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DIPLOMARBEIT

Titel der Diplomarbeit

„21st Century Skills – Status Quo in Austrian HLW EFL
Classrooms and Implications for Teaching“

Verfasserin

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angestrebter akademischer Grad

Magistra der Philosophie (Mag.phil.)

Wien, 2014

Studienkennzahl lt. Studienblatt:

A 190 353 344

Studienrichtung lt. Studienblatt:

Lehramtsstudium UF Spanisch UF Englisch

Betreuerin:

Univ. Prof. Mag. Dr. Christiane Dalton-Puffer

To my mom

The best role model a girl could ask for

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ABSTRACT

The thesis explores the concept of 21st Century Skills, evaluates its relevance for the Austrian education system and proposes possible ways of integrating it into the English as a Foreign Language (EFL) classroom. For this purpose a survey on the status quo in Austrian Secondary Schools for Economic Professions (HLW) was conducted. To begin with, the first part outlines the general background and description of the framework created by the *Partnership for 21st Century Skills* in collaboration with the authors Trilling & Fadel (2009), on whose book this thesis is based. An analysis of the specific Austrian context, in regard to the national

school system, the graduates' employability, the standards set by the *Common European Framework of Reference* (CEFR) and the official HLW curricula as well as a definition of the Austrian Generation Y will be provided. In the second part, the results of a nationwide online questionnaire concerning the practice of 21st Century Skills will be presented. The objective of this section is to evaluate the status quo in Austrian HLW EFL classes and the teachers' attitude towards new teaching approaches. The thesis closes with practical implications for the EFL classroom one can use as a starting point towards an appropriate 21st century education.

ZUSAMMENFASSUNG

Diese Arbeit behandelt die Thematik der „21st Century Skills“. Sie evaluiert deren mögliche Relevanz für das österreichische Schulsystem und zeigt potenzielle Wege der Integration im Englischunterricht auf. Für diesen Zweck wurde eine Umfrage bezüglich des Status Quo in österreichischen Höheren Lehranstalten für wirtschaftliche Berufe durchgeführt. Der erste Teil beschäftigt sich mit einem Einblick in dieses Lehrkonzept, basierend auf der Literatur von Partnership for 21st Century Skills, welches in Kooperation mit Trilling & Fadel entwickelt wurde. Diese bildet die Grundlage für meine Arbeit. Um deren Relevanz für den österreichischen Kontext zu evaluieren, wurde das nationale Schulsystem, die Vermittelbarkeit der AbsolventInnen in der Arbeitswelt, die vorgegebenen Standards des gemeinsamen europäischen Referenzrahmens für Sprachen (CEFR) und des offiziellen Lehrplans für Höhere Lehranstalten für wirtschaftliche Berufe, sowie die Situation der Generation Y untersucht. Im zweiten Teil werden die Resultate des landesweiten online Fragebogens präsentiert. Die Ergebnisse porträtieren den Status Quo im österreichischen HLW Englischunterricht und die Einstellung der befragten LehrerInnen gegenüber neuen Lehransätzen. Der Abschluss dieser Arbeit verbindet die Theorie mit der Praxis und wird durch praktische Anregungen für einen für das 21. Jahrhundert adäquaten Englischunterricht, vervollständigt.

List of Abbreviations

AHS	<i>Allgemeinbildende Höhere Schule</i> ‘Secondary School’
AMS	<i>Arbeitsmarktservice</i> ‘Austrian Employment Center’
ASCD	Association for Supervision and Curriculum Development
BHS	<i>Berufsbildende Höhere Schule</i> ‘Secondary Vocational School’
BIAC	Business and Industry Advisor Committee
bmukk	<i>Bundesministerium für Unterricht, Kunst und Kultur</i> ‘Ministry of Education, Arts and Culture’
CLIL	Content and Language Integrated Learning
EFL	English as a Foreign Language
HLW	<i>Höhere Lehranstalt für Wirtschaftliche Berufe</i> ‘Secondary School for Economic Professions’
ICT	Information and Communications Technology
iv	<i>Industriellenvereinigung</i> ‘Austrian association of industrialists’
OECD	Organisation for Economic Co-operation and Development
PBL	Problem Based Learning
PISA	Programme for International Student Assessment
P21	Partnership for 21 st Century Skills

1. Introduction

The Austrian school system is outdated. Austria is falling behind in international image studies and all parties in contact with the system, from students to teachers and parents to policy makers, are dissatisfied with the lack of change made by the government in the past few years. The world has changed, but the education system has not followed correspondingly. How can we work with technology that is developing so fast that once we get used to one tool another is suddenly promoted as being more effective? How can we support talented students without leaving other children behind? How can we adjust teaching methods to the evolved learning habits of today's digital natives? And how exactly can we consider all of these elements without burning out ourselves because of these rapid developments in our everyday surroundings and work policy alike?

The present thesis does not claim to provide all the answers to these crucial and pressing questions of the 21st century. However it does aim to contribute meaningful intelligence to the ongoing discussion on the future of the Austrian school system. In particular, it is intended to provide a new angle on the debate and suggest a new approach which is thought to be a valuable starting point towards an innovative education system. To do so, the thesis draws on an increasingly popular concept defined by the *Partnership for 21st Century Skills*. Under the umbrella term of 21st Century Skills, a tool kit of necessary abilities for successful citizens of this century emerges. Some of these are not new to professional educators, but others have not yet been considered sufficiently. They form the basis of this research project and will be looked at in terms of relevance and applicability to the Austrian context. In order to be able to provide a comprehensive overview of the topic, a three-part structure was chosen; The Theory, The Practice and The Implications.

The first part of the thesis at hand will explore the theoretical background of the 21st Century Skills. This includes a brief examination of the development of this movement and an introduction of the creators of this particular concept. Subsequently, each of the seven core skills, the so-called 7Cs, will be presented and their importance for the EFL classroom discussed. In this way, different points of view are explored. Analyses of the Austrian school system, its official curricula, the CEFR as well as the needs from the economy's perspective and the actual protagonists, Austria's *Generation Y*, added to the bigger picture of this topic and completed the theoretical part of this paper.

The second part is dedicated to the investigation of the actual status quo in Austrian schools. For this purpose, a study has been conducted which examined the attitude of English teachers towards the concept of 21st Century Skills, their knowledge of it and their current teaching practice concerning this matter. The study focuses on the reality in *Secondary Schools for Economic Professions* (HLWs) and retrieved data from all 9 states in Austria.

The third and final part of this paper intends to connect the theory of the 21st Century Skills concept with the actual practice in the HLW English classroom. According to the results of the second part, implications for future teaching opportunities of this approach will be proposed. For that purpose, meaningful activity examples will be provided for the reader. In addition, internet sources related to this topic will be presented briefly in order to facilitate the consecutive step of application for interested English teachers. Finally, after having explored the theoretical background of the concept of 21st Century Skills, its relevance to the Austrian context and the status quo in the Austrian HLW EFL classrooms, the practical teaching implications complete this inquiry and provide some valuable material readers will find useful for future lesson plans.

1.1. A Remark on Terminology

A quick excursion in order to illustrate the relevant terminology of this text will assist in following the arguments presented in subsequent chapters. Clarification on the application of the two crucial terms, skills and competences, will be made before Austrian-specific school items will be described.

To facilitate discussion, the terms skills and competences will be used interchangeably throughout this thesis. However, it should be noted that different definitions of both words can be found in the literature and that they are not always used as one concept. In this regard, Ananiadou & Claro (2009: 8) compared distinct interpretations and conclude that a competence is mostly described as “a broader concept that may actually comprise skills”. The online dictionary (dictionary.reference.com) defines competence¹ as “the quality of being competent; adequacy; possession of required skill, knowledge, qualification, or capacity”, whereas a skill² is described as “the ability, coming from one’s knowledge, practice, aptitude,

¹Refer to: <http://dictionary.reference.com/browse/competence> (Accessed April 2014)

² Refer to: <http://dictionary.reference.com/browse/skill?s=t> (Accessed April 2014)

etc.” and the “competent excellence in performance; expertness; dexterity”. For the sake of simplicity and in order to avoid repetition, 21st century skills and competences alike will share the same definition in this account, being the abilities teachers of this new millennium are advised to teach and nurture in their classrooms in order to prepare their students appropriately for the challenges of this century.

Also, since this thesis deals with a non-English context, that of German speaking Austrian classrooms, some of the crucial terms used are in need of a short introduction to simplify the reading process. First of all, a distinction between an AHS school and a BHS school has to be made. The abbreviation AHS stands for ‘Allgemeinbildende Höhere Schule’ which basically describes a general academic secondary school, also called high school. Here the focus lies on general knowledge education and ends at age 18 (grade 12) with the standardized final school-leaving exam. A BHS on the other hand is, as the name ‘Berufsbildende Höhere Schule’ already implies, a higher secondary vocational school, where students receive a general education as well as professional training and practice. The students graduate at age 19 (grade 13) due to the additional occupational input.

The research area of this thesis concentrates on one particular brand of BHS, the “Höhere Lehranstalt für wirtschaftliche Berufe” (HLW). This is a secondary vocational school and its target group is learners who aspire to receive a solid general education and economy-related professional training. For example, instead of general English, lessons are centered on business English and economy-specific topics. The variety of educational branches that the HLW offers to young learners in Austria includes schools which focus on business, social sciences, tourism, nutrition or health³. Due to the description of this particular but yet broad school type, the HLW represents an excellent choice of educational institution to focus this inquiry on. It claims to prepare its students for a wide range of professions and argues that it equips them with the necessary skills and competencies to start a successful career in almost any commercial context. Like in all BHS schools, the learners graduate after 5 years of training by passing the standardized final school leaving exam.

³ Refer to: <http://abc.berufsbildendeschulen.at> (Accessed April 2014)

Part 1 - The Theory

2. 21st Century Skills

“It is not the strongest of the species that survive, nor the most intelligent, but the one most responsive to change.”

- Charles Darwin⁴

As the term ‘21st Century Skills’ implies, this notion is a fairly recent one. It refers to the crucial set of skills people living and working in the 21st century should possess in order to be prepared for the challenges of life; personal ones as well as work-related demands. In the context of education, the notion refers to the competencies students should acquire and practice as part of their formation to become highly employable and content adults.

The idea that a set of crucial competencies could become the foundation of a school reform might seem a little farfetched at first, but its power definitely lies within the simplicity of this thought. The *Organisation for Economic Co-operation and Development* (OECD) published a summary of the definition and selection of key competencies and concluded that “it would be of limited practical value to produce very long lists of everything that they may need to be able to do in various contexts at some point in their lives” (DeSeCo 2005: 4). Former U.S. Secretary of Education Richard Riley (referred to by Eger 2012) supports this claim and emphasizes that “[t]he top 10 in-demand jobs in the future don't exist today. We are currently preparing students for jobs that don't yet exist, using technologies that haven't been invented, in order to solve problems we don't even know are problems yet.”.

⁴ Quote taken from: http://en.thinkexist.com/quotation/it_is_not_the_strongest_of_the_species_that/7533.html (Accessed May 2014)

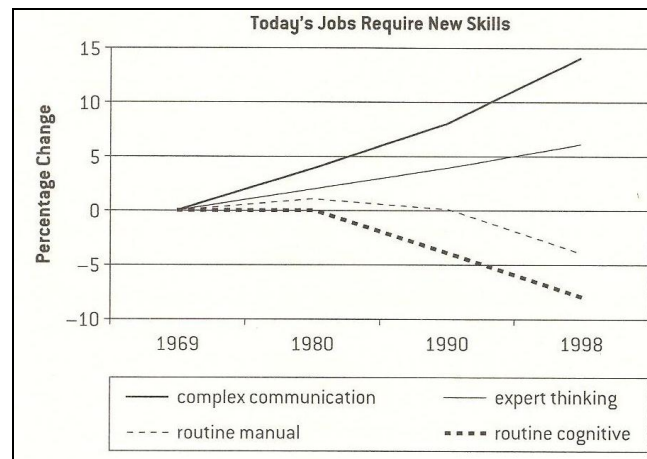


Figure 1: Today's Jobs Require New Skills (Trilling & Fadel 2009: 8)

As Figure 1 indicates very clearly, routine cognitive labor as well as routine manual labor demand already started to decrease in the 1980s and has continued to do so ever since. In contrast, workers capable of complex communication and expert thinking have become the most requested ones and it is plausible that this tendency has not yet reached its peak. Therefore, it might be the case that so far we cannot name the top 10 in-demand jobs of the future, but it is most likely that they will be of non-routine analytical or interactive character. Obviously, today's students must be prepared for their future professional life in the best way possible. Since long lists will not facilitate the solution finding process and only a few predictions regarding the future job market are reasonable, the simplicity of a concept designed around a small number of key skills depicts a welcome starting point.

Most of the literature found on 21st Century Skills in education is based on American studies about the employability and readiness of American high school graduates. However, the notion has also reached Austria and local economic experts and education policy makers have begun to think about adapting the U.S. approach for our needs. In 2011, the Austrian association of industrialists (iv) set up a conference in which representatives of the main Austrian political parties, CEOs of major companies and school experts, as well as affected students, were invited to share their opinions on the necessary reform of the Austrian school system. In his speech, the current vice secretary-general of the association of industrialists, Mr Peter Koren, predicted that Austria's future economic welfare will mostly depend on the smart minds in this country⁵. He pointed out that in a world of globalization, international networking, new technologies and communication devices, the responsible parties have to

⁵ See conference video: <http://www.iv-future.at/b119m33>: 0:50 min (Accessed April 2014)

react accordingly and ensure that Austria's young generation is appropriately prepared. The representative of the Austrian Parliament, Werner Amon (representing the Austrian ÖVP party) concretized Koren's thought and suggested three main competencies that could support Austria's students:

1. The competence to creatively solve problems
 2. Enough general education to filter the vast amount of information available in this knowledge-based society
 3. Foreign language competencies and an understanding of how the economy works
- (iv 2011: 9:21)

Especially in Austrian secondary vocational schools, some of Amon's recommendations are already being addressed. There, students acquire at least two foreign languages and gain general knowledge as well as more specific economic know-how. But is this really enough for the times ahead of us or are these suggestions only scratching the surface? An answer cannot be given at this point, but interestingly enough, the overall consensus of all guest speakers at this conference, including the students who were asked to share their point of view, can be summarized in one alarming statement: the world has outpaced our school system.

In light of this, the question arises of what it is that 21st century graduates really need and how we can teach it to them. Sue Beers (2011: ix), an experienced teacher and faculty member of the *Association for Supervision and Curriculum Development* (ASCD), believes that our main goal should be to "help students think independently about the content and seek answers to their own questions". Ananiadou & Claro (2009: 5) are more specific in their description:

[t]oday's labour force has to be equipped with the set of skills and competencies which are suited to the knowledge economies. Most of them are related to knowledge management, which includes processes related to information selection, acquisition, integration, analysis and sharing in socially networked environments.

Their concept of 21st Century Skills is grounded on the knowledge-based character of this century. Tony Wagner (2012: 142), expert in this field and author of several topic-related books, concludes that, "what you know is far less important than what you can do with what you know". In his opinion, teachers should not focus on content heavy lessons and tests anymore, but rather emphasize and support the acquisition of useful skills which help the students to transform whatever content into something new. He says that "the interest in and

ability to create new knowledge to solve new problems is the single most important skill that all students must master today” (142). The core ideas of all of these statements are generally similar. However, they differ in their definitions and labeling of terms.

