RAPID
E-LEARNING
MASTER

Co-funded by the
Erasmus+ Programme
of the European Union

RAPID E-LEARNING
METHODOLOGY v.1

nf.pl
Obserwatorium Zarządzania
HIC Slovakia s.r.o.
TREBAG
Property and Projectmanagement Ltd

The Consortium implementing this project consists of:

- Fundacja Obserwatorium Zarządzania (FOZ, Poland)
- HIC Slovakia
- Nowoczesna Firma S.A. (NF, Poland)
- Trebag (Hungary)

Authors:

- Reinhold Hofmann (HIC)
- Nóra Kövesd (Trebag)
- Piotr Maczuga (MOF)
- Marta Mazur (MOF)
- Anna Linda Orosz (Trebag)
- Justyna Dobaj (NF)
- Karolina Sikorska (NF)

Warsaw 2015, Rapid e-Learning – Methodology

This project has been funded with support from the European Commission.
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Introduction

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1. INTRODUCTION

This methodology was established as part of the "Rapid e-Learning Master" project, directed in particular to small, medium and large enterprises. The aim of the project is to spread awareness of the rapid e-learning method and have a positive impact on companies by offering a new method of training. The project consortium consists of four organizations: Nowoczesna Firma S.A. (Poland), Management Observatory Foundation (Poland), Trebag (Hungary) and HIC Slovakia (Slovakia).

Rapid e-Learning Master is a 36 month project (from September 2014 to August 2017) which is funded by the Erasmus+ – European Union program.

Another aim of the project is to develop a methodology and a guide for the effective realization of rapid e-learning (REL) courses in SMEs and big companies. It addresses the issue of efficient use of e-learning methods in companies. Rapid e-learning is based on short training modules conducted using specialized tools, such as Adobe Captivate, Articulate Storyline or Lectora. It responds to a growing demand to provide more relevant and attractive learning opportunities for companies.

The desired impact of the project is to: broaden the knowledge about rapid e-learning, deliver an effective framework for rapid e-learning for small, medium-sized and big enterprises, increase the awareness of the need for rapid e-learning and improve organization competitiveness. This will lead to longer term benefits, such as an increase in staff efficiency and reduction of time and costs for in-company training. The next potential long term benefit is to make rapid e-learning more popular in partnering countries in order to have a positive influence on company development.

Rapid e-Learning Methodology – what is it?

We present a publication entirely devoted to the issue of rapid e-learning, which is a new and growing form of learning in Poland, Hungary and Slovakia. The research carried out by the consortium found, among the target group, that only a small percentage of the interviewees had ever dealt with rapid e-learning. This is consistent with the results of desk research on the topic found on the Internet and other available sources carried out by project partners. For respondents the most popular term was e-learning. On the other hand, sometimes people are involved in rapid e-learning activities without knowing it (they think that it's still only classic e-learning). It may be more popular than we think. Anyway, rapid e-learning is becoming more and more popular and the authors of this publication are sure that the methodology will be very useful, and not only for the beginners.

The reader, in the beginning, will get to know the short history of rapid e-learning, the main differences between rapid e-learning and classic e-learning, technological determinants and the current situation in Europe regarding rapid e-learning. Then we'll present the andragogical aspects of rapid e-learning e.g. the types of learners, learning styles, advantages and challenges, which are very important for this subject. After that, a set of REL tools will be introduced, including the advantages and disadvantages of each tool, tips for use and criteria which have to be met to make sure that the tool is valuable. Another chapter is about the organization of REL training, from preparing materials to training evaluation and follow up. Last, but not least, the authors

have prepared a strategy on how to implement rapid e-learning in the company. It includes how to define REL objectives, what to expect and what to avoid during the whole process and how it should look.

1.1 What is rapid e-learning?

In Wikipedia we find:

> **Rapid learning** (or Rapid e-Learning Development) has traditionally referred to a methodology to build e-learning courses rapidly. The term "rapid learning" is also sometimes used as a synonym for "short-form" or "bite-size" learning. In this usage, it refers not to how rapidly a module can be created by an e-learning developer, but how rapidly it can be viewed by a learner.

Surprisingly, the German version of Wikipedia provides a more modern definition (translated by the project team):

In rapid e-learning prototypical results are achieved in a very short time, which encourage the active involvement of users and a clear understanding of user and task requirements. It is the rapid creation of content, ranging from synchronous video transmission and recording of events to the automatic conversion of standard formats, or the compilation of existing course materials on easy-to-use web front-ends.

Let's try to divide up the term into parts to better understand it:

Firstly, it is rapid. The intention is to spend no more than three weeks' time to prepare and conduct the course, and the learning experience is rapid, since the time learners' need to obtain new skills/know-how can be reduced (in fact the latter aspect is more applicable).

Second, there is "e". The learning experience is based on the use of electronic media.

Third, there is Learning. As a result of participants being exposed to the e-learning experience, they should have improved their skills or have more knowledge.

When it comes to the methods of creating rapid e-learning, the most popular and at the same time the most controversial, is the creation of a rapid e-learning course in the form of a simple PowerPoint presentation. PowerPoint is the reason why, to a large degree, REL has become so popular. It is very easy to use and does not take much time. However, some experts claim that a course consisting of PowerPoint slides does not make it rapid learning (for them it's just a PP presentation). Moreover, rapid learning is criticized by some specialists who do not believe in its efficiency. According to them, there is a huge misunderstanding regarding PP slides and rapid learning. They argue that PowerPoint slides work well in a classroom when there is a teacher/trainer who presents the knowledge verbally together with a presentation. When there is only a presentation, it ceases to work. Regardless of such opinions, PP is still used in the process of creating REL, often together with some additional features (e.g., slides with recorded narration, screencasts and tests when used with appropriate software).

Of course Power Point is not the only REL tool. There are a lot of authoring tools on the market, such as free and paid software (Lectora, Articulate Storyline, Moodle) as well as internet tools (Prezi) which can be used to build rapid e-learning courses. These are described in chapter 3.

Rapid e-learning is closely connected with knowledge management because it is a method of disclosure of hidden knowledge within a company, where subject matter experts prepare the content for courses. In this way, the knowledge is no longer "property" belonging to one person. Knowledge management is defined as "a concept in which an enterprise gathers, organizes, shares and analyzes the knowledge of individuals and groups across the organization in ways that directly affect performance"(Seiner, 2001). Some claim that it is "the process through which organizations generate value from their intellectual and knowledge-based assets"(Levinson, 2007), and for others it is "simply the transfer of knowledge from one person to another, the result of which enables the recipient to benefit from the collected wisdom of the more experienced members of an organization or group" (Villegas, 2000). All in all, rapid e-learning is definitely one of the ways in which knowledge is shared with others. There are a lot of benefits of using knowledge management in companies:

- Minimization of loss of business opportunities in the company
- Knowledge remains in the company when employees leave the organization
- Staff develops their skills
- Time and money savings
- Increase in innovation
- Improvements in internal communication
- Increase in the flexibility of enterprise management and its competitiveness.

All of these benefits coincide with the advantages of rapid e-learning.

In conclusion, rapid e-learning is very useful tool. Consider the following factors:

- Rapid learning is a training method that can be prepared in less than three weeks. That is a big advantage of rapid learning when comparing, for example, with a typical e-learning course, in which preparation can take many months.
- Rapid learning courses include multimedia elements such as sound, animation, flash, videos and social elements directly built into the course.
- Learning pathways depend on the level of knowledge and the needs of the learners.
- Short production time also means lower costs than traditional e-learning courses.

The compact structure of rapid learning modules makes the process of learning easier. Knowledge is provided in small doses and the content is concrete. From the user's perspective, one deals with a more flexible model of learning (in contrast to classic e-learning, there are not inordinate numbers of presentation screens to deal with). It is also easier for the user to find time to develop necessary competencies.

However, the biggest challenge is to manage the whole process of rapid e-learning. Rapid learning is efficient, but it has to be administered by a really conscientious person. We also have to remember that companies operate in technologically constant environments; therefore existing tools have to be compatible with the new tools in the form of blended learning.

A brief history

Rapid e-learning is "a child" of e-learning, so to understand its origins, we should focus on e-learning. The history of e-learning began in the 80s in the United States, where the original version of e-learning appeared in the form of CBT, – Computer Based Training, or learning with the use of a computer. It was used in the Western Behavioral Sciences Institute and the New York Institute of Technology. CBT was characterized by a one-sided message based on materials gathered on digital media (usually by CD-ROM). The next stage was WBT – Web Based Training, or learning

with the use of the internet and popular e-books. It was, of course, connected with the growing popularity of the Internet. Companies started to share their content from CDs through electronic books online. After some time, e-learning pioneers decided to add interactive elements and coaching to e-books which made it very successful. From this time learners had a chance to communicate and interact with each other. In the end of the 90s, the first LMS – Learning Management Systems appeared based on a specially remodeled system – ERP (Enterprise Resource Planning). It offered ready-made platforms with features for logging, tracking progress and reporting results. It was a real breakthrough that facilitated the use of online courses and their management. Meanwhile, independently from LMS, virtual classrooms were launched which made e-learning popular in the field of education. The newest trend is blended learning, which is a combination of e-learning and virtual classrooms.

Since the 80s a lot of new e-learning tools, solutions and trends have appeared. One of them is rapid e-learning.

1.2 Rapid e-learning vs. e-learning

E-learning is a learning technique which uses multimedia technology, a computer network and the internet. E-learning can be "stationary" as support for traditional learning or distance learning. E-learning includes people, technologies and learning materials. Experts/trainers prepare the materials which are then presented with the use of the latest technology. The most important factor is that the technology makes the learning process easier and faster. There are many forms of e-learning and we can divide them into several aspects.

When it comes to the mode of participation, e-learning can take:

- **the asynchronous form** – one is learning whenever and wherever he wants, usually the independent work of an individual student who wants to gain new knowledge,
- **the synchronous form** – online learning in the form of a group meeting or
- **the form of blended learning** – a mix of traditional and distance learning.

E-learning can also be:

- **offline** – one is uploading the learning materials or/and
- **online** – with access to online materials.

On the other hand, now we have rapid e-learning which is a form of e-learning. To make it more comprehensible we can assume that e-learning is an interdisciplinary concept in which rapid e-learning, mobile learning and blended learning are included.

What is the main difference?

The main difference is related to the word "rapid". It is assumed that rapid e-learning courses should be prepared within 3 weeks.

Classical e-learning courses typically consist of multiple lessons. It may take up to half a year from concept to execution (and this is not out of the ordinary). A course which is composed of, let's say, 150 screens, is expensive to build and inflexible. The user logging into the course should go through the whole course with understanding, so it is a linear process.

Let's try to imagine a situation based on an insurance agent as the learner and the course is about personal data protection. Completion of such a course would take several hours. What if the agent needs specific knowledge later? Should he retake the entire course again? It is impossible to start from screen number 50, skipping the previous 49 screens. And what if the user decides to run through and pass the course quickly, without deeper thinking? No one really checks his involvement. Of course, an LMS system can measure how much time he has devoted to a training module, but is it really the essence of e-learning? We should also remember about situations when the substantive content of the course is changing (e.g. law changes in a particular field) – which makes it out of date. That causes extra costs for corrections and then we have to involve the learners in the process all over again.

With the constantly high turnover of both products and people, the key thing seems to be to provide the specific knowledge which a recipient needs at a specific time. Rapid learning assumes that we provide the knowledge when it's needed, rather than linearly. In classic e-learning we are talking about a linear path from A to Z. We start with A and end with Z, passing through B, C and D. We cannot go to K before we pass D. Using rapid learning we can start anywhere because knowledge is acquired in the context of necessity. Coming back to our personal data protection course, if one wants to familiarize themselves with a small piece of knowledge in a specific moment (e.g., how to store documents containing personal data) one does not have to pass the whole course, but go to a micro course instead. It lasts a few minutes and provides the needed information.

E-learning is often inefficient because the companies are often subject to the illusion that if someone has designed the entire learning path for the topic (from A to Z), the only thing they should do is update it from time to time. In reality, people who seek knowledge do not look for it in accordance with the planned scheme. Let's consider how we look for information on the Internet ourselves. We focus on the facts and skip information which is not useful.

To sum up, rapid e-learning courses differ from e-learning by the following:

- training modules can be prepared in less than 21 days
- creation (from a technical point of view) usually does not require specialized knowledge
- they are short
- the author of the course can be an expert of a specific subject
- creation does not require high input
- more useful in business than in education
- course content can be quickly updated
- REL is connected with knowledge management because it relies on disclosure of knowledge which may be hidden in an expert's mind.

1.3 Technological determinants

E-learning, in its rapid version, transfers a large part of the burden and responsibility for the results directly to the company. Simplification of procedures and a more efficient approach to the subject also translates to a simplified path between the need and its completion. Therefore, technological conditions play an important role.

On one hand, working with digital content requires good computers and extensive software packages. On the other hand, even office computers are increasingly more effective and software may be purchased in cheap license packages; and often payable in monthly installments, available as SaaS or can even be available in a freeware version. Therefore, e-learning tools are fairly accessible and can be scaled to fit any budget.

A person creating rapid e-learning material needs a decent computer (or laptop) and a good Internet connection. More and more content is distributed through the Internet, so the connection has to be stable and efficient, among others, in order to enable testing materials in their environment.

Equipping a computer with a specialized graphic card will be dependent on the complexity of the graphics. However, as a rule, we can assume that most authors of e-learning courses do not develop time-consuming 3D animations. In most cases, this element is insignificant.

With respect to software, the popular packages (such as Captivate, Articulate or Lectora) are sufficient as they allow for creation of light multimedia materials as well. It is also worth noting that these solutions support the popular SCORM and the increasingly popular TinCan API. For many customers this can be important, for example, in order to measure learners' progress.

