theory

Social cognitive theory interprets people's behavior as reflected by environmental influences and internal dispositions. People are self-developing, proactive, self regulating, and self-reflecting, not just reactive organisms shaped and shepherded by environmental events or inner forces (Bryant, 2008, p. 94). According to Bandura (1986), social cognitive

theory explains psychological functioning in terms of triadic reciprocal causation. In this causation, behavior, cognitive and other personal factors, and environmental events operate as interacting determinants that influence each other bidirectionally. Three aspects of social cognitive theory influence management and onboarding in particular: developing competencies through mastery modeling, strengthening people's beliefs in their capabilities so they make better use of their talents, and enhancing self-motivation through goal systems. Those are critical for the process of adapting new employees to a company. According to this theory onboarding researchers have positioned learning as the main tool or thread for new employees to acquire specific job tasks, understand the responsibilities of their jobs and the procedures of the work group, and accept the values and mission of the organization (Ostroff and Kozlowski, 1992; Bauer and Green, 1998).

4.3.2 Social Exchange Theory

Whereas social cognitive theory states that people learn from others in order to become useful to the organization and this suggests the presence of interaction between them, social exchange theory concentrates on the quality of that interaction. Social exchange theory describes a type of ongoing relationship between people as a series of interactions in which they exchange resources guided by rules of exchange, e.g., social norms (Cropanzano and Mitchell, 2005, p. 875). This, in turn, leads to a presence of obligations between them (Emerson, 1976). Within social exchange theory, these interactions are usually seen as interdependent and contingent on the actions of another person (Blau, 1964 cited in Cropanzano and Mitchell, 2005). Cohen and Bradford (1989) argue that the basis of many organizational interactions is reciprocity and that most people expect exchanges in organizations to gradually become equitable. Recently theorists have begun to move social exchange theory beyond its behavioral and economic roots and started including cognitive

and affective constructs in it (Korte, 2008). For example, Lawler (2001) proposes an affective theory of social exchange that directly links emotions and sentiments to actors' perceptions of fairness, satisfaction, solidarity, trust, leniency, and commitment to their exchange relationships (cited in Korte, 2008, p. 42). Social exchange theory is a basis for the onboarding process in a way that infers exchange between newcomers and members of their work group. Another possible, and positive relationship, is that between the new employee and his or her leader. That relationship is an interdependent one, where the leader offers increased responsibility and membership benefits to the subordinate, and in return, the subordinate offers increased commitment and contribution to the work group (Korte, 2008). Dienesch and Linden (1986), Linden and Graen (1980) and Scandura and Graen (1984) believe that the leader may offer increased job latitude or delegation to the member, and the member may offer strong commitment to work goals or high levels of effort and performance to the leader (cited in Bauer and Green, 1996, p. 1538). So, the initial interactions between the newcomer and the work group are extremely important, because they affect attitudes, satisfaction, and performance (Korte, 2008).

Both social cognitive and social exchange theory define learning as an environment for the onboarding process. Thus interactions and exchange between new employees and their peers are mediators of learning. Korte (2008, p. 42) considers the above approach an underestimation of the importance of the social processes between new employees and their peers.

4.3.3 Social Information Processing Theory

Even though there is no strong evidence supporting this theory, and a lot of critics argue that virtual communication cannot fully substitute face to face communication and its influences on people's attitudes and behavior, social information theory is an optimistic

theory describing internet communication as playing the same role as live communication. This theory, developed by Walther (1992), assumes that computer mediated communication in social information processing aspect would lead to the same results as any other interpersonal communication i.e. social relations. Although such communication is narrowed by the fact that less information is exchanged through this channel (mainly text messages or text based information), Walther (1992) argues that this can only make the relational development slower. What happens during that communication process is not a result of technology alone, but of social relationships and other contextual factors, and the way these interface with technology (Walther, 1996). What can help in building the integrated e-learning - onboarding model of this research, is the suggestion that media utilization can be affected by a context of “social richness” that acts to augment technical bandwidth capacity (Morgan, McCourt and Youll, 2007, p. 3). Hence, e-learning, as a communication system, is not only a tool for onboarding newcomers in that model (and in general), but also an information processing environment capable of facilitating social relationships.

4.3.4 Signaling Theory

Signaling theory stresses the importance of information in reducing uncertainty about job and organizational attributes (Rynes, 1991). This theory supports the need to send signals to potential employees in order to accelerate the onboarding process (at a later stage); e-learning could play the role of an early information source which moves the actual start of the onboarding process before the first day at work, even before the beginning of the recruitment process.¹³

¹³ As Reese (2005) suggested. See Chapter 3 (3.2.2.1 Timeframe of onboarding process)

4.4. Components of the Model

The model components have been extracted from the onboarding literature, and its interactionist school in particular (e.g. Jones, 1983; Reichers, 1987; Schneider, 1983), where both the organization and the employee possess an (almost) equal role in the adaptation process. Ashforth et al., (2007) state that onboarding accommodates the impact of both the organization on the individual and the individual on the organization (the latter is often referred to as individualization or personalization). They also suggest that since onboarding is continuous, then the individual may be either an organizational newcomer or a veteran. The onboarding literature provides a theoretical framework for the main components of the model as follows: organizational onboarding tactics, newcomer proactive tactics, content of onboarding (Learning), onboarding outcomes (proximal, distal). These components fully describe the interactions between organization and newcomers during the adaptation process. Through implementing e-learning along with/among these components, I argue that e-learning could facilitate newcomers' proactive behavior without the necessity of changing the institutionalized onboarding environment typical for large Japanese companies. Since e-learning implementation is impossible without the commitment on the part of the organization, this model focuses on companies rather than individuals.

4.4.1 Organizational Onboarding Tactics

The term "socialization tactics" was introduced by Van Maanen and Schein (1979). They proposed one of the best-developed theoretical onboarding models (Ashforth and Saks, 1996). Prior to their work, researchers had been focused on more discrete activities such as newcomer orientation, training, and apprenticeship. In their onboarding model Van Maanen and Schein (1979) describe six bipolar socialization tactics that organizations implement to integrate newcomers. Through this taxonomy, they put onboarding activities into conceptual

order and were the first to explain in detail how and why the above mentioned discrete activities interact throughout the onboarding process. Van Maanen and Schein (1979) stress the fact that organizations influence the adaptation process in order to structure the onboarding experience for new employees. That fact, however, gives organizations the leading role in the onboarding process, even though the suggested tactics are bipolar - every organizational tactic has an opposite “individual driven” alternative. As Ashforth et al., (2007, p. 13) explain:

The collective (vs. individual) tactic involves grouping newcomers and putting them through common learning experiences. The formal (vs. informal) tactic includes separating the newcomers from organizational insiders via activities such as training and orientation classes. The sequential (vs. random) tactic takes the newcomer through a lock-step series of adjustment experiences. The fixed (vs. variable) tactic entails a set timetable for moving from one adjustment experience to another. The serial (vs. disjunctive) tactic involves learning the new job from a role model such as a mentor, supervisor, or more experienced peer. Finally, the investiture (vs. divestiture) tactic affirms the newcomer’s incoming identity, capabilities, and attributes, such as when one is hired because of one’s previous training or experience.

Later Jones (1986) argues that organizational driven tactics (e.g., collective, formal, sequential, fixed, serial, and investiture tactics) form a category termed “institutionalized onboarding”, while the opposite ones (e.g., individual, informal, random, variable, disjunctive, and divestiture tactics) form “individualized onboarding”, where the newcomer is left on his or her own by the organization to act during the onboarding process. As a representative of the interactionist school in onboarding theory, Jones states that collective, formal, sequential, fixed, serial, and investiture tactics encourage newcomers to passively

accept preset roles and thus to maintain the status quo. The opposite (individual, informal, random, variable, disjunctive and divestiture) tactics help individuals to develop their own role in the onboarding process and thus to “question” the status quo (Cited in Ashforth and Saks, 1996, p. 150). However, Van Maanen and Schein (1979) argue that institutionalized fixed and investiture tactics implement individual oriented characteristics: for example, every individual receives his or her own schedule/plan (fixed tactic) which guarantees their security, encouraging self-development and innovation (proactivity). Without fully supporting any of the views mentioned above, I share Van Maanen and Schein’s view of the importance of giving more freedom to newcomers through institutionalized tactics in order to adapt my model to the institutional environment of large Japanese companies. In my model, I adopt Jones’ (1986) three-dimensional grouping based on Van Maanen and Schein’s (1979) typology. According to Jones (1986), collective vs. individual and formal vs. informal, form a group of tactics called “context-related tactics”, sequential vs. random and fixed vs. variable form a group called “content-related tactics”, and serial vs. disjunctive and investiture vs. divestiture form a group called “social-related tactics”.

4.4.2 E-learning

Although the other components of the model have been widely researched through the years, there is still a shortage of academic research on e-learning, especially in the onboarding context. In order to find the position of e-learning in the proposed model, the author had to examine the nature of e-learning and onboarding in their business context—see Chapter 2—and then review the academic literature on onboarding. Keeping the organizational/business benefits of e-learning in mind, and evaluating the possibilities for e-learning implementation in the onboarding process, I conclude that e-learning can be utilized as an accelerator for business processes and the onboarding process in particular.

For example, Blocker (2005) states that e-learning influences business by reducing costs, providing greater access to information and accountability for learning, and increasing employee competence and competitive agility (cited in Brown, Murphy and Wade, 2006, p. 416). As Cheese (2003) found,¹⁴ four areas in which e-learning could be effectively applied are:

- 1) Retention: Research shows a remarkable correlation between training and retention. Employees, who have access to the training they need to be successful, are more than twice as likely to be with the company in two years.
- 2) Employee attitudes and culture: Employees with access to the right training are six times more likely to think that their company is a “great place to work”.
- 3) Improved workforce performance: Based on the analysis of more than 60,000 professionals, 85 percent believed that training had resulted in at least a moderate increase in their skills or knowledge, and 53 percent attributed a significant increase in their productivity to training.
- 4) Customer service: Research studies at Ford Motor Credit and a number of other recent studies found a direct correlation between customer satisfaction scores and workforce attitudes toward training and development, teamwork, workload and job satisfaction. (cited in Brown et al., 2006, p. 417)

Since the above are results which reflect the whole company environment, some of them are directly related to the onboarding process. Cheese’s (2003) findings also reveal the strong role of the organization in providing newcomers with learning/training. These findings

¹⁴ Cheese (2003) conducted a survey of one thousand executives from North America, Europe and Asia

support the positioning of e-learning in an area of strong organizational influence over the newcomers' onboarding process.

As discussed earlier in this chapter, Van Maanen and Schein's (1987) institutionalized onboarding tactics are the way organizations influence newcomers' onboarding experience. Therefore, e-learning could be positioned as a moderator between organizational tactics and newcomers' proactive behavior, which in turn, influence newcomers' learning in the onboarding process (See Figure 11). Keeping that in mind, my emphasis is not on the application of technology (i.e. e-learning as a source of institutionalized tactics), but on the onboarding policy companies decide on. Companies could offer more opportunities for new hires to act individually in institutionalized onboarding environment through e-learning. In contrast, Schetler (2003), states that between fifty and seventy percent of what is learned on the job, is unstructured and assimilated through informal contact and content. This should be taken into account by companies, if trying to solve learning problems through e-learning (Schetler 2003, cited in Brown et al., 2006).

Following Chang, Chang and Jacobs's (2008) onboarding model, I will now analyze e-learning implementation between organizational onboarding tactics and newcomers' proactivity behavior in terms of their interaction with each other. Later in the chapter, I will argue that e-learning assists those interactions, making them stronger and positive, and also making newcomers' proactive behavior more effective in terms of onboarding outcomes.

Following Bonk (2002), certain e-learning characteristics (variables) have been deducted:

- 1) E-learning utilization (Usage of EL)
- 2) E-learning characteristics (Characteristics of EL)
 - a. Multiple access

- b. Various sources
- c. Online class tools utilization (Usage of on-line class tools)
- d. Various collaboration tools utilization (Usage of various collaboration tools)
- e. Web tools utilization (Usage of web tools)
- f. E-learning results evaluation (Evaluation of EL results)

4.4.3 Newcomers' Proactivity Tactics

As already stated above, according to the interactionist school in onboarding literature, it is the newcomers who play an active role in their adaptation into the company - gaining information about the organization, work, peers, etc. According to uncertainty reduction theory (Kramer, 1994; Lester, 1987; Teboul, 1994), newcomers seek information in order to reduce uncertainty, moreover, they tend to believe that they receive less information from onboarding agents than they actually need (Jablin, 1984). Most of the information they receive passively is general, another concern is how to transfer that information in order to meet their specific situation needs (Ashforth, 2001; Morrison, 1995). Thus, not only is more information needed, but more useful information, too (Comer, 1991; Morrison, 1995; Teboul, 1994 cited in Ashforth et al., 2007). Although there are several typologies of newcomer proactivity (First, Miller and Jablin, 1991; Ashford and Black 1996; Saks and Ashforth 1996), the author has chosen the following:

Performance feedback seeking, information seeking from technical sources, information seeking from co-workers, information seeking from supervisors, relationship building with co-workers, relationship building with supervisors, informal mentorship, job change negotiation, positive framing, involvement in work-related activities, behavioral

self-management, and observation/modeling. (after Griffin, Collela and Goparaju, 2000, p. 454)

Griffin et al., (2000) have uncovered the above proactive onboarding tactics newcomers may engage in and have found them to be related to the onboarding process and/or its outcomes (e.g., satisfaction, turnover, performance).

4.4.4 Learning

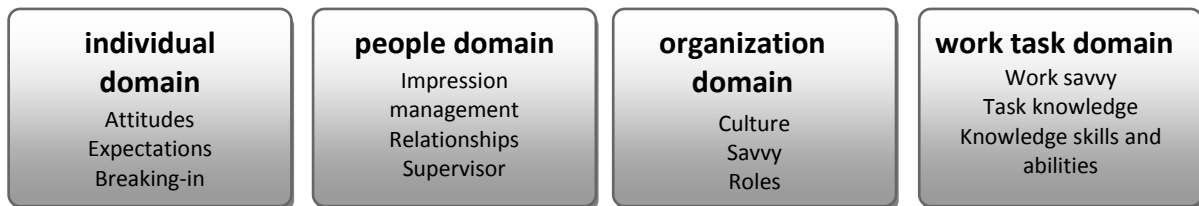
Some theorists consider learning to be the core of the onboarding process. Hence, learning is newcomers finding out about the company and their job during the onboarding process (Chao et al, 1994; Ostroff and Kozlowski, 1992). Axelrod (1986) defines learning as “informing newcomers of the norms of the group and encouraging internalization of these norms” (Cited in Korte, 2008, p. 42-2). Saks and Ashforth (1997) consider learning as a “conduit” by which onboarding factors, such a socialization tactics and newcomer proactive behavior, influence onboarding outcomes. In general, Saks and Ashforth (1997) focus on three main areas of the onboarding learning - onboarding learning content and its dimensions, the factors that influence learning throughout the process, and the relations between learning and onboarding outcomes.

Ostroff and Kozlowski (1992) propose four content domains of learning: job-related tasks work roles, group processes, and organizational attributes. They conclude that observation and experimentation are the main sources of knowledge in the four domains. Bauer and Green (1994) argue that newcomers’ involvement in work activities provides opportunities to learn about roles, jobs, coworkers, and the organization. Chao, O’Leary-Kelly, Wolf, Klein, and Gardner (1994) after reviewing Schein’s (1971), Feldman’s (1981), and Fisher’s (1986) “notions of onboarding” and further factor analysis, proposed six dimensions of learning:

- 1) performance proficiency, involving the tasks and knowledge, skills, and abilities necessary for the job;
- 2) the people domain, pertaining to successful working relationships;
- 3) politics, information about the formal and informal work relationships and the power structures in the organization;
- 4) the language domain, the technical language and jargon that is unique to one's profession and the organization;
- 5) organizational goals and values, the mission and means of the organization;
- 6) the history domain, the organization's traditions, customs, and stories¹⁵

After reviewing the literature, Holton (1996) proposes four learning content domains, later subdivided into three learning tasks (Figure 10):

Figure 10 *Four learning content domains after Holton (1996)*



In my model I adopt Taormina's (1994) four dimensions of onboarding learning. Following Chao's (1994) six dimensions, Taormina (2009, p. 654) proposed four main learning domains:

- 1) Training – According to Louis (1980), training is the “the act, process, or method by which one acquires any type of functional skill or ability that is required to

¹⁵ Cited from “Organizational Socialization Making Sense” (Saks and Ashforth, 1997, p. 249)

perform a specific job” (Taormina, 1997), and it focuses on the extent to which the employee perceives the organization, as providing appropriate and sufficient job skills.

- 2) Understanding - refers to “the extent to which an employee fully comprehends and can apply knowledge about his or her job, the organization, its people, and its culture” (Taormina, 1997). Thus, understanding relates to how well the employee understands the organization and how it operates.
- 3) Coworker support - refers to the emotional, moral, or instrumental sustenance which is provided without financial compensation by other employees in the organization in which one works (Taormina, 1997). This content area is also in keeping with definitions of onboarding since it focuses on the employee’s social relations at work and refers to the extent to which an employee is accepted by other workers.
- 4) Future prospects relate to the “extent to which an employee anticipates having a rewarding career within his or her employing organization” (Taormina, 1997). In terms of onboarding theory, it represents one of the established aspects of organizational culture, such as the rewards, bonuses, and opportunities for advancement offered by an organization; and it is measured in terms of the employees’ perceptions of the availability of such rewards”.