In order to visualize their commonalities, the *Hanover Research* group compared the most featured theories and definitions that different experts and work groups have come up with so far. Tony Wagner’s concept of ‘Seven Survival Skills’ is one of six sets of 21st Century Skills they explored. The study also included the work of the *Partnership of 21st Century Skills*, *enGauge*, *Iowa’s Essential Concepts and Skills*, *Connecticut’s Department of Education* skills and the *Assessment and Teaching of 21st Century Skills* framework. Figure 2 shows the result.

Ranking	Skill	Partnership for 21 st Century Skills	Seven Survival Skills	enGauge	Iowa Essential Concepts and Skills	Connecticut Dept. of Ed	ATC21S
1st	Collaboration and teamwork	x	x	x	x	x	x
	Creativity, imagination	x	x	x	x	x	x
	Critical thinking	x	x	x	x	x	x
	Problem solving	x	x	x	x	x	x
2nd	Flexibility and adaptability	x	x	x	x	x	
	Global and cultural awareness	x		x	x	x	x
	Information literacy	x		x	x	x	x
	Leadership	x	x	x	x	x	
3rd	Civic literacy and citizenship	x			x	x	x
	Oral and written communication skills		x		x	x	x
	Social responsibility and ethics			x	x	x	x
	Technology literacy	x		x	x		x
4th	Initiative	x	x	x	x		
	Curiosity and inquisitiveness		x	x	x		
	Financial literacy	x			x	x	
	Health and wellness	x			x	x	
5th	Media literacy	x				x	x
	Productivity	x			x	x	
	Accountability				x	x	
	Entrepreneurialism	x	x				
6th	Information analysis		x		x		
	Basic literacy			x			
	Contextual learning					x	
	Environmental literacy	x					
6th	Interpersonal skills					x	
	Metacognition						x
	Visualization skills			x			
Note: Skills are ranked based on the frequency that they are found on the six skills lists examined in this report.							

Figure 2: Comparison of 6 21st Century Skills frameworks (Hanover Research 2011: 4)

In total, 27 different terms are mentioned within these six frameworks. As one can see from figure 2, the four top ranked skills, Collaboration & Teamwork, Creativity / Imagination,

Critical Thinking and Problem Solving are especially crucial to all six frameworks. There is also a high level of agreement on the importance of Flexibility & Adaptability, Global & Cultural Awareness, Information Literacy and Leadership Skills. Sue Beers makes a good point by summing up that all these different frameworks were not created to replace traditional teaching approaches. She argues (2011: 4) that “it is not a question of old versus new literacies; it's about carefully integrating the two to provide instructional opportunities that result in graduates who are college- and career-ready”. The author of several ASCD tool kits, which provide practical examples of how to teach in the 21st century classroom, concludes that “the framework for 21st century learning is built on a base of academic subject knowledge that students apply appropriately through the essential skills of creativity and innovation, critical thinking and problem solving, and communication and collaboration” (Beers 2011: 4). According to this point of view, it is not a disadvantage that there has not yet been a general agreement on a fixed number of skills. It is mainly important that the discussion about 21st Century Skills has begun, and that we now start to increase their usage in the classroom, evaluate their actual value and only then narrow down the list of 27 different competences.

However, since this paper cannot focus on such a long catalog, it centers the investigation on one framework only, namely, the 21st Century Skills concept developed by the *Partnership for 21st Century Skills* and their associates Trilling & Fadel.

2.1. The Partnership for 21st Century Skills and Trilling & Fadel

During the first stage of research on 21st Century Skills in education, it became clear very quickly that the most frequently quoted framework comes from the *Partnership for 21st Century Skills* organization (P21) and the associated book *21st Century Skills - Learning for Life in our Times* by Bernie Trilling and Charles Fadel (2009). Therefore, it seemed appropriate to base this research project on their work.

The *Partnership for 21st Century Skills* was founded in 2002 with the goal “to serve as a catalyst to position 21st century readiness at the center of US K-12⁶ education by building collaborative partnerships among education, business, and community and government

⁶ K-12 education includes the compulsory years of schooling beginning at grade one (primary school) and graduating at grade 12 from high school (secondary school).

leaders”⁷. The strength of this organization is the resulting coalition between these four different but equally important parties. Education experts as well as teachers contributed to the creation of P21’s framework of 21st Century Skills. Also, business partners like *Apple*, *Cisco Systems*, *Microsoft* and many more supported this movement along the way likely because it is in their interest to invest in the next generation of creative minds and possible employees. With the help of the *U.S. Department for Education*, P21 was able to fuel the ongoing discussion of a national 21st century education in the United States. Therefore, it is understandable why they see themselves as “the leading national organization advocating for 21st century readiness for every student”. The topics they are concerned with are as broad as the “standards and assessments, curriculum and instruction, professional development and learning environments”, which are all necessary ingredients to “prepare students to compete in a global economy”.

Bernie Trilling and Charles Fadel are both experts in the field of innovative teaching and wrote the book this thesis is mainly based on. They met while working for the *Partnership for 21st Century Skills* and worked together on the *21st Century Knowledge and Skills Rainbow* (see 2.2.). Trilling & Fadel aim to show practical ways of how teachers can adjust their teaching to the needs of the 21st century. They do so by defining their 21st Century Skills according to the results of their own research and additionally provide comprehensive examples and recommendations for educators, parents and policymakers.

Charles Fadel, for example, is a visiting scholar at Harvard and the Chair of the Education committee of the *Business and Industry Advisory Committee* (BIAC) to the *Organization for Economic Co-operation and Development* (OECD). He acquired a lot of his practical knowledge from experiences with different educational systems and institutions in over 30 countries. His work experience also includes a highly successful career of almost two decades in the ICT industry. This combination of expertise enabled him to contribute to the creation of a meaningful framework for 21st century education, since ICT-literacy clearly is an important part of this context⁸.

⁷ The information concerning the *Partnership for 21st Century Skills* was taken from their official webpage: <http://www.p21.org/about-us/p21-faq> (Accessed April 2014)

⁸ The entire biographical information of this paragraph was retrieved from: <http://21stcenturyskillsbook.com/authors/>, accessed April 2014

Berni Trilling's biography is impressive as well. He worked on the development of several educational products and services, including the highly acclaimed ThinkQuest⁹ project. His teaching experience ranges from pre-school to corporate training and he has always been interested in integrating new technologies as effectively as possible. It is not surprising that he published numerous articles on this and similar educational topics. Besides also working in the educational technology industry, Trilling is the founder and CEO of 21st Century Learning Advisors and a successful keynote speaker¹⁰.

Since Trilling and Fadel worked on the 21st Century Skills model while they were still working for the *Partnership for 21st Century Skills*, the framework this project uses as its foundation is technically P21's concept. However, the two authors reorganized the skills defined by P21 in their 2009 book in such a memorable way, that Trilling & Fadel's arrangement will form the leitmotif of the following chapters.

2.2. 21st Century Knowledge and Skills Rainbow

In 2006, the *Partnership for 21st Century Skills*, in cooperation with the *American Human Resource Management*, conducted a study on "the readiness of new entrants into the U.S. workforce by level of educational attainment" (P21 2006: 2). As part of this study over 400 employers were surveyed across the United States. The results clearly indicated that neither high school nor two-year college-educated individuals were sufficiently prepared in the skills demanded by the 21st century business community. Only four-year-college graduates proved to have an excellent command over a higher number of essential skills compared to other skills they were not yet able to execute adequately. According to the employers surveyed, high school graduates or two-year college graduates showed more deficiency than excellence in matters of P21's 21st Century Skills (2006: 14). Based on the findings in this study, the *Partnership for 21st Century Skills* tried to develop a coherent framework in cooperation with "more than thirty-five member organizations, a number of participating departments of education, and hundreds of members of professional education and research organizations all weighing in on what education's future should be" (Trilling & Fadel 2009: 171). As has been mentioned before, two of the contributing board members were Bernie Trilling and Charles

⁹ On Trilling & Fadel's official book website, the ThinkQuest project is described as a "state-of-the-art global interactive distance learning network" (www.21centuryskillsbook.com). Despite of its great success ThinkQuest was discontinued in 2013.

¹⁰ The entire biographical information of this paragraph was retrieved from: <http://21stcenturyskillsbook.com/authors/>, accessed April 2014

Fadel. The result of this teamwork became visualized in form of the *21st Century Knowledge and Skills Rainbow*, which depicts the heart of P21's framework.

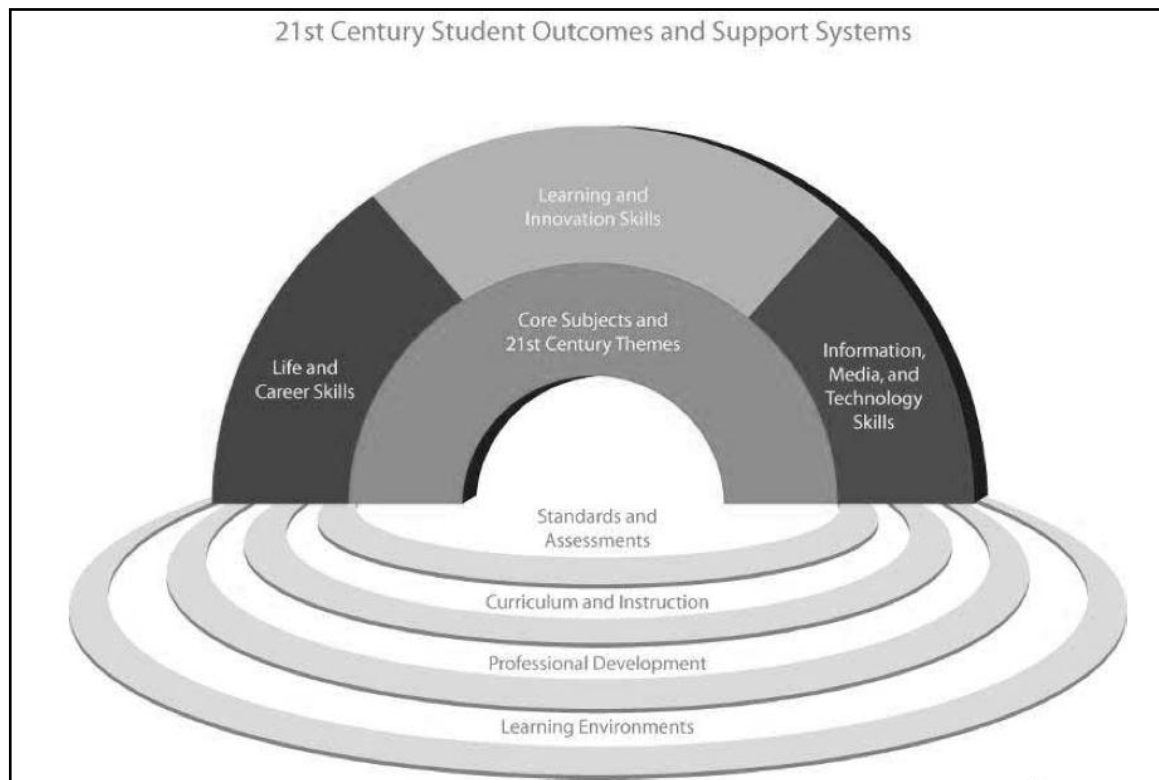


Figure 3: The Knowledge-and-Skills Rainbow (Trilling & Fadel 2009: 119)

Trilling & Fadel (2009: 172) refer to it as “the guidepost for the 21st century skills movement, and a road map to 21st century learning”, captured in one collaboratively developed image. It consists of three different skills groups; those that constitute ‘Life & Career Skills’, those that are crucial for ‘Learning & Innovating’ and those which are related to ‘Information, Media & Technology’. All the skills included in these three parts of the rainbow are supposed to be implemented into the curricula and especially into the ‘Core Subjects’ and P21’s ‘21st Century Themes’. According to them, the core subjects for the North American school context are English; reading or language arts; mathematics; science; foreign languages; civics; government; economics; arts; history; and geography. These were identified by the *No Child Left Behind Act* of 2001, and P21 combined them with their crucial themes for this century; global awareness, financial / economic / business and entrepreneurial literacy, civic literacy, health / wellness awareness and environmental literacy (P21 2009). The *Partnership for 21st Century Skills* believes that linking these themes with the core subjects and then using a variety of 21st Century Skills to teach them should be the main idea of the 21st century educational movement and would support the students on their way to becoming successful

and happy people. What visually mirrors the rainbow and also represents crucial elements of a successful education reform are the external forces that a teacher has no impact on. These influences are defined by the government only, such as ‘Standards & Assessments’, ‘Curriculum & Instruction’, ‘Professional Development’ and ‘Learning Environments’.

However, the image of *the 21st Century Knowledge and Skills Rainbow* does not yet reveal the definition of the actual skills relevant to the theory. According to P21’s research results, 21st century students need to acquire 11 competencies in order to be prepared for the modern world and its challenges. Trilling & Fadel simplify this theory even further and categorize these skills into seven final so-called C-skills.

<i>P21 Skills</i>	<i>7Cs Skills</i>
Learning and innovation skills	
Critical thinking and problem solving Communications and collaboration Creativity and innovation	Critical thinking and problem solving Communications, information, and media literacy Collaboration, teamwork, and leadership Creativity and innovation
Digital literacy skills	
Information literacy Media literacy ICT literacy	[included in Communications] [included in Communications] Computing and ICT literacy
Career and life skills	
Flexibility and adaptability Initiative and self-direction Social and cross-cultural interaction Productivity and accountability Leadership and responsibility	Career and learning self-reliance [included in Career and learning self-reliance] Cross-cultural understanding [included in Career and learning self-reliance] [included in Collaboration]

Figure 4: P21 and 7C Skills (Trilling & Fadel 2009: 172)

As one can see in figure 4, the final 7Cs skills of 21st century learning are:

- Critical Thinking and Problem Solving
- Communications, Information, and Media Literacy
- Collaboration, Teamwork, and Leadership
- Creativity and Innovation
- Computing and ICT Literacy
- Career and Learning Self-Reliance

· Cross-Cultural Understanding

Keeping the 7Cs formula in mind, and making sure that all of these seven skill clusters are considered and integrated into lesson plans, represents P21's key to heading in the right direction of a 21st century adequate teaching approach. Why the 7Cs are so relevant and how they can be introduced into the EFL classroom will be discussed in the following sections. However, repetition and training of these skills cannot be ignored and are crucial procedures an English teacher should or even must implement into a 21st century language classroom.

3. Definition of the 21st Century Skills in the EFL Context

Obviously, the *Partnership for 21st Century Skills*' concept is actually supposed to build the foundation of an interdisciplinary school curriculum and should not be limited to one subject. In fact, 21st century education theorists aim to reinvent the entire public school system on the basis of this movement. However, this thesis will not focus on the HLW curricula as a whole, but rather on the possible realization of the 7Cs in an *English as a Foreign Language* (EFL) setting. For this purpose, all 21st Century Skills suggested by P21 need to be explored briefly before a reference to the context of the English curriculum can be made and possible teaching methods discussed.

In detail, this chapter will deal with the following questions:

- How can the 21st Century Skills be defined?
- How can the 21st Century Skills be linked to the EFL classroom?
- Is there evidence to be found which proves the relevance of the 21st Century Skills concept for the Austrian education context?