With respect to multimedia, Flash is still very important, although losing popularity, and is still the most popular solution for creating animations with elements of interaction. However, many mobile devices do not support that technology, so the authors should keep that in mind. A good solution is to design content from the beginning on the basis of solutions with good future perspectives, such as HTML5.

The ability to prepare and present content on mobile devices is growing increasingly important. This does not mean only scaling the carrier size so that is it visible on a small phone screen, but one needs an entirely new technological and design approach. Mobile content should be responsive in relation to the device used to display it; navigation and interaction with the user should also be adjusted. In that context, it is also important for the content author to have the possibility to test it on various devices.

As presented above, rapid e-learning is not significantly different from e-learning in the area of access to equipment and software. The content authors need a good computer and software. However, for e-learning developers software is limited to programs used to create courses and is supported by graphic and animation software, while for rapid e-learning there are various other possibilities that may be used by the authors.

Technological solutions concerning synchronous trainings using audiovisual communication (webinars) are relatively new. However, the majority of them are quite cheap and available in the SaaS model (Software as a Service), which means that the user does not have to focus on technical aspects as the software is launched directly at the supplier's servers.

Year after year, the competencies connected with creating various video forms are becoming more useful. Good computers and knowledge of video postproduction and Internet content management are particularly useful.

There are many tools that a rapid e-learning author can use. Trends in designing such tools are making them increasingly intuitive and accessible. Nowadays, it is not surprising that those without specialized training can prepare content for a website or video.

1.4 Current Situation Brief (Europe/Partner countries)

In today's fast changing IT environment, new hypes and booms emerge every day. Rapid e-learning can be considered one of the more popular hypes, but it still has its respectable place in digital education, even if it hasn't reached equal popularity in all countries. In Slovakia the rapid e-learning concept is not common yet, but in Poland and Hungary the term rapid e-learning is known. While in Hungary it is still just a term that a few e-learning gurus know and understand, in Poland there are concrete cases of training companies offering courses in with a rapid e-learning structure (still, they are referred to as e-learning courses). As for the media representation of the trend, there is still much to do. In Poland there is one blog dedicated to rapid e-learning and it is mentioned in several other blogs as well. In Hungary and Slovakia the communication about rapid e-learning is rather weak.

In Central and Eastern European countries rapid e-learning has already been introduced in various sectors, but many time without the awareness that the applied structure methodologically is 'rapid e-learning'. It earned popularity in higher education, in the business sector (mostly in large companies), and in Poland it is increasingly appreciated by people working from a home office. In Hungary REL is practiced in the banking sector (ERSTE Bank) and there are examples of gamification styled e-learning developments which focus on key competencies (e.g., communication skills, financial skills).

Based on a series of interviews carried out in the three countries regarding the rapid e-learning method's possible uses in the business environment, it has been found that REL can support the companies' training processes relating to various fields, such as: newcomer training, quality standards, discrimination and mobbing, company policy, customer care, labor safety, sales and negotiation techniques, business ethics and process upgrading.

One of the number one steps towards spreading rapid e-learning in Central Eastern Europe is to focus on communicating and clarifying the meaning of the rapid e-learning concept; showing how it differs from old school e-learning.

1.5 SWOT

STRENGTHS	WEAKNESSES
Flexibility/adaptability – a key REL strength, howing the difference from "classic" e-learning enables quick response to changing learner needs	REL course may be inefficient/ inadequate if badly structured
Encourages use of tools/activities to speed the learning process	Risk of REL courses being uninteresting if not using attractive tools (media, gaming, interactive) when trying to lower costs – may be reduced to read-and-click courses
Cost-conscious solution – efficient, professional results at a lower cost compared to classic "live" training programs	Needs a highly competent individual to prepare courses (handling pedagogical approach/ tools, creativity and SW tools at the same time) within HR – awareness of SW tools and their use (aware user) – demanding on personnel
lower preparation cost compared to "classic" e-learning solutions	Limited experience with REL (limited number of examples/models of REL "best practice")
Goes along with social and informal learning trends	Base assumption is a functioning internet or intranet – which might not be available for trainee
Can use trendy social networking tools to be attractive for trainees	Authors of teachware need to be aware of functionality and potential of target systems
Hypothesis: the personality of the REL is better suited (compared to classic e-learning courses) to encourage learners who have adapted to current and trendy tech equipment – e.g., to smartphone or tablet and can enhance learning comfort with "take away" courses (not learning in the office)	REL might only be possible for a specific set of learning needs
Method designed for teachers/ trainers/company staff members to facilitate the use and creation of e-learning courses (so the course management can be entirely handled internally by company/ HR)	
Gives tools directly accessible to teaching professionals (Teachers, HR...) so they can transform the knowledge directly and create tailor made courses	
Get trainer (author) and trainee (teacher and student) closer together by eliminating intermediary staff	
Still rather new approach to e-learning (which represents S, W, O at once)	
Can take advantage of existing IT equipment and (widely) expanded (user) IT skills within the establishment	

OPPORTUNITIES	THREATS
Creation of new ways to communicate information to the trainee (minimalist solutions via smartphone, tablets)	Classic e-learning courses offer more attractive/ more spectacular/ more elaborate presentations of the content designed by specialized e-learning teams and companies
REL represents a way to select and test "ideal" e-learning tools (those more efficient)	Technology used may not be fit for the purpose (e.g. unstable internet connection)
Ease of translating REL course materials into different languages, thus a cross-country roll-out can be done with little additional effort	Classic "live" seminars/workshops
Through a combination of content and gaming a new level of might be possible	Creation of inadequate courses – inadequate awareness of tools or structuring of knowledge may result in loss of trainees' or preceptors' interest

CHAPTER 2

REL in adult education – andragogical aspects

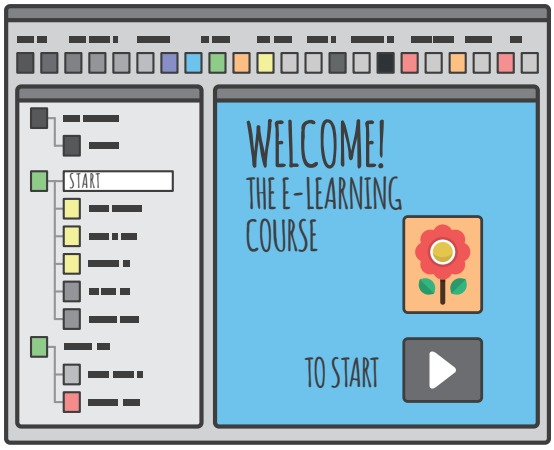
2. REL IN ADULT EDUCATION – ANDRAGOGICAL ASPECTS

2.1 Advantages and challenges of RELM for adult Learning

The method's main advantage is twofold: in one hand there is to be highlighted its cost and time efficiency, thanks to the simple, easy to handle learning structure and desktop virtualization technology; on the other hand we rapid e-learning is adapted to the new generations learning style.

A recent study from 2015 informed about the advantages of rapid e-learning respect to traditional e-learning. In his research Dr. Alaattin Parlakkilic brought into focus the question of cost effectiveness and general efficiency. He used a hybrid model, combining modular course design with rapid e-learning and desktop virtualization in the higher education, university environment (Parlaakilic, 2015).

Backed by the University of Missoury and the Medical Informatics Department in Gülhane Military Medical Academy, he compared the study results (in one subject) of 120 nursing students from the 3rd grade, learning with the hybrid method, and from the previous year, 120 nursing students of the same grade, learning with traditional method. The results showed statistically significant increase in the prior group, students using rapid e-learning supported position. The increase was at least 2.41, at most 6,60 ($t = 4256$, $p < 0.001$).



Following the course students were interviewed about their experiences with the hybrid method. Most feedbacks were positive, however, the importance of technical adequacy (average working speed, system performance and optimizing the software and hardware according to the used applications e.g. in case of uploading and downloading) was marked as one of the most important a success determining usability factors. While additional links gallery, interactivity and the leading teachers' quick feedback on the course platform were recommended. The modular rapid e-learning simple, easy to use structure (meaning, no additional training needed for users).

As a key reason for the research, the study concentrated on another important aspect, the feasibility of rapid e-learning. It was analyzed if modular rapid e-learning reduced the development costs of e-learning and/or speeded up its elaboration process. According to Dr. Parlakkilic's results the expenses for software, hardware, project and IT support were reduced by 41% comparing with traditional e-learning. The stunning result was due to the combination of rapid learning with desktop virtualization.

We would like to suggest the above empirical evidence as an appetizing example to go on exploring more about the rapid-e learning methodology, as it is not only useful in the higher education, but in the business field as well. It is possible to train a large number of employees at the same time and learners can participate in courses anytime and anywhere. It is offers good

solution for a large geographical distance and for a large fluctuation. More people can access to it, and the participants can usually communicate with others via forum function to share their opportunities, opinions.

Rapid e-learning's contents are very different, but the structure is the same. As the preparation requires shorter time, these are up to date and can be easily modified. At the same time, even if the technological background is simple and cost effective, the content quality is an ice breaker. It should be focused on a high standard.

Other important challenge results from the users' different age. It is challenge, since older generations usually handle the IT tools slower and in different ways than younger people, besides their learning habits are also different.

The third challenge rises from psychological-motivational aspect of obligatory trainings. A part of users participates in rapid e-learning courses because it is obligatory in their job. The other part of users utilizes it in their free time, because they would like to study about their hobbies or skill up for their jobs. Due to this the two groups motivation is quite dissimilar.

2.2 Generation theories – types of learners:

When writing about rapid e-learning, as a cost effective and efficient method in adult education (both in business sector, training and HR, both in general adult education, lifelong learning), it's important to place it into the context of people development in the 'ICT age'. Since no doubt, we are all exposed to a rapidly changing environment with constantly increasing intensity and ways of interaction with digital intelligence. This creates new need is education and training organization.

There are many articles and studies speaking about the transformation of our brain and the growing difference between generations. We experience how easily kids absorb IT skills, quasi instantly and naturally.

They are basically born into the 'information society' of a digitized word. In the digital societies the transformation, elaboration and the goal focused utilization of information are considered as the main organizing principles, and as such, information itself as knowledge. (Lénárd, 2015)

According to social scientists the age based generation definition is becoming less relevant, while the social, technical and political markers have growing importance in defining the generational diversity. "People are more like their contemporary era than their own parents". (Mccrindle and Worlfinger, 2009) In their popular generation theory Howe and Strauss (Howe and Strauss, 2000) speak about

5 different generations, based on the year of birth, besides this, the only category builder is the technological background and the internet access. The below table shows the 5 generations and a sixth new category the 'α generation'.

NET-GENERATIONS (Strauss & Howe, 2000)	
Veterans (1925-45)	The met internet at old age
Baby-boom (1946-64)	The met internet in their middle age
X generation (1965-79)	They were teenagers or young adults when the first met internet; their work is strictly connected to internet
Y generation (1980 – 95)	Internet appeared during their childhood
Z generations (1996-2009)	They were born into an internet world
Mccrindle Research: Word up – A Lexicon of Generations Y & Z: a Guide to Communicating with Them	
α generation (after 2010)	Absolute 'digital aboriginals'

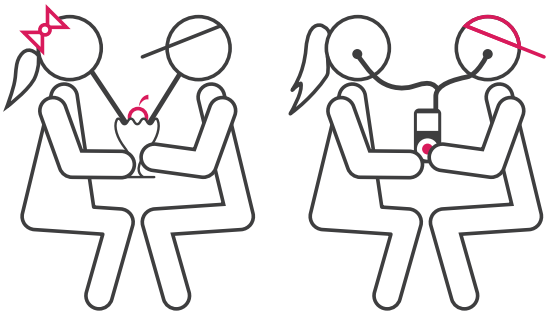
While X's and the former generations handle ICT as 'digital immigrants', Z and α generations are considered as 'digital aboriginals', who are basically 'born with' a digital skillset. The learn models, access to new information, shape their mindset, socialize and test their skills online, often by gaming. At the same time teachers often complain about the new generations, that they are so different from the previous ones, and they often meet difficulties when teaching them. In their case it's de facto obvious, that the education and training system must take digital tools as something absolutely basic, and with considerations towards the actual hypes (such as gamification, game based learning, rapid e-learning) and use them in training.

2.3 Brain plasticity – learning styles

The mindset and brain patterns of digital immigrants and digital aboriginals are not the same. While the former generations are used to linear thinking, the latter ones' are able to deal with parallel thinking processes, hypertextual learning models and information processing. (Prensky, 2002)

This partly results from the hypertextual technical environment – the multilinked labyrinths and pop-up world of the digital world-; but most importantly, it depends on the brain's amazing plasticity. As nowadays the brain is trained to hypertextual thinking mode, it also becomes 'hungry for information', it gets used to frequent and more intense stimulation from the external world. Numerous different

information is competing for the brain's attentional capacity at the same time, which fact in itself weakens the consolidation of long term memories. When we are not paying real attention on information, it can't reach the long term memory, and vanishes after a few seconds. In the absence of long term memories constructive associations can't be created between the new information and the former ones, which were already stored in our memory. Based on this, on long run superficial reading and learning or interrupted thinking may lead to the fade of reasoning, perception, understanding and feeling. (Carr, 2014)



This augmented need for stimuli is one of main difference between the former and the newer generations.

This is why in case of the older generations and their ICT aptness, people are less optimistic; while in case of the younger generations teachers warn about a diffuse attention disorder. It's true, that our fathers grew up more by playing board games, playing football, ganging with local peers on the streets, etc. than sharing likes on the social media platforms and uploading cool pics to Instagram, therefore their approach towards ICT is quite different.