After Taormina’s (2009) notes, some references to Japanese management environment can be added. Training of workers plays a central role in Japanese large companies (Aoki, 1990; Yoshida, 1993; Yoshimura and Anderson, 1997; Keeley, 2001, cited in Duignan and Yoshida, 2007). This can be explained by the general lack of labor market mobility/liquidity on one hand and by employee motivation on the other - receiving training is directly related with performance and career advancement (Lincoln and Nakata, 1997 cited

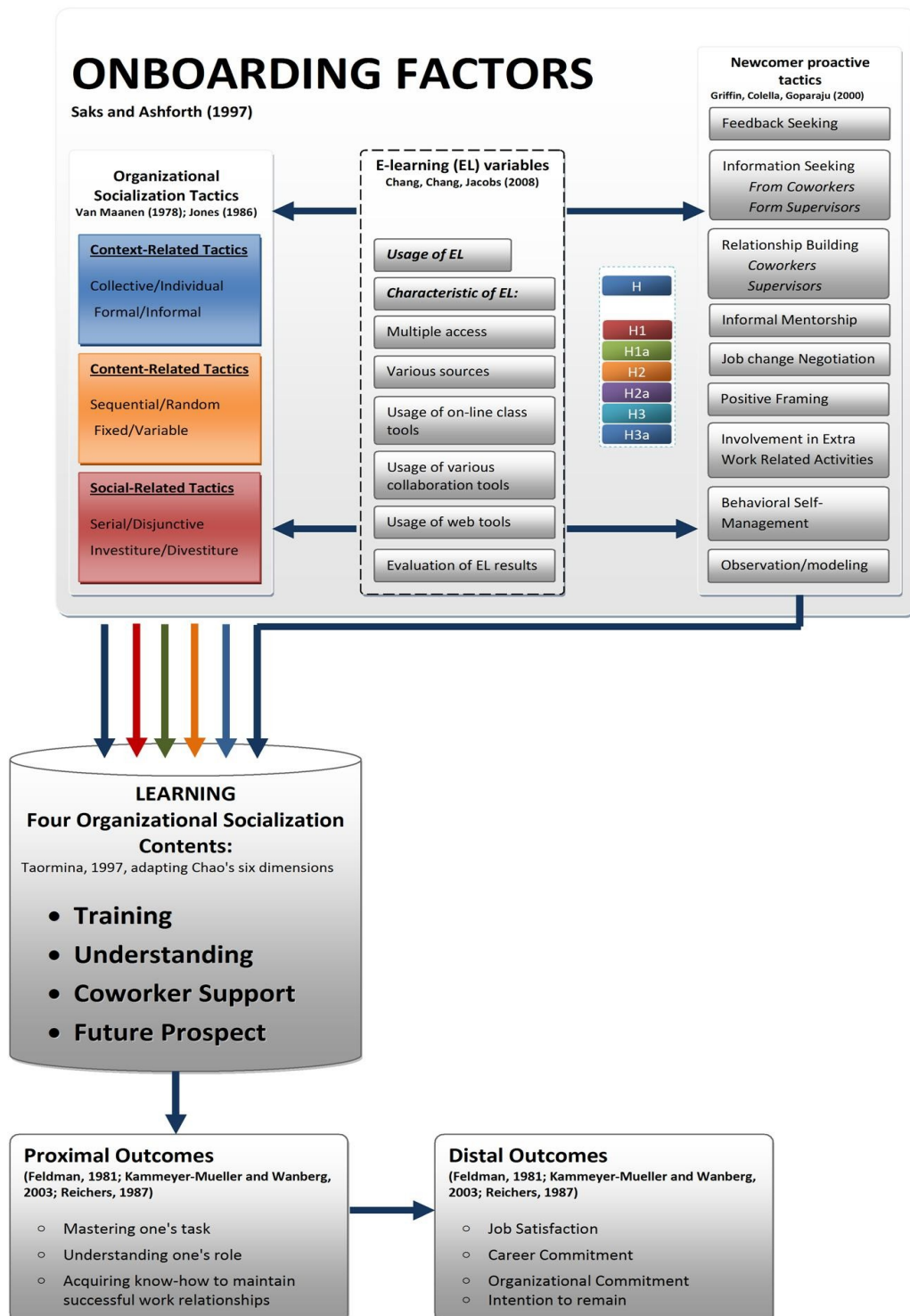
in Duignan and Yoshida, 2007). Co-worker support is also at the heart of the Japanese management system. It includes mentoring, group-working, networking, after-work socializing, which are very important in Japanese work environment (Salman and Okabe, 2003). It is a common practice for higher ranked employees to help their co-workers without the threat of their job being taken over by their subordinate (Yoshida, 1995). There is a strong element of trust and co-operation built into this system (Hofstede, 1991 cited in Duignan and Yoshida, 2007).

4.4.5 Onboarding Outcomes

Onboarding theorists use various measurements when examining the onboarding process. These are called onboarding outcomes. Many researchers lay stress on measuring outcomes such as organizational culture and commitment, turnover (Schein, 1968, 1988; Van Maanen and Schein, 1979). Others stress measuring outcomes, which are related to acquiring information about the job and knowledge required to perform the job tasks (Copeland and Wiswell, 1994; Miller and Jablin, 1991). In more recent studies, a conceptual approach to onboarding outcomes has been proposed; there are two types of onboarding outcomes (Feldman, 1981; Kammeyer-Mueller and Wanberg, 2003; Reichers, 1987). Kammeyer-Mueller and Wanberg (2003) name them “proximal” and “distal”. They assert that proximal outcomes result from newcomers’ learning: mastering one’s task; understanding one’s role; acquiring know-how to maintain successful work relationships. Distal outcomes are secondary outcomes, not affected by the onboarding process only. Distal outcomes are: job satisfaction; career commitment; organization commitment. Moreover, proximal outcomes influence distal and distal outcomes are related to the feelings newcomers have when they estimate their adaptation to the organization (Feldman, 1981; Kammeyer-Mueller and Wanberg, 2003; Reichers, 1987; Saks and Ashforth, 1997). I have adopted Kammeyer-

Mueller and Wanberg's (2003) typology of onboarding outcomes in my model, due to its completeness.

Figure 11 Integrated model of E-learning and onboarding



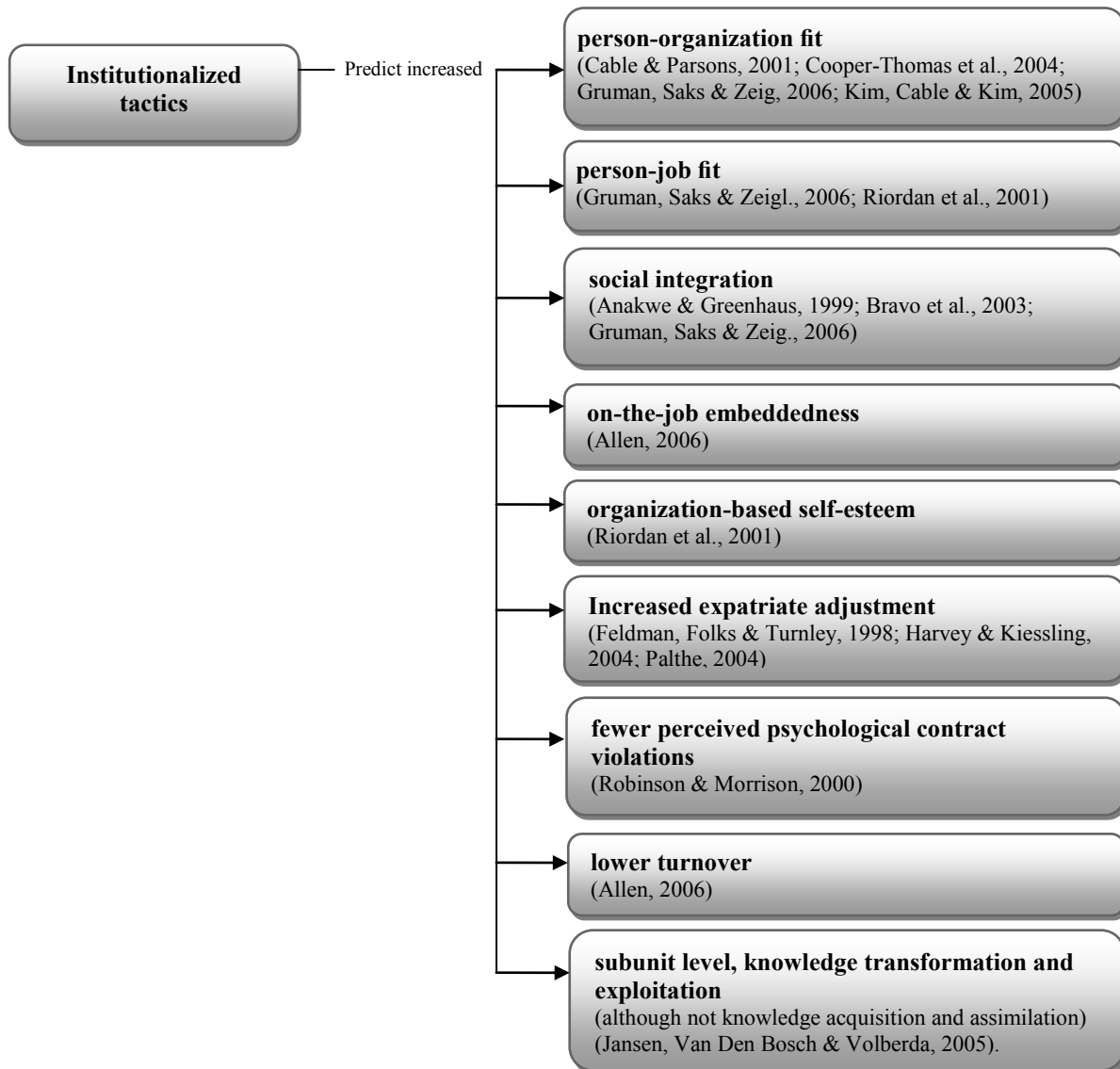
4.5. Model Conception

The model conception has been deduced from the onboarding literature published in the last twenty years. Researchers in this field have tended to examine the onboarding process as either an institutionalized or an individualized process. For example, Jones (1986), Van Maanen and Schein (1979) have examined onboarding tactics which are a part of an organization-driven process, whereas authors like Ashford and Black (1996), Miller and Jablin (1991) studied onboarding as a more “self-onboarding” process. Other researchers have proposed a more holistic view of the process (e.g., Kim, Cable and Kim, 2005; Saks and Ashforth, 1997), describing how both onboarding tactics and proactive behavior influence the adaptation process through learning. Following Saks and Ashforth (1997), as well as taking into consideration Japanese management reality, my integrated model of e-learning and onboarding assumes institutionalized rather than individualized onboarding tactics. The model emphasizes on the connection between what the company and the newcomers do in order to influence newcomers’ learning (Schein and Ott, 1962). Learning per se is considered as the heart of onboarding. Since there are numerous potential associations and feedback connections in the model, I outline three main components/blocks – onboarding factors, newcomers’ learning, and onboarding outcomes.

4.5.1 Onboarding factors

Onboarding factors are likely to be influenced by many external factors/variables, such as the national, cultural, and political contexts. As mentioned earlier, onboarding is a complex process, interwoven with other business processes, and variables such as organization strategy and structure are likely to influence onboarding factors. There are a lot of researchers who study onboarding factors separately. For example, according to findings in recent studies, onboarding tactics predict a variety of onboarding outcomes:

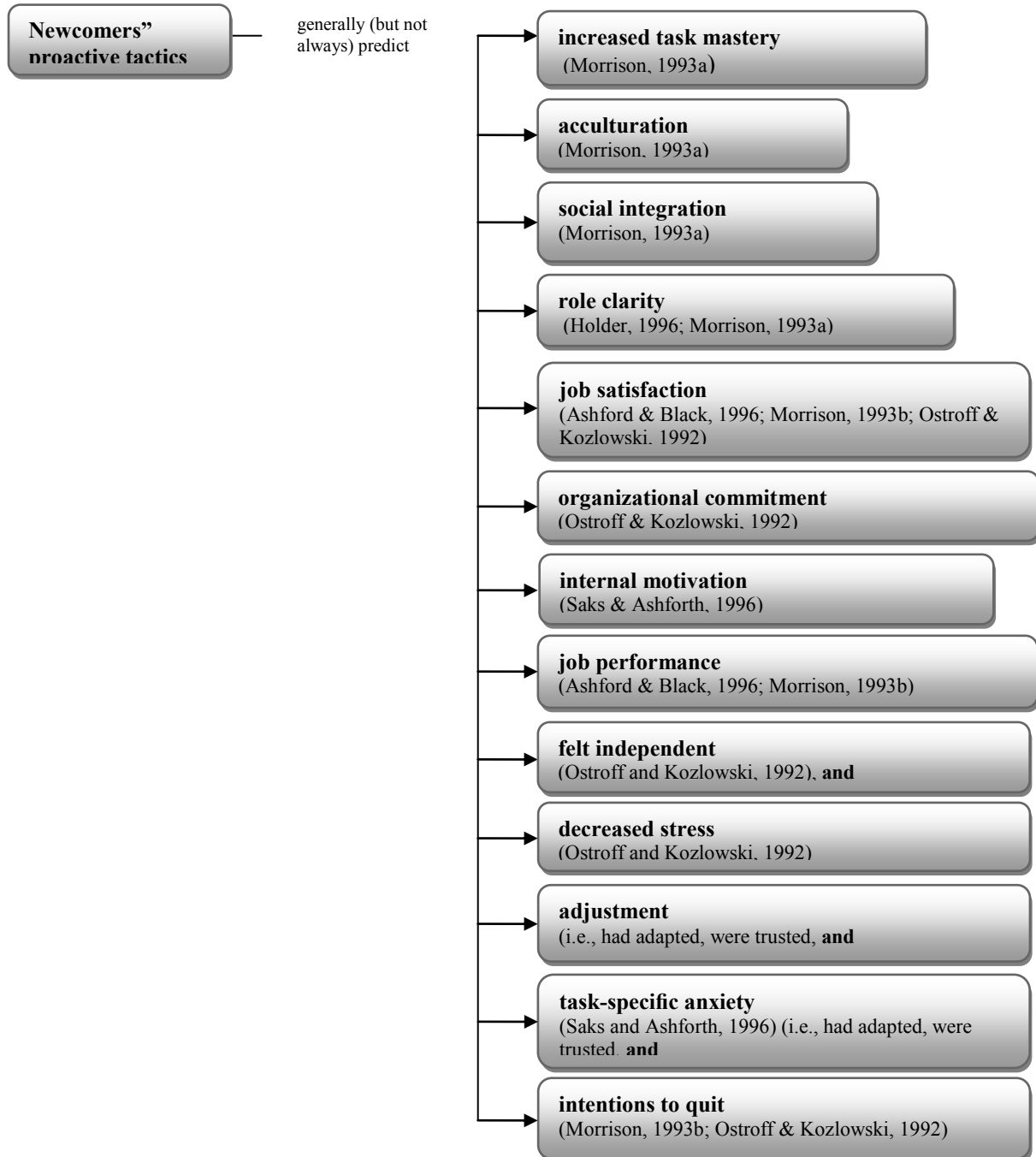
Figure 12 Institutionalized onboarding tactics' relations (After Ashforth et al. 2007)



4.5.2 Newcomers' proactive tactics

The graphic below indicates that newcomers' proactive tactics predict, though not always, a lot of proximal and distal onboarding outcomes:

Figure 13 *Newcomers' proactive tactics' relationships (After Ashforth et al., 2007)*