3.1. Learning and Innovation Skills

The first group of skills includes those the *Partnership for 21st Century Skills* put on top of their *Knowledge and Skills Rainbow* (see 2.2.). It consists of the ability to think critically and creatively when it comes to overcoming obstacles, complex communication and applied imagination and invention. Trilling & Fadel (2009: 49-51) see this cluster of skills as one that goes "beyond meeting the new demands of 21st century work" because it describes the essence of "what it takes to become a self-reliant lifelong learner". In their opinion, "creating,

applying, remembering, analyzing, understanding, and evaluating can all be used together in rich, well-designed learning activities and projects to improve the effectiveness and longevity of learning results”. It is this formation that enables a citizen of the 21st century world to engage in lifelong learning and innovation, and they both emphasize the importance of putting this skill set on top of the 21st century skills list. Obviously, these four competencies are not only helpful in the work environment, but also applicable to every other part of one’s life. Therefore, it is understandable why ‘Critical Thinking & Problem Solving’, ‘Communication’, ‘Collaboration’ and ‘Creativity’ form essential parts of P21’s framework.

3.1.1. Critical Thinking and Problem Solving

“I am always doing that which I cannot do, in order that I may learn how to do it.”

- Pablo Picasso¹¹

Nowadays, wherever one comes across new ideas of how the Austrian education system can be updated, the need to support critical thinking and problem solving skills is highlighted. Thus P21’s comprehensive definition of these competences comes in handy:

Reason Effectively

- Use various types of reasoning (inductive, deductive, etc.) as appropriate to the situation

Use Systems Thinking

- Analyze how parts of a whole interact with each other to produce overall outcomes in complex systems

Make Judgments and Decisions

- Effectively analyze and evaluate evidence, arguments, claims and beliefs
- Analyze and evaluate major alternative points of view
- Synthesize and make connections between information and arguments
- Interpret information and draw conclusions based on the best analysis
- Reflect critically on learning experiences and processes

Solve Problems

- Solve different kinds of non-familiar problems in both conventional and innovative ways
- Identify and ask significant questions that clarify various points of view and lead to better solutions

(Partnership for 21st Century Skills 2009: 4)

¹¹ Quote taken from: <http://www.brainyquote.com/quotes/quotes/p/pablopicas107571.html> (Accessed May 2014)

According to O21, critical thinking and problem-solving skills include the abilities to reason effectively, analyze and evaluate information, reflect critically on information, ask significant questions which could clarify doubts and solve non-familiar problems in both conventional and innovative ways. Trilling & Fadel (2009: 50) emphasize their importance by adding that “applying skills like critical thinking, problem solving, and creativity to the content knowledge” has an increasing effect on the motivation and subsequently the final learning outcomes. In order to gain a better understanding of both skills, they will now be discussed in more detail.

Critical thinking brings several benefits with it. Cottrell (2011: 4), for example, points out that it “brings precision to the way we think and work and very useful for problem-solving tasks”. She defines critical thinking as an analytical and evaluative way of using mental processes such as “attention, categorisation, selection, and judgment” (Cottrell 2011: 1). The necessary mental processes she refers to might be the ones Stanovich & Stanovich define. According to them, one always has to relate the concept of critical thinking to the constructs of intelligence and rational thought (Stanovich & Stanovich 2010: 195). Their claim makes sense. Only by asking educated questions and relating the answers to rational thought can information be challenged and therefore reflected on. In this context, Darling-Hammond claims that teachers should see the potential in working on critical skills with their students because it will allow them to “transfer and apply their knowledge to new situations” (2007: 69). In this way, the capable student will acquire a skill which will support them on a lifelong learning journey. Reflecting on things we think we already know might also shed a new light on the information, and the attitude to do so helps to become a lifelong, and therefore successful, learner of the 21st century.

However, to improve the critical thinking skills of the pupils, the teacher has to keep an open mind because, as Hooks (2010: 9) states, “critical thinking is an interactive process, one that demands participation on the part of teacher and students alike”. Obviously, this kind of mindset might be problematic for certain types of teachers. It requires a good foundation of discussion in the classroom since the empowerment of the students in terms of fostering their ability to evaluate what they see, hear or read could also lead to debates between the teacher and the students. It should be made clear that teaching pupils to think critically does not mean encouraging them to criticize everything the teacher says. The teacher should however be prepared for the students trying to do so. It is crucial then that the teachers themselves are

able to execute this skill. Ultimately, this is the only way to install a good communication basis in which students can learn to respectfully argue, state disagreement and learn from a discussion. In this respect, Cottrell (2001: 9) finds it important that the students learn to “draw a distinction between the idea, work, text, theory or behaviour, on the one hand and, on the other, the person associated with these”. She also mentions another benefit critical thinking brings to the classroom. In her opinion, this skill helps the students to “dig deeper below the surface of the subject they are studying and engage in critical dialogue with its main theories and arguments” (Cottrell 2011: 8).

In the EFL classroom, critical thinking can for example be found in debates, writing and presentations. Whenever the students state their own opinion, come up with a new idea or work with someone else's ideas, they first have to evaluate the information and decide what they want to do with it. Mills' example of an activity that included a breakfast cereal advertisement makes the concept of critical thinking more feasible. She explains (Mills 2011: 33) that by letting the kids ask themselves questions about the target market of the product, “they can begin to understand how certain words, images, music, gestures and animations are chosen very deliberately to influence children and the household shopper to select one competing cereal over another”. As one can see, small activities like this already trigger the critical thinking skill in students. Also, one should not forget that due to the information flood that is the internet, the young generation has already had to come up with selection strategies. As one student at a German university pointed out, without thinking critically, using the internet is almost impossible (Parment 2013: 40).

The problem solving competence is closely related to the critical thinking skill. The former can be described as a possible final step in the critical thinking process because once an opinion is formed, it might already be the solution itself, or can be found consequently. Nowadays, the world evolves so fast that problem solving skills are necessary in all parts of life. Today's adolescents are the Robinson Crusoes of a future that remains largely unpredictable and therefore, they have to try new things to adapt and learn in order to be successful and resilient (OECD 2014: 28). It is thus comprehensible that in the literature, the problem-based approach gains immense popularity. On this subject, Hoidn & Käkkinen (2014: 14) recommend ‘Problem Based Learning’ (PBL) as a “student-centred approach in higher education teaching and learning across disciplines”. However, this is not a new

approach at all. For years, some schools and even Ivy League universities like Harvard¹² use problems as a basis for certain projects to improve the learning outcome of their students. Accordingly, real-world problems are adopted to motivate students to investigate and evaluate the elements required to solve those dilemmas (Duch, Groh & Allen 2001: 6). Cavanaugh (2001: 27) supports this claim and argues that research evidence demonstrated the usefulness of problem-based learning in a learning environment. It seems obvious, and the research proves it, that the use of relevant realistic problems heightens the learning outcome as well as the learner's work motivation because they prefer seeing a reason behind their tasks. In this context, Duch, Groth & Allen (2001: 48-49) identify the most important characteristics of a good and useful problem in the classroom:

- engages the students' interest and motivates them
- requires students to make decisions based on facts, information, logic or realization
- should be complex enough to require collaboration of some sorts
- initial question should be an open one
- content objectives of the subject taught should be incorporated into the problem

According to them, this checklist relates to any subject. In the case of an EFL lesson, the teacher should therefore provide an open initial question to introduce the students to the task, provide them with some sort of information the students can use to begin with, for example background information, and then let them work in pairs or bigger groups together to come up with a solution to the problem of task-based language teaching.

In the Austrian HLW EFL classroom, such activities are fairly easy to implement. For example, the task of simulating a scene at the front desk or letting the students actually call a service hotline to acquire information constitutes a meaningful starting point. Problem solving techniques in the English classroom would also include learning about different study styles and how to tackle information, grammar and vocabulary. As the heading of this skill cluster already implies, "learning to learn and innovate" is the key to master this group of competences.

In April 2014, the OECD published the results of a PISA study conducted in 2012 and Austria did not achieve very satisfying scores. First of all, PISA defines the problem-solving competence as:

¹² For further information please see <http://hilt.harvard.edu>

“...an individual’s capacity to engage in cognitive processing to understand and resolve problem situations where a method of solution is not immediately obvious. It includes the willingness to engage with such situations in order to achieve one’s potential as a constructive and reflective citizen” (OECD 2014: 30)

To test these parameters, PISA designed their tasks around them (OECD 2014: 28). Along with mathematics and science, reading problem solving skills were tested as well. Altogether, the Austrian learners did not exceed the OECD mean score of all featured 44 countries and got ranked behind countries like the United States, Germany and the overall winner Singapore. Since the results of the study reflect students’ achievements coming from different school types, one cannot know for sure that the problem solving skills of HLW students are also below the average results. However, the findings indeed prove that within the entire Austrian school system this set of skill needs to be considered to a higher degree than it has been done so far and that there is still room for improvement.

3.1.2. Communications, Information, and Media Literacy

“Too often we enjoy the comfort of opinion without the discomfort of thought.”

- John F Kennedy¹³

In a knowledge-based society, communication and information in combination with new media is a crucial skill set. Crockett, Jukes & Churches (2011: 57) compare this shift from the written word to multimedia to the shift from oral transmission to the written word. They argue that a new understanding of this development needs to be taught because “excellent traditional writing skills are not enough to make someone a good communicator in our multimedia world”. Harvard education specialist Tony Wagner emphasizes in one of his speeches (2009: 00:20:05) that educators need to understand that students nowadays learn differently than former generations did. Consequently, the teaching methods should develop accordingly. For example, teachers are not the primary source of information anymore. Today’s students know where to get the information they are seeking. However, the way in which teachers communicate with their learners and teach to communicate in the real world as well as online depicts a major shift in the way subjects need to be taught in the classroom. Obviously, media must also play a role in the school context. Thus, an effective mix of teaching methods, content and real world applicability are essential elements in the 21st century classroom.

¹³ Quote taken from: <http://www.brainyquote.com/quotes/quotes/j/johnfkenn108094.html> (Accessed May 2014)

In terms of communication in the Austrian EFL classroom, parameters have already been set and presented to the teachers in the *Common European Frame of References* (CEFR) for foreign language classrooms (see 4.3.). Besides being able to communicate in a face-to-face interaction, students also have to learn how to communicate via e-mails, in forums, discussion boards and social media sites (Heim & Ritter 2012). However, P21's main points of what a successful 21st century communicator should be able to do include the following:

Communicate Clearly

- Articulate thoughts and ideas effectively using oral, written and nonverbal communication skills in a variety of forms and contexts
 - Listen effectively to decipher meaning, including knowledge, values, attitudes and intentions
 - Use communication for a range of purposes (e.g. to inform, instruct, motivate and persuade)
 - Utilize multiple media and technologies, and know how to judge their effectiveness a priori as well as assess their impact
 - Communicate effectively in diverse environments (including multi-lingual)
- (Partnership for 21st Century Skills 2009: 4)

Now, referring this list of abilities to the EFL classroom, one has to bear in mind that negotiation of meaning, asking for clarification or repetition needs to be added to this list as well. Also, the last point, multi-lingual communication, has a slightly different meaning in EFL classes. Here, being able to understand different varieties of English and native and non-native accents are crucial for effective communication.

Next to appropriate communication skills, the ability to access, evaluate and use a vast amount of information has become another important challenge the young generation is facing already. Crockett, Jukes & Churches (2011: 33) call this “flood of information” a “long-term tsunami” and argue that information as such has become a “temporary and disposable commodity”. Thus they believe that nowadays, nobody can be an expert anymore because all the information needed is available on the internet. Obviously, this includes our former subject experts: the teachers. They do not hold the holy grail of information anymore and therefore need to adapt to these changes accordingly. P21 suggests that 21st century teachers focus on the instruction of these sub-skills:

Access and Evaluate Information

- Access information efficiently (time) and effectively (sources)
- Evaluate information critically and competently

Use and Manage Information

- Use information accurately and creatively for the issue or problem at hand
- Manage the flow of information from a wide variety of sources
- Apply a fundamental understanding of the ethical/legal issues surrounding the access and use of information
(Partnership for 21st Century Skills 2009: 5)

It is crucial that the learners we teach become fluent in information. Therefore, learning how to access, evaluate, use, manage and apply information is a critical set of tools to have. Online newspapers, video clips and reference tools like online dictionaries and encyclopedia should be part of the regular English lesson. As Ananiadou & Claro (2009: 9) point out, “the ability to find and organize information quickly and efficiently” needs to be practiced appropriately.

Being able to communicate and to work with an infinite flood of information accessible at any time also requires one to be media literate. This skill refers to “the ability to analyse media messages and the media environment” (Ferrari, Puni & Redecker 2012: 81) order to exercise this media literacy, one needs to understand, examine and apply media as well create it. In detail, P21’s framework describes this 21st century skill as follows:

Analyze Media

- Understand both how and why media messages are constructed, and for what purposes
- Examine how individuals interpret messages differently, how values and points of view are included or excluded, and how media can influence beliefs and behaviors
- Apply a fundamental understanding of the ethical/legal issues surrounding the access and use of media

Create Media Products

- Understand and utilize the most appropriate media creation tools, characteristics and conventions
- Understand and effectively utilize the most appropriate expressions and interpretations in diverse, multi-cultural environments
(Partnership for 21st Century Skills 2009: 5)

The ethical and legal component of this skill is one the young adults tend to ignore. It is uncomfortable to think about these issues. Therefore it is crucial that the teacher talk about the advantages as well as the disadvantages of modern media. Knowing how to appropriately use

these tools, to reflect on ones understanding of it and subsequently not falling prey to the pitfalls of social media sites, etc. is the ultimate goal of acquiring media literacy skills. Tess (2013: A66) for example, mentions the possible educational usefulness of Twitter, Facebook, blogs and other social media sites in the classroom. She argues that the necessary infrastructure to do so would already exist, but that instructors are still too cautious to work with them. Thus the OECD (Dumont & Istance 2010: 25) suggests taking inspiration from the way the digital natives “learn, play and socialise outside the classroom”. There is no mention of the important skill of reflecting critically on what one consumes via the media. Wimmer (2011: 91) on the other hand, emphasizes exactly that and argues that “students need to comprehend how corporate for-profit media do their business and reflect certain political and economic interests”.

This skill cluster combines communication, information and media literacy and as has been demonstrated, in the 21st century they go hand in hand. Cyber bullying is only one key term which illustrates the necessity to foster these competencies in the educational context. The students should be aware of the engine behind this new industry of unlimited sensory overload in its different guises. Ananiadou & Claro (2009: 10) sum it up perfectly, when they claim that “[y]oung people need to have the ability to communicate exchange, criticise, and present information and ideas, including the use of ICT applications to participate in and make positive contributions to the digital culture”.