Furthermore, their brain function differently (as for the activated areas) respect to the Y, Z and α generations. For example, empirical studies proved that different brain areas are activated by classical reading then surfing and browsing internet in Z generation, while in case of older generations both cases activate the same brain area. (Small and Vorgan, 2008)

2.4 Gudelines

How the bridge over the generation gap and react to the educational challenges of the digital era?

Nevertheless the above detailed differences between different generations, it shouldn't be a burden, just a fact. Brain plasticity is not a privilege of the younger generations. According to the modern neuroscience the human brain is capable of learning and reorganizing itself by forming new connections between brain cells (neurons) during the whole lifespan, as the Nobel Prize laureate Rita Levi-Montalcini states in her Nerve Growth Factor Theory. (Chiappe et al, 2000)

By accepting that ICT become a dominant factor of our everyday life and that the fast pace of technological development requires constant adaptation from people, companies and systems (like education), the necessary steps can be taken, regardless of age or intergenerational differences.

Why rapid e-learning is a suitable and effective learning model for today's people?

The rapid e-learning approach takes into consideration the economic and neuro-psychological considerations. As Parlaakilic revealed in his empirical study, both the educational and economical advantages of rapid e-learning method are measurable compared to the classical method (Parlaakilic, 2015). The short, rapid educational materials better fit the hypertextual information processing based thinking method of the new generations. Besides, with regular practice older generations can be 'mentally trained' to get used to new training ways. Nevertheless, a few recommendations should be given in order to facilitate this process; furthermore, to help young generations in coming over the general attention disorder.

RECOMMENDATIONS FOR RAPID E-LEARNING	
older generations (digital immigrants)	**younger generations (digital aboriginals)**
Goal: facilitating digital learning **Method:** providing handouts in order to elaborate the information better (not only by reading the digital content, but by giving a chance to underline the important parts, etc.)	**Goal:** reaching higher motivation and involvement of learners in competing trainings. **Method:** introduction gamification; giving gamified framework to training organization/completion in-house. E.g. positive attitude and gamification tools; (PBI – points, badges, leaderboards; edugames; flow experience) **Additional outcome:** keeping up with new generations who are used to at once feedbacks.
Goal: facilitating digital learning **Method:** providing audio material **Additional output:** auditory learner types can better elaborate the content.	**Goal:** rising focused attention and inhibition capacity; reducing attention disorder **Method:** strengthening mindfulness awareness by means of suggested exercises (e.g. yoga, meditation), in-house trainings, short video practices. **Additional outcome:** mindfulness level has positive effect on the brain functions which are responsible for solving new situations and problems (e.g. fluid intelligence)
Goal: facilitating digital learning **Method:** using short video demos to help kinesthetic learners in the materials more effective elaboration.	Applying positive psychology in motivation and evaluation

CHAPTER 3

REL technology – tools

3. REL TECHNOLOGY – TOOLS

3.1 General Aspects

When we consider rapid e-learning we must take into consideration two aspects: technical and educational (as described in chapter 2). Information technology grants the ease of course design and assists in the educational process so it is a very important part of REL. We should remember that information tools, however important, are still a means to an end, not an end in itself, as the main goal is to educate. On the other hand the attractiveness of a course plays a big role in the educational process and often is a deciding factor when choosing to participate. The effectiveness of teaching should at least be treated at the same level as the technology.

When it comes to rapid e-learning we can distinguish different sources of tools:

- open source software
- commercial software (including authoring tools)
- internet tools
- internet platforms

We can observe the following basic types for distance learning management regarding e-learning platforms:[1]

- **CMS** (Content Management System) – enables access and full control over created content which is also available for others. Besides the possibility of building courses, it should have a module for exporting finished materials prepared in other data formats.
- **LMS** (Learning Management System) – the platform enables management and control of the training process, generation of reports about ongoing activities, delivery of training, group work, and communication between students and teacher. It can also contain a module for content creation.
- **LCMS** (Learning Content Management System) – a system for designing, creating, storing, managing and publishing content. It is similar to LMS.

3.2 Functionality (about criteria)

The criteria which decides whether a tool is good or useful depends on the requirements and the type of tool. However, we can distinguish such criteria for all rapid e-learning technology as follows:[2]

- intuitive interface
- allows text, audio and video
- navigation
- creation of training content based on templates
- no need to use scripts when creating courses
- easy to maintain and update content
- no need for programming skills
- possibility of interaction

1 http://www.ceo.org.pl/sites/default/files/news-files/zastosowanie_platformy.pdf
2 W.Przybyła, M. Ratalewska "Poradnik dla projektujących kursy e-learningowe"

- exporting to various formats
- tracking the results
- ability to add tests, quizzes
- enables asynchronous and synchronous communication
- learning, managing and storing tools
- materials for downloading
- possibility of receiving feedback

3.3 Resources and technical requirements

Rapid e-learning requires an electronic device (computer, notepad, smartphone) with an operating system and web browser as well as an Internet connection. Of course, different tools have different requirements, for example, when installing Moodle you need a database. Basically, learners have few technical issues to consider besides installing the software. They may need to follow any on screen prompts in the case of desktop-based software or they may need to check the latest version for necessary plugins (Java for instance). Users usually have access to computers which meet the minimum requirements to take part in the course.

Some rapid e-learning software are web-based applications and do not require installation. However, they still require popular technologies such as Adobe Flash or Java TM, installed on most devices. A further benefit to this is that the software will work across multiple platforms and operating systems. Some software applications also feature mobile versions. Generally, they normally require the latest version of widely available tools to be installed, though this may sometimes conflict with corporate IT policies, or some other limiting factor.

There are a number of software packages, both free and commercial, which can be used for rapid e-learning:

- Lectora
- Adobe Captivate
- Articulate Studio
- Articulate Storyline
- ZebraZapps
- WBT Express
- Udutu
- RapideL
- STT Trainer
- Rapid Intake
- Atlantic Link
- Xerte
- CourseLab
- Microsoft LCDS
- ReadyGo

3.4 SW Package for Content Creation (Adobe Captivate, Lectora, Articulate Storyline)

Creation of course or other learning material can be complex. It is assumed that the creation of a one hour e-Learning course requires a workload of about 100 man-hours. During content creation one should know the basic rules of preparation of such materials and use appropriate tools. We can divide content creation tools into the following[3] categories:

- integrated editing tools (they allow the creation of a complete interactive presentation, e.g., Xerte, CourseLab)
- editors of multimedia content (they allow you to edit various types of multimedia files, e.g., Wink, CamStudio)
- tools and network services (they are similar to the tools mentioned above but they are used online, e.g., Jumpcut, Google Doc)
- tools to measure the effect of teaching and for evaluation – it can be separate tools (e.g., Hot Potatoes, EclipseCrossword, CrossWord) or a function in the existing tools (online tests, questionnaires, interactive exercises)

3.4.1 Example – Articulate Storyline[4]

Articulate's products (together with Camtasia and Adobe Captivate) are some of the most popular on the e-learning market, so for sure we can use it for rapid e-learning. It is a tool which enables the trainer to create even advanced courses without the knowledge of programing. Articulate Storyline is software for the quick creation of e-learning courses from scratch. Moreover, it enables interactions with users through slide layers with many types of transitions. You can add interaction by using "drag and drop", record pictures or add quizzes and publish it as Flash, HTML5 or on mobile devices. The last version of the software (Articulate Studio) based mainly on Power Point slides, is simply interactions and quizzes. Storyline is a combination of all the functionalities of Studio and Power Point, only more sophisticated.

A course prepared by using Storyline consists of scenes[5] and slides. One can change their order, group and combine them. Storyline offers many templates, in which content arrangement and ready interactions are set and all you have to do is complete it with content. You can also select people and their position and set triggers (doing a specific action in relation to some kind of behavior), and recording edition is available. It also enables the sharing of templates among the software's users.

Moreover, it supports m-learning (learning with your mobile) and there is no need to buy any additional software because it's an independent product.

3 http://www.ceo.org.pl/sites/default/files/news-files/zastosowanie_platformy.pdf
4 http://e-learning-studio.pl/storyline
5 http://e-learning-studio.pl/storyline/funkcje

3.4.2 Criteria

A good content creation tool enables[6] the creator to:

- Use it in easy and intuitive way
- Create interactive content
- Create tests
- Export lessons to any LMS
- Change the appearance of graphical elements quickly
- Easily update the content
- Use a lot of templates (which includes backgrounds, navigation buttons, sounds, animations)
- Use a lot of text, video and graphical components in which appearance (i.e. the text can move) can be defined
- Create interactions without any programming knowledge
- Preview pages
- Correct actions on different browsers
- Publish material which meets the standards (SCORM)
- Export to various formats

3.4.3 Advantages and disadvantages

Advantages:

- Ability to create presentations without PowerPoint
- Very simple and intuitive way to create presentations
- Ability to add interactivity (layer, triggers, conditions, variables)
- Allows the creation of quizzes with interactions "drag and drop"
- Ability to add built-in objects such as buttons, text boxes, selection
- Ability to record a picture
- Enables the software's simulation
- Ability to publish to Flash, HTML5 and for mobile devices
- Ability to track and report results

Disadvantages:

- Because it's advanced, one needs some time to get to know the software and how to prepare the course and it's elements
- Creating advanced interactions may be difficult for an instructor/trainer
- The price is rather high (around 1400 USD)
- Lacks content indexing

3.4.4 Tips for use

- Remember that people have different learning styles. Some of us learn better when reading, others when listening or watching video materials. Be sure that your e-learning content is for everyone and includes a variety of media.
- Before preparing the course, set didactic goals (see chapter 4)
- E-learning materials should be customized as much as possible (You cannot use the same lectures/files for a bank and afterwards for a telecommunications company)

6 http://www.ceo.org.pl/sites/default/files/news-files/zastosowanie_platformy.pdf

- Organize questions which check acquired knowledge in such a way that the trainee might be allowed to skip a specific sequence due to sufficient knowledge
- Preliminary information about the course should be available online
- Course should contain an initial training session in navigation and the functions of the course
- Materials should be presented in a logical structure
- It should be attractive to maintain learners' attention (surprise the learner!)

3.4.5 Other examples

Adobe Captivate, Lectora, ProForm, Rptivity

3.5 SW Package for Learning Management (Moodle, Blackboard)

Learning platforms are one of the fundamental tools used in distance learning. Generally speaking, they present teaching material which is imported using specialized tools or published in a source form. Usually, platforms require preparation of learning materials in the relevant technical standards (such as SCORM). Why is it so popular? It's because access to learning platforms is very easy and widespread. A learning platform is a system specially designed for creating, storing and sharing knowledge via the internet. It enables the building of entire educational courses, including additional services and tools which help to learn. However, you cannot guarantee a specific function to be available forever; there is no consolidated development strategy for the next few years. So customizations which might be required might stop working or be replaced by incompatible standard functions over time. If you want to use such a platform, you have three ways to do it:

- ready platforms offered by commercial companies (e.g., Lotus LearningSpace, WebCT)
- designing and creating your own platform (e.g. platform made by SGH in Warsaw – economic school, Wirtualna Politechnika – Virtual polytechnic in English)
- leasing of an educational platform (using separate courses without the need of implementation of the whole platform e.g. iLearning by Oracle, Alatus)

3.5.1 Example (Moodle)

Moodle (Modular Object-Oriented Dynamic Learning Environment) is one of the most popular educational platforms. On one hand, it is a Content Management System, and on the other hand, a Learning Management System. The combination of these two features has made it very useful. It is an open source platform, which means everyone can check the system code, correct the mistakes and develop it, and it is free to install and use. Moreover, you can modify it for your own purposes. Thanks to this, you can build your own educational portal. Moodle has a modular structure and users are divided into groups, such as:

- **guest** – he can look at the descriptions, but there is no way to view and participate in courses
- **listener** – has the ability to view and participate in courses
- **course trainer** – it is not possible to create a new course independently, but he can promptly enter content and modify it within the existing course
- **course creator/author** – he can create content and assign trainers to the courses
- **administrator** – he can change any element of the platform

There are courses in three formats: social, thematic or weekly. Text input is placed using the WYSIWYG HTML editor, resembling the possibilities of graphic text editors. The trainer has access to an extensive logging system with students' activity.

The main features are:
- Use of teaching materials prepared according to SCORM standard
- Ability to build internet courses which include text and multimedia (which significantly enhances the transmitted messages and makes them more accessible)
- possibility of discussion – chat (enabling real-time conversation between students and trainers)
- possibility of creating and managing a forum
- possibility of using tests, quizzes, crosswords
- generation of reports
- creation of questionnaires
- ability to send information about learning progress (feedback from trainer as well)

The Moodle platform can be used in schools (especially higher education), public administration units, large corporations and organizations, SMEs from all sectors and governmental and non-governmental organizations.

3.5.2 Criteria

A good LM tool:
- includes learning tools such as bookmarks for courses, students' information space, access to sources, annotations, index rate, grades, group interaction
- includes cooperation tools such as newsgroups, chat, teleconferencing, audio and video-conferencing, work groups
- includes management tools such as file management, search tool, on-line help, access to personal data, student rankings
- implements and stores data according to standards
- has access to technical support
- enables asynchronous and synchronous communication

3.5.3 Advantages and disadvantages

Advantages:
- enables storage of all materials connected to the course. Having all the materials in one place is conducive to improving and keeping everything in order
- one has access to the materials whenever and wherever he wants (an internet connection is necessary)
- location doesn't matter – one can learn from all over the world without leaving home
- there are free LM tools on the market which are good quality
- easy to use
- efficient and effective way of learning
- time-saving (one does not have to look for the materials in various places)
- it is possible to mix different forms of learning (blended learning)
- facilitates the process of managing educational courses
- direct access to tools which assist in the educational process

Disadvantages:[7]

- communication system (e-mail, chat and forum) built into the platform are not as good as specialized programs for those purposes, so communication may difficult if only using the platform's communication system
- for teachers/trainers using the platform can be more complicated; it is necessary to spend some time (even a couple of weeks) getting to know it
- free e-learning platforms are usually lacking functions which may be useful when you want to make it more sophisticated (you have to pay for it e.g. when you want to integrate it with an external database files, methods of payment, etc.)
- learning materials need to be done according to specific standards in order to publish it on the platform
- needs to have an adequate IT infrastructure (server capacity, database system license, PHP interpreter)

3.5.4 Tips for use

- Think carefully about what type of platform you need: will you use a free available platform (Dokeos, Moodle, OLAT, Scholaris, Eduslide), one offered by commercial company (WebCT, WBTExpress), your own platform based on existing software e.g., Moodle, or a platform entirely developed and used within the company or a free available platform with learning materials prepared by others (PeLP)? Remember that you have to spend more time to customize a free platform to your needs.
- Use internal communication tools – it is better when students/trainees communicate through the platform than by their own emails or communicators.
- Educational material for the learning platform should be very-well prepared with the appropriate standards. Get to know the tools and guides on how to do this.
- Make sure your platform enables work assessment.