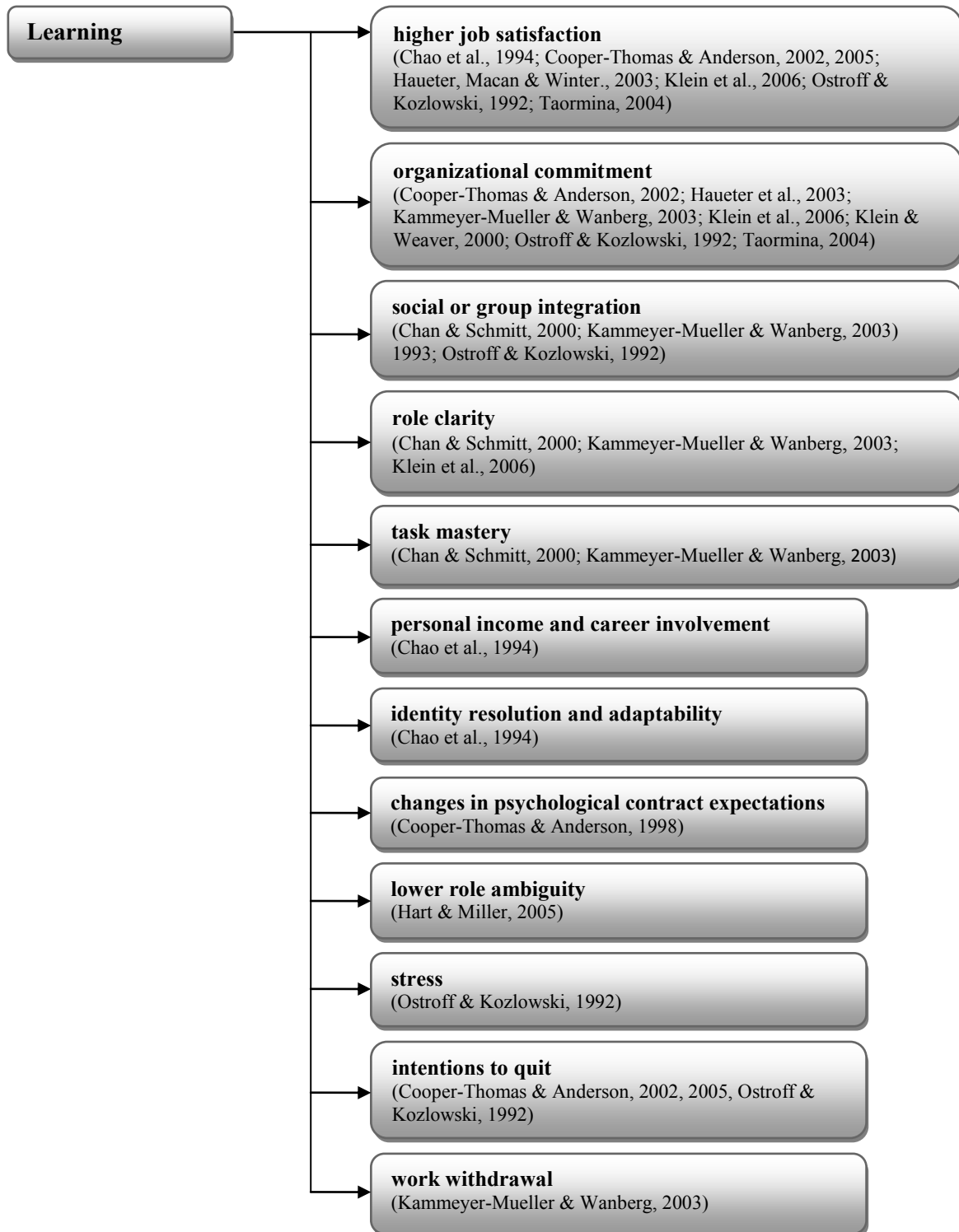
My model suggests that onboarding factors, in combination with the cognitive sense-making processes (Saks and Ashforth, 1997), are expected to directly influence newcomers'

learning, which, in turn, is influenced by the willingness of the newcomers to acquire information, in order to reduce uncertainty. The bidirectional arrow between onboarding factors indicates mutual influences between onboarding tactics and newcomers' proactive tactics. For example, Griffin et al., (2000) assert that socialization tactics are antecedents to and moderators of the newcomer proactivity process. The mediation role of e-learning is explained in detail by Figure 31.

4.5.3 Learning

Following Saks and Ashforth (1997), the author has depicted newcomers' learning as the conduit by which socialization factors (i.e., institutionalized onboarding tactics, individualized onboarding tactics, proactive behavior) influence other proximal outcomes (e.g., role clarity, person-job fit, identification) as well as distal outcomes (e.g., job satisfaction, organizational commitment, performance). Since learning is considered the "core" of onboarding, in my model, I define proximal outcomes of the onboarding process (e.g. mastering one's task, understanding one's role, acquiring know-how to maintain successful work relationships) as a direct result of newcomers' learning. However, a lot of empirically tested relations between learning (or at least certain domains of learning) and many onboarding outcomes can be found in literature (See Figure 14).

Figure 14 *Researched individuals' learning relationships (After Ashforth et al., 2007)*



4.5.4 Onboarding outcomes

The proximal outcomes are then predicted to influence distal outcomes (e.g. job satisfaction, career commitment, organization commitment)

4.6. The mediation role of e-learning in the onboarding process - evidence from twelve large Japanese Companies

According to signaling theory, jobseekers utilize information available as signals about job and organizational attributes (Rynes, 1991; Spence, 1973) in order to reduce the uncertainty they feel. E-learning is a system that provides information anytime, anywhere, and this characteristic of e-learning makes it the most important reason to be chosen as a variable in the author's onboarding model. Compared to other learning tools utilized in the onboarding process - mentoring, training programs, leadership mentoring, working as a system, e-learning could play a potential role in the proposed integrated model of e-learning-onboarding. For this reason, my model positions e-learning as a mediator between onboarding tactics and newcomer proactive behavior/tactics. Due to the lack of empirical research on the relationship between e-learning in the onboarding process and onboarding variables (onboarding factors, onboarding outcomes), two main variables – e-learning utilization (usage of EL) and e-learning characteristics have been deducted from the literature. Having outlined existing research in the previous chapters, the next section presents the author's research on twelve large Japanese companies.

4.6.1 Methodology

The survey instrument of this study consists of three main parts. The first part measures key indicators for deployment and utilization of e-learning within the company,

whereas the second one measures the level of execution of the company onboarding process. The survey instrument includes scales and measurements adapted from other research in the field of e-learning and onboarding (Bonk, 2002). The third part of the survey instrument consists of questions about the respondent companies' attitudes towards e-learning utilization in the execution of certain onboarding actions. After an initial selection of measurements drawn from the literature, the author designed a survey consisting of eighteen e-learning and fifteen onboarding measurements. The survey also includes data on the number of employees, primary focus of the company, as well as the position of the respondent in the decision-making process regarding e-learning and onboarding within the company. The author utilized several types of scales for the purpose of this study: 3-point semantic differential scale anchored by low degree of usefulness (1) to high degree of usefulness (3); 5-point Likert scale anchored by strongly disagree (1) to strongly agree (5); binary scale anchored by Yes for presence and No for absence. The last part of the instrument includes general information on the respondents – age, gender, and education.

First, the respondents answer questions related to their attitudes toward and commitment to employee training and training through e-learning in particular.

Second, the respondents are asked to rank the usefulness of certain types of e-learning tools and whether they utilize these tools in their company. Following the same pattern, tailored to the specifics of onboarding, the author designs the questions for the second part of the survey instrument, which aims at measuring the attitude of companies toward certain elements of the onboarding process, their utilization and the level of execution of this process in the company at the moment.

The survey was initially written in English and then translated into Japanese by a native speaker. A pilot test was conducted to evaluate the appropriateness of the measuring instruments. Based on the results, several items were revised to clarify meaning.

4.6.2 Data collection

The data presented in this paper was collected through questionnaires and interviews where the respondents were managers of human resources and training departments in several large Japanese companies. The survey was conducted in the July-August 2009 period after prior arrangement with the respondents. After the respondents filled in the written survey, the author conducted subsequent one-hour interviews in order to avoid bias and collect information for further analysis. Several companies were excluded from the data analysis because of inability to answer basic questions (missing data). In the end, twelve useable questionnaires were selected for the analysis.

4.6.3 Results and discussion

4.6.3.1 Characteristics of respondent companies and respondent managers

As shown in Table 8, the companies in the sample belong to different sectors, suggesting differences in e-learning utilization, as well as in onboarding process execution. Companies with 1,000 – 10,000 employees present a little over a half of the total number companies (7); five out of a twelve of the companies belong to the “over 10,000 employees” group. The professional status of respondents is evenly distributed in two categories: “senior” (6) and “junior” (6) managerial position. According to work experience criterion, the respondents are also evenly distributed. The number of managers with up to ten years of work experience equals the number of managers whose work experience is over ten years.

Table 8 *Characteristics of respondent companies and respondent managers*

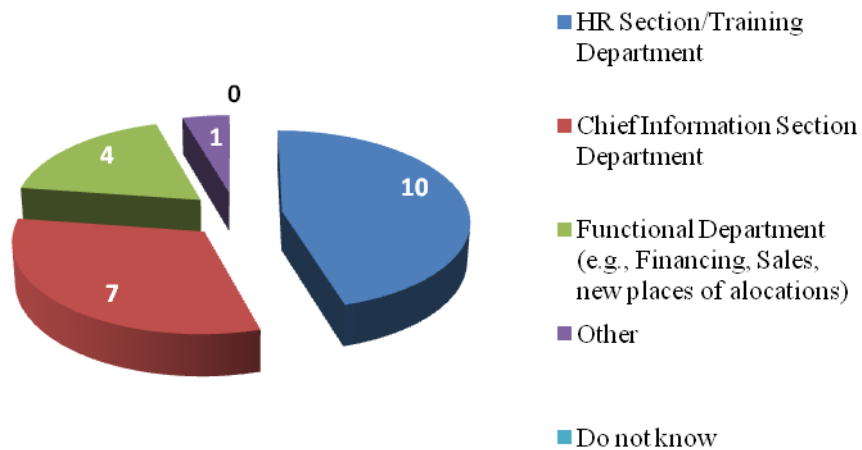
Company Variable	Number of companies (N=12)
Company Profile	
• Finance	1
• Heavy Industries	3
• Manufacturing	4
• Services	2
• Mining and Gas	2
Number of Employees	
• 1,000 -10,000	7
• 10,000 above	5
Respondent Job Rank	
• HR Senior Manager	6
• HR Junior Manager	6
Respondent Work Experience	
• Less than one year	2
• 1-2 years	3
• 3-5 years	1
• 6-10 years	0
• 11-20 years	3
• More than 20 years	3

4.6.3.2 Key indicators for deployment and utilization of e-learning in the company

Level of decision making about purchasing e-learning in the organizations (Figure 15) - Although there are HR departments in all of the companies, decisions about purchasing e-learning are made on different company levels. However, in most of the cases, HR departments are responsible for that decision as well as for the administrative and data management aspects of e-learning. The IT departments and outside contractors are responsible for the technology aspects of the system. All of the companies, however, express perceptions of high cost about purchasing e-learning systems. Some of the managers claimed

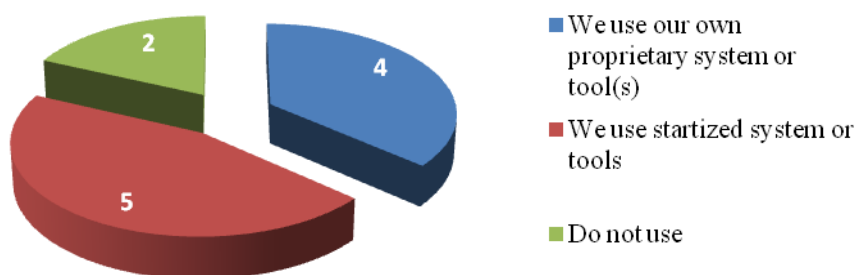
that e-learning is far more expensive than the expenses needed for conducting traditional training.

Figure 15 *Level of the organization where decisions about purchasing of e-learning systems are made*



Type of e-learning systems used (Figure 16) - Although all of the companies have declared strong commitment to learning and e-learning, four of the respondent companies utilize a tailor-made e-learning system, a special edition of an e-learning system developed especially for the company. Almost half of the companies (5) utilize a standard e-learning system for conducting their training, whereas the rest (2) do not utilize e-learning at all or on an occasional basis only.

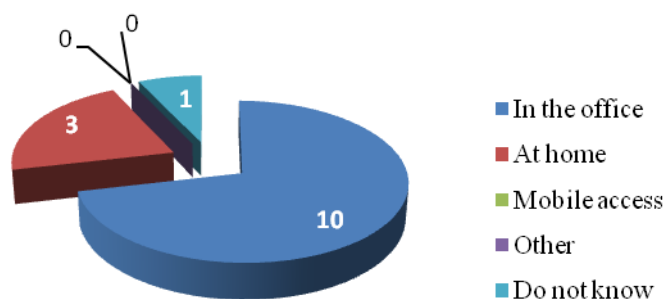
Figure 16 *Type of e-learning system used*



Access to e-learning (Figure 17, Figure 18) Most of the respondent companies use their offices as the main point for e-learning access. Despite that fact, most of them offer mobile and “at home” access points as well.

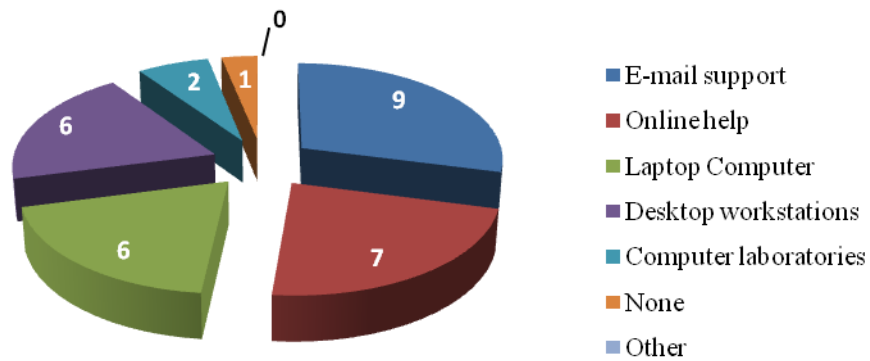
Since there are different resources for e-learning delivery, most of the companies choose on-line instruments, such as e-mail and online support, as the main tools for disseminating e-learning. All respondents reported that hardware is available at a satisfactory level.

Figure 17 *E-learning access points*



Note: the total exceeds 12 because the respondents have chosen more than one answer

Figure 18 *E-learning resources of the company*



Note: the total exceeds 12 because the respondents have chosen more than one answer

E-learning effectiveness (Figure 19, Figure 20) - Although, in the interviews some of the managers answered it is really hard to measure the effectiveness of e-learning, more than half of the respondents (7) evaluate their e-learning. As main measurements they use “knowledge and skills evaluation” (8), “learner satisfaction” (7), “job performance improvement” (1), return of investments (1). All of the measurements used are directly applicable for measuring new employees’ adaptation process.

Figure 19 *Companies which evaluate e-learning*

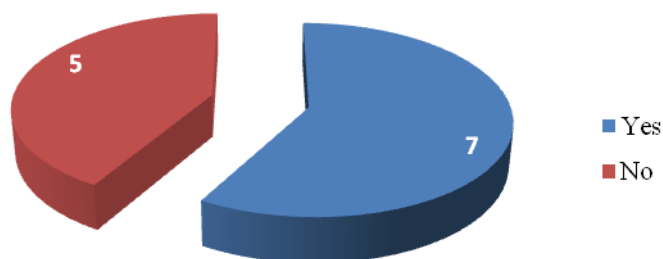
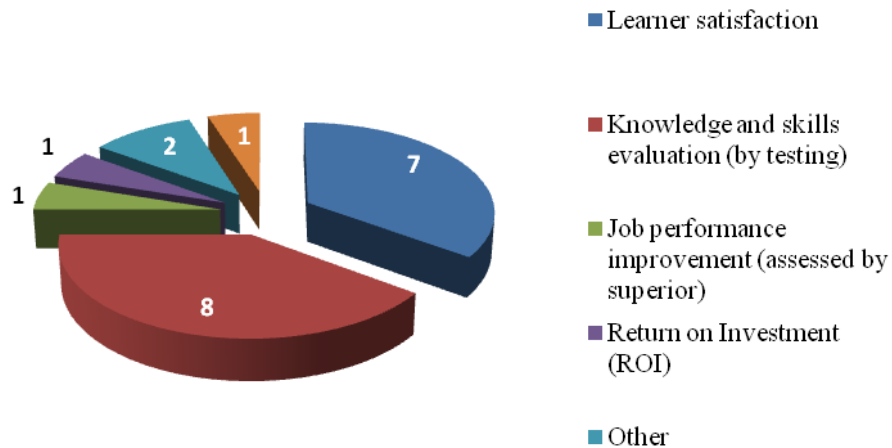


Figure 20 *Measurements for e-learning evaluation*



E-learning tools deployment (Table 9) - Following Bonk (2002), a series of subjective perceptions of e-learning tools have been assessed by asking the respondents to mark the degree of usefulness of the tools as outlined in Table 9. The level of utilization of these tools among the respondent companies is shown in the “Utilization” column of the table. Search engines, online asynchronous discussion forums, tools for file uploading and downloading, and tools to place entire courses on the web are widely used by the respondent companies. The respondent companies pay less attention to the tools that provide collaboration and post-training services than to the traditional tools that enable an institution-driven learning process. The above statement supports the fact that Japanese companies operate in a strong organizational-driven environment rather than giving their employees more opportunities to interact with their peers, which is crucial to the success of the onboarding process (Jones, 1983).