3.1.3. Collaboration, Teamwork, and Leadership

“Coming together is a beginning. Keeping together is progress. Working together is success”

- Henry Ford¹⁴

This group of skills is one that every EFL teacher should already be familiar with. Working in teams and collaborating with each other has become an important and also popular tool in the modern EFL classroom. Dumont & Istance (2010: 24) call this set of skills “integral to work and social life in the knowledge society”. The Partnership for 21st Century Skills speaks of three things a collaborative individual should possess:

Collaborate with Others

- Demonstrate ability to work effectively and respectfully with diverse teams

¹⁴ Quote taken from: <http://www.brainyquote.com/quotes/quotes/h/henryford121997.html> (Accessed May 2014)

- Exercise flexibility and willingness to be helpful in making necessary compromises to accomplish a common goal
 - Assume shared responsibility for collaborative work, and value the individual contributions made by each team member
- (Partnership for 21st Century Skills 2009: 4)

To respect others and their contributions as well as being willing to share one's own ideas are skills the learners will need their whole life and in all parts of their lives. Additionally, Hsiao & Brusilovsky (2012: 155) point out that research on the benefits of "social learning" has shown that the students' learning outcome increases on different levels. They state that the overall motivation of the learners, their thinking skills and subsequently also their test scores benefit from collaborative learning opportunities. Hinton & Fisher (2010: 144) support this argument and add that evidence in the field of neuroscience suggests that the human brain is designed for interaction. Therefore, it is not surprising that we benefit from it as well. Feedback, for example, is one of the supporting tools used to push learners to improve. Especially in the EFL classroom, constructive criticism or a positive reaction from teachers or students can create opportunities to progress. Scharle & Szabó (2000: 8) go a step farther and claim that learners who receive feedback from their peers are more likely to work harder because they want to please them rather than their teachers.

In addition to group work in the classroom, the internet makes it possible to extend the boundary for collaborative work to the entire world. Crocket, Jukes & Churches (2011: 69) call this development "the death of distance". Therefore, they include into their definition of collaborative skills the cooperative work between both "real and virtual partners in both physical and virtual environments to solve real and simulated problems". The OECD (Dumont & Istance 2010: 320) agrees, and points at "ICT and digital resources" which enable collaboration regardless of time and distance. Teachers should not underestimate the possible influence on the students' motivation and project relevance these tools can bring to the table. There are several online learning webpages which have been created for explicitly this reason; to bring together people, especially the young generation, from all over the world and provide opportunities to actively shape today's world by participating (see 6.7.)

In addition to collaborative skills, features which enable the student to guide and lead others, including the ability to "act responsibly with the interests of the larger community in mind" (Partnership for 21st Century Skills 2009: 7) are also part of P21's framework. Becoming a responsible leader is not every student's preferred path. However, gaining some experience in

being responsible, for example for a group work result, might also help these students to leave their comfort zone and gain new perspectives. The classroom provides a safe place to experiment with talents and new experiences. In the end, it is important that the learner's tool kit, which helps them to work effectively as part of a group as well as a self-reliant individual, grows with the activities provided by the teachers. In this respect, P21 defines the ability to responsibly lead others as follows:

Guide and Lead Others

- Use interpersonal and problem-solving skills to influence and guide others toward a goal
- Leverage strengths of others to accomplish a common goal
- Inspire others to reach their very best via example and selflessness
- Demonstrate integrity and ethical behavior in using influence and power

Be Responsible to Others

- Act responsibly with the interests of the larger community in mind
(Partnership for 21st Century Skills 2009: 7)

Being aware of one's responsibility to others is an important lesson to learn at a young age. In combination with actually taking action and guiding others to achieve a goal or overcome a challenge, this awareness can also be an empowering experience for the students. As group leaders, presenters or debate leaders, they can practice this ability in class. Additionally, ethics should be discussed in this context. As McCuddy (2007: 343) argues, ethical failures usually get attributed to "a failure of leadership, to the creation and maintenance of an unethical culture, or quite often both". Therefore, P21's recommendation to tackle this content in combination with leadership skills is comprehensible. In general, like the expectations of teamwork-practiced employees, companies nowadays also expect their new entrants to become "productive contributors" to the firm and be able to make responsible decisions (McCuddy 2007: 16). In addition, it has to be mentioned at this point that autonomous work and self-study should not become downgraded due to the increasing demand for cooperators and team players (Mc Cuddy 2007: 321). However, the modern teacher has to find a balance between various teaching and learning approaches which provide sufficient opportunities to learn for the students of the 21st century.

3.1.4. Creativity and Innovation

“Imagination is more important than knowledge. For knowledge is limited to all we now know and understand, while imagination embraces the entire world, and all here ever will be to know and understand”

- Albert Einstein¹⁵

In the traditional foreign language classroom, creativity has not been of major concern for the teachers beyond its obvious use for the production of language output, such as texts. In its broader sense, this skill was usually limited to art and music classes. However, the demand for creative minds in an increasingly knowledge-based society has directed the focus to the implementation of creativity in all subjects. Wagner, who currently works at Harvard's Innovation Lab¹⁶, emphasizes the importance of creativity and innovation at schools. He is certain that these skills can be “nurtured, taught, and mentored” and calls creativity and innovation “the currency of the 21st century” (2012: 16). Crocket, Jukes & Churches (2011: 44) go even further. In their opinion, fostering creativity is “an absolute imperative” to guarantee prospective competitiveness with leading countries (2011: 43). The reason for that, he states, is that “non-routine cognitive work that can't be outsourced, replaced by software, or automated will be in high demand” (2011: 44). Both creativity and innovation are not only an opportunity, but have become a necessity in education. In order to be able to deal with the diverse and complex 21st century world, one has to be more focused, flexible and innovative than was necessary before (Charalambous 2010: 2). P21 characterizes the elements of this skill as follows:

Think Creatively

- Use a wide range of idea creation techniques (such as brainstorming)
- Create new and worthwhile ideas (both incremental and radical concepts)
- Elaborate, refine, analyze and evaluate their own ideas in order to improve and maximize creative efforts

Work Creatively with Others

- Develop, implement and communicate new ideas to others effectively
- Be open and responsive to new and diverse perspectives; incorporate group input and feedback into the work

¹⁵ Quote taken from: <http://www.goodreads.com/quotes/556030-imagination-is-more-important-than-knowledge-for-knowledge-is-limited> (Accessed May 2014)

¹⁶ for further information please visit <http://i-lab.harvard.edu>

- Demonstrate originality and inventiveness in work and understand the real world limits to adopting new ideas
 - View failure as an opportunity to learn; understand that creativity and innovation is a long-term, cyclical process of small successes and frequent mistakes
- (Partnership for 21st Century Skills 2009: 3)

According to P21's definition of creativity and innovation skills, students have to practice their ability to use various idea creation techniques, should be able to work creatively with others and then implement these innovations. This also includes the capability to "be open and responsive to new and diverse perspective", to deal with constructive feedback and the attitude to "view failure as an opportunity to learn" (Partnership for 21st Century Skills 2009: 3). In return, the literature suggests a variety of benefits which come from creativity and innovation supporting activities. For example, Hoidn & Kärkkäinen (2014: 7) name the following skills which overlap with the aforementioned set of skills and subsequently profit from them:

- Technical skills including disciplinary know-what and know-how. Innovative or creative people often require specialist skills in their field – both in terms of knowledge and methods.
- Thinking and creativity skills such as curiosity, critical thinking, problem solving and making connections.
- Social and behavioural skills such as interest, engagement, self-directed learning, self-confidence, organisation, communication, (cross-cultural) collaboration, teamwork and leadership.

As one can see from this list of advantages, creativity is not limited to drawing classes only. Also, this enumeration implies the existing entanglement with other 21st Century Skills. Thus, social and behavioral competencies together with expert knowledge not only overlap, but also support the creative process.

Two crucial tools needed to succeed in creative and innovative processes are intelligence and imagination. Palmstorfer conducted a study on the presence of creativity supporting activities in Austrian primary schools. She found evidence that creativity is connected with intelligence (2007: 86). According to her findings, the first element seems to support the latter and vice versa. Piirto (2011: 11) shares the same view and adds that in order to be creative, one needs personality attributes, cognitive ability, talent, environmental factors, motivation and knowledge of the field. Within the English classroom, teachers impact upon the

environmental factors, motivation and obviously also have an influence on the knowledge of the field. Talent, cognitive ability and personality attributes like extroversion and introversion come from the students themselves, but can still be positively affected by the teacher's choices concerning their possible impact. In terms of imagination, this might be more complicated. However, Trilling & Fadel (2009: 57) believe that imagination is something everybody is born with. They argue that we need to distance ourselves from traditional teaching methods which require the students to memorize facts, but rather develop new techniques which create a learning environment where "questioning, patience, openness to fresh ideas, high levels of trust, learning from mistakes and failures" is appreciated (57/58). Therefore, teachers who react with humor and flexibility on their divergent students' "creative" language attempts, consequently support the learning process (Palmstorfer 2007: 52).

Creativity and innovation in the EFL classroom has already begun when the learners start experimenting with the target language. Homework should be part of this process. Here, the students can try a variety of linguistic combinations and learn from their mistakes. The OECD (2014: 47) claims that the best way to support the students' learning progress is by working with problem-based learning projects. In this context, these projects are supposed to "develop different discipline-specific and transferable skills for innovation" because the learners can apply their knowledge to meaningful "unfamiliar real-world situations". Again, other skills like critical thinking, problem solving and team-work are connected with this teaching approach as well.

Coming back to the general limitation of creativity and innovation skills to art and music classes, it has to be mentioned that recent neuroscience research has shown that art and music actually have a positive effect on the development of this skill set. In 2011, Obama's Presidential committee¹⁷ published a report on how art and music influences student learning outcomes. In particular, it is argued that they have an impact on the development of general intelligence, creativity and innovation skills. In this record the members of the committee recommend that schools across the nation should increase their offer of art, music and movement programs in order to raise "the energy of creative thinking and fresh ideas"(2011: 54). The OECD has a more traditional approach when it comes to fostering students'

¹⁷ For detailed information please visit
http://www.pcah.gov/sites/default/files/photos/PCAH_Reinvesting_4web.pdf

innovation skills. They state that a learning environment which exploits science, knowledge and research, uses advanced technology, reorganizes the curricula into a modular system and provides networking and knowledge sharing opportunities, prepares its students appropriately for the innovative challenges of life (OECD 2013: 13). As one can see, however this set of skills is defined and even if different implementations into the educational context are suggested, their importance is not disputed.

3.2. Digital Literacy Skills

The World Wide Web has become part of the everyday life and has become a crucial component of the 21st century education debate. Trilling & Fadel (2009: 64) write that “with today’s and tomorrow’s digital tools, our net generation students will have unprecedented power to amplify their ability to think, learn, communicate, collaborate, and create”. Like the Partnership for 21st Century Skills, both authors argue that although today’s digital natives use and adapt to new technology naturally, they still need some guidance when it comes to using these innovations appropriately. Therefore, the necessity to teach digital literacy skills should not be underestimated. Their relevance is still increasing and these skills are also supposed to prepare the students for future digital developments one cannot yet predict.

3.2.1. Computing and Innovation

“Do not confine your children to your own learning for they were born in another time”

- Hebrew Proverb¹⁸

Computers help to innovate and innovation is what creates more and evolved technical devices. It is undeniable that the world has changed significantly since the introduction of computers. Bill Gates (Bellanca & Stirling 2011: 32) puts it succinctly when he stated: “I think it’s fair to say that personal computers have become the most empowering tool we’ve ever created. They’re tools of communication, they’re tools of creativity, and they can be shaped by their user”. Obviously, ICT literacy, which describes the ability to use computers and similar technologies appropriately, has become a crucial skill to acquire at school.

¹⁸ Quote taken from: <http://www.iliketquote.com/do-not-confine-your-children-to-your-own-learning-for-they-were-born-in-another-time/> (Accessed May 2014)

P21 distinguishes between three main abilities a 21st century learner should be able to conduct with a computer:

Apply Technology Effectively

- Use technology as a tool to research, organize, evaluate and communicate information
- Use digital technologies (computers, PDAs, media players, GPS, etc.), communication/networking tools and social networks appropriately to access, manage, integrate, evaluate and create information to successfully function in a knowledge economy
- Apply a fundamental understanding of the ethical/legal issues surrounding the access and use of information technologies
(Partnership for 21st Century Skills 2009: 5/6)

As this list shows, the appropriate use of continuously evolving technologies in education is a complex matter. The ability to use computers and other innovative technologies effectively is one that overlaps significantly with almost all C-clusters of P21's 21st Century Skills framework. Computers are highly helpful to solve problems, communicate and collaborate with others, and create. They are already part of our everyday lives and "digital competence" has become an important tool in this knowledge-based society (Ferrari, Puni & Redecker 2012: 81). In this regard, Ananiadou & Claro's research findings (2009: 10) suggest that ICT applications strengthen and increase the possibilities of communication and reinforce the development of skills of coordination and collaboration between peers. According to Groff's review on existing research concerning the benefits of ICT literacy, the effective use of technology has a positive impact on:

- the learners' Engagement & Motivation
 - level of student-driven learning & inquiry
 - accessibility of interactivity & collaboration
 - personalisation & flexibility
 - innovating
 - digital learning
- (Groff 2013: 18/19)

At first sight, it might seem as if this skill has already been considered adequately in the educational context. Although laptop classrooms are not a curiosity anymore, especially in BHS schools, their real potential has not been exhausted. While secondary vocational schools do provide separate computer science training and ICT training, interdisciplinary assignments are lacking to a great extent. One of the reasons for this shortfall might be that the "digital

immigrant” educators themselves are not as familiar with the fast changing and growing technological toolkit as their “digital native” students are (Charalambous 2010: 2; Bellanca & Stirling 2011: 34). Charalambous (2010: 1-2) argues that the result of the knowledge gap between these generations is often boring lessons which do not integrate the technology according to the students’ way of learning. He thinks that the solution for this problem would be “better curricula, better teaching, better assessments”. In the Austrian context, Müller investigated the applicability of Content and Language oriented Learning (CLIL) in computer science classes and the results of her research indicate that “most students have a very positive image of CLIL in computer science” (2007: 94). The feedback she received from students as well as from observing teachers was that the combination of EFL and ICT literacy works well and would be of beneficial character for the pupils. However, she also points out that the main reason why it has not been realized in Austrian classrooms appears to be “a lack of support for those who implement and maintain CLIL” and that it would take “financial, organizational and legal assistance as well as research, especially in the field of didactics” to change the current situation. In addition, the shortcoming between governmental funds in supportive teacher training and the required technology use of the 21st century must be balanced (Johannessen & Pedrò 2010: 144). Otherwise, the existing tension between ICT and education cannot be resolved. In other words, the picture in all of the countries explored, including Austria, is quite the same. There are motivated teachers and students. However, without explicit training, courses or up to date material provided by the government, it will be hard to make use of the full potential of computers in the EFL classroom.

Besides an appropriate integration of computers, innovative computer assisted ways of studying have evolved. E-learning has become a key term in this matter. Different experiments and attempts to create relevant learning tools for 21st century learners have been conducted so far. Virtual schools, practice webpages, online cross-cultural projects, etc. are available on the World Wide Web. However, one tool that is increasingly used in the Austrian school context is the learning platform. Groff (2013: 10) points out that these online platforms offer the students a lot of freedom. It allows the learners to “learn at any time, any place, any path, and any pace”. This kind of flexibility also fosters self-reliance and autonomy in the pupils. Obviously, it will take some time to explore and evaluate all of the possibilities one can provide to students by using online platforms or other innovative computer-assisted learning tools. Until then, some learning aids might appear and then disappear again.

However, it is crucial that instructor's intent on keeping up to date with all these study gadgets, experiment with them and keep those which fit the needs of the individual classroom.