3.5.5 Other examples

PeLP, OLAT, Scholaris, Eduslide, WebCT, WBTExpress

3.6 SW Package for webinars (ClickWebinar, ClickMeeting)

According to the definition, a webinar is a web-based seminar with transmission of video and audio online, from one source to a large group of receivers. It is a way to share information, give a speech, or teach a course in real time and with the same quality as if it were carried out in a classroom.

Webinars are more collaborative than other tools because they include polling and question & answer sessions which allow participants to interact with each other. A webinar transmission can be delivered live (with a specific date and time) or "on demand" (recorded and delivered later), which allows the viewer to watch the webinar whenever he wishes. Participants can attend the webinar from any computer or smartphone using a link sent by the organizer.

7 http://blog.platformyedukacyjne.pl/moodle/darmowa-platforma-e-learningowa-dobry-zly-wybor/

Use of this technology for learning is expanding rapidly alongside the capacity of trainers and learners to support the technology. Webinars have great potential for use in education, particularly for adult education and professional development within small and medium sized businesses. It can open up a huge market for in-company staff development, where traditionally staff would have to be sent out of office for training days, often at great cost to the company. In webinars for training purposes, the structure of the content and the level of control over interactivity create more of a "broadcast" environment, with one person delivering content to a group. However, an e-learning webinar with a small number of participants (2 or 3 trainees) may have a high level of interactivity and reflects a blended learning structure.

3.6.1 Example (ClickMeeting)

ClickMeeting is one of the most popular webinar technologies. It allows for meeting and collaborating online with teams, clients and partners regardless of location, operating system, or time zone. Unlike other platforms, ClickMeeting doesn't require installation. Organizers and attendees need only a Web browser, Internet access and a link to join the meeting. They do not have to register.

ClickMeeting Top Features:
- Audio and video conferencing
- Meeting room rebranding
- Full desktop sharing and control
- Moderation (Q & A) and private chat
- Simultaneous chat translation
- Social media sharing
- Meetings are recordable

More information about ClickMeeting may be found on www.clickmeeting.com.

3.6.2 Criteria

Good webinar software enables:
- Document and screen sharing
- Interactions between a trainer and participants
- Organization of workplace
- Quizzes and surveys
- Webinar planning (audience, objectives, content, technical requirements, evaluation model)
- Uploading of documents
- Various forms of communication (voice, video, slide presentation, chat, raising hands or yes/no buttons)
- Recording of a webinar

3.6.3 Advantages and Disadvantages

Advantages:

- Webinar technology is becoming cheaper and more widely available (because of the rapid development of infrastructure and software used for remote communication)
- Webinars allow for a learning experience with a subject expert which would otherwise be unavailable because of the associated distance and time limitations
- Webinars allow the recording of such sessions for other trainees and can make it available "on demand"
- Thanks to webinar technology trainees can attend many webinars to check out the topic before choosing expensive traditional training sessions

Disadvantages:

- Trainees participating in traditional training tend to be more focused than those participating in a webinar
- During the webinar trainees can simultaneously browse the internet, work, read or do other things that might distract them
- Traditional meetings allow participants to be more flexible and interact more than during a webinar session
- During a webinar it is difficult to moderate a large group of participants, especially when non-verbal communication between participants is limited to a minimum

3.6.4 Tips for use[8]

- Ask for prior registration for the webinar in the planning stage to obtain contact details
- Check equipment and materials – upload needed files prior to beginning the webinar (remember, upload speed is normally much slower than download!)
- Set the rules and conditions of the training before it starts
- Manage options to share files with participants
- Manage options to work on-line with documents shared between participants
- Adjust your language, metaphors, and materials to suit each target group
- At the beginning of the webinar ask participants about their expectations
- Pay attention to the amount of time spent on each slide, exercise, quiz, etc.
- Consider recording the webinar, in order to have an archive session for future use
- Prepare yourself, prepare yourself and once again prepare yourself

3.6.5 Other examples

ClickMeeting, Yugma, WiZiQ, Spreed, Adobe Connect, Blackboard, Cisco

8 http://webinar2learn.eu/project/results/manual

3.7 SW Package for presentation (PP, Prezi, SlideShare)

Nowadays, the slideshow is practically a mandatory part of every presentation used during the learning process. However, we have to remember that the key to a rich presentation is a good mix of different elements, including graphics. They should have a communicative and educational value – simple and straightforward graphics are the most effective.

An exceptional, attractive presentation is one that is so aesthetic and so consistent that it never detracts from its subject or author, and substantive enough that it is a true compliment to the presenter's message.

3.7.1 Example (Microsoft Power Point)

Microsoft PowerPoint is a program for creating multimedia presentations and is a part of Microsoft Office, available for Microsoft Windows and Mac OS.

Power Point is still the most common and well known presentation tool that is easy to use. The format of presenting a series of slides with text, images and simple animations is a great way to illustrate information. In PowerPoint, text, graphics, video or other objects are combined in the slides. Slides can be printed, or (more often) displayed on a monitor or projector. As pre-defined by the manufacturer, the transitions between slides, as well as the appearance of items, can be shown in a wide variety of styles.

PowerPoint, as most such programs, provides the possibility to create slide templates (eg. Title slide, slide-type table, slide text and graph, etc.). It is also possible to select the slide master or self-creation, which allows for a uniform appearance of all the slides. The slides may also be entirely different and not associated with any design.

3.7.2 Criteria

Good presentation software enables:

- Addition of images, videos, icons, animated effects, symbols, graphs, voice, hyperlinks and other items
- Different types of transitions
- Use of free templates and creation of presentations from scratch
- Addition of action buttons
- Changes in the layout, color, background, font
- Saving in different formats
- Addition of notes (not visible for the public)
- Different views of presentation
- Attraction of the public using interesting forms of presentation
- Slideshows
- Presentation zoom in and out
- Nonlinear presentations

3.7.3 Advantages and Disadvantages

Advantages:

- Slides are very useful as visual aids – they help to draw participants' attention, facilitate learning and enhance memory
- Visualization helps in better understanding of the subject
- It is a very attractive form of presenting of information
- The presentation omits details, so it is important if you just want to read briefly about the topic, not going into the details

Disadvantages:

- It is easy to fall overboard – users are tempted to overuse the programs to create presentations
- Dependence on equipment – computer and projector – so there is no possibility to present the slides outside the training room
- Many people do not read the information written on the slides

3.7.4 Tips for use[9]

- It is important to determine the goal of presentation – what task is this presentation going to meet?
- Be clear about your key message
- Avoid legibility problems such as fonts that are too small or lack of style consistency
- Use images to grab participants' attention and illustrate the main points
- The visuals should be informative and serve learning goals – avoid graphics that are merely decorative
- Use good quality drawings, charts, diagrams, symbols, photos or screen grabs
- Each slide should have a clear heading
- Limit the number of words per slide (no more than 5 bullets per slide and use brief phrases, only 25-35 words)
- Remember to provide a title, your name and the agenda of your presentation on the first slides
- Avoid items which are distracting
- 1 slide = 1 issue
- Plan the time of your presentation
- Slide content should be interesting and should not bore the audience
- Make copies of your slides – it may be helpful for the audience during f2f presentation
- The last slide should contain contact details

3.7.5 Other examples

Microsoft Power Point, Apple Keynote, Apache OpenOffice Impress, Prezi, SlideShare

9 http://www.rogerdarlington.me.uk/Presentation.html

3.8 SW Package for Gamification

Gamification is based on the mechanics known from role-playing and computer games, to modify behavior in situations other than games, in order to engage people. This technique is based on the pleasure that comes from overcoming consecutive achievable challenges, competition, cooperation, etc. Gamification can engage people in activities that are in line with the expectations of the author of the project, even if they are considered boring or routine.

Game mechanics used in gamification includes:

- Tasks and challenges for participants or groups
- A progress bar or other form of task completion indicator to show how close the participant is to the next level or task
- Achievement Badges – completed tasks or challenges
- Difficulty levels/development
- Individual and group rivalry
- Participant collaboration for common goals
- Rankings
- Points – virtual currency awarded for the execution of tasks
- Virtual items
- The reward system, exchanges, collectibles and the possibility of giving prizes to others are used to raise the status of the participants and to strengthen social bonds within the project
- Communication between participants – forums, e-mails, chats

3.8.1 Example

One gamification example is Ribbon Hero – a game developed in the laboratories of Microsoft Labs, whose goal is to teach the user-friendliness of Microsoft Office by pulling the player into the game. The program presents the user with challenges (e.g., "Use animation in PowerPoint" or "format the header and footer in Word"), for which this gets the prize – points. Progress bars show the "degree of expertise" to handle individual programs.

3.8.2 Criteria

Good gamification software:

- Increases involvement of the participant – it is one of the key elements for the success of the gamification system (the user can decide, e.g., on the appearance of an avatar)
- Increases confidence – depending on the relative proportions of the challenges, the pleasure of overcoming them and the proactive communication through digital channels will increase as participation in desired activities
- Rewards and motivates competition – is possible when games include the corresponding mechanics and dynamics
- Is educational and fun
- Has an adequate level of entertainment (not too easy and not too difficult)
- Enables communication with other players
- Encourages boasting of the results on social media channels

3.8.3 Advantages and Disadvantages

Advantages:

- It is a good way to get employees or consumers to make commitments
- It can encourage motivation and improved performance in the workplace
- Gamification is a method for improving the effectiveness of marketing activities, hence, to increase brand awareness and customer loyalty
- Gamification works well in the areas of education and training, recruitment, sales and administration, and management
- The combination of entertainment and science makes it more likely and easier to assimilate knowledge

Disadvantages:

- If gamification is not sufficiently well thought out and prepared, it can cause serious damage to brand image
- Elements of the game may take precedence over the educational component, which will not achieve the expected benefits of the introduction of gamification
- Introduction of gamification requires a lot of time, both in terms of concept development and implementation

3.8.4 Tips for use:

- Define the problem
- Identify relevant game for defined problem
- Specify the desired behavior
- Describe a player and his motivation
- Enter the element of fun
- Enter the elements of the game

3.8.5 Other examples

FourSquare, Ribbon Hero, Gamfi, SoInteractive Engagement Platform

CHAPTER 4

Organization of REL training

4. ORGANIZATION OF REL TRAINING

This is the first version of a very complex chapter – **Organization of REL training** – that in some way represents the backbone of the future RELM.

Within this chapter we have selected and used some tips and included observations from (rapid) e-learning professionals and from other projects (EU projects) dealing with REL. These we can test, develop and enhance during the phase of practical testing and creation of REL courses.

Our objective is to create a practical methodology guide through the rapid e-learning course.

So we want to address our target and offer check-lists, tips and advice within the structure of our methodology. In the practical phase, we also hope to complete the practical examples that we have started to use here.

4.1 REL course – basic set-up/basic parameters

Rapid e-learning is not an all-inclusive solution. It is a specific and specialized learning/teaching method and has to be considered as such. To use it means to respect its main distinctive attributes: the speed element – including short preparation time and short time to acquire the knowledge, plus its economic aspects/advantages. REL is applicable for some specific types of courses, specific assignments and some tasks. To be interesting for clients, REL must be tailor-made courses designed to meet their specific objectives.

4.2 Learning content, aims and goals

At the beginning of the learning project we should see how we can "translate" a client´s business needs into REL course aims.

First of all, RELM won´t be designed to cover large, complex areas of knowledge/skills because however attractive the tools supporting REL are, they are limited and exclude complex courseware, like games or simulations (e.g., business simulation, gaming), unless we assume these SW packages already exist and are useable (See Example 1).

Typically, REL is suited for focused training of a precise skill (e.g., to learn how to improve selling skills for a given product) or to transfer and spread new information among the employees. In The Insider´s Guide we can read (p. 42): *"The types of courses you create can vary dramatically. You might create some to change workforce performance and others to simply share ideas or information. The first type of course is often tied to specific performance goals; the second is designed to improve awareness or impart new information. But both are typical e-learning."*[1]

RELM is a methodology to create flexible courses that are also easy to "recycle" – which also opens up the possibility to update the course regularly once the information (e.g., new legislation, new product parameters) becomes obsolete and to adapt the course quickly to a new reality. This adaptability is one of the advantages of REL courses.

1 http://blogs.articulate.com/rapid-elearning/free-ebook/ by Tom Kuhlmann

Take the example of an event agency that wants to raise awareness among his dealers and staff regarding a new product in their portfolio, the "Garden Party". A rapid e-learning course can be created that fits this aim.

You can, and will, easily recognize how important it is for a successful course design, to understand the underlying objective and/or business need. For our example, let's assume it is the "step by step" approach!