Table 9 Degree of usefulness of e-learning tools

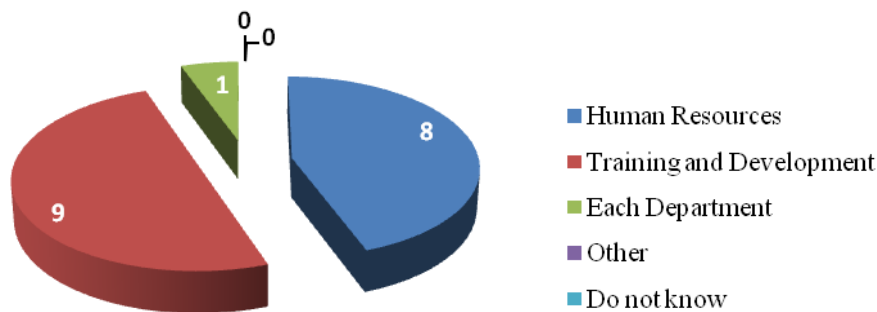
E-learning Tools	Degree of usefulness				Utilization		
	Low	Medium	High	Do not know	Yes	No	Do not know
On-line class tools							
a. Tools to place your entire course on the Web	0	5	3	3	7	5	0
b. Tools for file uploading and downloading	1	4	3	3	5	7	0
c. Online learner evaluation of courses or course material	2	3	2	3	3	8	0
d. Online databases	0	2	3	6	3	6	2
Collaboration and Sharing							
e. Tools for learners to collaborate and form partnerships with other learners	4	0	3	4	2	10	0
f. Online asynchronous discussion forums (e.g., bulletin board)	1	6	3	1	5	7	0
g. Online discussion forums with real-time or synchronous chat	5	3	2	1	3	9	0
h. Tools to provide interactive feedback, comments, and annotations of learners' work	0	5	4	2	5	7	0
Web Resources							
i. Search engines (i.e., Yahoo, Google, etc.)	0	5	4	2	8	3	0
j. Digital libraries (eBooks, audio books)	1	2	5	3	3	8	1

All of the companies conduct an institutional-driven process for delivering e-learning. All the decisions are made by the managers who own the processes of training or deal with the human resources of the company. Although some companies expressed a view that e-learning is expensive and its effectiveness is hard to measure, most of the respondent companies invest a lot in the automation of their learning process.

4.6.3.3 Execution of the onboarding process

Onboarding stakeholders (Figure 21) – In most of the respondent companies the onboarding process is owned by Training and development and Human Resources departments simultaneously. Often those two departments are responsible for managing the companies’ e-learning system as well, which minimizes possible administrative constraints when introducing e-learning to the onboarding process. In one of the cases ownership of the onboarding process is spread across three departments - Training and development, HR and the relevant operational department.

Figure 21 *Owners of the onboarding process*



Duration of **onboarding** (Figure 22, Figure 19, Figure 23) - The duration of the onboarding process in Japanese companies is about one to three months. That period is typical for most of the respondent companies (7). Most of them also added that there is an additional “after stage” of the onboarding process starting six months after the first day at work.¹⁶ However, the core onboarding activities are concentrated into the first three months at work. Seven of the respondents said that the onboarding process should start immediately after accepting the job offer, before the first day at work. Many Japanese companies do start their onboarding process at that time by sending their future employees learning materials,

¹⁶ See Chapter 3, 3.4 Japanese Labor Market

arranging welcome parties, etc. That fact supports the opinion that newcomer’s socialization activities should be before the employees’ first day at work. Half of the respondent companies have already adopted such practices.

Figure 22 *Duration of the onboarding process*

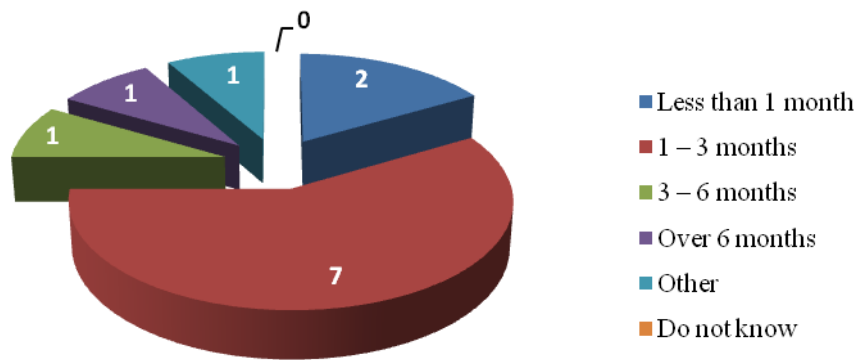


Figure 23 *Beginning of the onboarding process*

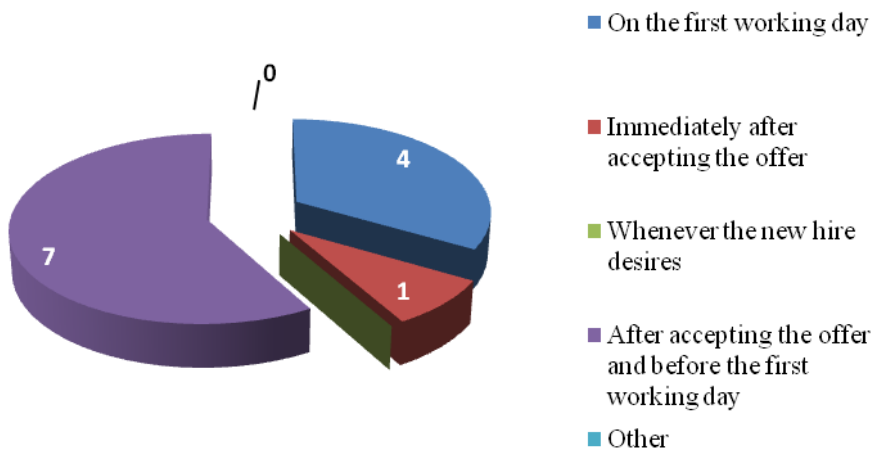
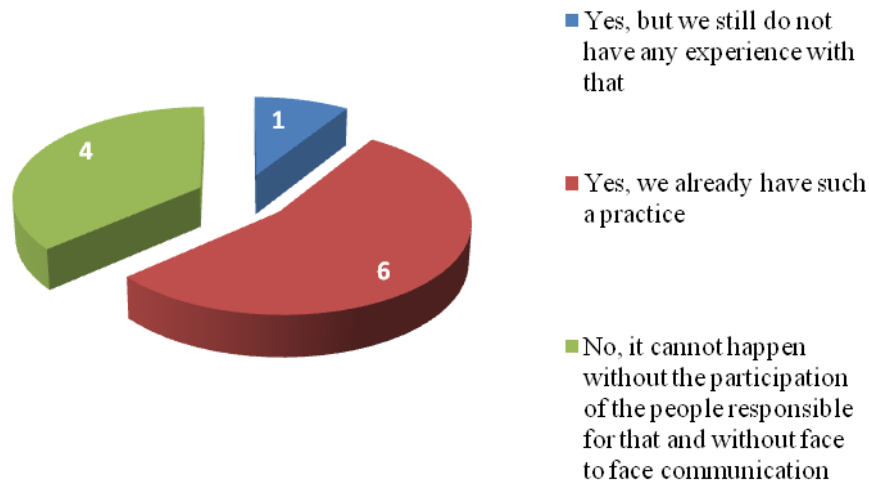


Figure 24 *Socialization through e-learning before the first day at work*



Assessment of the onboarding process (Figure 25, Figure 26) - Seven of the respondent companies assessed their onboarding process. Most of them declared a readiness to welcome the newcomers on the first day at work and that they spend sufficient time on getting new employees productive. Most of them use “learning satisfaction” and “knowledge skills evaluations” for measuring onboarding. During the interviews the respondents answered they do not often use “job performance” and “return on investment” as tools for measuring onboarding. It is important to note that companies use simple measurements to assess the complex process of onboarding. The tools they are using are supposed to be influenced not only for onboarding variables. Although, onboarding results/outputs are not in the essence of this work, later in that chapter I will introduce more specific onboarding variables in order to explain my model.

Large Japanese companies are famous for their low employee turnover percentage. The respondent companies are not an exception to that “rule”. They (10) declare from zero to four percent turnover for the years 2007 and 2008. Since turnover is not a direct onboarding outcome, various factors that may influence turnover in Japanese companies, should be considered in future research.

Figure 25 *Assessment of onboarding outcomes*

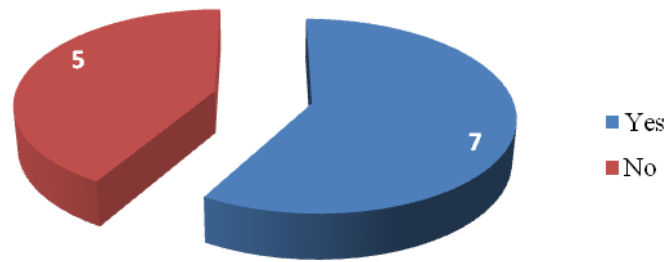


Figure 26 *Onboarding assessment measurements*

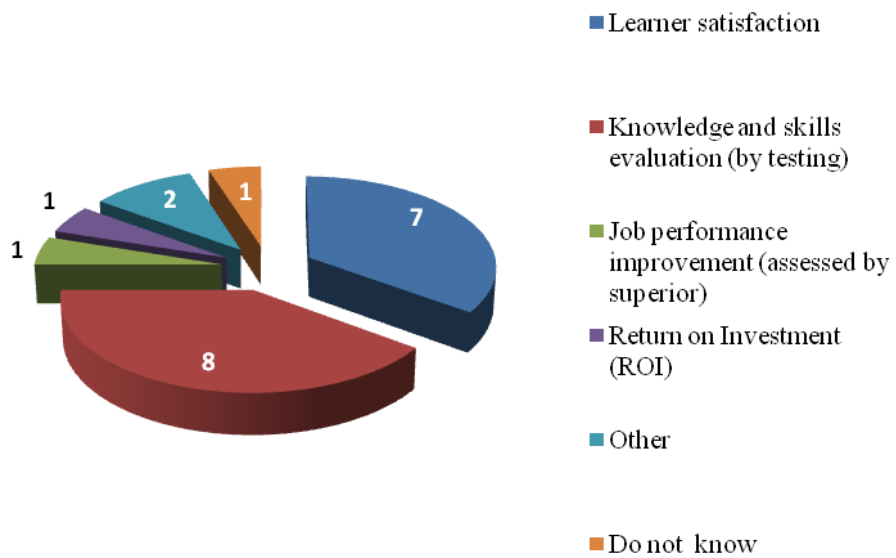
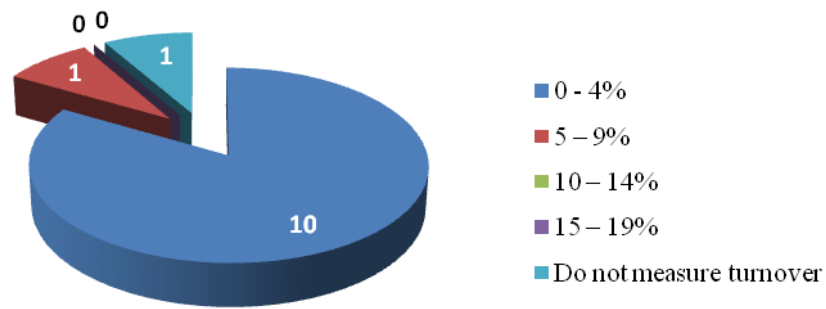


Figure 27 *Turnover percentage*



Deployment of onboarding tools (Table 10) - A series of subjective perceptions of onboarding tools were assessed by asking the respondents to mark the degree of usefulness of the tools as outlined in Table 10. The utilization of those tools among the respondent companies is shown in the “Utilization” column of the table. Learning and development plans, rotational assignments, team building activities are well accepted and receive a high degree of approval from the respondent companies. Tools for automation the process of onboarding received lower grades for both usefulness and utilization.

Table 10 *Degree of usefulness of onboarding tools*

Onboarding Tools	Degree of usefulness				Utilization		
	Low	Medium	High	I do not know	Yes	No	I do not know
Onboarding tools, resources and activities							
a. Learning and Development Plans – Participants develop and discuss their development plans with colleagues and managers	0	2	7	1	10	1	0
b. Rotational Assignments	0	4	6	0	8	3	0
c. Leadership development conferences	3	2	0	6	3	6	2
d. Team building activities	0	2	5	3	6	2	2
e. Tools to automate the new hires’ communication	0	3	5	2	5	5	0
f. Tools that automate the forms process of onboarding	1	3	1	5	1	7	2
g. Reporting tools to track the progress in getting the new hires up to speed	2	4	1	4	4	5	0
h. Personalized portal for employees	3	1	3	4	3	7	1

4.6.3.4 Attitudes toward e-learning utilization in the onboarding process

Utilization of e-learning in the onboarding process (Figure 28) – More than half of the respondents answered they have an experience in utilizing e-learning in the onboarding process (7). They also agreed with the statement that e-learning can provide useful information to new employees. However, they are skeptical about the utilization of e-learning for developing interpersonal relationships. Most of the companies use their official website for sending signals to potential and new employees, providing them with information about the organization. Only nine percent of the respondent companies possess their own web-portal where document processing actions can be executed.

Figure 28 Companies which utilize e-learning in their onboarding process

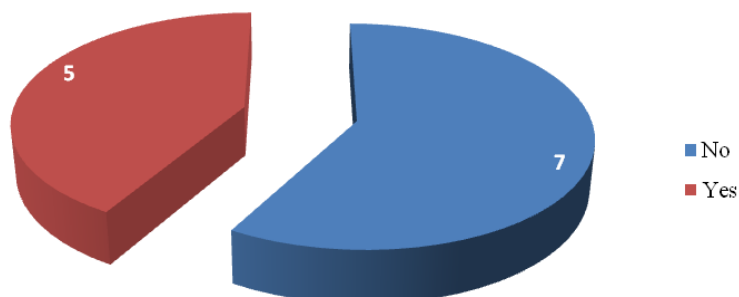


Figure 29 Type of usefulness that e-learning provides to the onboarding process

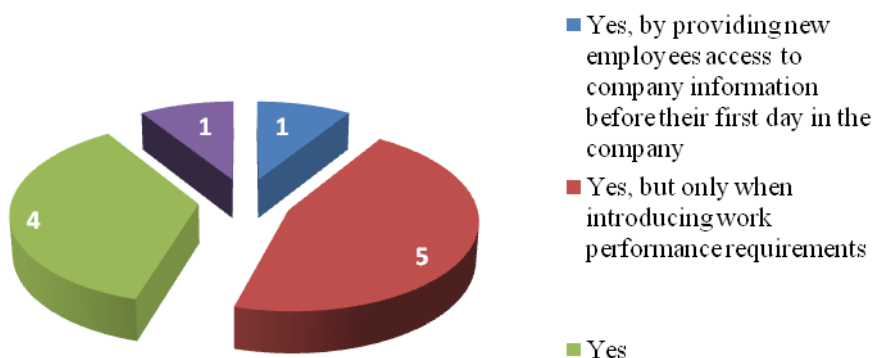
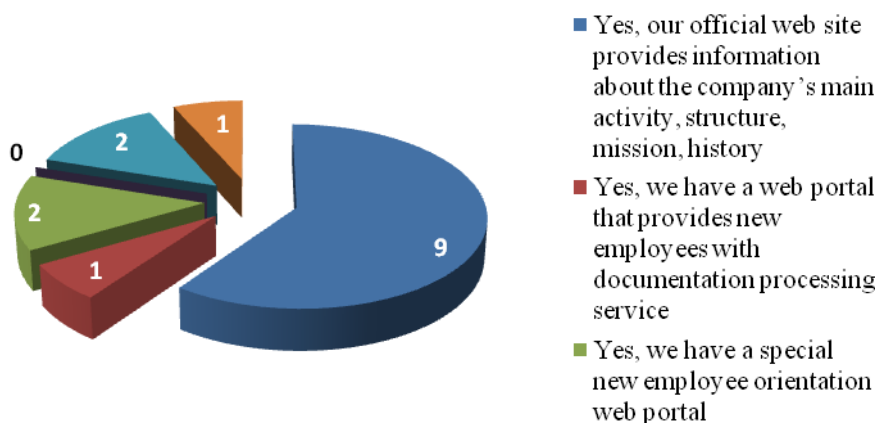


Figure 30 E-learning tools utilized in the onboarding process



Onboarding activities through e-learning (Table 11) – In general, transferring activities of the onboarding process through e-learning before the new employee's first day in

the company is considered fairly useful by the respondent companies. E-learning is rated as “highly useful” in introducing company policies, job performance related information, and company language. It is rated as much lower for activities such as coaching and introduction to company relations.

Table 11 *Usefulness of onboarding activities transferred through e-learning*

Onboarding activities transferred through e-learning	Degree of usefulness		
	High	Medium	Low
a. Introduction to company culture	6	5	1
b. Introduction to company history	3	5	4
c. Introduction to company language	3	6	2
d. Introduction to company structure	4	5	3
e. Introduction to company policies	4	7	1
f. Brainstorming or idea sharing	7	5	0
g. Introduction to company relationships/Group projects and teams	7	5	0
h. Introduction to working standards, measurements, employee responsibilities	6	4	2
i. Job performance (Work related skills)	4	7	1
j. Coaching	9	3	0
k. Other (please specify)	0	0	0

4.7. E-learning – onboarding integrated model interactions

The above findings strongly support the assumption that the onboarding process in Japan takes place in an organizational context, where the company sets tools and actions for socialization and performance proficiency, and does not rely on specific personal variables that might influence the process. Jones (1983, p. 464) claims that an individual’s subsequent orientation towards the organization cannot be adequately explained until the onboarding

process is analyzed from an interactionist perspective in which newcomers are accorded an active role in mediating personal and role outcomes.

Keeping the author's model components in mind, one main question is raised here: What would interactions between institutionalized onboarding tactics and newcomer proactive tactics lead to? Hence, what can e-learning do to improve those interactions and thus onboarding outcomes?