3.3. Career and Life Skills

The last cluster of 21st Century Skills is concerned with career and life skills. In detail, it deals with the flexibility to adapt to changes, the personal initiative and self-motivation needed when it comes to learning or preparing something and also includes social competencies such as cross-cultural understanding within a diverse group (Trilling & Fadel 2009: 74). As the heading already implies, these skills are useful for a successful career as a student or participant in the job market as well as being helpful in one's personal life. Although we are living in a world marked by globalization, cross-cultural understanding should not be taken for granted as a teacher or employer. However, this skill in combination with Career & Learning Self-reliance competence can improve the overall productivity of a classroom as well as between coworkers.

3.3.1. Career and Learning Self-reliance

“I hear and I forget, I see and I remember, I do and I understand”

- Confucius¹⁹

It is fair to argue that students who choose to attend a secondary vocational school over a grammar school find it an advantage to receive a professional education in addition to a general knowledge foundation. They are well-aware of the fact that after their graduation, they are likely to become employees right away and research has shown that the majority of graduates do so (Statistik Austria: 52) (see 4.2.). This mindset might subsequently also help the learners to be successful at school and to develop career and self-reliance skills. Trilling & Fadel's definition of the competence of self-reliance includes:

Manage Goals and Time

- Set goals with tangible and intangible success criteria
- Balance tactical (short-term) and strategic (long-term) goals
- Utilize time and manage workload efficiently

Work Independently

- Monitor, define, prioritize and complete tasks without direct oversight

¹⁹ Quote taken from: <http://www.brainyquote.com/quotes/quotes/c/confucius136802.html> (Accessed May 2014)

Be Self-directed Learners

- Go beyond basic mastery of skills and/or curriculum to explore and expand one's own learning and opportunities to gain expertise
 - Demonstrate initiative to advance skill levels towards a professional level
 - Demonstrate commitment to learning as a lifelong process
 - Reflect critically on past experiences in order to inform future progress
- (Partnership for 21st Century Skills 2009: 6)

Of course, students of a secondary vocational school might bring some of these qualities already with them, but it should be a teacher's goal to support the further advancement of career and self-reliance skills due to their positive effect on the private as well as the future professional life of the students. The consideration of career and learner self-reliance in the EFL classroom has several reasons. It represents the driving force of lifelong learning, has a positive effect on the work ethic of students and also plays a crucial role in the ability to overcome whatever challenges present themselves. This competence should therefore not be underestimated. Learning how to speak for oneself and how to achieve a goal and not give up throughout the process, which might be marked by setbacks and mistakes along the way, helps to become a more self-confident person. In addition, this skill also represents a necessary tool which enables the realization of innovative ideas and subsequent success.

The importance of self-reliance in the 21st century EFL classroom becomes clear once all of its components are defined;

Adapt to Change

- Adapt to varied roles, jobs responsibilities, schedules and contexts
- Work effectively in a climate of ambiguity and changing priorities

Be Flexible

- Incorporate feedback effectively
 - Deal positively with praise, setbacks and criticism
 - Understand, negotiate and balance diverse views and beliefs to reach workable solutions, particularly in multi-cultural environments
- (Partnership for 21st Century Skills 2009: 6)

First, to become a flexible and adaptable individual includes the ability to “work effectively in a climate of ambiguity and changing priorities” as well as being able to incorporate positive and negative feedback effectively and to “understand, negotiate and balance diverse views and beliefs to reach workable solutions” (Partnership for 21st Century Skills 2009: 6). In the EFL classroom, feedback depicts an important element of the interaction between the teacher

and the student as well as between the peers themselves. Typically, these skills are needed in pair or group work in which the learners have to find compromises in order to be able to be productive as a group. Second, knowing how to deal with goals and how to manage time respectively, “monitor, define, prioritize and complete tasks without direct oversight” and becoming a self-directed learner who demonstrates initiative to advance and reflect critically, illustrates crucial aspects of self-reliance (Partnership for 21st Century Skills 2009: 6). Obviously, the students might not always be driven by such intrinsic motivation, but these related qualities have to be considered because they are “the source of which is some inner drive or interest of the learner” (Scharle & Szabó 2000: 7). Third, closely related to the latter set of skills are the ones that support the productivity and accountability of self-reliant learners. These abilities are defined by P21 as follows:

Manage Projects

- Set and meet goals, even in the face of obstacles and competing pressures
- Prioritize, plan and manage work to achieve the intended result

Produce Results

- Demonstrate additional attributes associated with producing high quality products including the abilities to:
 - Work positively and ethically
 - Manage time and projects effectively
 - Multi-task
 - Participate actively, as well as be reliable and punctual
 - Present oneself professionally and with proper etiquette
 - Collaborate and cooperate effectively with teams
 - Respect and appreciate team diversity
 - Be accountable for results(Partnership for 21st Century Skills 2009: 7)

It is suggested that students should learn how to “prioritize, plan and manage work”, be able to multitask, “work positively and ethically” and how to “be accountable for results”. These qualities fit in seamlessly with the last elements of the career and learner self-reliance.

In addition to P21’s definition of a self-reliant 21st century learner, the OECD also has a clear opinion on what qualities a self-regulated learner should bring to the table (Dumont & Istance 2010: 320). They should “manage study time well, set higher specific and proximal goals, monitor more frequently and accurately, set a higher standard for satisfaction, are more self-efficacious, and persist despite obstacles”. They find self-regulation to be an integral part of

the process of knowledge acquisition. Also, Scharle & Szabó (2000: 3) explain that one should not think of responsible learners as role models or “teacher’s pets”, but rather as “learners who accept the idea that their own efforts are crucial to progress in learning, and behave accordingly”. They conclude that self-reliant and career-driven learners “are simply making an effort in order to learn something”, “are willing to cooperate with the teacher and others in the learning group for everyone’s benefit”, “consciously monitor their own progress, and make an effort to use available opportunities to their benefit, including classroom activities and homework”. In order to provide a learning environment in which students can be supported according to their needs, the OECD (Dumont & Istance 2010: 319) proposes that the learners should be recognized as the core participants and teachers should encourage their active engagement and teach them how to understand their own activity as learners. One can argue that the description of a self-reliant learner defined by the OECD and Scharle & Szabó do not differ significantly from P21’s vision. Quite the contrary, they all agree on the same core aspects that a self-reliant student demonstrates.

Finally, one favorable factor concerning the career and learning self-reliance in the English classroom has to be mentioned in order to complete the description of this skill. Fortunately, the development in technology holds a useful support tool for the instructors. A lot of interactive activities allow the teachers to provide autonomous learning activities. On this note, it also has to be mentioned that English learners of the 21st century have, due to this development, more contact with authentic English material than any other generation before them. Nowadays it is possible to watch movies or TV series online in original versions, read English blog entries, follow English speaking celebrities online or play online video games with people from all over the world. This advancement in technology certainly has an effect on English learning autonomy. The students look up words they come across on one of the webpages they like or even start tweeting or posting English phrases in social network sites. The result of such out-of-school English activities can be measured on different levels. The students’ intrinsic motivation to learn the language might rise as well as their actual level of proficiency due to their increased contact with the target language. In any case, supporting the development of learner autonomy is a gradual development the teacher can only influence by providing appropriate learning opportunities.

3.3.2. Cross-Cultural Understanding

“Be the change you wish to see in the world”

- Mahatma Gandhi²⁰

The promotion of cross-cultural understanding in the EFL classroom is critical for two reasons. First, it is supposed to teach social skills the students need in their private life to profit from their multicultural surroundings as much as possible. Second, we have to prepare this generation for the challenges a diverse work place can bring with it. In this respect, Trilling & Fadel (2009: 80-81) argue that “diverse work teams, scattered around the globe and connected by technology, are becoming the norm for 21st century work” and that “diverse schools and communities are also becoming more common worldwide”. They therefore conclude that “skills to become socially adept, cross-culturally fluent global learners and citizens are more important than ever”. P21’s definition of this skill is similar to theirs:

Interact Effectively with Others

- Know when it is appropriate to listen and when to speak
- Conduct themselves in a respectable, professional manner

Work Effectively in Diverse Teams

- Respect cultural differences and work effectively with people from a range of social and cultural backgrounds
 - Respond open-mindedly to different ideas and values
 - Leverage social and cultural differences to create new ideas and increase both innovation and quality of work
- (Partnership for 21st Century Skills 2009: 6-7)

Acquiring a cross-cultural understanding enables the citizens of the 21st century to see the advantages of diversity and encourages them to become open-minded individuals, who are not scared to look at differences and similarities between cultures. Also, they come to understand the benefits of new perspectives on life and how they can help them to grow as a person. As the Indian economist and Nobel laureate Amartya Sen puts it, we are mistaken if we think that “distinct civilizations have grown separately, like trees on different plots of land, with very little overlap and interaction” (2008: 6). He calls this view “a gripping tale” provoking “hate at first sight”. Nowadays we cannot afford to think like this. In a globalized world in which multiculturalism reaches our homes virtually as well as in our physical

²⁰ Quote taken from: <http://www.goodreads.com/quotes/24499-be-the-change-that-you-wish-to-see-in-the> (Accessed May 2014)

proximity, the young generation has to learn how to deal with different world-views and how to evaluate and process information before they can use it for their own individual advancement. The Austrian Department for Education (bmukk) has reacted to this situation and published a practical guide including task examples and encouragements for teachers to address this topic in their classrooms. According to this publication, the instructors should use materials and activities which teach pupils that:

- people are diverse, but of equal value
 - cultural background has an impact on the identity of a person, but does not solely define her/him and can change and develop throughout a lifetime
 - it is possible to live with diversity
 - we can learn from one another, respect each other and live in peace with each other although we might not share the same ideologies
- (Zentrum Polis 2008: 5)

Only through learning to respect the “otherness”, evaluate it critically and then add newly gained perspectives to our own personal cultural backpack, can refinement of the Austrian human resources be possible.

In a work environment (and this refers to the school “work” as much as to a diverse occupational setting) people with a cross-cultural understanding profit from efficient teamwork. Especially in Austria, a country that has always been rich in diversity because of its history and the fusion of the European Union, the cross-cultural understanding in the EFL classroom has to be taught accordingly. Ananiadou & Claro (2009: 10) argue that the rise in use of ICT brings additional “ethical challenges” and that is why the implementation of cross-cultural themes into lesson plans is so important. The suggestions made by the bmukk referring to intercultural work are:

- to see the children / employees as individuals and not representatives of their cultural background
 - to challenge their point of view and perception of certain concepts
 - to stay open minded and learn from the students / employees as necessary
- (Zentrum Polis 2008: 5)

It is certain that Austrian 21st century citizens come into contact with other cultures. Furthermore, it is very likely that they will have to work with people coming from a different cultural background than their own. Therefore, it is crucial that the attitude towards diversity in the classroom becomes an entirely positive one. At the already mentioned conference held

by the association of industrialists in 2012 (see: 2.1.) Markus Tomaschitz²¹, head of Magna Education & Research, emphasized the importance of intercultural understanding in the Austrian 21st century job market. He argued that only if there was a bridge between theory and practice, being the explicit teaching and promotion of cross-cultural understanding at school, would employees be able to work together as a diverse team, respect each other's opinions and ultimately find a compromise which will lead to increased productivity.

Fortunately, the subject English presents itself as a great opportunity to teach this skill for several reasons. In her final thesis on generation globo-sapiens, Wimmer points out (2011: 52) that “the taught language can serve as a neutral tool for communication”. One has to imagine that an average Austrian classroom does not consist of a homogenous group. Therefore, it might be very helpful that when the students talk about intercultural matters they do so in a language that they have all acquired at the same time. Obviously, their level of proficiency might differ, but the most important factor of an equilibrated dialogue is a safe setting, such as the classroom, and the connective fact that they are all speaking in a language which is not their native one which thus makes them all belong to one homogenous group of EFL learners. Wimmer (2011: 52) adds that “by using the foreign language for the discussion of local and global controversial issues both groups are given equal chances to give voice to their interests and needs” and that because of this starting point “power relations between migrants and natives can be reduced”. In addition, English is considered a world language and therefore, there is a lot of worldwide authentic material to be found which can be used in the EFL lessons. Providing such relevant material supports students in their language acquisition development, while simultaneously integrating the skill of cross-cultural understanding. The availability of new technologies, social media and Generation Y's natural usage of these tools only facilitates the integration of intercultural EFL learning material.

Eventually, the only obvious downside to integrating cross-cultural topics into the EFL curriculum could be that it takes a certain level of language proficiency to articulate oneself. Passionate discussions or controversies cannot be resolved or talked about if the students are not able to argue properly or possess an appropriate amount of relevant vocabulary. In such a case, an intercultural dialogue might also develop in a destructive direction or simply fail. However, as the report on Austrian education published by the bmukk (2009: 16) in 2009 points out, “making ‘intercultural learning’ part of everyday school life [...] is conditional on

²¹ Taken from: <http://www.iv-future.at/b119m33>: 5:60 min (Accessed April 2014)

purposeful initiatives”. Therefore, it is not advisable to miss the chance of incorporating such an important skill into the 21st century students’ EFL lessons which would enrich the students’ private and professional life tool kit alike.

4. 21st Century Skills and their Relevance in the Austrian Context

The previous chapters have mainly dealt with the general definitions of the 21st Century Skills concept. Now it is time to connect the theory to the actual practice in Austrian HLW schools. The following section will provide crucial background information on the Austrian context in terms of employability of HLW graduates, the official support system and legal provisions by the Austrian government as well as the special situation of today’s Generation Y.

The questions addressed in this part of the paper are:

- What does the Austrian school environment provide in terms of 21st Century Skills?
- What skills are Austrian employers looking for in their employees and do these qualities correlate with the 21st Century Skills central to this thesis?
- What 21st Century Skills are considered in the Common European Frame of Reference?
- What does the current HLW curriculum decree in terms of 21st Century Skills?
- What is the current Generation Y graduates’ perspective concerning their employability, career and general challenges of life?

4.1. The Austrian School System

Comparing the Austrian school system with the American one, which constitutes the foundation for P21’s concept of 21st Century Skills, the most important distinction to make is the ability to choose between a general secondary high school (AHS) and a secondary vocational school (BHS) in Austria. One could argue that due to the different school systems, the Austrian students have an advantage over their American colleagues. In general, the secondary education system of the United States does not include predetermined vocational training. Bring (2006: 120) states that the American school system is more complex than in

other countries due to the differences in curricula between states and even between schools. Nevertheless, most American high schools provide general education in basic fields of studies such as science, languages, mathematics, social sciences and physical education. Besides these mandatory classes, the students also have to add extra classes to their individual curriculum. These so-called electives can be chosen by the pupils according to their personal interests. Within this pool of extra classes, there are usually a variety of vocational courses offered to the students as well. Brings (2006: 121) explains that students who take 20 percent or more of such occupationally related coursework are categorized as vocational students. However, he adds that even these vocational students usually do not pick classes which would help them specialize in one specific area, but rather sample a range of different profession related courses.

This is not the case in Austria. Here, students may not have the liberty to pick whatever course they are interested in, but at the age of 14-15 they can decide whether they want to attend a school with focus on general education or select from a variety of professional schools which then provide them with general as well as more specific vocational training. The range of vocational schools in Austria goes from technical, social, economic, medical, environmental, gastronomic to creative ones and all of their curricula are specifically designed to serve the purpose of each school type. Therefore, it would make sense that graduates from an Austrian BHS are better prepared for economic and professional challenges than American high school graduates. Simply due to their 5-year exposure to a specific field of studies, there should be evidence of a significant difference in their level of expertise compared to their American peers. Concerning higher education, like the 2-year or 4-year colleges in the United States, it is hard to say whether there would be a big difference between their commands of 21st Century Skills or not. However, this should not be a major concern for the research at hand.