Step 1:
Instead of creating a complex series of simulation based courses about a slightly vague or wide topic, e.g., "How to organize an event", we should respect the client´s immediate business needs (it is all about the new "garden party" product) and go through a rigorous selection process. This will help us to establish the exact topic, which will be, in this case, "The (successful) garden party". However, now we ask, would our client wish his employees to learn, e.g. „How to organize a successful garden party step by step" or would he prefer them to learn "How to better sell Garden Party events to particular clients" (skill learning and performance based course)?

Step 2:
In addition, we need to know and discuss the goals and aims of the course, how the e-learning course can help the client/trainees to reach their business objectives, and what it should do to make the business function better. Should it spread information among the employees, e.g. raise awareness about a new legislation (e.g. new safety and hygiene rules when organizing a public event), or inform workers about new product parameters, or should it change their behavior or perhaps improve their performance (e.g. targeting particular clients when selling the garden party product)?

Once again, to be meaningful and to have a real impact, the REL course must be a projection of the real business needs.

Our very first tasks regarding a successful REL course/training will be to define the basic topic and learning content, in which we may be required to manage or help reveal the client´s expectations, or to get them on a realistic – "REL-affordable" level.

Step 3:
Once we have defined the relevant topic and related learning content, the next step towards an efficient REL course will be to divide the assignment into small, easily digestible content elements (see reference section below – Micro e-learning by Christopher Pappas).

This will be the backbone of our course – time planning and scheduling.

Smaller modules may also allow us to create micro e-learning apps that will make the learning even more flexible, affordable and attractive (available via smartphone, tablet – so more time effective) – *we need to check how complex the creation of micro e-learning is.*

Knowing the basic parameters, the learning content and aims, will help us get started in creating a course that can work and that can be efficient and effective. This means the REL course has a real chance to meet the client´s expectations/objectives and won't disappoint. This is because the client´s expectations are closely related to, or in fact define, the criteria to measure

the efficiency of the course and its results. All in all, this is directly linked to the success of our REL course and our client´s feedback. Training success can be measured by one of the following course-objective conditions:

- Corporate Performance Improvement
- Organizational Compliance
- Sharing (Best Practice) Information

From the checklist below, we can use the answers to generate meaningful success criteria for the REL course.

At the beginning we should ask and answer the following questions:

- ✓ Who requested the course?
- ✓ What does the client expect from the REL course?
- ✓ What is the topic?
- ✓ Set up goals and aims of the course: Should the course simply deliver new information? Should it improve a skill or trainee performance?
- ✓ Can you reasonably divide the topic into smaller elements (considering aims and goals) that can provide more focus and lead to a more focused course structure?
- ✓ In this moment we should start thinking about how we will measure the efficiency of the course? By improved efficiency of sales? By behavior changes? A new skill learned? New information absorbed?

4.3 Trainee status

To create a course that can have a real impact and be meaningful, we also need to consider the trainee:

- Who is the trainee?
- What are his needs and expectations?
- What will the course bring to him?

Is he taking the course during his work-time or has he invested his personal time?

Prior to any further planning of the REL course, the company (Client/Organizer) needs to make as much information available as possible about our target; our trainees. This information will be crucial in order to proceed correctly in our preparation. *"The training organizer is responsible for providing information about their remote trainees to their trainers (adults/children, professionals/laymen, etc.) and how many of them will participate in the training."* (Documented in the Methodology for Webinars[2]).

Our future trainees are the final consumers of our course, so we need to know who we will be dealing with and be able to cover their needs. At this very first stage, we can also go through a short survey designed for our future trainees, discovering their needs, expectations, previous knowledge and working habits. As part of RELM, we recommend these surveys to be generated by survey engines like **surveymonkey** (free if within the basic user profile[3]).

2 http://webinar2learn.eu/upload/files/0/40/w2l_metodyka_EN_nowa.pdf
3 https://www.surveymonkey.com/pricing/?ut_source=header

This will give us a more realistic image of the trainees´ needs. This will also make them feel, from the very beginning, as an active, participating partner (even if they are minors) which can be a very good point regarding the future motivation and attitude towards the e-learning course.

This reflection is noted by the previously referenced blog by Tom Kuhlmann (1).

We should know them and, if possible, approach them for more information, with the client´s permission, of course.

Trainee profile – criteria to consider:

- ✓ Age – this criterion will help us choose the right motivation and the right tools to use, including the level of computer skills necessary to complete the course.
- ✓ Previous experience with the REL/ e-learning, e-learning SW or on a computer in general – all this can influence the strategy, tools and approach.
- ✓ Function / position within the company
- ✓ Consequences of participation in the training
- ✓ This point is directly related to trainee motivation. We should ask and answer questions, e.g., Will participation bring him any benefit? Must he spend his free time for the e-learning course? Can the course really improve his work performance?
- ✓ What is their previous knowledge, experience and current skills etc., regarding the course topic? The level of the trainee´s knowledge will modify the design of the course. Can we allow quicker progress? Do they need to acquire any prerequisites? The survey focusing on this parameter can be crucial prior to the course.
- ✓ Also to be considered: types of learner/learning styles – the course should be able to appeal to different types of students. Some can learn/absorb more via visual, auditory or kinesthetic/ interactive activities. (In the future we may also consider other learning types/theories and add more here when dealing with *the Chapter about motivation and tools)*.

Useful practical information about a trainee´s profile can also be found on page 25-29 of *Webinar Methodology (Warsaw, 2013)*.[4]

4.4 Group

A crucial parameter will also be the profile of the learning group:

- ✓ Size – how many trainees must be accommodated? This will define the communication between the trainees and the trainer or determine the level of interactivity (how much we let trainees participate – i.e. give feedback to the trainer).This might also have an impact on tool selection.
- ✓ Are the trainees internal or external? Do we need to get them familiar with the company's aims, targets or culture?
- ✓ What level of homogeneity is there?

4 http://webinar2learn.eu/upload/files/0/40/w2l_metodyka_EN_nowa.pdf

This is about the trainee´s progress. Within the course we can create the option to allow for quicker or slower progress, so certain sub topics can be skipped for those who already have that knowledge. This way, those with up-front knowledge can progress quicker and will not lose motivation by going over details they already know, and vice versa, modules can be conducted at a slower pace by giving examples and explaining all the aspects of the topic in detail.

Progress control

In any case, we need to establish a control mechanism (to test the knowledge) within the quicker progress option to be sure the trainees can "escape", or skip some elements (perform the control before the trainee can go on to another topic/slide).

We deal more with these kinds of tools in the chapter about motivation.

4.4.1 Trainer

REL wants to create an easy and comfortable experience for participating staff which will increase requirements on the trainer in the way of more expertise and/or skills (teaching, technical etc.). The trainer is the one who will lead the course and even if the direct contact with the trainees is limited, he/she can make a considerable impact on the success of the REL course.

Relevant elements of the trainer´s profile may include the following (these will apply for blended e-learning courses):

- ✓ Did he/she participate in the preparation of the study materials?
- ✓ Is the trainer familiar with the topic and learning content? If the trainer is an outside consultant, the time to become familiar with the topic and learning content must be also included in the schedule.
- ✓ Does the trainer need special preparation to lead REL courses or does he have experience with e-learning? Has he ever taken an e-learning course?

We will develop the trainer´s profile and skill requirements when considering tools we will use within the REL. Useful information can be found on the page 20 of Webinar Methodology (Warsaw, 2013) (footnote 2).

- ✓ The following elements are relevant for authors of "pure" e-learning courses:
- ✓ Is he/she an insider or an outside consultant? This is also relevant in regards to the subject of the course.
- ✓ The trainer must be very familiar with the learning content!
- ✓ Did he/she do test runs of the course with sample trainees?
- ✓ Does he/she have sufficient face-to-face training experience to anticipate trainees' response to the material?
- ✓ How familiar is he/she with the selected REL tools?
- ✓ Can he/she create attractive and "interactive" learning elements (from a learner's perspective)?

4.5 Relevant Roles

Understanding and following the relevant roles will have a major impact on the success of REL courses.[5]

Generally accepted and "best practice" roles are defined as follows:

Role	Description	Responsibility
Trainer	Understand Training needs, prepare content, using RELM possibilities, evaluating trainee feedback and assigning grades, if required. The trainer needs to cooperate with Experts to assure good representation of specific corporate aspects.	» Understand the subject » Select appropriate tools » Prepare content » Engage Experts
Moderator	Needed if trainee group interaction is required. Could be a trainer, but can also be a separate person.	» Understand the tools » Assure interaction and engagement
Expert	Does not necessarily have a training background, but very familiar with the content matter and will often have specific corporate knowledge relevant to specific aspects. One learning module might require different experts, e.g. from IT and application area	» Provide up-to-date information regarding content or tools
Trainee/ Learner	Needs or wants to learn available REL courses as quickly as possible. In order to improve rapid learning, giving feedback and interacting with the REL modules and associated surveys is needed.	» Use REL learning modules » Provide feedback as stipulated by the REL modules

4.6 Communication with trainees / motivation

4.6.1 Communication

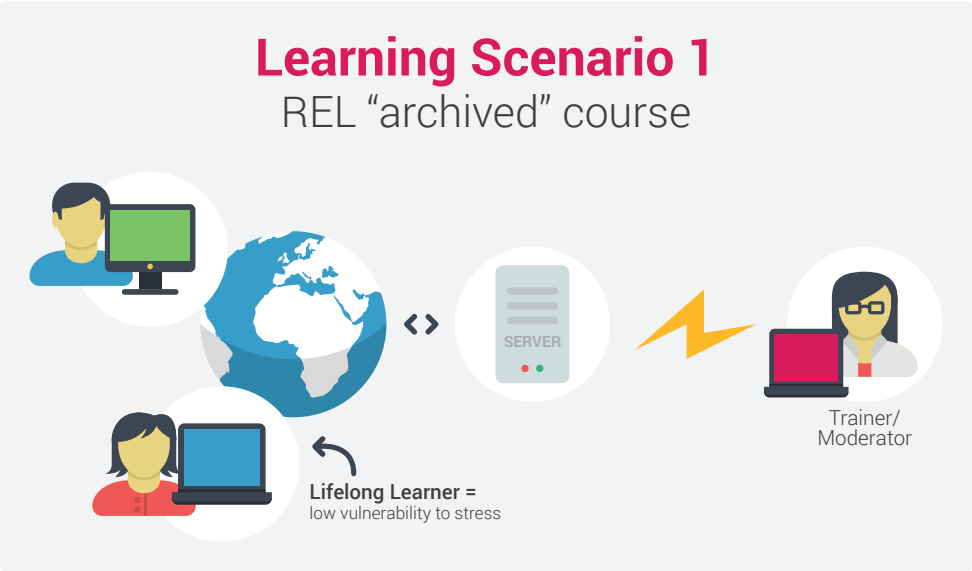
Literature covering webinars in education[6] suggest taking the following preparations:

» Provide information about the trainees and learning objectives;
» Demonstrate webinar technology to reduce trainee apprehension for those inexperienced in its use;
» Agree on the format of the webinar session;
» Agree with the expert on a time for their Q&A;
» If the expert is not comfortable with giving a speech, suggest an interview style;

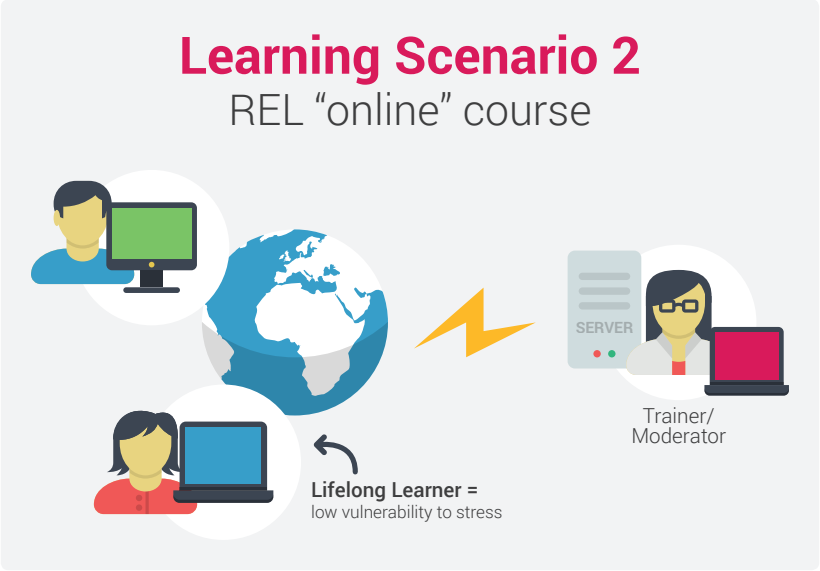
5 http://newmediaproduction.eu/knowledge/methodology
6 Caladine Richard, Enhancing E-Learning with Media-Rich Content and Interactions, 2008 Idea Group Inc.

- Establish moderator requirements per expert request;
- Prepare the learners, give them information about the guest;
- Instruct trainees to ask questions.

For REL courses, we need to consider two learning scenarios as follows:



In this scenario, the REL course has been pre-recorded and can be accessed by the learners online at their discretion. The trainer and/or moderator might be available at the same time, or they will be involved asynchronously, e.g. once a day or once a week they review learners' progress, respond to questions and evaluate quizzes or surveys.



In the second scenario, the REL course will be provided as a pre-scheduled event and learning happens through online interaction with the Trainer/Moderator (e.g. using webinars).

Concerning the rules of contact, targeting, engaging and generally working with people, there is very good, practical information provided in the Methodology for using Webinars for Learning Purposes, **webinar2learn,** developed as an EU project in 2014 (footnote 2).

4.6.2 Announcement

An REL announcement has to be clear and concise – the less text, the

better. The potential trainee should see all the information at first glance and it should be possible for him/her to decide in straightforward manner about their participation. In corporations, often the participation in training sessions require management approval or the management will invite participants based on their training plans. In these cases, initation might begin in the HR department!