Griffin et al., (2000) designed an onboarding model describing interactions between institutionalized onboarding tactics and newcomers' proactive tactics. The model aims to establish how institutionalized tactics influence newcomers' proactive behavior, and how effective newcomers' proactive tactics are in terms of onboarding outcomes. They assume that institutionalized tactics will suppress certain newcomers' proactive tactics. On the other hand, onboarding tactics, in their institutionalized or individualized aspect, will moderate the relationships between newcomers' proactive tactics and onboarding outcomes, making newcomers' proactive tactics more effective.

The author's model introduces e-learning variables between the two main onboarding factors, i.e. companies' onboarding tactics and individuals' proactive tactics. As already discussed above, institutionalized onboarding tactics influence the way newcomers act. However, following Louis (1980) and Griffin et al., (2000), the author assumes that newcomers are somewhat stable in their choice of various proactive onboarding tactics, due to particular learning or interpersonal preferences on the part of the newcomer. This means that although the newcomers possess individual differences, their proactivity behavior is linked to stable traits (Major and Kozlowski, 1997, cited in Griffin et al., 2000). Hence, the author's model was built on the assumption that e-learning can provide more individual freedom without changing the institutionalized onboarding environment large Japanese companies operate in. E-learning allows for newcomer's proactive tactics to be more

effective in terms of onboarding outcomes. The role of placing e-learning between organizational tactics and newcomer's proactive tactics is to correct the negative effects of onboarding institutionalized environment on newcomers' proactive tactics.

Following Griffin et al., (2000) model and observing e-learning utilization in twelve large Japanese companies, the author proposes one main (H) and six sub-hypotheses (H1, H1a, H2, H2a, H3, H3a) that describe the relationships depicted in the model (Figure 31).

Table 12 *E-learning – onboarding integrated model's seven hypotheses*

H	E-learning (EL) presence among onboarding factors will lead (through e-learning characteristics) to more opportunities for newcomers to act individually, without the need to individualize the institutions' institutionalized onboarding tactics.
H1	E-learning (EL) presence among onboarding factors will allow newcomers to engage in individual newcomer proactive tactics such as information seeking from co-workers and supervisors and informal mentorship and extra work-related activities, without the need to individualize institutions' collective and formal onboarding tactics.
H1a	E-learning could maintain positive relationship between job change negotiation and observation/modeling proactive behavior of newcomers when context-onboarding tactics are institutionalized (collective and formal) instead of individualized.
H2	E-learning (EL) presence among onboarding factors could partly mediate the relationship between institutionalized sequential and fixed onboarding tactics and newcomers' engaging in the following proactive individual onboarding tactics: feedback seeking, information seeking from coworkers and supervisors, and job change negotiation.
H2a	E-learning (EL) presence among onboarding factors can partly mediate the relationship between institutionalized sequential and fixed onboarding tactics and the opportunity of newcomers to maintain relationship building with co-workers and supervisors as well as to form Informal mentor relationships and to involve In extra work activities, thus making the relationship between those individualized tactics and onboarding outcomes stronger and positive.
H3	E-learning (EL) presence among onboarding factors could mediate the relationship between newcomers and an informal mentor in institutionalized social-related (serial and investiture tactics) environment.
H3a	E-learning (EL) presence among onboarding factors would make newcomers proactive tactics, such as information seeking from co-workers and supervisors, forming informal mentor relationships, and positive framing, happen in institutionalized environment (serial and investiture), thus making those individualized tactics more effective in terms of the onboarding outcomes.

H. The “H” hypothesis presents the concept proposed at the beginning of this chapter. It describes the role e-learning plays in the relationship between onboarding tactics, newcomers’ proactive behavior and onboarding outcomes in a steady institutionalized onboarding environment.

H1. Many authors support the opinion that institutionalized collective and formal tactics limit the opportunities of newcomers to interact with each other, seek information, and interact with more experienced workers and even supervisors. Moreover, some onboarding activities can be ineffective in an institutionalized environment (Griffin et al., 2000). E-learning could help the organization to facilitate employee networking. Although, through e-learning, a technology network is likely to be established first, a support network among the main participants in the onboarding process can be easily developed based on the fact that in most of the cases e-learning and onboarding are owned by the same department. E-learning can facilitate newcomers’ onboarding process by disseminating information on performance best practices, lessons learned and interactive communication with peers. The “H1” hypothesis predicts a positive influence of the onboarding tactics on newcomers’ proactive behavior through e-learning. Hence, e-learning could maintain a positive relationship between newcomers’ proactive behavior and onboarding outcomes, making newcomers’ proactive tactics more effective.

H1a. In connection with the “context-related” onboarding tactics the author proposes the hypothesis that e-learning could also improve job change negotiation and observation/modeling proactive behavior of newcomers.

H2. In content-oriented environment, the main institutionalized onboarding tactics offer sequence and scheduling of newcomers’ onboarding process. Many researchers have found that those tactics have a negative effect on newcomers’ role innovation (Allen and Meyer, 1990; Ashforth and Saks, 1995; Baker, 1995; Black, 1992; Black and Ashford, 1995;

Jones, 1986). Role innovation, in turn, is related to certain newcomers' proactive tactics that, as the author suggested, could be facilitated through e-learning. Since the attitude of organizations towards role innovation and job change negotiations are negative, newcomers are less likely to engage in job change activities in an institutionalized onboarding environment. E-learning would allow newcomers to participate in those proactive tactics in institutionalized environment - see H2.

H2a. In terms of the effectiveness of the newcomers' proactive tactics, content-related onboarding tactics through e-learning, will also let some newcomers' proactive tactics to have positive relationship with the onboarding outcomes when the sequential and fixed onboarding tactics are institutionalized instead individualized.

H3.H3a Placed in social-related context, newcomers are supposed to learn from models and feel themselves valuable for the organization. Organizations influence those onboarding actions by assigning mentors, which happens in the serial tactic, and to use organizational instruments for embodying incumbents, delegating power to new employees, in order to show them they are valuable and their identity is recognized (investiture tactic). The institutionalized social-context environment of the onboarding tactics (serial and investiture) would lead to less opportunity for newcomers to build relationships with an informal mentor, or engage in certain newcomers' proactive tactics – see H3 and H3a:

4.8. Conclusions

The aim of that chapter was to clarify the role of e-learning in the onboarding process. Based on literature review and empirical research, the author explained possible e-learning-onboarding interactions in large Japanese companies using a systematic approach. After analysis of e-learning implementation and dissemination and the onboarding process of twelve large Japanese companies, the author proposed e-learning variables which could play

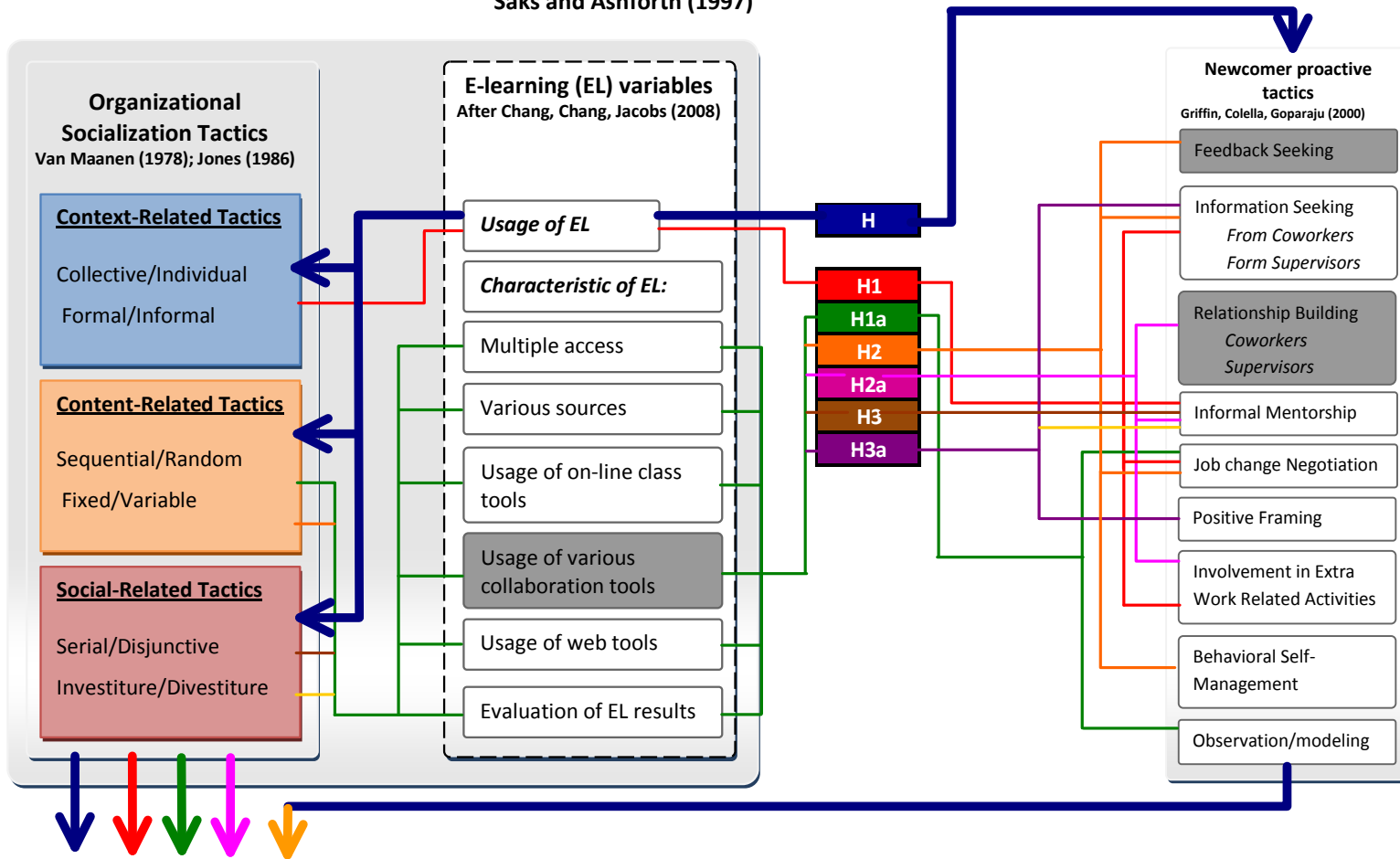
mediating or moderating role between company and newcomers, in order to allow newcomers to act more individually in an institutionalized environment. All the e-learning variables mentioned above need to be validated through a bigger sample, different sectors and a longitudinal designed study.

The author also proposed seven hypotheses which can serve as the base for further research on the relation between e-learning and onboarding. The core of these hypotheses is the main proposition of the author, namely, e-learning could give newcomers more individual freedom in institutionalized large Japanese companies' onboarding environment. Based on her integrated model, the author believes that e-learning could seriously challenge the onboarding process in the future, playing a more complex role than just being technology tool for learning.

Figure 31 E-learning - onboarding integrated model

ONBOARDING FACTORS

Saks and Ashforth (1997)



Chapter 5: Conclusions

5.1 Discussion

Large companies are one of the main characteristics of the labor market in Japan. These companies invest a lot in employee training – it is among their employees that the most extensive training is concentrated (Dore and Sako, 1998). Although Japan is among the leaders in broadband penetration (Global Broadband Quality Study, 2009), and the Japanese government puts a lot of effort into the dissemination of e-learning, e-learning is still not commonly utilized in Japan (Sato, 2009).

Despite the amount of research on onboarding in Japan and e-learning, and its dissemination among Japanese companies, there is still not enough research on the relationship between those two categories. This study attempted at the evaluation of e-learning impact on organizations from an organizational onboarding perspective. Two main topics emerged during the research: e-learning and its (complex) system nature, and onboarding process practices and theoretical foundations. In order to clarify the issues in that area, the author conducted research in the following fields: in-company e-learning; the onboarding process; e-learning and onboarding in Japan; and theories of e-learning and onboarding.

This study concludes that the onboarding process is not a question of retention and turnover, but a more complex and social oriented process. The study identifies the need to “unpack” the concept of Japanese organizational culture which defines a much more institutionalized onboarding process rather than flexibility and proactive orientation.

5.1.1 In-company e-learning

The author’s research on e-learning consists of research on e-learning definitions on one hand, and e-learning content on the other. This study illustrates e-learning evolution - from an

umbrella term for technology enhanced learning to a complex system consisting of several important dimensions: information technology environment, service-network environment, automation of learning processes, and customer satisfaction.

The results of the chronological analysis on e-learning definitions demonstrated that e-learning has passed through several stages: the spread of the Internet (increased network utilization, plus easier and cheaper content storage and distribution); the growth of e-learning services (including the development of supporting technologies and methodologies); and the development of tools and methods of social communication.

The results of the content analysis of e-learning demonstrated bigger role of e-learning in companies' learning processes, possessing unique characteristics such as: overcoming time and place barriers; blended learning capabilities; and complex technology architecture.

Based on the chronological analysis and content analysis, the author concluded the e-learning could be utilized as an accelerator for various business processes.

This study also contributed to the e-learning literature by developing its own definition of e-learning.

Finally, the author assumes that certain changes in the Japanese human resources practice could play role as indirect reasons for adoption of e-learning.

5.1.2 The onboarding process

This study defined the boundaries of company onboarding. It concluded that the onboarding process is built on certain principles: connection to the organization's main values; understanding of corporate culture, goals and priorities (which includes execution of performance proficiency and socialization function); interconnection with other processes; and flexibility. Onboarding is also a business process distributed over time and there is a robust

connection of onboarding to any company strategy. Another important note in this study is the research on the time boundaries of onboarding, where the time and stage frame of the process are covered. The results, based on literature analysis, indicated that e-learning could start with the beginning of the recruitment process or immediately after the job offer was accepted by the new employee, and could take from one to nine months, depending on the company or new employee working position. Other results, related to timeframes of the onboarding process, show that companies are planning their onboarding stages in different ways. Nevertheless the first day at work, which is important from company's point of view (preparation of workspace, documentation processing), and the first ninety days, which are important from new hire's point of view (measuring new hire's development), are the milestones of the onboarding process. Another major topic covered in that part of the study, are the roles in the onboarding process: on one hand - owners of the process (people from the main company departments which execute the process) and core management of the company; and new hires on the other hand.

I also described the human resources development environment within which the onboarding process takes place in large Japanese companies.

5.1.3 E-learning - onboarding in Japan

Based on literature review the author designed a survey and conducted a pilot study on twelve large Japanese companies in different sectors, trying to measure companies' attitudes toward e-learning utilization in their onboarding processes. The main goals of the study were: to assess e-learning and onboarding environment in large Japanese companies; to define the attitude and possibilities e-learning utilization in the onboarding process of these companies; and to set e-learning variables and areas for future research.

The survey provided descriptive information on large Japanese companies' implementation and utilization of e-learning and their onboarding process. The results of this study are recommendatory and show that the degree of development of the company, in terms of e-learning and onboarding may serve as a predictor of combining motives and decisions (e-learning – onboarding).

Data presented in this study supports the statement that e-learning is not commonly utilized in Japan, indicating a low level of adoption in the examined companies. On the other hand, the results of the survey revealed that the onboarding process in Japan is fairly unique in terms of its stages and culture. Well-depicted in the analysis of the survey is that the duration of onboarding in Japan is relatively short and there is a “low turnover tendency” characterizing the process.

Essentially, the current research supports the conclusion that the onboarding process in Japan is strongly institutionalized which, as predicted in theory of onboarding, affects certain newcomers' proactive tactics and thus, onboarding results.

5.1.4 The model of e-learning and onboarding

This part of the study presented a model of the e-learning - onboarding interaction and its major components and boundaries; a concept of company roles toward newcomers' proactivity behavior in the onboarding process; a detailed analysis of the six dimensions of the onboarding process, or “tactics”, which managers (process owners) could adopt when onboarding new recruits into the organization, and the utilization of e-learning in each of these tactics.

Developing an integrative e-learning - onboarding model is the main contribution of this study. The model was built on a literature review of theory of onboarding. The results of this study demonstrate the continuing utility of Griffin et al., (2000) “Model of Organizational

Socialization Tactics on the Effectiveness of Newcomer Pro-Active Tactics”. I developed an onboarding model where e-learning characteristics, deduced from research in large Japanese companies, are implemented as variables. The model describes the mediation role of e-learning in the onboarding process. It presents a novel way of thinking toward e-learning and onboarding tactics and the way they relate to newcomer adaptation, and highlights the role of the organization in providing social support to newcomers during onboarding. It also shed lights on the likelihood of relative impacts on a number of variables that have not been simultaneously examined in the past. The model demonstrates the importance of taking a systematic approach when trying to understand how various elements of the onboarding process work together to yield adaptation and business outcomes.

The e-learning - onboarding model proposed in this study supports an interactionist approach to organizational onboarding in which newcomers’ self-efficacy and organizational onboarding tactics predict newcomers’ proactivity. Onboarding tactics in turn, impact on the likelihood that newcomers engage in various proactive tactics and moderate the effectiveness of proactive tactics that do occur (Griffin et al., 2000). E-learning, as a variable used in the model, could justify the negative effects of steady institutionalized onboarding environment on newcomers’ proactive tactics. It is predicted in this study that the utilization of e-learning as part of a systematic approach to onboarding will lead (thanks to the characteristics of e-learning) to more opportunities for newcomers to act individually, without the need to reform institutionalized onboarding tactics to make them more individualized.