Therefore, the most important thought one can take away from the P21 survey on American graduates' employability (see 2.1.) is that the longer the students were exposed to specific vocational training, the better their execution of the necessary skills. On a side note, it also has to be mentioned that even the four-year-college graduates were not yet able to master all of the skills tested. This result clearly indicates that there is still plenty of room for performance improvement in American higher education curricula. If we now applied these

results to the Austrian situation, we would need to assume that similar deficiencies could be remedied once it is clear what 21st century BHS education should focus on further.

Hence, one can conclude that Austrian BHS graduates benefit from the 5-year exposure to a curriculum created for a specific career focus. Even though their preparation could still be improved, they should already be better prepared for the job market than their grammar school fellows and the American high school graduates whom P21's concept was based on. Also, it is most likely that Austrian students are already being taught some 21st century skills throughout their BHS studies. However, there does not yet exist reliable evidence about whether these skills are implemented consciously by the teachers or form a subconscious part of their natural teaching habits. So far, there has been little discussion about the concept of 21st Century Skills in general and therefore this field of study, especially in the Austrian context, is lacking some significant knowledge about the actual practice in the BHS classrooms.

4.2. The employability of secondary vocational schools graduates

The popularity of vocational schools has grown significantly during recent years (European Commission: 2007). This might be due to the fact that BHS graduates leave school not only with the same general degree of secondary education as regular high school graduates, but also with additional professional training. This type of formation is supposed to facilitate the entrance into employment for young adults as well as enabling them to apply for further educational programs at a university of their choice. However, the report "Bildung in Zahlen 2009/2010" showed that 64,8% of higher vocational school graduates start working full-time after their graduation (Statistik Austria: 52) and neglect the opportunity to continue with tertiary education. Therefore, one can conclude that the provided vocational training, and subsequently the resulting elevated employability, constitutes a crucial factor for the majority of BHS students to attend one of the various BHS branches in Austria.

As has been mentioned in chapter 2.1., the Partnership for 21st Century Skills explored the employability of American graduates in 2006. In Austria, similar research was conducted in 2001. The European Commission ordered a study on the employability of vocational school graduates and Mandl & Oberholzer (2001) collected data from Viennese employers. Their overall conclusion was that "vocational training seems to equip young people with a sufficient level of adequate skills" (2001: 21). However, the report also suggested to reduce the amount

of theoretical lessons and to include more practical training, foreign language training and more IT-training to improve the overall service and personality training of the secondary vocational schools (2001: 45). One has to bear in mind that this report was published in 2001 and could therefore already be outdated. However, it is interesting to see that a lot of the recommendations from this report have been implemented into the general curricula of Austrian BHS schools. Nowadays almost every HLW school has at least one training company, mostly three or even more foreign languages offered and the new standardized final examination has been transformed into a competence oriented exam. Therefore, one could argue that the curriculum has been adjusted according to the suggestions made in that report, but because the world as a whole has changed so much since 2001, a final conclusion cannot be made without updated evidence on the current situation regarding this matter. Undeniably, these changes have also had an impact on the Austrian labor market and subsequently on the employability of today's HLW graduates. Therefore, it is necessary to have a look at these developments first in order to be able to interpret what their implications for formation improvement could be in this decade.

In 2012, the *Austrian Employment Center* (AMS) published a report on the new skills a successful employee needs to master in the 21st century (AMS 2012). Their research focused on big companies throughout Austria because they believed that new developments would first appear in these companies before they spread top-down to small businesses. The following Table 1 provides an overview of all 21st Century Skills considered in the AMS report and their counterpart defined by Trilling & Fadel

AMS's New Skills	21 st Century Skills
New Media, Cloud Computing, Paperless Office (22)	Media Literacy, IT-Literacy
Flexibility regarding Work Schedule and Work Place (25)	Flexibility, Adaptability
Self-Organized, Self-Controlling (25)	Initiative and Self-direction
Diversity of Staff & Clients, Internationalizing (26)	Cross-Cultural Understanding
Project-based work, Teamwork (26)	Collaboration & Teamwork
New ways of Communication (26) Social Media, Skype...	Communication, Media literacy
Joined-up Thinking, Networking, Problem solving (28)	Problem Solving, Critical Thinking
Multilingualism (28)	Communication
Life-long Learning (29)	Initiative and Self-direction

Table 1: Analysis of the 21st Century Skills considered in the AMS report

Apparently, the new skills described by the AMS are very similar to the ones P21 suggests. Being able to use new media and new technologies in order to communicate with a diversity of people in different languages is one of the major themes of the report. It is highlighted that cultural diversity is increasingly seen as an advantage to innovative work. The more and more project-based professions seek employees with different cultural and linguistic background in order to be able to communicate on an international level with business partners or to reach a heterogeneous clientele. Obviously, being able to communicate in English is one of the crucial skills a modern employee should be able to achieve. Accordingly, it is not only necessary to speak fluent English, but also to understand different native and non-native accents of English and to be willing to learn about cultural differences in order to not offend others by mistake. The report additionally mentions that other languages, such as Russian or Chinese become increasingly important on the job market and hence heighten its speaker's employability. Also, since project-based work is on the rise, employees must acquire skills like interdisciplinary creative thinking and problem solving. This type of work requires people to work together in teams, be self-directed and work within a flexible work schedule. All of these skills are already part of P21's concept.

However, the paper published by the employment center also highlights the importance of other skills like willingness for life-long learning and the need to acquire self-preservation skills in these rapidly changing times (AMS 2012: 25, 29). Obviously, it is not enough anymore to rely on the knowledge acquired at school. Employees need to stay on track with new developments, laws and practices in their fields of work. This dedication requires a lot of effort from staff members and therefore, stress relief strategies and burn out prevention techniques have become increasingly important as well.

In summary, the report shows that both concepts of what a 21st century employee should master in order to be highly employable have quite some overlap. This result emphasizes the relevance of the American 21st Century Skills concept from the *Partnership for 21st Century Skills* for the Austrian context and thus supports the claim of this thesis that the defined skills should be utilized to improve the HLW-curricula. Also, it is interesting and noteworthy to mention that the AMS report from 2012 recommends the increase of practical training at school as did the report from the *European Commission* more than 10 years ago (Mandl & Oberholzner 2001: 63/63). It seems that during the last decade this view has not changed. Therefore, replacing content-oriented education by practical training, project-based learning

and problem-based learning can still be considered the consequential step towards a modernized education system in Austria.

4.3. The Common European Framework of Reference

The *Common European Framework of Reference* (CEFR) is a toolkit and valuable guideline for language teachers compiled by the Council of Europe (2001). It offers a wide range of meaningful content for the learning, assessment and teaching of languages in European Union countries as well as definitions for the general objectives within this context. However, with regard to the concept of 21st Century Skills, it does not provide any specific recommendations or information. Although the entirety of chapter 5 is dedicated to "the user/learner's competences" (2001: 101), the information given mainly focuses on the communicative aspect of competencies in general and suggests activities to support the language learning progress. Only some of the competencies mentioned can be linked to the 21st Century Skills described by the *Partnership for 21st Century Skills*. Table 2 presents these common aspects.

CEFR	21 st Century Skills
Intercultural Skills and Know-how (104)	Cross-cultural understanding
Language and Communication Awareness (107)	Communications
Study Skills (197) including: - to co-operate effectively in pair and group work; - ability to organize and use materials for self-directed learning;	Collaboration Teamwork Learning Self-reliance
Discourse Competence (124) including: - flexibility in circumstances	Problem Solving

Table 2: Analysis of the 21st Century Skills considered in the CEFR

As one can conclude from this visual comparison, not all of the 21st Century Skills are represented in the CEFR. Skills such as creativity, critical thinking and media literacy are not even mentioned throughout the text. This might be due to the relatively new character of the theory or a simple disagreement with the 21st century movement. Another reason could be that the general goal of the framework's creators was to provide support to teachers and learners by presenting different options for teaching methodology without promoting one particular approach (142). Leaning towards such an innovative concept as "21st century education" might have been too early at the time or simply too farfetched given the complicated situation that educational systems in the European Union are facing at the moment. It also has to be noted though that the CEFR invites educators to propose new objectives for a modern school system because "this might lead to a wider understanding of

the complex diversity of the world of language education, or to lively debate, which is always preferable to simple acceptance of a current orthodoxy merely because it is an orthodoxy” (141/142). Therefore, one could argue that the door is not yet closed for new ideas in the Council of Europe’s way of tackling educational challenges. Also, the suggested objectives and instructions given allow different interpretations and could also be stretched to implement step by step parts of the 21st Century Skills theory by the *Partnership for 21st Century Skills*.

4.4. The official HLW curricula

In order to make a reliable assumption of the relevance of the 21st Century Skills for the Austrian school system, in particular for the HLW school type, one also has to take into account the parameters set by the Austrian Ministry of Education (bmukk) in the year 2000. Based on the analysis of the official curriculum of this specific vocational school, one can say that the overall educational objectives are very close connected with P21’s 21st Century Skills theory.

Official HLW Curricula	21 st Century Skills
Creativity	Creativity and Innovation
Communication	Communication
to be open minded and tolerant in the communication with other cultures	Cross-cultural Understanding
Willingness for further self-initiated training	Initiative and Self-direction (Career and Learning Self-reliance Skills)
Critical Feedback for Others and to Accept and Appreciate Critique	Critical Thinking (Critical Thinking & Problem Solving Skills)
to work Problem-Solving and Activity-Oriented	Problem solving (Critical Thinking & Problem Solving Skills)
to act and decide responsibly	Leadership, Responsibility (Career and Learning Self-reliance Skills)
to work in Teams (especially in the school’s training company)	Collaboration & Teamwork

Table 3: Analysis of the 21st Century Skills considered in the Official HLW Curricula

The table 3 illustrates the objectives stated by the Austrian government and their 21st Century Skills counterparts. It shows that the majority of the original 21st Century Skills are already considered in the official curricula of the Vocational School for Economic Professions. In addition, the description of the educational aims demand to support the students’ development towards professionally flexible, socially committed and curious individuals:

Die wesentlichen Ziele der Ausbildung sind Persönlichkeitsbildung, Fähigkeit der beruflichen Mobilität und Flexibilität, Kreativität, Kritikfähigkeit und soziales

Engagement, Kommunikationsfähigkeit in der Muttersprache und in den Fremdsprachen sowie die Bereitschaft zu ständiger Weiterbildung.
(bmukk 2003)

To achieve these goals, teachers are supposed to provide opportunities to work on practical interdisciplinary projects that allow the students to develop joined-up thinking. If the theory is actually put into practice, will be revealed by the field study in the second part of this paper (see 5.6.2.7.). Also, one must notice that the curricula of the Austrian HLWs applies to the instruction of general knowledge as well as to professional training and depicts the underlying red thread throughout all subjects in the curricula. However, all of the skills demanded in the HLW curricula should be realizable in the English lessons as well and represent therefore a valuable contribution to the discussion of 21st Century Skills.

Furthermore, one of the peculiarities of vocational schools is that most of them offer at least one training company within the school where the students can work hands-on in a relatively authentic work environment. There they can also practice working in teams, use theory they have learned beforehand in an appropriate setting and learn more about themselves in terms of their position preferences within a company. Obviously, the idea behind the introduction of such practice firms correlates with the concepts of 21st Century Skills. Here, the students can be creative, solve every day work problems, work together in teams and train to become successful employees. Wagner (<http://tonywagner.com/resources/educating-the-next-steve-jobs>) argues that “learning in most conventional education settings is a passive experience: The students listen. But at the most innovative schools, classes are “hands-on,” and students are creators, not mere consumers. They acquire skills and knowledge while solving a problem, creating a product or generating a new understanding”. This is exactly what the virtual companies provided for the young adult learners accomplish. Some schools take the project even a step further. Some training companies throughout Austria are connected with other school firms and buy or sell products from or to other fictional training companies. In this way, the learner’s experience becomes even more authentic and relevant. Therefore, this is an excellent example of the practical realization of the 21st Century Skills concept and can also be included into the curricula of EFL classes.

Another practical training component of the HLW curricula is the gastronomical one. Once a week, these students attend a cooking and service class. Throughout the first four years of their education at the school, they are trained to become certified chefs and servers. Theory

and practice merge in this subject and depict another positive example of hands-on learning experiences. One year before the students have to take the final school leaving examination, they have to pass the practical exam in this subject. To pass it, the young adult learners have to prepare a 3-course menu for “real” guests and on another day, serve their colleagues’ menu in a professional manner to invited guests. The passed exam qualifies the graduates to take on the same jobs as adolescents who did an entire apprenticeship of 3 years practical training. This additional qualification is thus a valuable resource for young graduates who would like to work in this field.

In addition, students attending a *Vocational School for Economic Professions* (HLW) have to do a 3-month internship related to the individual branch their school focuses on. A lot of students from these schools work in hotels, restaurants or offices and numerous adolescents use this opportunity to leave home and work in another state of Austria. This compulsory internship has to be completed between 3rd and 4th grade. It is part of the learners’ vocational training and allows young people to gain real work experience before they graduate. Obviously, the students benefit from such practice on many different levels. Not only can they add real life references to their curriculum vitae and get paid for their efforts, but they can also grow as a person. The online information portal for Austrian vocational schools (<http://www.abc.berufsbildendeschulen.at/de/page.asp?id=47>) affirms that an internship teaches the interns a variety of valuable things. For example, the students improve their social skills by interacting with colleagues and superiors. New challenges are part of their experience as well as acknowledgment and praise for good work. One should not underestimate the value of finding out that a certain job might not actually be what the student expected it to be. Practical experience like this helps the adolescents to decide what kind of profession they want to enter after graduation. Eventually, students can only benefit from an internship as part of their education and as has been mentioned before, this is also the reason why the concept of 21st Century Skills suggests including more practical training in the official school curriculum.

Since the focus of this thesis lies on the execution of 21st Century Skills in the English classroom, it has to be noted that this subject is the most prominent one in terms of weekly hours in the timetable. This means that the official curriculum requires the schools to offer 3 hours of English instructions per week for its students. None of the other subjects are taught for as long as this during the entire 5 years of education. Therefore, one can argue that

English holds a very important place in the considerations of crucial knowledge a 21st century HLW graduate should demonstrate. In this respect Kranawetter (2012: 88) concludes that “students often have concrete perceptions about which profession they will take up after graduation” and therefore it is not surprising that they understand that “English will be relevant for their professional career”. Her research in the field of language attitude in Austrian secondary schools revealed that the attending students are well aware of the importance of English for their future job experience and showed to have a “stronger instrumental motivation” (2012: 99). According to these findings, the students’ motivation in combination with the employability heightening acquisition of *21st Century Skills* should be appreciated by the pupils and might even increase their work effort.