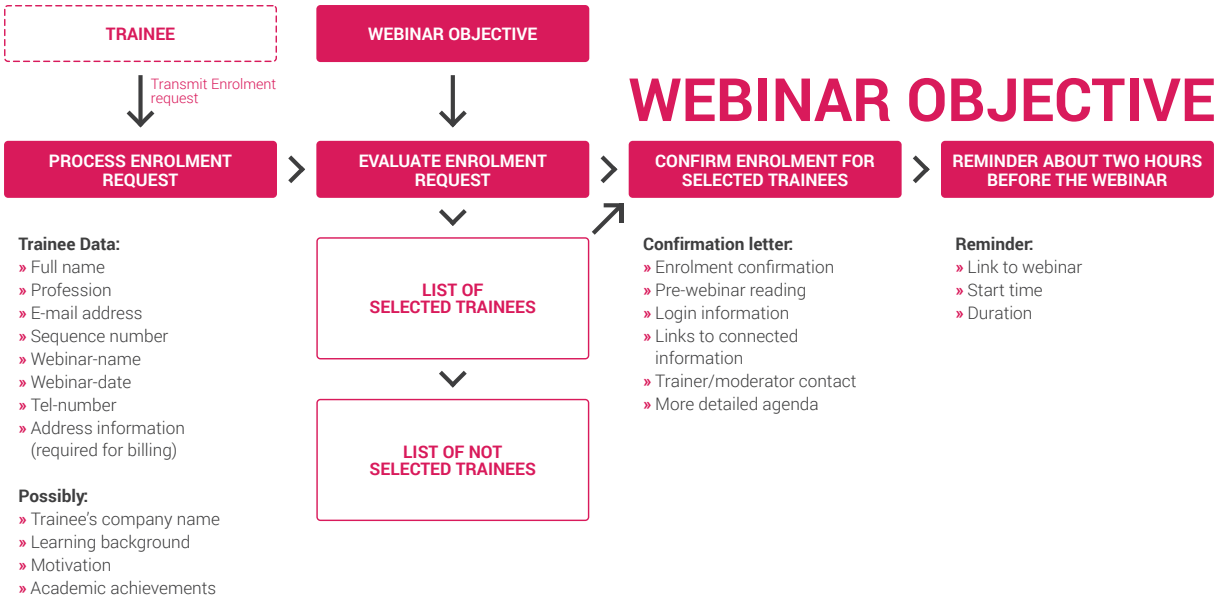
The announcement for REL modules needs to declare the following key aspects:

- Topic
- Duration (normally does not exceed 75 minutes)
- Timeline; online webinars provide specific dates and times and for archived modules a time "window" (e.g. latest by 30 September 2015)
- Maximum number of participants/trainees – for online webinars
- Trainee prerequisites
- Link to registration website or other relevant registration information
- Participation benefits (can also be a "must do" to maintain corporate certification)
- Applicable fees or clearly stated when it is free!
- Target Group.

4.6.3 Enrollment

As we invite trainees to a REL module, we must keep in mind that due to its nature it is difficult for many trainees to remember that they joined in the first place. Quite a few people don't record their training dates in a calendar or some might register at the last-minute. Some Webinar software has enrollment plugins built-in, which allows for automatic enrollment.

The enrollment process for webinars should follow these crucial steps:



For other REL courses we need to adapt the above process:

While we might receive a lot of enrollments for online webinars, asynchronous REL courses will normally operate in a different manner, since this process will not be driven by the learners but by the course providers.

Consequently, the first two process steps will look as follows:
1. send enrollment request (not receive one!),
2. process the enrollment confirmation.

The next process step will be the same.

Normally, asynchronous REL courses will not have a 2 hour advance reminder.

We also need to bear in mind that as direct contact with trainees will be limited, there must be a mechanism incorporated into the structure of the course to bring us partial feedback in order to monitor trainees´ progress and motivation. Feedback, quizzes and tests are good ways to accomplish this task. Especially for mandatory REL courses, the REL-SW should provide general feedback to the organizing entity," course module successfully completed". If there is no separate SW-function available, this can be simulated using a final quiz, test or separate survey.

4.7 Motivation – How to engage learners

Motivation is a managerial task and it is logically related to the trainee´s profile and how attractive the course is for them on different levels.

For more on the subject of the risk of demotivation in rapid e-learning, please see 3 Rapid eLearning Disadvantages in Rapid eLearning Advantages and Disadvantages by Christopher Pappas.[7]

4.7.1 Before the REL experience

As part of REL, learner engagement can be supported by:

- ✓ Interaction with trainees prior to the training to integrate their suggestions and profiles into the course preparation in order to customize the module as much as possible.

The ideal situation is that the REL course is considered, from the very beginning, by the trainee as necessary and helpful for their work and thanks to the course they would be able to, for example, meet or exceed sales targets which can bring an additional bonus, etc.

This is why we need to know our trainees and the topic well, so that we can design and provide the right, meaningful course.

This can create, among the trainees, a positive attitude towards e-learning and prevent their identifying the course as a useless, painful addition to their everyday tasks.

7 http://elearningindustry.com/rapid-elearning-advantages-and-disadvantages

- ✓ The quality of course structure (structuring information), course design etc., must be considered. The task is to make the information incorporated in the course as approachable and easy to extract for the learner as possible. You can make it as digestible as possible for the learner by considering the following:
  - › How to organize and structure information (e.g. one topic/slide)
  - › Meaningful headlines
  - › Use of fonts
  - › Attractive graphics
  - › Use of multimedia (video or U-tube)
  - › Amount of information per slide

4.7.2 During the REL-experience

- ✓ Putting the maximum level of interactivity into the course.
  Which tools do we have at our disposal concerning interactivity? Webinars? Quizzes? On-line Forum? Chat?

- ✓ Use a variety of meaningful tools during the course. Diversity maintains interest and helps to appeal to different types of learners, visual, auditory and kinesthetic/interactive.
  For example, to enhance the visual aspect, we can incorporate a short, easy-to-create video to demonstrate a skill or behavior (not a professional video – just decent quality and good scenario preparation, which brings us back to how to structure the content.

Another approach to motivation is gamification, which is considered to increase motivation during the e-learning experience:

4.8 Gamification

Gamification is a rather new buzz-word in the e-learning environment. The various attractive options computers offer are the great contemporary update of Comenius´ ideas of Schola Ludus.

Sure, gamification can keep learners/trainees interested and the computer can provide attractive specimens of games. However excited we are about gamification, it is still just an option, not an obligation. It all depends on our trainees and the subject matter we want to teach.

Trainees:
- » Are they patient enough to go through the games or do they prefer to go straight to the goal?
- » Can they easily familiarize themselves with the game? – Age might play a role here.

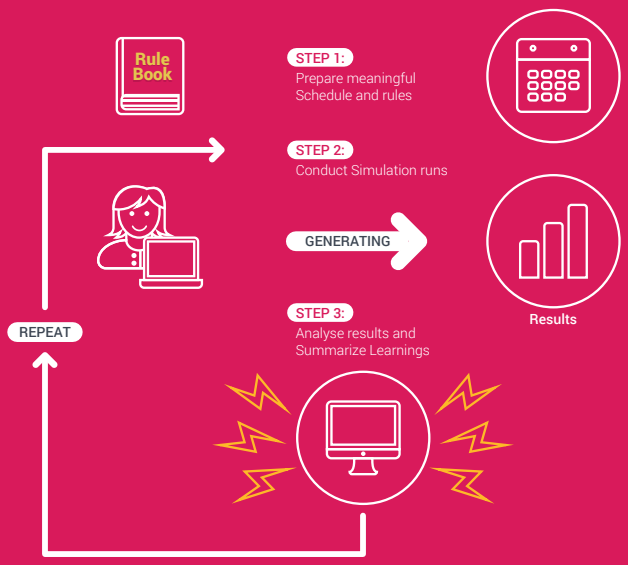
Subject matter:
- » Are the gaming results supportive to the objective?
- » Will the required fees be reasonable?
- » Can we use prefabricated gaming tools?

Otherwise, game design goes well beyond the REL framework and its possibilities.

Nevertheless, gamification represents a step forward compared to static online courses. Games are engaging, challenging, interactive, allows for decision making and gives feedback, which are all elements to enhance motivation. Even if there is not room within REL to develop games, if appropriate, we can recommend the use of prefabricated elements, for example, as in simulations (Example 1).

EXAMPLE 1

Simulation packages exist for teaching project management. Depending on the package and training objectives, these courses might range from 2-day to 4 or 5-day courses. Preparation time for the instructor is short; especially if this is not the first time the trainer will use that package. In order to make it effective for the learners, the instructor will be required to map the simulation experience to the real-life environment of the learners. If the Instructor is able to summarize the experiences of the learners and explain the underlying principles, the "learning by doing" with the simulation will ensure quick knowledge acquisition. Normally, these "ad-hoc" summary sessions will require little preparation time and will transfer a lot of knowledge or know-how. While the simulation experience can be done individually, it is even better in groups, and the important knowledge transfer must take place with all participants involved. Attention levels will stay high if the instructor is able to include the experiences of all the learners or learner groups. While this will be a technologically complex environment, the transfer of knowledge will be personal, direct and rapid.



3. COURSE PLANNING: TIMING, STRATEGY AND STRUCTURING

The primary advantage of REL is to be quick. Quick and time conscious – of its delivery and run time, of responding quickly to a respondent´s need(s), of spreading information or developing skills. And not to lose the trainee in all this speed...

4.9 Timing

Quick Turnaround Times.
"Rapid e-Learning is ideal for projects that have a tight deadline or for subject matters that need to be dispersed in a very short period of time. For example, if you need to create eLearning courses that deal with compliance policies, rapid e-Learning would allow you to bring learners up to speed quickly and effectively. Topics that are relevant in the here-and-now, such a trends and exciting news or industry developments, are also ideally suited for this eLearning approach. Some rapid eLearning courses can take just a few hours to create, as opposed to traditional deliverables which can take weeks or months to be developed."[8]

From the very beginning we need to think about timing and develop our time schedule estimates:
- How much time do we have to create the REL?
- How long should the duration of the course be?
- Are the client´s expectations regarding the time criteria realistic?

As part of course time planning and in order to know how long we will need to create and to run the course, we should consider the following elements:
- ✓ How can we structure the content and how many sessions will we need? What is the ideal time per session / per activity? – This is a very important point which we will test during the practice phase. Current knowledge from webinars suggests a duration of not more than 45 minutes per individual session!

Trainee:
- How quick can progress be made?
- Is the group homogenous?
- Do they have any previous knowledge? We can allow more experienced learners to move through the course more quickly in order to not distract other participants. In order to not lose control over a more knowledgeable trainee we would need to use lock slides, quizzes, feedback tests, etc., so they can prove or demonstrate their knowledge and we can monitor their progress.

Trainer:
For the preparation of the REL course, will they need extra time to get familiar with the content or get up-to speed?

- Do we need to offer courses and modules short enough to be accessible from a smartphone or tablet so the trainee can benefit from the flexibility of device choices or the benefits of having the option to study outside the office (not necessarily his private time but perhaps on business trips, etc.)?
- Do I need to consult with an expert regarding the content or am I the expert myself?
- Examples/Texts/Videos: Will I have to generate them or will they be provided for me?
- ...and also, naturally, the budget

The Insider´s guide (footnote 1) gives a good tip concerning the global time planning of the course, p.13 *"Here's a strategy that's always worked for me. Create a generic project plan that lays out all the possible tasks needed to build the course — from initial meeting to course implementation*

8 5 Major Rapid eLearning Advantages, http://elearningindustry.com/rapid-elearning-advantages-and-disadvantages

to course evaluation. It's key that you list all the possible tasks. Once you have your tasks listed, create a timeline. You might want to start with a project timeline of 90 days. This gives you a good starting point. Based on the project needs, you can add or remove time."

4.10 Structuring

There are a few aspects which are crucial for REL to be effective.

The learning objectives and content need to be meaningfully modularized. This offers each learner the opportunity to be able to select just those modules which they are not familiar with.

Example:

- ✓ We want to prepare e-learning content for the subject „Successful Garden Party" so we can create following modules:
  - › know your guests
  - › know your garden's facilities
  - › know your menu
  - › know your drinks on offer
  - › know your entertainment
  - › know your alternatives
  - › know your agenda
  - › involve your guests

4.11 Definition and choice of appropriate Rapid e-learning tools

We have to adapt the choice of tools and materials to the REL character.

For a defined list of tool categories available for REL, see Chapter 3.

If we have identified a specific and suitable tool, we should ask ourselves the following questions:

- ✓ What is XY tool? Which tool category does it belong to?
- ✓ Which areas of the training process will XY support?
- ✓ What are the key features of XY as a learning/teaching tool?
- ✓ What are the advantages and challenges of XY? Is it fast? How much does it cost?
- ✓ XY technology: is it based on standards? Is it open source or proprietary?
- ✓ What are the hardware requirements, technical specs, software and functionalities? Is technical support available?
- ✓ When should XY be used? What are the key skills, activities and objectives?
- ✓ What materials can be prepared via XY?
- ✓ What learning activities can be prepared via XY?
- ✓ What is the trainer's role in using XY?
- ✓ Will the trainees appreciate the XY tool?
- ✓ What role will XY play in the context of motivation, results or efficiency?

4.12 Creation of learning materials

This will be the chapter to define the steps, sequences and activities to be implemented in order to obtain defined aims.

The speed element must be respected as a basic attribute of REL, but the REL course should not only be quick to prepare in a short amount of time. Within the given time schedule it has to be efficient, so that a trainee´s time is used in as meaningful a way as possible. It is about efficiency. To increase efficiency, we need the right motivation.