Propositions about the mediation role of e-learning in the company’s onboarding process have been developed, describing the likelihood of any company’s onboarding tactic leading to custodial, content innovative, or role innovative responses. As a result, six propositions have

been deducted from the proposed model. Each proposition describes the likelihood of an institutionalized company's onboarding tactic to preserve newcomers' proactive tactics and thus to improve its effectiveness in terms of onboarding outcomes. The model represents Van Maanen and Schein (1979) organizational onboarding tactics, classified by Jones (1983) in three main clusters - context-related, content-related, and social-related. The propositions are then referred to as hypotheses.

However, since there is not enough empirical evidence to determine, in a smoothly arranged logical scheme, how e-learning and various onboarding tactics can be more or less arranged in terms of their effects upon new hires being successfully adapted in their roles, this model cannot be considered as completed.

5.2 Implications

Social relationships in organizations are an important factor for establishing an effective work environment. This study illustrates an example of how to establish a pattern of interpersonal onboarding communication (a pattern which is often broken up by an institutionalized company approach). The study emphasizes the need of organizations to support new patterns of newcomers' proactive behavior by pursuing a balance between standardized, institutionalized tactics and their "flexible" alternatives; onboarding is a way to integrate new employees more extensively into the organization, so companies should not underestimate the social context of onboarding. Structuring onboarding activities and providing newcomers with information on onboarding stages; assistance with formal and informal interpersonal relationships; and communication channels which provide newcomers with feedback on their adaptation performance should be established in a way that preserves newcomers' proactive behavior.

Regardless of the above mentioned issues, this study makes a contribution to human resource management studies by providing evidence that e-learning implementation in institutionalized onboarding environment may positively influence newcomers' proactive behavior. Specifically, the study suggests scenarios where e-learning utilization may prevent institutionalized onboarding tactics from distracting newcomers from using proactive tactics that would be most useful in their adaptation.

5.2.1 Implications for managers

This study has implications for ways in which organizations can align onboarding tactics with newcomers' tactics in order to effectively embed newcomers into the organization. First, HRD practitioners and onboarding process owners need to recognize e-learning utilization in onboarding and to present the benefits in order to gain resources for its facilitation. For example, e-learning's technology features could be successfully applied to formal or serial onboarding tactics. The mentoring programs of the company could also be successfully supported by e-learning.

Second, social communication environment of e-learning could be successfully applied to strengthen interpersonal relationships. Through e-learning, organizations may successfully manage interactions newcomers have with each other and with experienced company employees during the onboarding process.

Third, a systematic approach is needed to establish e-learning in the onboarding process. The use of e-learning as a tool of companies' onboarding tactics or the use of e-learning's established social communication capabilities is a limited way to apply e-learning in any business process. Managers should fit e-learning to their company's onboarding strategy in order to reach better onboarding results. This includes taking a wider view of the process, considering

its time and scope boundaries. Organizations could also make an effort to influence pre-entry person-job fit. Through e-learning in their onboarding process, companies could provide applicants with information about the job and the organization, and maintain frequent contact with applicants during the selection process, thus to begin the adaptation process earlier. Finally, the essence of the onboarding process emerging from this study was the importance of applying systematic approach in/for building high-quality relationships with coworkers and managers within the large Japanese companies' institutionalized onboarding environment.

5.2.2 Implications for academic literature

The study have presented an integrative e-learning - onboarding model which now can be empirically tested. This model gives to researchers an integrative framework with various routes of research and theory that deal with contemporary boundaries of knowledge management. Researchers engaged in the onboarding process should not underestimate the institutionalized onboarding environment where newcomers' proactive behavior and relationship building can be considered as important processes, variables and drivers of onboarding. Researchers engaged in the onboarding process should not underestimate newcomers' proactive behavior and relationship building in institutionalized onboarding environment.

5.3 Limitations

The information presented in that study can be useful to both practitioners and researchers interested in e-learning deployment in Japanese companies. However, this study has several limitations. The conclusions of the study cannot be accepted with a high degree of validity given the small number of companies surveyed. The research has been conducted taking into account primarily the managers' perceptions of newcomers' onboarding - it does not examine the employees' point of view. It has to be emphasized that this study is of a cross-

sectional rather than of a longitudinal design, therefore the results are fixed at a single point of time. Another potential limitation of this study is that e-learning and onboarding were measured with the same survey at the same point of time. Thus, relationships among these constructs could be influenced by a common method variance.

As to the knowledge of the author there is no previous research conducted in Japan in this field, the results of this study do not provide enough validity for the variables in the proposed model. Following Griffin et al. (2000), the study is discussing onboarding in terms of Van Maanen and Schein's (1979) tactical dimensions, which is also a limitation of the study.

5.4 Recommendations for future research

Based on results of that study, strategic human resource management should try to understand further the relationship between e-learning utilization and better onboarding process. Significant predictors in the theory of onboarding have not been defined yet, because of the lack of adequate practice and research on the topic. The proposed model in this study is a subject of casual research, so it is recommended that implementation of the model to be studied in organizations. Ashforth et al., (2007) suggest that onboarding is happening only in large companies and there are only white collar workers who are "touched" by it. That is why, in addition, different types of the model should be adapted for specific types of organizations (Griffin et al., 2000).

The model does not concern the antecedents of the onboarding process. Future research needs to examine the onboarding process in Japan as a cumulative process in which both pre-entry experiences and onboarding tactics are designed to influence outcomes. As suggested earlier, the opportunity to offer pre-entry job experience to the applicants, through e-learning,

should also be researched. Thus, organizations will be able to create an overall positive feeling towards the company and its job opportunities through publicity.

The study proposed specific hypotheses that may guide future research to simultaneously consider newcomer and organizational behavior during onboarding. There are a number of additional issues raised by these hypotheses that also merit future research. For example, it would be valuable to conduct experimental field research examining the impact of specific e-learning programs aimed at encouraging certain newcomers' proactive tactics (described in the model hypotheses) in institutionalized onboarding environment. At the same time, the two main variables of the model i.e. onboarding tactics and e-learning variables are not well explained in terms of the specific activities they entail. Future research should examine how through e-learning institutionalized onboarding tactics translate into newcomer learning and adjustment (Ashforth et al., 2007). However, a series of quantitative designed studies are needed to prove the model.

Appendix I

This document completes the analysis of e-learning definitions (Chapter 2, 2.3). The author observes the repetition of ‘key terms’ in the definitions, as well as the direction they suggest. Thus, the author classifies the definitions according to the context they have been written in. The ‘Technology context’ and ‘Knowledge context’ columns are divided into two subcategories which lead to more concrete results. The diagrams at the bottom of the Appendix 1 illustrate the tendencies described in Chapter 2. This document (Appendix 1) consists of 67 definitions of e-learning, chosen at random, from various sources, listed in the ‘Source’ column. The definitions are sorted by year of publication; except for definitions 48 through 67, which do not have a clear date of publication mentioned in their sources.

Since one of the aims in Chapter 2 is the creation of a holistic e-learning definition, based on qualitative analysis, the author sets the following framework for it (the definition):

- 1) E-learning should be defined as a phenomenon – a result of technology development and social relations’ changes over the past twenty years, but its definition should mainly reflect its contemporary trends.
- 2) E-learning definition should be widely applicable.
- 3) E-learning definition should be easily understood even by the non-experienced.

In order to be as objective as possible, e-learning definition should balance the influence of technology, learning, society and other aspects that would burden it in a certain direction.

This framework consists of the main criteria for assessment of definitions by the author (See Figure Appendix I).

No	Definition	Year	Author	Technology Context		Knowledge Context		REPEATED TERMS						Author's assessment		Source	web link	
				Electronic	Network	KN	Learning	Electronic	Learning	Internet	Network	Term	KN	UNS	STSF			
1	The convergence of the Internet and learning, or Internet-enabled learning.	1997	Banc of America Securities		1				1	1					1		I	http://agelesslearner.com/intros/elearning.html
2	A phenomenon delivering accountability, accessibility, and opportunity to allow people and organizations to keep up with the rapid changes that define the Internet world.	1998	Ageless Learner			1				1					1		I	http://agelesslearner.com/intros/elearning.html
3	A force that gives people and organizations the competitive edge to allow them to keep ahead of the rapidly changing global economy.	1998	Ageless Learner			1									1		I	http://agelesslearner.com/intros/elearning.html
4	eLearning / E-Learning - learning that is accomplished over the Internet, a computer network, via CD-ROM, interactive TV, or satellite broadcast.	1999	World Wide Learn	1					1	1	1				1		D	http://www.worldwidelearning.com/elearning-essentials/elearning-glossary.htm

No	Definition	Year	Author	Technology Context		Knowledge Context		REPEATED TERMS							Author's assessment		Source	web link
				Electronic	Network	KN	Learning	Electronic	Learning	Internet	Network	Term	KN	UNS	STSF			
5	eLearning / e-Learning - Any learning that utilizes a network (LAN, WAN or Internet) for delivery, interaction, or facilitation. This would include distributed learning, distance learning (other than pure correspondence), CBT delivered over a network, and WBT. Can be synchronous, asynchronous, instructor-led or computer-based or a combination.	1999	Eleamers.com, 1999		1				1	1	1				1		D	http://elearningtech.blogspot.com/2007/10/elearning-defined.html
6	"E-Learning is the use of network technology to design, deliver, select, administer, and extend learning." (Elliott Masie defines the e in elearning as the EXPERIENCE dimension of elearning, which includes such factors as: engagement, curiosity, simulation, and practice).	1999	Elliott Masie						1		1				1		A	-

No	Definition	Year	Author	Technology Context		Knowledge Context		REPEATED TERMS						Author's assessment		Source	web link
				Electronic	Network	KN	Learning	Electronic	Learning	Internet	Network	Term	KN	UNS	STSF		
7	"Social, technological and economic drivers are transforming education around the world. As globalization encompasses local economies like never before, the development of a skilled workforce becomes a genuinely international concern. And as human capital becomes the chief source of economic value, education and training become lifelong endeavors for the vast majority of workers." (Peter J. Stokes, Eduventures.com, 1999)	1999	Peter J. Stokes, Eduventures.com, 1999			1								1		A	-
8	The use of network technologies to create, foster, deliver, and facilitate learning, anytime and anywhere.	2000	Ageless Learner		1				1			1				1	http://agelesslearner.com/intros/elearning.html
9	The delivery of individualized, comprehensive, dynamic learning content in real time, aiding the development of communities of	2000	LiNE Zine, 2000			1			1				1	1		W	http://www.linazine.com/elearning.htm

No	Definition	Year	Author	Technology Context		Knowledge Context		REPEATED TERMS							Author's assessment		Source	web link
				Electronic	Network	KN	Learning	Electronic	Learning	Internet	Network	Term	KN	UNS	STSF			
	knowledge, linking learners and practitioners with experts.																	
10	Learning that is enabled by the use of digital tools and content. Usually involving interactivity between the learner and their teacher or peers and often via the web.	2000	Stilton Studios		1				1						1		V	www.stiltonstudios.net/glossary.htm
11	Any technologically mediated learning using computers whether from a distance or in face to face classroom setting (computer assisted learning).	2000	The University of South Dakota, 2000	1					1						1		U	www.usd.edu/library/instruction/glossary.shtml
12	A Delphi Group white paper (2000), defines elearning as just-in-time education integrated with high velocity value chains.	2000	Delphi Group, 2000			1									1		V	-
13	e-Learning is the effective learning process created by combining digitally delivered content with (learning) support and services.	2001	Open Learning Today, 2001						1							1	I	http://www.rveel.sussex.ac.uk/showpage.php?page=18

No	Definition	Year	Author	Technology Context		Knowledge Context		REPEATED TERMS						Author's assessment		Source	web link
				Electronic	Network	KN	Learning	Electronic	Learning	Internet	Network	Term	KN	UNS	STSF		
14	The use of internet technologies to deliver a broad array of solutions that enhance knowledge and performance. It is based upon three fundamental criteria: • networked• delivered to the end-user via a computer using standard internet technology • focuses on the broadest view of learning.	2001	Marc Rosenber g, 2001						1	1	1			1		A	-
15	Allison Rossett (2001) defines elearning as: Web-based training (WBT), also known as elearning and on-line learning, is training that resides on a server or host computer that is connected to the World Wide Web. She considers WBT or elearning as belonging to Technology-Based Training -- training that is delivered partially or entirely through electronic hardware, software, or both.	2001	Allison Rossett, 2001		1			1	1					1		A	-

No	Definition	Year	Author	Technology Context		Knowledge Context		REPEATED TERMS							Author's assessment		Source	web link
				Electronic	Network	KN	Learning	Electronic	Learning	Internet	Network	Term	KN	UNS	STSF			
16	e-learning is the appropriate application of the Internet to support the delivery of learning, skills and knowledge in a holistic approach not limited to any particular courses, technologies, or infrastructures.	2001	Paul Henry, 2001	1					1	1				1	1		A	-

No	Definition	Year	Author	Technology Context		Knowledge Context		REPEATED TERMS						Author's assessment		Source	web link
				Electronic	Network	KN	Learning	Electronic	Learning	Internet	Network	Term	KN	UNS	STSF		
17	E-learning refers to anything delivered, enabled, or mediated by electronic technology for the explicit purpose of learning. This definition excludes things that might fit under the title 'distance learning', but are non-electronic (such as books and paper-based correspondence). It is broader than, but includes, online learning, Web-based learning, and computer-based training. E-learning includes both one-way and two way learning exchanges, as well as learner-to-learner interaction (as occurs in learning communities). For simplicity, assume that if you use a computer in some fashion to affect learning, then it is e-learning.	2001	American Society for training and development, 2001	1				1	1						1	1	-

No	Definition	Year	Author	Technology Context		Knowledge Context		REPEATED TERMS						Author's assessment		Source	web link
				Electronic	Network	KN	Learning	Electronic	Learning	Internet	Network	Term	KN	UNS	STSF		
18	Electronic learning or E-learning is a generic term for all electronically supported learning which includes an array of teaching and learning tools that use electronic media including phone bridging audio and videotape, video conferencing, and satellite broadcast. In recent years, the term has been delimited to Web-based or online courses that make use of electronic mail; video conferencing, discussion boards, chat rooms, and electronic whiteboards on the Internet."	2002	1st National Conference on E-Learning, Manila, August 1-2, 2002	1				1	1	1			1		1		http://www.cognitivedesignsolutions.com/ELearning/E-Learning1.htm
19	E-Learning means the delivery of learning with the assistance of interactive, electronic technology, whether offline or online.	2001	Institute of IT Training: e-Learning Standards, 2001					1	1						1	1	http://www.cognitivedesignsolutions.com/ELearning/E-Learning1.htm

No	Definition	Year	Author	Technology Context		Knowledge Context		REPEATED TERMS						Author's assessment		Source	web link
				Electronic	Network	KN	Learning	Electronic	Learning	Internet	Network	Term	KN	UNS	STSF		
20	E-learning is not simply 'e-training.' It is not merely about placing classes online to address training issues. E-learning encompasses training, education, information, communication, collaboration, knowledge management and performance management. It addresses business issues such as reducing costs, providing greater access to information and accountability for learning and increasing employee competence and competitive agility. E-learning is a critical element of any enterprise workforce optimization initiative.	2001	Cisco: Blueprint For An Enterprise E-Learning Architecture, 2001						1						1	V	http://www.cognitivedesignsolutions.com/ELearning/E-Learning1.htm
21	E-Learning, defined 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.	2001	Commission of the European Communities,			1			1	1				1		I	http://www.cognitivedesignsolutions.com/ELearning/E-Learning1.htm

No	Definition	Year	Author	Technology Context		Knowledge Context		REPEATED TERMS							Author's assessment		Source	web link
				Electronic	Network	KN	Learning	Electronic	Learning	Internet	Network	Term	KN	UNS	STSF			
	(The eLearning Action Plan: Designing tomorrow's education)		March 2001														m	
22	eLearning / E-Learning - Broad definition of the field of using technology to deliver learning and training programs. Typically used to describe media such as CD-ROM, Internet, Intranet, wireless and mobile learning. Some include Knowledge Management as a form of e-learning.	2002	e-learning guru	1					1	1				1	1	D	http://elearningtech.blogspot.com/2007/10/elearning-defined.html	
23	E-Learning is content and instructional methods delivered on a computer (whether on CD-ROM, the Internet or an intranet), and designed to build knowledge and skills related to individual or organizational goals.	2002	Ruth Clark, e-Learning Developer's Journal, Sept. 2002	1						1				1	1	A	http://www.cognitivedesignsolutions.com/E-Learning1.htm	
24	The delivery of a learning, training	2003	Derek	1				1	1	1				1		A	http://derekst	

No	Definition	Year	Author	Technology Context		Knowledge Context		REPEATED TERMS						Author's assessment		Source	web link
				Electronic	Network	KN	Learning	Electronic	Learning	Internet	Network	Term	KN	UNS	STSF		
	or education program by electronic means. E-learning involves the use of a computer or electronic device (e.g. a mobile phone) in some way to provide training, educational or learning material. E-learning can involve a greater variety of equipment than online training or education, for as the name implies, "online" involves using the Internet or an Intranet. CD-ROM and DVD can be used to provide learning materials.		Stockley, 2003														ockley.com.au/elearning-definition.htm
25	e-Learning is defined as learning with the aid of information and communications technology tools. These may include the Internet, intranets, computer-based technology, or interactive television. They may also include the use of e-technology to support traditional methods of learning, for example	2003	Department for Education and Skills, 2003	1				1	1	1				1	I	-	