New regulations such as the introduction of the new standardized final examination dictate the language level a graduate should achieve and thus has become a central concern for English teachers. Their teaching assignment includes the training of receptive, productive and interactive language skills and according to the *Common European Framework of Reference* (CEFR) the goal is to gradually lead the learners to a B2 language proficiency level. Some of the competencies are even supposed to be administered on a C1 proficiency level²². The official curricula for vocational schools for economic professions also suggests that with these new competence regulations the teachers should transform, if they have not done so already, content based teaching methods into competence oriented ones. Wagner is a big advocate of this claim and keeps repeating in his publications that knowledge has become a free source everybody has access to whenever and wherever they want to. Students of the 21st century make use of search engines on the internet all the time in order to satisfy their curiosity. From his perspective, this does not mean that basic world-knowledge should become excluded as a whole from the curriculum, but it points out the different approach 21st century students are taking when it comes to the sourcing of information. As a consequence, Wagner argues (2012: 24/25) that teachers need to focus on sustainable know-how. He acknowledges the importance of expertise knowledge, which supports, together with motivation and creative thinking skills, the creative process of producing language. In other words, training the students so that they can improve their basic language competences (reading, writing, speaking, listening and interacting) via content, but testing only their language competence

²² A1/A2= Basic User, B1/B2= Independent User, C1/C2= Proficient User (Council of Europe 2011: 24)

represents the overall ideology behind the new standardized final examination as well as behind the concept of 21st Century Skills.

One can thus conclude that the instructions given by the official curricula for vocational schools for economic professions are definitely heading in the right direction for a 21st century education. However, as has been mentioned before, the theory always has to be followed by the practice and the results of the research study will show whether it has been possible so far to open up the classrooms for hands-on project work, appropriate and useful material or/and motivated and open-minded teachers.

4.5. The Austrian Generation Y

The term Generation Y has become a very popular one in the context of 21st century adolescents. It refers to the people born after approximately 1980 and their way of approaching life. Although different definitions can be found throughout the literature, all of them share the same core characteristics. Therefore, people who are part of Generation Y seek more than money and successful careers. Unlike preceding generations, their life goal is to find a work-life balance which enables them to live a financially stable, but at the same time a fulfilling and happy life. This generation knows that a workaholic lifestyle has its price and terms such as “burnout” have become part of their everyday vocabulary. Thus it is not surprising at all that their mindset has changed. Rump (2013: 133) argues that the trend goes to a mixed ideology where old and new values get combined. She claims that a career-driven mind and the lust for life must not necessarily exclude one another. Instead of a generation which only seeks fun or one that defines itself by their material possessions, generation Y tries to find a balance between self-discipline and self-fulfillment. The search for a meaningful purpose in life and the wish to contribute in one way or the other to society, leads Rump to define this generation as the “accountability society”.

In the Austrian context, Generation Y has also entered the school and job markets. In 2011 the Austrian Labor Department ordered a study on the values of today’s adolescents. The results were published one year later (Jugendkultur 2012) and showed that the Austrian’s Generation Y ranges so-called “soft values” at the top of their personal value scale, whereas material possessions are ranked in the lower places. Again, salaries and careers are not as important to them as, for example, happiness. In the center of their scale one can find values like self-fulfillment, the wish for nice colleagues and challenges they can learn from (112).

Especially for graduates of secondary schools it is of high importance that they can grow in their abilities, live abroad for a while and constantly get the chance to improve their set of skills (96). Also, it is very important for the Austrian younger generation to find a “healthy” job where they are not in danger of environmental pollutants or too much stress and pressure (112).

This tendency can also be found in terms of what the Austrian Generation Y expects from their education at school. The results of the study suggest that the adolescents ask for more individualized mentoring and sponsorship. In this context, humaneness and empathy from the teachers was mentioned as well. In their opinion, it is not sufficient anymore to be prepared for the job market, but also to acquire life strategies which enable them to develop as a person and as a satisfied employee. The students want more choice and a say in the planning of topic content and the general curricula (111). However, the majority of young adults do not limit their learning experiences to those at school. The study has shown that 73 per cent of the adolescents find it worthwhile to continue their learning throughout their entire life. This generation does not expect that what they have learnt at school is everything they will ever have to study. In their opinion, it will be a lifelong journey of learning opportunities, extra training and courses which are supposed to keep them up-to-date and increase their employability as well as their personal competencies (104).

What one can take away from the study by the Austrian Labor Department in combination with the discussion of 21st Century Skills at school is that the members of the Generation Y want to acquire relevant life knowledge which will help them to live a productive and satisfying life. One could argue that the concept of 21st Century Skills proposed in this thesis could provide exactly that; life-relevant skills which will enable the students of today to become life-long learners of the future. Learning how to solve problems or how to learn from others are helpful skills to have, not only in a working environment. In addition, the students wish for more choice when it comes to core subjects and subject content. A project-based approach which focuses more on the teaching of 21st Century Skills than the implementation of as much content information as possible could support the students effectively. Obviously, certain standards must be reached, but other than that today’s adolescents want to get the chance to focus on things they feel passionate about.

Part 2 - The Practice

5. The Empirical Study

The second part of the present thesis explores the reality in Austrian HLW English classes via what teachers say. It represents a crucial part of this project since no empirical evidence of 21st Century Skills in an Austrian context has been collected to date. Therefore, in order to provide useful implications for the implementation of this new concept into the EFL classroom, it is essential to first investigate the status quo of the Austrian HLW environment.

5.1. Aims of the Study

This research is supposed to fill the gap of knowledge concerning the p21 concept of 21st Century Skills and draw a bridge from its theory to the actual teaching practices in Austrian Secondary Schools for Economic Professions. The overall goal of the present study is to collect data on the status quo of 21st century teaching routines and to use the results to make meaningful suggestions for the improvement of EFL lessons.

In detail, the aims of this survey are:

- to determine the responding teachers' personal characteristics and preferences relevant for the topic at hand
- to identify the most popular teaching materials used in the Austrian EFL classrooms in vocational schools and whether they already consider 21st Century Skills
- to detect the respondents' personal estimation of the crucial skills a 21st century HLW graduate needs to possess
- to determine if or to what degree the participants already teach 21st Century Skills
- to evaluate the teachers' perception of p21's concept of 21st Century Skills
- to investigate the teachers' personal evaluation of future prospects concerning the world and education alike

Based on the belief that teachers who do not possess these skills themselves or do not possess the necessary tools to pass on the 21st Century Skills are not sufficiently equipped to teach a successful 21st century student, this research intends to determine exactly where improvement is needed and where teachers can find support for their own learning transformation.

5.2. Research Methodology

The choice of the most appropriate and most representative research method is a crucial one. Therefore, I primarily used Seliger and Shohamy's (1989) work *Second Language Research Methods* as a reference book and explored all possible methods including their advantages and disadvantages. It soon became obvious that an online questionnaire would be the most practical method to collect the information I sought. A questionnaire is a time effective, reliable and not very cost intensive research method. Dörnyei (2003: 1) supports this claim and explains that they are "easy to construct, extremely versatile, and uniquely capable of gathering a large amount of information quickly in a form that is readily processable". Seliger and Shohamy (1989: 363) add that questionnaires also enable the participants to complete the survey whenever or wherever they want to and due to its anonymous character it might also be more likely that the respondents answer honestly. Although a questionnaire also has its limitations, such as social desirability bias, self-deception, the halo effect, acquiescence bias or unmotivated respondents (Dörnyei 2003: 10-14), the advantages of a self-administered, anonymous online questionnaire outweighed these negatives and I therefore decided to create a survey on the basis of Dörnyei's (2003) and Seliger and Shohamy's (1989) design recommendations.

5.3. Designing Process of the Questionnaire

Prior to commencing the work on the final questionnaire, I conducted two separate interviews with two experts in the field of innovative teaching methods in the EFL classroom. The interviews were primarily useful to gain some understanding of the current teaching situation in Austrian vocational schools. In combination with their extensive teaching experience in higher vocational schools, both of the experts also have work experience other than teaching and therefore know firsthand what skills young people entering the professional life need nowadays. Besides their passion for the English language, both of them also share the same teaching motivation, namely to prepare their students for professional life after graduation as well as possible. In order to do so, both experts try out new teaching methods, use new media in their classrooms, exchange information and material with their fellow teachers, reflect on their teaching and stay open-minded to innovations in this field. Basically, one could argue that the two experts interviewed represent positive examples of modern 21st century teachers who are up to date with the demands of the current economic and professional situation in

Austria. Based on the insights gained from these two interviews, the questionnaire design process of the first draft began.

The following step was what Seliger and Shohamy (1989: 65) call the stage of contextualization of research. They argue that “once the area, topic, or problem of the research has been chosen and defined, the research needs to be placed in a broader context by reviewing the related literature” (1989: 65) and they suggest that the existing literature should be reviewed numerous times during this phase. Therefore, I had to go back to the starting point of this project and combine Trilling & Fadel’s (2009) concept of the 21st Century Skills with the Austria-related results of the expert interviews and my own analyses of all relevant perspectives on this topic (see chapter 4). In addition, Dörnyei’s (2003) recommendations for successful questionnaire design were considered and turned out to be a helpful source throughout this process.

In order to stay as true as possible to the primary literature, I used the original definitions of the Partnership for 21st Century Skills (http://www.p21.org/storage/documents/P21_Framework_Definitions.pdf) and reformulated them into questions. Next, the questions I had extracted from the expert interviews were added as well. Besides the introduction, the basic demographic information and the closure, the questionnaire consisted of 16 obligatory and 10 optional questions. The latter were suggested by Dörnyei (2003: 48) to clarify or add further information to mandatory question answers.

The different types of questions included open-ended as well as closed-ended items. Most of the latter were presented in a Likert scale. The participants had to tick the most appropriate answer concerning their personal valuation ranging from *no*, *very little*, *a little*, *quite a lot* to *yes*. Other questions, which were concerned with the frequency of doing something, provided the respondents with another set of options, going from *never*, *almost never*, *sometimes*, *fairly often* to *very often*. Dörnyei (2003: 8) also refers to these types of questions as attitudinal ones since they deal with the broad categories of attitudes, opinions, beliefs, interests and values. Cohen et al (2007: 328) highlight the practicality of such items, but add that their usefulness has its limitations. Due to the fact that the respondents have to select one of the given choices, they are not provided with the opportunity to contribute further information. Open-ended questions on the other hand offer this chance to the participants of a study. Dörnyei (2003:47) explains that “sometimes we need open-ended items for the simple reason that we do not know the range of possible answers and therefore cannot provide pre-prepared response

categories”. Obviously, these items are harder to categorize during the analysis process. By requesting short key word answers from the participants I tried to avoid essay like answers which would lead to more complication during the analysis of these results.

Having decided on the question items I wanted to include into the survey, their order had to be considered. Dörnyei (2003: 59) claims that item sequence is of high importance and has to be thought through from the respondent's perspective. Cohen et al (2007: 336) emphasize that early questions may have an impact on the respondent's mindset regarding later questions. Taking these recommendations into consideration, questions which already hinted at P21's predetermined 21st Century Skills were placed towards the end of the questionnaire in order to not interfere with the answers the respondents were supposed to come up by themselves. Although Dörnyei (2003: 61) argues that personal questions should be put at the end of a questionnaire to avoid an anticlimax effect, it was of more importance to me that the participants' suggestions of their personal 21st century skills were placed before the attitudinal questions concerning their evaluation of the concept based on my primary source.

Before piloting the questionnaire, it was transformed into an online version. The internet site www.surveymonkeys.com was used for this purpose. This self-explanatory program allows the survey designer to choose from multiple question and answer options. It also provides a helpful analysis tool which is supposed to facilitate the analysis process. As Dörnyei (2003: 26) suggested, the introduction of the survey opened with a greeting and explained what the study was about, requested honest answers and closed with a thank-you note. My contact information was added as well.

Then the piloting phase of the survey began. Three of my fellow English students volunteered to test the questionnaire and fortunately suggested only minor changes. Some of the questions needed to be reformulated since the wording was not precise enough. Other than that, the feedback was entirely positive. Also, the testers reported back that it took them approximately 10 minutes to answer all of the questions. As Dörnyei (2003: 18) suggests, a questionnaire should not take more than 30 minutes to complete. The survey was well within this time limit and I was able to continue with the procedure.

5.4. Procedure

According to the official webpage on Austrian Secondary Vocational Schools (www.abc.berufsbildendeschulen.at), 115 schools fit the profile of a Secondary School for

Economic Professions (HLW) and were asked to participate in this survey. Each school was called and the people in charge were requested to forward the following e-mail with further details and the link to the online questionnaire to all English teachers. Overall, the majority of individuals cooperated and promised to do so. Two weeks after the first contact, a follow up mail was sent to all the schools in order to maximize the response levels, as Cohen, Manion & Morrison suggest (2007: 345). In fact, after having sent the second electronic mail, the number of participants increased by 14 %, from 144 to 164 edited questionnaires.

The process of analyzing and later visualizing the results of the survey was done with the help of the Apple software Numbers. The collected data was therefore transformed into convenient tables, bar charts or pie charts to facilitate the readers' interpretation of the research outcome. In addition, detailed information on the absolute numbers (abs.) as well as their percentage equivalents (%) concerning each item discussed on the following pages was included and prepared accordingly.

5.5. The Sample

All samples come from English teachers instructing at a Secondary School for Economic Professions in Austria. 164 answer sheets were collected. Unfortunately, 33 teachers who started answering the questionnaire did not fully finish it and hence had to be eliminated from the final data (N=131). Dörnyei (2003: 75) addresses this problem and states that one always has to consider a potential pitfall when it comes to the problem of participant self-selection. All the teachers contributing to this study did so voluntarily and anonymously and could therefore easily and without consequence cancel the survey. Also, since the entire study was dependent on the contact persons at the schools forwarding the mail to each English teacher, it is impossible to say whether all of them actually did so or if some teachers did not perhaps receive the link to the survey. However, the risk of losing some respondents due to the questionnaire's self-directed character was unavoidable, but the data collected was sufficient and significant enough to be analyzed. In total, 131 HLW English teachers answered all of the questions. The entire data presented in this thesis is taken from these completed questionnaires.

Gender	%	abs.
Female	83%	109
Male	17%	22
Total	100%	131

Table 4: Participants' Gender

The table above shows that of the initial cohort of participating subjects, 83 per cent were female and only 17 per cent were male. This division was not surprising since most teachers in Austria are female. It is believed that this inequality in gender has no significant effect on the results of this study and this detail therefore only serves an informational purpose.

Austrian State	%	abs.
Upper Austria	19,85%	26
Styria	18,32%	24
Vienna	15,27%	20
Lower Austria	15,27%	20
Tyrol	8,40%	11
Salzburg	6,87%	9
Vorarlberg	6,87%	9
Carinthia	4,58%	9
Burgenland	5,34%	7
Total	100%	131

Table 5: Distribution of participants throughout Austria

By the end of the survey period, data had been collected from all nine Austrian Länder. As Table 5 illustrates, most responses come from Upper Austria and Styria, whereas only 7 teachers completed the questionnaire in Burgenland. However, it is more important to note that all states are represented in the survey, than it is to detect the reason for the imbalance of participation between the different parts of Austria.