When the primary focus is on rapid preparation and/or cost effectiveness, it is easy to slip to the extreme and turn the course into a dull, template based course that only transfers information. That can discourage trainees because they won't see a connection with the real world.

- ✓ Each Module needs to have a relevant content-related header (possibly with a short description) – aiding the learner in the above mentioned selection process.
  - › know your guests (guest list, invitations, confirmation)
  - › know your garden's facilities (grill, tables, chairs, sun/shade, gazebo/umbrella)
  - › know your menu (meat, vegetables, sweets, party snacks)
  - › know your drinks on offer (soft drinks, beer, wine, sparkling water, juices, mixed-drinks, spirits)
  - › know your entertainment (music, games, performances, dancing)
  - › know your alternatives (what if some of the planned activities do not work?)
  - › know your agenda (what could happen? when?)
- ✓ involve your guests (in preparation, with supplies, with entertaining)
- ✓ Each module should not exceed 15-30 minutes in length. If there is too much to tell about or explain, divide one subject into smaller parts, i.e. break it down!
- ✓ Each methodological aspect should be supported with a meaningful example.

EXAMPLE: KNOW YOUR DRINKS ON OFFER

Firstly, depending on the audience, we can select soft drinks, alcoholic beverages or a combination of them. Furthermore, we will need to consider cold and/or warm drinks.

The audience may be too young to drink alcohol or, if coming from certain ethnic backgrounds, the drinking of alcohol is prohibited.

As you can easily see here, without more information about the target audience, we will not be able to generate a successful offer.

A **second** important aspect is the budget, or the amount the sponsor of the event is prepared to spend for the drinks.

A **third** critical aspect is the volume per person, which might also depend on the expected weather at the event!

The **fourth** aspect is the quality of the drinks, i.e. discount quality, from biodynamic agriculture or only certified/rated products.

The Quiz seems to be a very important activity within REL and accomplishes more than one role and being a kind of interactive activity.

Quiz – Pros & Cons: Quizzes also bring about the element of challenge and provide feedback. There are gamified quizzes as well and can be an interesting option to explore.

How do we evaluate it? We need to use the right kind of questions in order to guide the trainee through the subject. We do not want to intentionally confuse him with questions that are too complicated or too easy. Our knowledge of the topic is crucial here in order to prepare meaningful questions.

4.13 Special tips for tool environments

4.13.1 Using Webinar-SW

Normally, the preferred choice for a course development tool is Powerpoint, since it is readily available on most computer systems.

On top, there are many templates available which will allow the trainer to quickly generate course content.[9] However, we need to be careful when generating this powerpoint content! Consider the 10 rules of Garr Reynolds:[10]

1. Keep it simple. A complicated and complex message will not reach our learners easily!
2. Limit bullet points and text. If every slide looks the same, it becomes very boring; the slide show can never replace a document, so rather place a link to the document or offer your explanations in a down-loadable link.

aim for something like this simple slide above.

And this is even better…

3. Limit transitions and builds (animation). You can use it where it makes sense but certainly not every time and do not repeat the same animation again and again.
4. Use high quality graphics. Clip art was designed for slow internet connections and weak graphics processors. Today, a high quality image attracts much more attention and will often be more to the point. Don't shy away from generating the images yourself by using a smart-phone or digital camera.

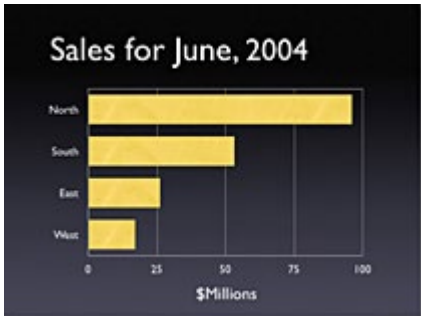
9 http://www.presentationmagazine.com/new-powerpoint-presentation-templates-32.htm
10 http://www.garrreynolds.com/preso-tips/design/

Try to avoid cheesy clip art like this

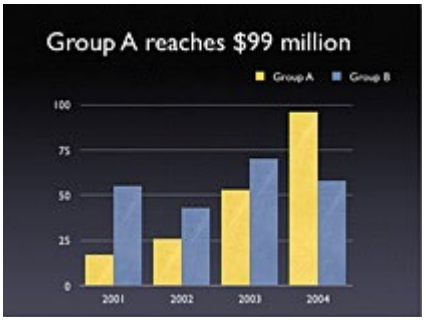
In this slide of the same presentation, the image is secondary and "pushed" to the back by editing it first in Photoshop

5. Have a visual theme, but try to avoid standard powerpoint templates. There are large numbers of theme libraries which go much beyond the standard patterns. Spend a few minutes to search for a theme which will best represent your topic.
6. Use appropriate charts – they explain more than words. Here are the most relevant examples. Remember, the charts are generated by providing the data in a separate form, not visible to the audience.

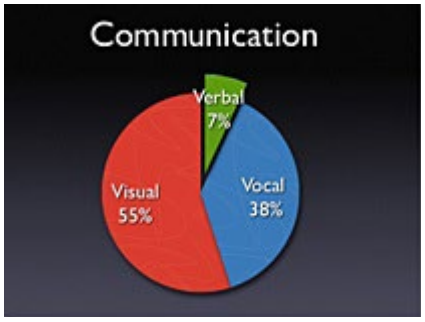
Horizontal bar Chart
Used to compare quantities. For example, comparing sales figures among the four divisions of the company



Vertical bar Chart
Used to show changes in quantity over time. Best if you limit the bars to 4-8



Pie Chart
Used to show percentages. Limit the slices to 4-6 and contrast the most important slice either with color or by exploding the slice.



7. Use color well. The right color can help persuade and motivate. Studies show that color usage can increase interest and improve learning comprehension and retention. Colors can be divided into two general categories: Cool (such as blue and green) and Warm (such as orange and red). Cool colors work best for backgrounds, as they appear to recede away from us into the background. Warm colors generally work best for objects in the foreground (such as text) because they appear to be coming at us.
8. Choose your fonts well. Use the same font set throughout your entire slide presentation and use no more than two complementary fonts (e.g. Arial and Arial Bold).
9. Use video or audio. Using video clips to show concrete examples promotes active cognitive processing, which is the natural way people learn. You can use video clips within PowerPoint without ever leaving the application.
10. Spend time with the slide sorter. According to the Segmentation Principle of the multimedia learning theory, people comprehend better when information is presented in small chunks or segments. By getting out of the Slide View and into the Slide Sorter view, you can see how the logical flow of your presentation is progressing. In this view you may decide to break up one slide into 2 or 3 slides so that your presentation has a more natural and logical flow or progress.

4.13.2 Using e-learning authoring SW for content creation (e.g. Articulate Storyline)

Firstly, it should be clear that the above tips for powerpoint do, of course, also apply to the use of Storyline.

Here are some of the key aspects to consider when working with Storyline:

1. If you are planning to **teach the use of an SW application,** make sure you include Screen shots of that application. It will dramatically improve the learning process. Screen shots can easily be integrated into Storyline. Follow the tips.[11]
2. Know which platforms are going to be used for your course (desktop, notebook, smartphone, etc.) Certain functionalities might not be available for all platforms (.e.g. Java script limitations, see[12]).
3. Put yourself in the shoes of the learner. This will guide you in your selection of animations. Only if it supports the rapid e-learning methodology, will it make sense!

11 http://blog.commlabindia.com/elearning-development/develop-software-simulations-with-articulate-storyline
12 http://www.articulate.com/support/storyline/javascript-best-practices-and-examples

4.13.3 Using e-learning management SW (e.g. Moodle)

During my practice with course management tools, I came across the following key principles:

- It is important to have an up-front overall structure of the courseware managed by Moodle, since it can become a complex environment.
- Since Moodle also acts as a repository for courseware, assure the following key aspects:
  - Have an author assigned for every piece of courseware
  - Have an expiry date (e.g. 2 years) for every piece of courseware. If, by that date, nobody feels responsible for an update, most likely this courseware element is outdated – or at least the author has changed companies, so management action will be required.
  - Manage access rights. Don't let everybody do everything. Remember, you will, over time, have invested a lot of corporate energy into the moodle course library!

BEST PRACTICES IN MOODLE COURSE DESIGN[13]

1. DISCLAIMER Best practices are still evolving. Know and consider your audience. Do what you can.
2. DON'T use more than 3 font styles per page.
3. DO maintain consistency. Screen capture from http://coolcourses.moodle.org/course/view.php?id=43
4. DO use topic summaries and labels.
5. DON'T use the course page for content.
6. DO use the course page as a launch pad.
7. DO beware the bling!
8. DON'T be afraid of white space.
9. DO use images to enhance your course.
10. DON'T force users to scroll and scroll and scroll.
11. DON'T overdo the activity names.
12. DO keep the activity names short and sweet.
13. DO simplify delivery!
14. DON'T be the one doing all the work! Screen capture from http://coolcourses.moodle.org/course/view.php?id=4
15. DO let students participate and collaborate.
16. DON'T forget about the logs.
17. Course settings > Show activity reports > Yes DO let students see their logs.
18. DO give your learners completion tracking.
19. DON'T overdo the conditional activities.
20. DON'T be afraid to branch out!
21. DO work together.

13 http://www.slideshare.net/michelledmoore/teaching-with-moodle-best-practices-for-course-design-i-moot-11

4.14 Assesment, feedback AND follow up

See also[14] p.101-104.

Assessment brings feedback to the client who requested the course, to trainees and also the trainer/creator of the REL module.

We should remember that partial feedback is very important in order to monitor trainee progress and to bring interactivity into the course.

But it is also important for the trainee to be able to assess their own progress. This can be part of motivation.

Criteria for the assessment depend on the previously set goals and aims of the training.

Attendance, while sometimes important (e.g. regulatory requirements), is not the only criteria.

We have at our disposal:
- ✓ Quizzes
- ✓ Feedback tests
- ✓ Surveys/Questionnaires
- ✓ Results from simulations, if incorporated into the course
- ✓ Statistics

To think in the most practical way about rapid e-learning, we recommend the following web pages:

http://webinar2learn.eu/upload/files/0/40/w2l_metodyka_EN_nowa.pdf
http://elearningindustry.com/
http://blogs.articulate.com/rapid-elearning/

14 http://newmediaproduction.eu/upload/files/0/10/NMPM_eng_web.pdf p.101-104

CHAPTER 5

Rapid e-learning strategy – building and implementation

5. RAPID E-LEARNING STRATEGY – BUILDING AND IMPLEMENTATION

5.1 Strategy – what is it?

In order to develop an enterprise operation's strategy, regardless of the area, first it is necessary to know and correctly understand the definition of this term. However, selecting one definition from the range available in the literature on the topic might be difficult.

Below we present those which present the issue in the clearest way:

"A strategy expresses long-term objectives of the enterprise, which correspond to the general direction of operations as well as presents the allocation of resources necessary for the implementation of the assumed objectives."
A.D. Chandler; 1962

"A strategy 1) is a group of objectives (tasks), organized in programs and plans, 2) constitutes a model of making decisions concerning the enterprise's position and identity, its ability to use its assets and the probability of achieving success on the market."
K.R. Andrews; 1971

"Most often, strategies are general programs focused on using the potential of the creative system as far as possible in order to achieve the set objectives."
H. Koontz, C. O'Donnell; 1984

1. Framework definition: a strategy is a plan comprising tasks referring to the functioning of the organization in the future (the top management units bear the responsibility for the performance of those tasks).
2. A market strategy is a program of effective activities of enterprises on the relevant market (as opposed to the strategy of searching new advantageous markets)
3. An enterprise's strategy is a general program of the company operations development.
4. Fractional strategies are decisions on specific types of activities, separated within the enterprise or referring to some detailed problems. The examples of such strategies may include decisions on the units location, price levels, type of advertising etc.
   Dictionary of Business English; 1989

A strategy – a wide program of setting and achieving aims in the organization; the organization's reaction in time to the impact of its environment.
J. Stoner, R. Freement, Gilbert 1997

As one can notice, all definitions are based on the enterprise's objectives and the manner of their full achievement.

It is similar in the case of the rapid e-learning strategy. The first step is to set the aims of introducing such actions in the company and then defining the way they will be achieved.

5.2 How is a rapid e-learning strategy built step by step?

The first problem to be addressed at this stage is to answer the question of whether rapid e-learning is to be a part of a bigger knowledge management system in the company or an independent education initiative beside the company's other training programs. In the former case, the knowledge management strategy of the company must be developed and this learning model should be considered.

The latter case is what interests us. As mentioned above, a strategy should start with setting an objective and, step by step, include the elements which get us closer to achieving it. However, before the company sets any objectives, it must evaluate the current situation and the potential for the development of rapid e-learning in the company.

5.2.1 Organization analysis

At this stage, the current situation of the organization must be assessed together with the potential for developing a rapid e-learning system. The following questions may be helpful:

- What kind of knowledge do the company experts possess?
- What kind of knowledge is the company willing to share?
- Who will the knowledge be shared with within the company?
- Will all, or just a part of the company's knowledge resources be shared outside the company?
- Why is the a particular type of knowledge worthy to be shared with selected recipients?
- Which company experts can participate in knowledge sharing?
- What are the training needs of the employees?
- What are the training needs of the external environments that the company wants to reach?
- Do their competitors conduct similar activities?

Obviously, this is not a closed list of questions. It may be extended in any way, considering the characteristics of the organizations who would like to implement a rapid e-learning system.

While adding more questions to this list, one must remember that they should be relevant to the areas in which the company should focus in the context of rapid e-learning.

5.2.2 Defining the rapid e-learning objective

As we have mentioned above, the objective is the foundation for building any strategy of action. This is the point to which the other strategy elements should bring the company. While defining the objective, it is worth it to remember SMART. This concept helps to set the objective correctly, which in turn, increases the chance of fulfillment. It is effective, as it requires a very thorough analysis of what the company wants to achieve by defining 5 fundamental features that a real and well-set goal should have.