No	Definition	Year	Author	Technology Context		Knowledge Context		REPEATED TERMS						Author's assessment		Source	web link
				Electronic	Network	KN	Learning	Electronic	Learning	Internet	Network	Term	KN	UNS	STSF		
	using electronic whiteboards or video conferencing.																
26	If someone is learning in a way that uses information and communications technologies (ICTs), they are using e-Learning.	2003	Department for Education and Skills, 2003	1					1						1	1	http://www.rveel.sussex.ac.uk/showpage.php?page=17

No	Definition	Year	Author	Technology Context		Knowledge Context		REPEATED TERMS						Author's assessment		Source	web link
				Electronic	Network	KN	Learning	Electronic	Learning	Internet	Network	Term	KN	UNS	STSF		
27	<p>Brook Manville defines e-learning as including not only Internet-published courseware, but also the tools for managing, modularizing and handling the following:</p> <ul style="list-style-type: none"> • Different kinds of content and learning objects (including both electronic and non-electronic forms, and even traditional classroom instruction). • Just-in-time and asynchronous learning, such as virtual labs, virtual classrooms and collaborative work spaces. • Simulations, document repositories and publishing programs. • Tools for prescribing learning, managing development pathways and goals and handling e-commerce and financial transactions related to learning. • The utilities and capabilities for supporting informal learning, mentoring, communities of practice and other "non-training" interventions. 	2003	Brook Manville, 2003					1	1						1	A	-

No	Definition	Year	Author	Technology Context		Knowledge Context		REPEATED TERMS						Author's assessment		Source	web link	
				Electronic	Network	KN	Learning	Electronic	Learning	Internet	Network	Term	KN	UNS	STSF			
28	Learning that is done via a computer.	2004	FastFind, 2004						1						1		V	http://www.fastfind.com/education/EdUGlossary.aspx
29	Learning conducted via electronic media, especially via the Internet	2004	Oxford English Dictionary, 2004	1				1	1	1					1		D	http://en.wiktionary.org/wiki/e-learning
30	The delivery and administration of learning opportunities and support via computer, networked and web-based technology to help individual performance and development, undertaken in or linked to the workplace.	2004	Becta report, 2004			1			1		1				1		I	-

No	Definition	Year	Author	Technology Context		Knowledge Context		REPEATED TERMS							Author's assessment		Source	web link
				Electronic	Network	KN	Learning	Electronic	Learning	Internet	Network	Term	KN	UNS	STSF			
31	Elearning is a broad combination of processes, content, and infrastructure to use computers and networks to scale and/or improve one or more significant parts of a learning value chain, including management and delivery. Originally aimed at lowering management cost while increasing accessibility and for measurability of employees, elearning is increasingly being used to include advanced learning techniques such as simulations and communities of practice and to include customers and vendors as well.	2004	Clark Aldrich, 2004						1			1				1	A	
32	The use of innovative technologies and learning models to transform the way individuals and organizations acquire new skills and access knowledge.	2004	Moeng, 2004			1			1				1	1			A	

No	Definition	Year	Author	Technology Context		Knowledge Context		REPEATED TERMS						Author's assessment		Source	web link
				Electronic	Network	KN	Learning	Electronic	Learning	Internet	Network	Term	KN	UNS	STSF		
33	E-learning is learning that is enabled or supported by the use of digital tools and content. It typically involves some form of interactivity, which may include online interaction between the learner and their teacher or peers. E-learning opportunities are usually accessed via the Internet, though other technologies such as CD-ROM are also used.	2004	New Zealand's Ministry of Education, 2004	1						1					1	I	-
34	e-Learning is a portmanteau term covering: A style of learning with a particular focus on technology-mediated interactivity and collaboration. The use of computer technology in learning with a particular focus on internet technology. The set of skills that enables learners to exploit technology in order to develop understanding or capability.	2004	University of Sussex	1					1	1			1			U	http://www.riveel.sussex.ac.uk/about.php

No	Definition	Year	Author	Technology Context		Knowledge Context		REPEATED TERMS						Author's assessment		Source	web link	
				Electronic	Network	KN	Learning	Electronic	Learning	Internet	Network	Term	KN	UNS	STSF			
35	A learning environment supported by continuous and collaborative processes focused on increasing individual and organizational performance.	2005	UK Training Foundation, 2005			1	1		1						1		I	http://www.reevee.sussex.ac.uk/showpage.php?page=19
36	E-Learning means "electronic learning" — it refers to a wide range of applications and processes designed to deliver instruction through electronic means. Usually this means over the Web, however it also can include CD-ROM or video-conferencing through satellite transmission. The definition of E-learning is broader than, but includes, "online learning," "Web-based training," and "computer-based training." Most importantly, it signals the paradigm shift in education and training that is in progress.	2005	Cognitive Design Solution, 2005	1				1	1						1		W	http://www.cognitivedesignsolutions.com/E-Learning1.htm

No	Definition	Year	Author	Technology Context		Knowledge Context		REPEATED TERMS						Author's assessment		Source	web link
				Electronic	Network	KN	Learning	Electronic	Learning	Internet	Network	Term	KN	UNS	STSF		
37	E-learning is the unifying term to describe the fields of online learning, web-based training, and technology-delivered instruction.	2006	Ageless Learner, 2006	1					1					1		I	http://agelesslearner.com/intros/elearning.html
38	E-learning - Also called CBT (see the following definition). E-learning is a general term that relates to all training that is delivered with the assistance of a computer. Delivery of e-learning can be via CD, the Internet, or shared files on a network. Generally, CBT and E-learning are synonymous, but CBT is the older term, dating from the 1980s. The term E-learning evolved from CBT along with the maturation of the Internet, CDs, and DVDs. E-learning also includes Internet-based Learning, Web-based Learning, and Online Learning.	2006	Education Resources /E-learning glossary	1					1	1	1	1		1		D	http://www.hecatalyst.org/resource/2006/04/21/E-learning-glossary/

No	Definition	Year	Author	Technology Context		Knowledge Context		REPEATED TERMS						Author's assessment		Source	web link	
				Electronic	Network	KN	Learning	Electronic	Learning	Internet	Network	Term	KN	UNS	STSF			
39	E-learning is a means of education that incorporates self-motivation, communication, efficiency, and technology. Because there is limited social interaction, students must keep themselves motivated. The isolation intrinsic to e-learning requires students to communicate with each other and the instructor frequently to accomplish their assigned tasks. E-learning is efficient as it eliminates distances and subsequent commutes. Distance is eliminated because the e-learning content is designed with media that can be accessed from properly equipped computer terminals, and other means of Internet accessible technology.	2006	Matt Comerchero, 2006			1	1								1		A	http://iit.bloomu.edu/Spring2006_eBook_files/eBook_spring2006.pdf
40	eLearning: Internet-enabled learning that encompasses training, education, just-in-time information, and communication.	2007	College of Engineering, Wayne				1		1	1					1		U	http://www.eng.wayne.edu/page.php?id=1263

No	Definition	Year	Author	Technology Context		Knowledge Context		REPEATED TERMS							Author's assessment		Source	web link
				Electronic	Network	KN	Learning	Electronic	Learning	Internet	Network	Term	KN	UNS	STSF			
			State University, 2007															
41	<p>E-Learning is the learning process created by interaction with digitally delivered content, services and support.</p> <p>Some categories of E-Learning:</p> <ul style="list-style-type: none"> -On-Demand e-learning: 'jukeboxes' of content available when required. -Live On-Line e-learning: multiple learners in multiple sites simultaneously. -Learning Objects: granular 'chunks' of learning material. -On-Line Coaching: access to subject matter expertise. -Knowledge Bases: database access to learning content in a searchable environment. 	2007	Imperial College London, 2007						1				1	1	U	http://www3.imperial.ac.uk/ict/services/teachingandresearchservices/elearning/aboutelearning/elearning_glossary		

No	Definition	Year	Author	Technology Context		Knowledge Context		REPEATED TERMS						Author's assessment		Source	web link
				Electronic	Network	KN	Learning	Electronic	Learning	Internet	Network	Term	KN	UNS	STSF		
	<p>-Learning Architectures: structures for developing and delivering E-Learning.</p> <p>-Simulation Based Learning: learning via simulated experience.</p> <p>-Blended Learning: combining face-to-face classes with technology delivered content.</p>																
42	e-Learning – services which are delivered, enabled or mediated by ICT for the purposes of delivering education, and the technology and services which help create, manage and deliver those activities.	2007	Oxford University Information and Communications Technology Strategic Plan, 2005-06 to 2009-10											1	1	U	www.ict.ox.ac.uk/strategy/plan/plan.xml.ID=appF

No	Definition	Year	Author	Technology Context		Knowledge Context		REPEATED TERMS						Author's assessment		Source	web link
				Electronic	Network	KN	Learning	Electronic	Learning	Internet	Network	Term	KN	UNS	STSF		
43	(Electronic-LEARNING) An umbrella term for providing computer instruction (courseware) online over the public Internet, private distance learning networks or inhouse via an intranet.	2008	Teach Web Dictionary	1				1	1	1	1	1		1		D	http://www.teachweb.com/encyclopedia/defineterm.html?term=electronic-learning&x=&y=
44	E-learning, eLearning, (e) learning: the use of technological tools (primarily those that can be made available over networks such as the Internet) for education. E-learning is pedagogy that is empowered by digital technology. It may be offline (and non-networked) technologies on CD-Rom or DVD. E-learning usually includes digital resources and computer-interfaced communications as tools for learning.	2008	Marc Nichols						1	1	1				1	A	-

No	Definition	Year	Author	Technology Context		Knowledge Context		REPEATED TERMS						Author's assessment		Source	web link
				Electronic	Network	KN	Learning	Electronic	Learning	Internet	Network	Term	KN	UNS	STSF		
45	Learning using electronic means: the acquisition of knowledge and skill using electronic technologies such as computer- and Internet-based courseware and local and wide area networks.	2009	Encarta® World English Dictionary [North American Edition]	1				1	1	1	1		1	1	D	http://encarta.msn.com/enet/features/dictionary/DictionaryResults.aspx?refid=701705852	
46	E-learning is an approach to learning and development: a collection of tools and techniques utilizing digital technologies, which enable, distribute and enhance learning.	2009	Kenneth Fee, 2009						1					1	A	-	
47	Learning that is delivered, enabled or mediated using electronic technology for the explicit purpose of training in organizations.	2009	The Chartered Institute of Personnel and Development, UK, 2009				1	1	1					1	I	-	

No	Definition	Year	Author	Technology Context		Knowledge Context		REPEATED TERMS						Author's assessment		Source	web link	
				Electronic	Network	KN	Learning	Electronic	Learning	Internet	Network	Term	KN	UNS	STSF			
48	e-Learning can be used to deliver online courses and/or establish online learning communities. It supports flexible learning anywhere, anytime for anyone. Web-based training (e-Learning) allows instructors to update lessons and materials while CD-ROM based training caters for people who don't have internet access. These two e-Learning delivery methods provide students with interactive, cost-effective training.	2009	Queensland Media Group PTY LTD	1					1						1		V	http://www.qmg.com.au/page/glossary
49	An umbrella term that is used for providing computer instruction (courseware) online over the public Internet, private distance learning networks, or in-house via an intranet.	2009	WSL - Weizman Software Localization	1					1	1	1	1			1		V	http://www.weizman.co.il/main.asp?sel_nav1=72&sel_nav2=122&sel_header=glossery&cat=site

No	Definition	Year	Author	Technology Context		Knowledge Context		REPEATED TERMS						Author's assessment		Source	web link	
				Electronic	Network	KN	Learning	Electronic	Learning	Internet	Network	Term	KN	UNS	STSF			
50	Learning activities based on any electronic format.	2009	Technology, Inc.					1	1						1		V	http://www.teach-nology.com/glossary/terms/e/
51	Gaining popularity in the early 2000s, the term e-learning refers to any electronically assisted instruction, but is most often associated with instruction offered via computer and the Internet.	2009	State University	1				1	1	1			1		1		U	http://education.stateuniversity.com/pages/1917/Distance-Learning-in-Higher-Education.html
52	e-learning-The delivery of content via all electronic media, including the Internet, intranets, extranets, satellite, broadcast, video, interactive TV, and CD Rom. E-learning encompasses all learning undertaken, whether formal or informal, through electronic delivery.	2009	elearningeurope.info	1				1	1	1					1		I	http://www.elearningeurope.info/main/index.php?page=glossary

No	Definition	Year	Author	Technology Context		Knowledge Context		REPEATED TERMS							Author's assessment		Source	web link
				Electronic	Network	KN	Learning	Electronic	Learning	Internet	Network	Term	KN	UNS	STSF			
53	A method of instruction that is generally computer assisted and is delivered via CD/DVD ROM, audio, videotape or the Internet. E-learning can be taught either synchronously (real-time interaction between instructor and student) or asynchronously (student can learn on their own time).	2009	VcAlberta	1					1	1					1		V	http://www.vcalberta.ca/tools/glossary/index.cfm?Letter=E
54	A form of learning utilizing a network for delivery and interaction. The learning can be on an individual basis, guided or instructed by a computer, or as part of a class. There is even no need for online classes to meet in real time.	2009	internet marketing magician						1			1				1	V	www.internetmarketingmagician.com/Internet_And_Computer_Jargon.html
55	E-learning is an approach to facilitate and enhance learning through the use of devices based on both computer and communications technology, including personal computers, CD-ROMs, digital	2009	Career Partners International	1					1						1		I	www.cmapros.com/glossary.php

No	Definition	Year	Author	Technology Context		Knowledge Context		REPEATED TERMS						Author's assessment		Source	web link
				Electronic	Network	KN	Learning	Electronic	Learning	Internet	Network	Term	KN	UNS	STSF		
	television, and more.																
56	In this report e-learning refers to the provision, administration and support for 'off-the-job' and 'on-the-job' training using information and communication technologies such as stand-alone and networked computers, Internet-based technologies and mobile devices.	2009	e-Learning in Industry							1	1				1	V	ito.elearning.ac.nz/mod/glossary/view.php
57	E-learning - training or learning that takes place via the web. Training programmes can be conducted partially or fully using the Internet.	2009	Graduate Recruitment Bureau		1				1	1				1	I	http://www.grb.uk.com/263.0.html	

No	Definition	Year	Author	Technology Context		Knowledge Context		REPEATED TERMS						Author's assessment		Source	web link		
				Electronic	Network	KN	Learning	Electronic	Learning	Internet	Network	Term	KN	UNS	STSF				
58	<p>A somewhat different approach carries it beyond the Internet to the computer itself. ASTD's Learning Circuits defines it as "electronic learning" covering a wide set of applications and processes, such as web-based learning, computer-based learning, virtual classrooms, and digital collaboration. It includes the delivery of content via internet, intranet/extranet (LAN/WAN), audio- and videotape, satellite broadcast, interactive TV, and CD-ROM.</p> <p>Thus, this definition defines elearning is basically anything that is electronic.</p>	2009	ASTD's Learning Circuits	1				1	1	1					1		V	ASTD's Learning Circuits	
59	<p>We define eLearning as ...A learning environment supported by continuously evolving, collaborative processes focused on increasing</p>	2009	Managers forum				1		1					1		1		W	http://managersforum.com/Index.asp

No	Definition	Year	Author	Technology Context		Knowledge Context		REPEATED TERMS						Author's assessment		Source	web link
				Electronic	Network	KN	Learning	Electronic	Learning	Internet	Network	Term	KN	UNS	STSF		
	individual and organizational performance. Effective eLearning thrives at the nexus of web usability, communication, relationship, document, and Knowledge Management tools.																
60	e-Learning is a very broad and nebulous term that means different things to different people. For the purposes of the Benchmarking Exercise we are considering e-learning as follows: The use of electronic technologies in an integrated and directed way to encourage students to engage actively with their learning.	2009	University of Gloucestershire			1		1	1			1		1		U	
61	eLearning is the European programme in the field of ICT for education and training which promotes the inclusion of ICT in all learning systems and environments (formal, non-formal, informal -	2009	The European Union 'E-learning' programme													I	

No	Definition	Year	Author	Technology Context		Knowledge Context		REPEATED TERMS						Author's assessment		Source	web link	
				Electronic	Network	KN	Learning	Electronic	Learning	Internet	Network	Term	KN	UNS	STSF			
	school higher and adult education and training).																	
62	e-learning is the use of digitally-delivered services and content to help people learn.	2009	The BeLA definition of e-learning	1					1						1		V	
63	E-Learning refers to Web-based training — anywhere, anytime, self-paced instruction — that is presented over the Internet to browser-equipped learners.	2009	Cited in Cognitive Design Solutions, 2005		1					1					1		W	http://www.cognitivedesignsolutions.com/ELearning/E-Learning1.htm
64	E-Learning is Internet-enabled learning. Components can include content delivery in multiple formats, management of the learning experience, and a networked community of learners, content developers and experts. E-Learning provides faster learning at reduced costs, increased access to learning,	2009	Cisco Systems			1			1	1	1				1		V	http://www.cognitivedesignsolutions.com/ELearning/E-Learning1.htm

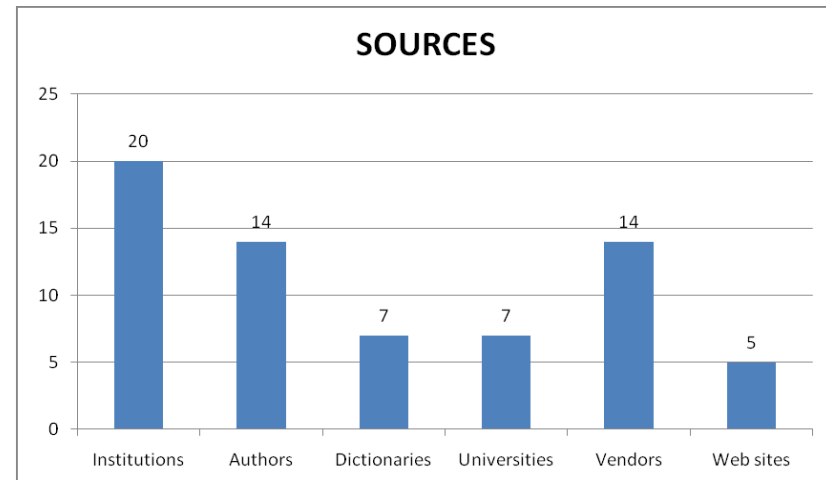
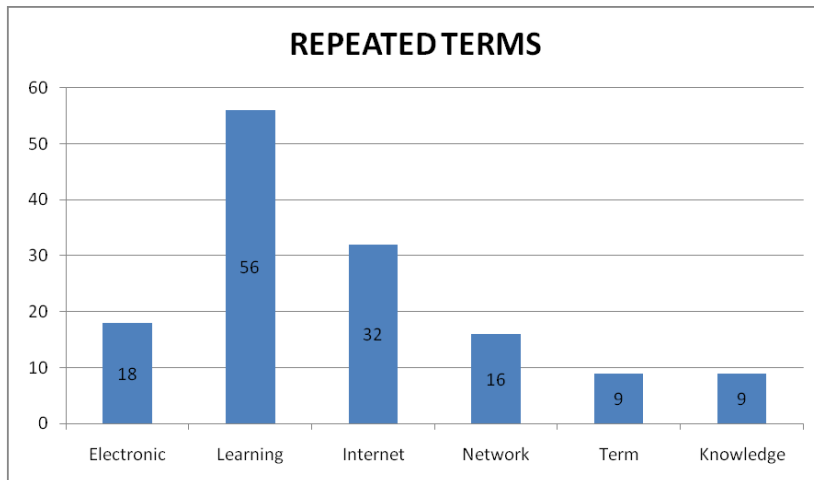
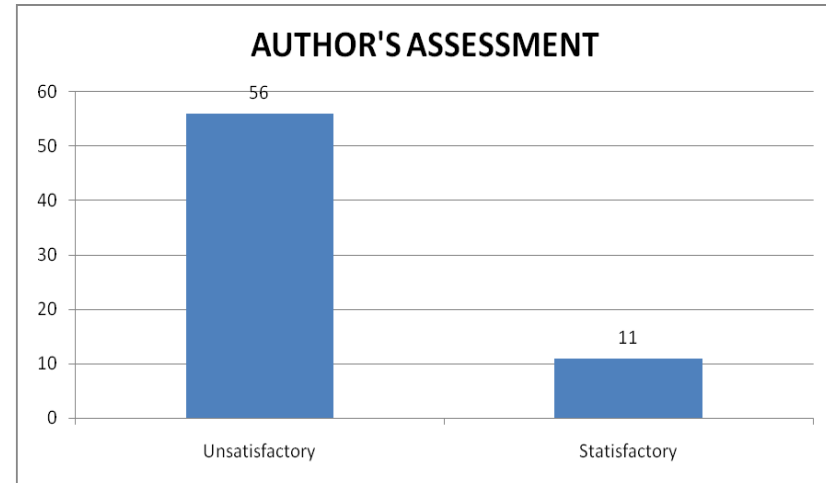
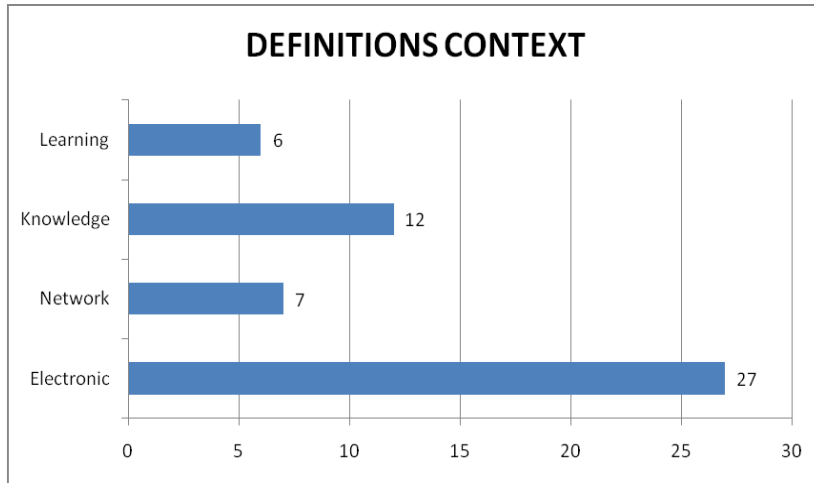
No	Definition	Year	Author	Technology Context		Knowledge Context		REPEATED TERMS						Author's assessment		Source	web link
				Electronic	Network	KN	Learning	Electronic	Learning	Internet	Network	Term	KN	UNS	STSF		
	and clear accountability for all participants in the learning process. In today's fast-paced culture, organizations that implement e-Learning provide their work force with the ability to turn change into an advantage.																
65	E-learning is an innovative approach for delivering electronically mediated, well-designed, learner-centered, and interactive learning environments to anyone, anytime, anywhere by utilizing the Internet and digital technologies in concert with instructional design principles.	2009	Badrul H. Khan					1	1	1						A	http://www.cognitivedesignsolutions.com/E-Learning1.htm
66	Best practices for learning in the new economy, implying but not requiring benefits of networking and computers such as anywhere/anytime delivery, learning objects, and personalization. Learning on Internet time. Often includes Information and	2009	InternetTime.com				1		1	1	1			1		W	http://www.cognitivedesignsolutions.com/E-Learning1.htm

No	Definition	Year	Author	Technology Context		Knowledge Context		REPEATED TERMS						Author's assessment		Source	web link
				Electronic	Network	KN	Learning	Electronic	Learning	Internet	Network	Term	KN	UNS	STSF		
	Learning Technology (ILT).																
67	E-Learning describes the way new information and communications technologies (ICT) are set to reinvent education and learning in a digital world. In short, it means Internet enabled learning: an exciting range of opportunities for educators and learners alike to use new skills and tools to prosper in an information society.	2009	(Microsoft/Arthur Andersen: The e-Learning Funding Guide: a guide to planning and funding e-Learning in Schools, 2000)	1					1							V	http://www.cognitivedesignsolutions.com/ELearning/E-Learning1.htm
TOTAL:				27	7	12	6	18	56	32	16	9	9	54	11		

LEGEND:
 KN – Knowledge
 UNSF – Unsatisfactory
 STSF – Satisfactory

Column ‘Source’:
 I – Institution
 A – Authors
 D – Dictionaries
 U – Universities
 V – Vendors; W – Web

Figure Appendix I



Appendix II

Survey questionnaire aimed at Japanese companies

This survey is a PhD research project of Tsvetomira Ivanova, PhD student at Hitotsubashi University, Tokyo.

The author is conducting a survey of professionals that have used or may be interested in using **e-learning** in corporate training as well as in other business processes in the company. Your answers to these questions are intended to help the author expand the area of e-learning utilization in company processes and especially in the **onboarding process**. The survey is divided into five main parts.

This survey is designed for a diverse audience, so some questions may not apply directly to you. Please respond to only the questions which you feel comfortable answering.

The author is interested in your unique experiences and attitudes and your participation in this survey is extremely important. The full completion takes only about 10-15 minutes. Your responses to the survey questions will remain confidential. Any personally identifiable information will not be released to any outside parties.

A. GENERAL INFORMATION

This part consists of general questions about your job profile and company.

1. **What is your job title (please specify):**

2. **How long have you been involved in corporate training, HR management or related functions? Please tick one.**

- | | |
|--|--|
| <input type="checkbox"/> Less than one year
<input type="checkbox"/> 1-2 years
<input type="checkbox"/> 3-5 years
<input type="checkbox"/> 6-10 years | <input type="checkbox"/> 11-20 years
<input type="checkbox"/> More than 20 years
<input type="checkbox"/> Not Applicable |
|--|--|

3. **What is the primary focus of your company?**.....

4. **How many total employees are there in your company?**

- | | |
|--|---|
| <input type="checkbox"/> 1-50 employees
<input type="checkbox"/> 51-100 employees
<input type="checkbox"/> 101-500 employees | <input type="checkbox"/> 501-1000 employees
<input type="checkbox"/> 1000-10 000
<input type="checkbox"/> above |
|--|---|

B. e-learning

This part contains of questions directly linked to the company training policy/strategy as well as to the usage of e-learning tools or systems in your company. Some questions may not apply directly to you.

5. **Please indicate how much you agree or disagree with the following statements. Use the 1-5 scale to the right of each item, where 1 is Strongly Disagree and 5 is Strongly Agree.**

Statement	1	2	3	4	5	I do not know
a. My company's commitment to learning is strong.						
b. My company's interest in e-learning is strong.						
c. My company's commitment to e-learning is strong.						

6. Please indicate your role in relationship to the use of e-learning in your company. Please tick one.

- User or facilitator of e-learning initiatives
 Neither a user nor a decision-maker (please specify):

 Decision-maker regarding e-learning initiatives

 Both a user and decision-maker

7. At what level are decisions made about the purchasing of e-learning systems and related hardware/software? Please tick all that apply.

- HR Section/Training Department
 Other (please specify):
 Chief Information Section Department
 I do not know
 Functional Department (e.g., Financing, Sales, New places/departments of allocation)

8. What are the reasons limiting the adoption of e-learning at your company? Please tick all that apply.

<u>Cultural/Organizational</u>	<u>Technological</u>
<input type="checkbox"/> Too much time required of learners to take e-learning courses <input type="checkbox"/> Lack of organization support <input type="checkbox"/> Cultural resistance to IT technology <input type="checkbox"/> Difficult to measure ROI <input type="checkbox"/> Perceptions of high cost <input type="checkbox"/> Other (please specify):..... <input type="checkbox"/> I do not know	<input type="checkbox"/> Lack of support for technical problems and assistance with courseware development <input type="checkbox"/> Lack of software <input type="checkbox"/> Outdated software <input type="checkbox"/> Lack of hardware <input type="checkbox"/> Outdated hardware <input type="checkbox"/> Limited bandwidth <input type="checkbox"/> Other (please specify): <input type="checkbox"/> I do not know

9. What e-learning system(s) or tool(s) does your company use?

- We use our own proprietary system or tool(s).
 We do not use.
 We use (Please, specify):.....

10. Where do learners of your company most often access e-learning? Please tick one.

- In the office
 Other (please specify):
 At home
 I do not know
 Mobile access

f. Online asynchronous discussion forums (e.g., bulletin board)					➔			
g. Online discussion forums with real-time or synchronous chat					➔			
h. Tools to provide interactive feedback, comments, and annotations of learners' work					➔			
Web Resources	Low	Medium	High	I don't know		Yes	No	I don't know
i. Search engines (i.e., Yahoo, Google, etc.)					➔			
j. Digital libraries (eBooks, audiobooks)					➔			

C. ONBOARDING

This part consists of questions about a company process called **onboarding**. The author thinks the onboarding process is a measurable process of adapting new hires to the job that is related to any strategy. **The author virtually (theoretically gives on this process two main functions) divides this process into two main parts.**

- **socialization function (introduction to company culture and company history, company language, company policies)**
- **performance proficiency function (introduction to work performance requirements)**

15. Does your company have an adopted onboarding process? If YES, how do you call it? Please tick one.

- Yes, we call it.....

 No

 I do not know

16. Could you be so kind to give us a definition of onboarding?

.....

17. If you have an onboarding process in your company, how long does it take?

- Less than 1 month

 Over 6 months
 1 – 3 months

 Other (please specify):
 3 – 6 months

 I do not know

18. How many new employees does your company hire each year? Please write down the number.

2006	2007	2008

19. What is the turnover percentage of new hires in your company at the moment?

- 0 - 4%

 15 – 19%
 5 – 9%

 We do not measure turnover
 10 – 14%

20. If you measure, how much on average are you spending to recruit each new hire:

2007:.....

2008:.....

21. Who currently 'owns' onboarding in your company? Please tick.

- Human Resources
- Training & Development
- Each department
- Other (please specify):
- I do not know

22. What best describes the amount of time your departments spend conducting onboarding, including all "behind the scenes" activities?

- Too much time
- Too little time
- An appropriate amount of time
- I do not know

23. How much on average are you spending to onboard each new hire (please, specify):

24. Which of the following statements would you say is true? Please tick.

A. We consider that the onboarding process performs two main functions in adaptation of new employees. Socialization and performance proficiency.			
<input type="checkbox"/> True	<input type="checkbox"/> False	<input type="checkbox"/> Either true or false	<input type="checkbox"/> I do not know
B. In my estimation, the time it takes a new employee to become productive is satisfactory.			
<input type="checkbox"/> True	<input type="checkbox"/> False	<input type="checkbox"/> Either true or false	<input type="checkbox"/> I do not know
C. Preparations are ready the day a new employee starts (workspace, computer, tools, etc).			
<input type="checkbox"/> True	<input type="checkbox"/> False	<input type="checkbox"/> Either true or false	<input type="checkbox"/> I do not know
D. We expend more effort recruiting a new employee than onboarding that new employee.			
<input type="checkbox"/> True	<input type="checkbox"/> False	<input type="checkbox"/> Either true or false	<input type="checkbox"/> I do not know
E. Think back to when you were a new employee at the company, what was your impression of the onboarding program?			
<input type="checkbox"/> Excellent	<input type="checkbox"/> Good	<input type="checkbox"/> Poor	<input type="checkbox"/> We do not have one

25. Do you currently assess the effectiveness of your onboarding program?

- Yes
- No
- I do not know

26. When do you think should new hire adaptation activities/procedures begin?

- On the first working day
- Immediately after accepting the offer.
- Whenever the new hire desires
- After accepting the offer and before the first working day
- Other (please specify).....

27. Do you think that socialization function activities of onboarding can start before the new employee’s first day in the company?

- Yes, but we still do not have any experience with that.
- Yes, we already have such a practice.
- No, it cannot happen without the participation of the people responsible for that and without face to face communication.

28. Do you think that some other onboarding activities can start before new employee’s first day in the company?

- No
- Yes (please, specify):

29. For each item, please answer two questions. In column A tick the response that best describes the usefulness of the item for onboarding in your company. Next, in column B, indicate whether you or your company actually uses these tools, resources and activities.

Onboarding tools, resources and activities	A. Degree of Usefulness				B. Do you use?		
	Low	Medium	High	I do not know	Yes	No	I do not know
a. Learning and Development Plans – Participants develop and discuss their development plans with colleagues and managers.					➔		
b. Rotational Assignments					➔		
c. Leadership development conferences					➔		
d. Team building activities					➔		
e. Tools to automate new hires’ communication					➔		
f. Tools that automate the forms process of onboarding					➔		
g. Reporting tools to track the progress in getting the new hires up to speed					➔		
h. Portal for new employees					➔		

D. Onboarding and e-learning

The main goal of the author is to find direct connection between the onboarding process and e-learning.

30. Do you have any experience with the usage of e-learning in the onboarding process of your company?

- No
- Yes (please, specify):

31. Do you think that e-learning can improve the onboarding process of your company?

Yes, by providing new employees access to company information before their first day in the company. Yes (please specify):

Yes, but only when introducing **work performance requirements**. No (please specify):

32. Do you use any information technology in your onboarding process? Please tick all that apply.

- Yes, our official web site provides information about the company's main activity, structure, mission, history.
- Yes, we use multimedia technologies.
- Yes, we have a web portal that provides new employees with documentation processing service.
- No, the adaptation process (onboarding) is entirely entrusted to people.
- Yes, we have a special new employee orientation web portal.
- Other (please specify):

33. In the columns please choose the degree of usefulness of transferring activities of the onboarding process through e-learning before new employee's first day in the company?

Onboarding Activities	Degree of usefulness		
	High	Medium	Low
a. Introduction to company culture			
b. Introduction to company history			
c. Introduction to company language			
d. Introduction to company structure			
e. Introduction to company policies			
f. Brainstorming or idea sharing			
g. Introduction to company relationships/Group projects and teams			
h. Introduction to working standards, measurements, employee responsibilities			
i. Job performance (Work related skills)			
j. Coaching			
k. Other (please specify)			

34. Do you think your e-learning system should be compatible with your existing ERP system?

Yes No

E. FINAL

Personal information

35. What is the highest degree you currently hold? Please tick one.

- High School Diploma
- Baccalaureate Degree
- Masters Degree
- All But Dissertation
- Doctoral Degree

36. How old are you? Please tick one.

- 20-35 years
- 36-50 years
- 51-65 years
- 66 + years

37. What is your gender?

- Male
- Female

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