Namely:
S – specific – the goal must be clearly formulated, precise, and easy to understand
M – measurable – the goal must be measurable, which means that it is verifiable by objective measures whether and to what extent it has been achieved
A – achievable – the goal must be achievable; it cannot be too difficult to achieve
R – realistic – the goal must be realistic, which means that existing resources must be sufficient for its implementation, but it must be a real "step forward" in the company's operations
T – Time-bound – the goal must be specified in time, its execution must not be postponed forever

There is also an extended version of this model – SMARTER. The two additional letters of the acronym mean:
E – exciting – the goal should be exciting, which means that both its authors and recipients should not be indifferent to it; they should be motivated by it
R – recorded – the goal should be written down, as it helps in its achievement – it is more difficult to give up on recorded goals

Obviously, for rapid e-learning actions, it does not have to be a single objective. There can be a few of them. It is, however, worth remembering that too many objectives may result in blurred goals and have a negative impact on the whole strategy. That is why it is good to define no more than 3 top priorities.

5.2.3 Selection of company experts

Each company has employees who, from the organization's point of view, have important knowledge which should be shared with other employees. At this stage of building a rapid e-learning strategy these persons must be identified and assessed in terms of whether they will be able to share their valuable knowledge with others.

With what characteristics should an ideal expert be armed? The internet and various publications concerning this topic include numerous lists of required characteristics. Almost all of them comprise the following attributes:

- Wide experience and extensive knowledge of the subject matter
- Passion for one's field of expertise and ability to get others involved in the topic
- Is open, communicative, patient
- The ability to adjust their communication style to the expectations of others
- The ability to prepare training materials
- Acting on one's own initiative, able to present positive models of conduct
- Easiness in speaking in front of the camera
- Available
- Distinctive
- Pragmatic – defined as being able to combine the shared content with the everyday work of the recipients

Naturally, each company may add its own requirements regarding the abilities, appearance, eloquence or general experience to this list.

5.2.4 Selection of rapid e-learning tools

The selection of rapid e-learning tools is closely related to the preceding stages. Finally, one should select the tools which allow them to provide maximum knowledge through selected experts and to achieve the aim.

The following tools can be used for that purpose:
- Moodle Platform,
- Articulate Storyline
- Gamification
- Webinars
- Presentations (e.g. PP, Google Slideshow, Prezi)

Detailed descriptions of the tools, their advantages and capacities are included in Chapter 3.

5.2.5 Time and training approach

Time is the important element which distinguishes rapid e-learning from other e-learning methods. The methods and strategy of planning e-trainings are a vital issue too. Therefore, we dedicate a separate chapter to the topic – 5.3. Still, we can say a few words about it here just to keep the order necessary for building a proper rapid e-learning strategy.

5.2.6 Measuring the effects of rapid e-learning

Setting goals is one thing. Finding the way to lead the company to achieve them is another. Nevertheless, it is not possible to verify if those stages were fulfilled without measuring the effects of the actions.

One of the simplest tools which the company can use are knowledge tests after each training. Such tests are prepared by the authors of the training courses or the company experts. They allow the measurement of the level of knowledge acquired by the training participants. However, they cannot verify whether they will apply this knowledge in their everyday work.

Another method of evaluating the training courses (both full-time and online) is with post-training surveys. The participants can assess the trainer, materials, training agenda, the increase in their level of knowledge etc. Most often 1-5 grade scales are applied where:

- **1** = very bad
- **2** = bad
- **3** = average
- **4** = good
- **5** = very good

This assessment is based exclusively on the participants' subjective impression. It does not say what the participant will do with this answer in the future.

Training assessment with the use of Kirkpatrick's model is definitely more complex. It assumes a four-level evaluation:

- **Level 1: The participants' reaction** – assessment immediately after the training, e.g. in the form of surveys
- **Level 2: Learning** – the assessment of the level of acquisition of new knowledge, skills and attitudes
- **Level 3: Behaviors** – the assessment of utilizing the new knowledge and abilities in everyday work
- **Level 4: Results** – the assessment of the extent to which the objectives specified by the company were executed

This last model allows for complex examination of not only the knowledge gain and satisfaction with the training, but also the influence of the new information and skills on the everyday work of the training participant and, at the same time, the fulfillment of the goals set by the company.

5.3 The strategy of planning trainings in rapid e-learning

As mentioned above, defining the time and manner of the training is one of the most important elements of building a rapid e-learning strategy. In order to define those parameters, a separate, smaller strategy of planning the subsequent rapid e-learning trainings should be developed.

5.3.1 Types of e-trainings

At this stage it is worth recalling what opportunities remote education offers to participants and trainers. This type of training can be delivered as:

- **Self-service training** – multimedia, shared online, organized according to a programed scenario, not requiring the direct involvement of a trainer, can be distributed both inside and outside the organization without fear of disclosing company secrets
- **Self-service training – e-training** – carried out with the participation of an expert with whom the participant can consult in the event of any subject matter or technical problems during the training
- **Non-self-service training supervised by the trainer** – e-training with a trainer

5.3.2 Developing rapid e-learning training strategy

Preparing a rapid e-learning training strategy greatly depends on the needs of the company and its employees. It is not the only factor, though. The tools for creating rapid e-learning offer a lot of room for the creativity of trainers, company experts and persons responsible for knowledge management in the company.

In order to adjust all those elements, it is worth analyzing a few aspects:

- Who will the recipients be:
  - Size and number of groups
  - Computer skills of the potential participants
  - Technical capacities – access to the internet
  - Potential, abilities, openness to new forms of acquiring knowledge, motivation for learning
  - Time available for learning
- When the training process should start and finish.
- What (financial, technical) resources the company possesses for the performance of rapid e-learning trainings.

5.3.3 Types of e-learning education

Rapid e-learning is a part of a bigger whole – e-learning. Four basic types of education can be distinguished within it:

1. **Self-education** – learning without a trainer. The participant completes the whole course in the place and time of their choice. This type of training requires strong motivation and independence from the learner. The participants of such courses do not contact each other and the trainer is, in fact, just the author of the materials.

2. **Asynchronous learning** – in this type of training, the participant has contact with the trainer. However, they do not have to be online at the same time. They usually communicate through a forum, chat or e-mail. The basic advantages of this kind of education are as follows:
   - The possibility of education in any location – both the trainer and the participant can work on the course e.g. from home

- Flexibility – after logging in, all materials are available on all devices and in any location with internet access
- The possibility to think over the topic and address any doubts – thanks to contact with the trainer
- Low costs – they depend on how advanced the content and the whole system is, but they are definitely lower than in the case of traditional training

3. **Synchronous learning** – the trainer and the participants must be active at the same time. This model resembles traditional trainings the most. However, it takes place online and not in a training room. Its benefits include:
   - Interaction with the trainer and other participants in real time
   - Possibility of working individually or in a group
   - Possibility of presenting materials during a discussion
   - Possibility of constant monitoring of the participants' work
4. **Blended learning** – combines courses carried out on the internet with traditional trainings in a training room.

The knowledge of the types and forms of e-education will allow the ideal training model to be adapted to the needs of the company and its employees. It also enables the company to select suitable tools, the timing and the design of the educational program for the relevant group of recipients.

5.4 Implementing rapid e-learning in the company

E-learning and rapid e-learning in particular, are becoming more and more popular in companies. Now even more so, since rapid e-learning is connected with a significant reduction of preparation costs and time. The key problem is, therefore, to decide on how to implement this system in the organization.

5.4.1 Preparing for the implementation of rapid e-learning

The advantages of applying rapid e-learning in a company are well-known. However, there are also some threats and obstacles which can lead to the failure of this initiative. In order to avoid this situation, one must carefully analyze the needs and potential problematic areas in the company.

The following questions can prove helpful:

- Should I implement rapid e-learning, and if yes, how?
- What benefits will the implementation of rapid e-learning bring to the organization?
- What dangers and chances can arise from introducing e-learning into the company's organizational structure?
- Are the employees ready for the implementation of rapid e-learning?
- How can the new tool be optimized so that it brings best possible results?
- In what way should the knowledge be conveyed in training sessions?
- What tools are optimal for providing knowledge in the relevant situation?
- How are results of rapid e-learning training measured?
- Who should be the recipient of the course?

5.4.2 Barriers in implementing e-learning

There are three basic types of obstacles which a company can encounter while implementing rapid e-learning. These are:

- Human barriers
- Technological barriers
- Organizational barriers

The human barriers are connected with the fear of something new and unfamiliar. Additionally, they may include problems with computer literacy, low quality of content/unattractiveness of the training, and lack of learners' motivation and regularity. A panacea for this situation can be to prepare employees for the change; explaining to them the grounds and the benefits. Additionally, a course could be organized to address lack of confidence in computer skills or a training course for the program on which the e-learning system/training courses will run. Developing an incentive program for the most active students can be a good solution too.

The technological barriers include mainly problems with the age and quality of the company's IT equipment or weak Internet connection. Before implementing the rapid e-learning system, it is worth checking if the stationary computers and internet connection will be capable of operating the training and, if needed, the technical infrastructure can be modernized.

The organizational barriers refer to a generally negative approach to knowledge management and sharing knowledge within the organization. Overcoming these barriers is connected with the necessity to change the perceptions of management and promoting the new solutions among the employees through internal channels.

Each company is different, just as the employees' attitude to the novelties is. It is not possible to name all potential problems which the company may encounter while implementing a rapid e-learning system. Nevertheless, it is important to respond quickly to all challenges and try to find adequate solutions to the situation. Only a quick reaction will eliminate the barrier and enable the implemented system to work properly.

GLOSSARY

Auditory (aural) learning style – preference for learning based on sound and music.

Blended learning – a learning technique in which a student learns in part through delivery of content and instruction via digital and online media with some element of trainer control over time, place, path or pace on spot.

Content Management System (CMS) – software that allows the easy creation of a website, and its updates and expansion can be performed by non-technical staff. CMS enables the access and full control over created content which is also available for others.

Desktop virtualization – the concept of isolating a logical operating system instance from the client who is accessing it, however it doesn't necessarily mean the involvement of virtual machines. There are two main categories based on whether or not the operating system instance is executed locally or remotely. (Source: http://searchvirtualdesktop.techtarget.com/definition/desktop-virtualization).

E-learning – a learning technique with a use of a computer's multimedia technology, computer network and internet.

Expert – not necessarily having a training background, the expert is very familiar with the content matter and will often have specific coroprate knowledge, relevant for specific aspects. He provides up-to-date information regarding content or tools.

Feedback – a return of information about a process, behavior, result, etc.

Gamification – based on the mechanics known from role-playing and computer games, to modify the behavior of people in situations other than games, in order to increase the involvement of people.

Interface – The layout or design of the interactive elements of a computer program, an online service, or an electronic device.

Kinesthetic learning style – preference for learning via using body, hands and sense of touch.

Learning Content Management System (LCMS) – a system for designing, creating, storing, managing and publishing content.

Learning Management System (LMS) – a platform which allows management and control of the training process, generate reports about ongoing activities, conducting training sessions, communication between students and teacher group work. It can also contain a module for content creation.

Learning styles – "Learning styles group common ways that people learn. Everyone has a mix of learning styles. Some people may find that they have a dominant style of learning, with far less use of the other styles. Others may find that they use different styles in different circumstances.

There is no right mix. Nor are your styles fixed. You can develop ability in less dominant styles, as well as further develop styles that you already use well." (Source: http://www.learning-styles-online.com/overview/).

Moderator – needed, if trainee group interaction is required. Could be as well trainer, but can also be a separate person. His task is to assure interaction and engagement during the training.

Moodle (Modular Object-Oriented Dynamic Learning Environment) – one of the most popular educational platforms. On one hand, it is a Content Management System, on the other hand, a Learning Management System.

Navigation – refers to clicking or tapping buttons and menus or using multi-finger gestures to activate functions on a website, program or an application.

Open-source software (OSS) – a computer software which can be freely used, modified and shared by anyone. OSS is developed as a collaborative effort in which programmers improve the code and share the changes within the community.

PHP interpreter – PHP engine installed on your computer opposite to remote PHP interpreters that can be installed on a remote host or in a virtual environment.

Power Point – a slide show presentation program developed by Microsoft.

Prezi – a cloud-based (SaaS) presentation software and storytelling tool for presenting ideas on a virtual canvas.

Rapid e-learning – a learning technique, the intention is to spend no more than three weeks' time to prepare and conduct the course. The learning experience is rapid, since the time learners' need to obtain new skills/know-how can be reduced. The learning experience is based on the use of electronic media. As a result of participants being exposed to the rapid e-learning experience, they should have improved their skills or have more knowledge.

Rapid e-Learning Master – a project providing a collection of technologies, tools and procedures to use for SMEs and big companies.

SCORM (Sharable Content Object Reference Model) collection of standards and specifications for web-based electronic educational technology which defines communications between the content on the client's side and a host system.

Script – a simple program in a language that the computer must convert to machine language each time the program is working.

Strategy – a high level plan to achieve one or more goals under conditions of uncertainty. Strategy generally involves setting goals, determining actions to achieve the goals, and mobilizing resources to execute the actions. A strategy describes how the ends (goals) will be achieved by the means (resources).

Trainee/Learner – needs or wants to learn provided REL courses. In order to improve rapid e-learning, providing feedback and interaction with the REL modules and associated surveys is needed.

Trainer – a person who understand training needs, prepare content, using REL possibilities and select appropriate tools for a course.

Visual (spatial) learning style – preference for using pictures and images in learning. Those whose dominant learning style is visual, have better spatial understanding compared to other learning styles.

Webinar – a web-based seminar with transmission of video and audio online (over the internet) from one source to a large audience.

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