Age of the Participants	%	abs.
under 30 years old	7,63%	10
30-40 years old	26,72%	35
40-50 years old	22,14%	29
50-60 years old	38,17%	50
60 years or older	5,34%	7

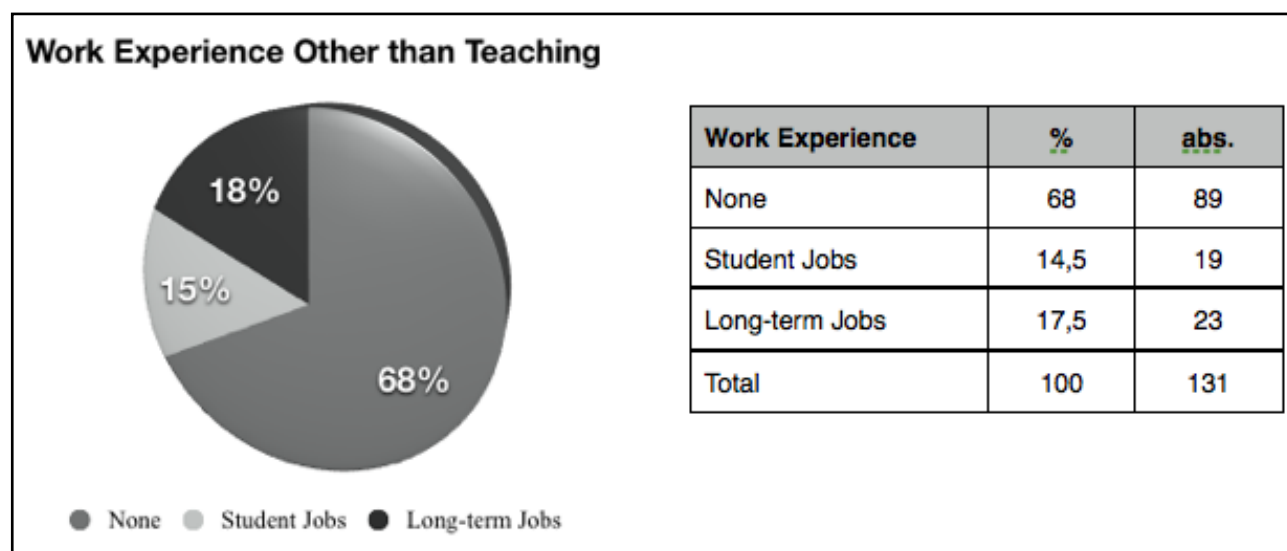
Table 6: Age of the participants

Teaching Experience	%	abs.
Less than 5 years ago	21,38%	28
Less than 10 years ago	15,27%	20
Less than 20 years ago	27,48%	36
More than 20 years ago	35,88%	47

Table 7: Teaching experience in years

Data from Table 6 can be compared with the data in Table 7 which shows that the majority of subjects are experienced HLW English teachers. It is apparent that only 7,63 per cent of them

can be considered to be part of Generation Y themselves. The far larger group of teachers represent the older generation, the so-called baby boomers. As has been discussed in a previous chapter (see 4.5.), different ideologies concerning life and work distinguish these two generations and might also have an influence on the way the teachers approach the teaching of a foreign language. One should bear this detail in mind when discussing the results of this study.



Data panel 1: Work Experience Other than Teaching

Since the concept of P21's 21st Century Skills is one that intends to bridge between education and economy, it seemed necessary to investigate teachers' connection with the business world outside school as well. Interestingly enough, 68 per cent of the respondents are teaching business related English without having experience in a job other than teaching. Only 17,5 per cent of the participants listed jobs which can be considered stable long-term jobs, such as working as a flight attendant, real estate manager, or as some kind of clerk. The even more surprising finding is that only 14,5 per cent of the teachers report to have gained job experience with minor side jobs while studying at the university. Only 19 subjects responded as having worked as, for example, servers, tour guides or interns at an office. Having little to no experience at a job they are trying to prepare their students for might be considered a disadvantage for these teachers. However, no study on the actual influence of one's own professional practice has been found to support this hypothesis on. Again, this detail can only serve an informational purpose and should be explored further in a future study concerning this matter.

5.6. Item Catalogue

Item	Position and Item Description in the Online Questionnaire
1	Q 6/7: Please tick the appropriate answer concerning your character descriptions.
2	Q 27: Have you ever heard of 21 st Century Skills before?
3	Q 28: Would you like to receive more information on this topic?
4	Q 29: Would you be interested in taking an advanced training course about one or more subareas concerning the 21 st Century Skills?
5	Q 8: What course book/s do you use?
6	Q 9: Are you happy with the course book, or would you wish for more...
7	Q 10: In case you also use other materials, please name them here:
8	Q 11: The Austrian school system is facing a lot of changes right now. In your opinion, what tools for a successful and happy life do students need nowadays, but have not yet been considered by the educational authorities sufficiently? In other words, what are your personal 21 st Century Skills?
9	Q 24: In your opinion, how important are the following skills for 21 st century graduates of a HLW school?
10	Q 21/22/23: Please complete the following sentence and tick the appropriate answer. It does not matter whether you consciously plan to teach these things or unconsciously integrate them. In my English classroom students have to...
11	Q 12: In case you like to try out new teaching methods, materials and/or technologies, do you feel supported by your teacher colleagues?
12	Q 13: In case you like to try out new teaching methods, materials and/or technologies, do you feel supported by your school superiors?
13	Q 14: In case you like to try out new teaching methods, materials and/or technologies, do you feel supported by your students' parents?
14	Q 15: In case you like to try out new teaching methods, materials and/or technologies, do you feel supported by the government?
15	Q 16: In case you like to try out new teaching methods, materials and/or technologies, what feedback do you receive from your students?
16	Q 17: In case you would like to add any further information or examples, please do so briefly:
17	Q 25: Have you ever tried out a project based teaching approach?
18	Q 26: If yes, how was this experience for you and what do you think of it?
19	Q 18: In your opinion, what will the world look like in 20 years?
20	Q 19: In your opinion, which skills will HLW graduates need to be successful in this world you have imagined twenty years from now?
21	Q 20: In your opinion, what would learning be like in the futuristic world you described in the previous questions?

6. Analysis of the Data

Before the final results of this survey can be discussed in detail, some information concerning the handling of open ended questions has to be mentioned. To begin with, a list of all responses was compiled. Then, synonyms and related terms were categorized into the appropriate group of 21st Century Skills suggested by P21. In order to provide a better overview of the participants' opinions, the original set of 11 skills was used. Finally, the remaining answers which could not be assigned to any of these preset skills were looked at in more detail. In case that some of them could fit into one umbrella cluster, they were summed up in one new skill group. However, in some cases, an answer did not fit in any of these categories, neither the P21 skills nor the new groups and has therefore been added as an additional skill. Another important piece of information in regard to these organizational decisions of suggested terms needs to be noted at this point. Due to the high number of different remarks in some open ended questions, those which were proposed only once or twice could not be considered for the final categories.

As has been mentioned in chapter 5.3., the organization of questions in the online questionnaire was intentional. Nevertheless, its arrangement does not suit the chronology of this analysis and hence, the order of the items had to be adjusted accordingly in order to present the results in a comprehensible manner. To improve the transparency of the sequence, an overview of all questions is provided in the following item catalogue.

6.1. Status Quo

One of the main goals of this thesis is to provide information on the current situation in Austrian HLW EFL classrooms. It is quite clear that the participating teachers' attitude towards elements of the 21st Century Skills concepts had to be elicited as well as their actual teaching practices. In addition, more practical information concerning the teaching materials used and the feedback received for trying out new teaching approaches complete this section.

In general, it also needs to be said that whenever the respondents faced an open question, some of them used the chance to state their personal opinion on topics which were neither part of this study nor asked for in the question itself. Clearly, some subjects wanted to take advantage of the opportunity to speak one's mind in a survey which obviously focuses on the future of education in Austria and wrote about their discontent in terms of new assessment

policies and governmental support in this country. These answers were not included from the study, but added an interesting tone to the analysis process of the status quo in Austrian HLW schools.

6.1.1. Participants' Self-Evaluation

All of the statements presented in Table 8 were taken from P21's list of relevant characteristics included in the 21st Century Skills theory. Thus, all of these remarks are already part of the 21st century framework and considered important in a modern classroom. The purpose of including this set of questions was to see what the teachers themselves brought to the table. Based on the assumption that teachers who identify with these statements would also more likely feel comfortable exercising and teaching these skills in the classroom, the data collected reflects the status quo of teachers' attitude towards 21st Century Skills and subsequently represents the foundation stone that innovative education should be built on.

Characteristics	no (1)	very little (2)	a little (3)	quite a lot (4)	yes (5)	Ø
I like to learn about cultural differences.	-	0,76%	5,34%	25,19%	68,70%	4,62
My students respect me	-	0,76%	3,82%	33,59%	61,83%	4,56
I follow the news	-	-	10,69%	27,48%	61,83%	4,51
I like to communicate new ideas to others	0,76%	0,76%	9,16%	29,77%	59,54%	4,47
I am a solution-oriented person	-	-	6,11%	41,98%	51,91%	4,46
I share my teaching materials with colleagues	-	2,29%	10,69%	29,77%	57,25%	4,42
I reflect on my teaching experiences	-	-	10,69%	40,46%	48,85%	4,38
I set goals for myself	-	2,29%	9,92%	40,46%	47,33%	4,33
I like to work creatively	-	-	12,98%	43,51%	43,51%	4,31
I view failure as an opportunity to learn	-	0,76%	17,56%	34,35%	47,33%	4,28
I appreciate team diversity	0,76%	3,82%	13,74%	43,51%	38,17%	4,15
I adapt quickly to new situations	1,53%	1,53%	16,03%	47,33%	33,59%	4,10
I like to receive feedback from my colleagues	-	1,53%	22,14%	45,80%	30,53%	4,05
I like being responsible for others	1,53%	3,05%	20,61%	41,22%	33,59%	4,02
I like to communicate with people who don't share my opinions	-	5,34%	19,85%	46,56%	28,24%	3,98
I like working with my computer	3,82%	5,34%	17,56%	36,64%	36,64%	3,97
I like leading other people	1,53%	7,63%	25,19%	45,80%	19,85%	3,75
I understand the hype about social networks	11,45%	7,63%	29,01%	34,35%	17,56%	3,39
I use apps on my smart phone	40,46%	11,45%	11,45%	8,4%	28,24%	2,73

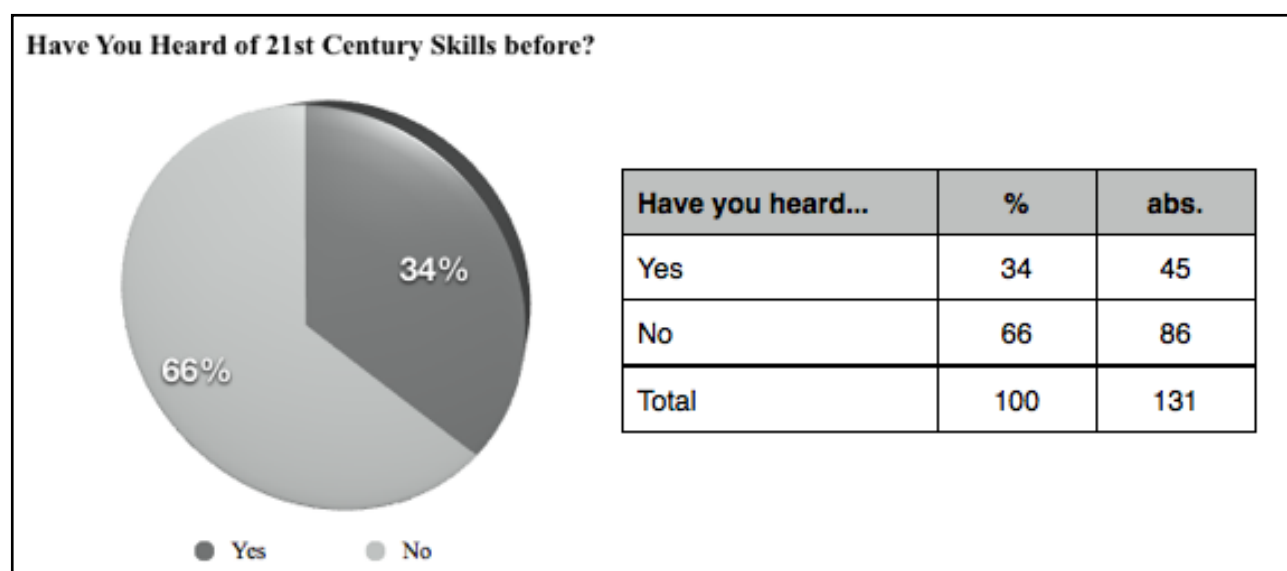
Table 8: Item 1 - Participants' Self-Evaluation

Item 1 required the respondents to indicate to what degree the given statements apply to them. On a 5-point Likert scale they had to tick the one that they thought would represent them the most. To visualize the results, the data collected was arranged hierarchically, ranging from the highest average rating to the lowest one. Overall, these results show that none of the characteristics were irrelevant to the majority of the subjects. However, the difference between the top statement and the last one is significant. According to the results, the majority of the participating English teachers highly enjoy learning about cultural differences. This should not be surprising since teaching a foreign language should already imply that the individuals who chose this subject identify themselves with it as well. In addition, more traditional virtues like respect, global awareness and communication are obviously still appreciated amongst the teachers and were rated accordingly.

In contrast, low ranked characteristics, mostly referring to new technology, are by far not as popular. As Table 8 illustrates, working with the computer, using social networks and smart phone apps are the least frequently exercised activities. Also, it is striking that only 19,85 per cent of the respondents reported enjoying leading other people, which would seem to be an essential part of a teacher's job description. It could be argued then that computer and leadership skills are not the teachers' greatest forte when compared to communication and social skills. The evidence could then indicate that a relevant proportion of current HLW English teachers do not yet implement sufficient media literacy, information literacy and ICT literacy activities in their classrooms due to their own personal preferences in their everyday life.

6.1.2. Awareness of and attitude towards the concept of 21st Century Skills

After having explored the participants' attitude towards different isolated elements of the 21st Century Skills framework, their knowledge of this concept needs to be examined. For this purpose, the respondents were asked to state whether or not they have heard of this concept before and if they would be open for supplementary training on this topic.



Data panel 2: Item 2 - Have You Heard of 21st Century Skills before?

As data panel 2 reveals, the majority (66%) of the participants had not yet heard of the concept of 21st Century Skills when they took part in this survey. It can be argued that this fact is to this study's advantage since the subjects contributed interesting, and more importantly different elements to this survey. As many of the respondents had to come up with what they thought would represent skills of this century, they did not merely repeat terms from similar approaches, but rather answered according to their own experience. Therefore, all contributions can be considered Austrian-relevant concepts of what current English teachers suggest the 21st century student should acquire at school.

Further Information	%	abs.
Yes	58	76
No	42	55
Total	100	131

Table 9: Item 3 - Interested in further information

Additional Course	%	abs.
Yes	17,5	23
Maybe	52	68
No	30,5	40
Total	100	131

Table 10: Item 4 - Interested in additional course

Two follow-up questions regarding the teachers' interest in further information on this topic and their possible willingness to attend an additional 21st century skills training course completed this item cluster. The narrow majority of 58 per cent was open to further information about this concept. However, only 17,5 per cent of the subjects stated that they would be interested in additional practical training. 52 per cent of the respondents were not yet sure if they wanted to continue working this new teaching approach and 30,5 per cent were certain that they would not like to do so. One has to bear in mind that the results could

be influenced by a variety of factors. First, the majority of participants had not yet been in contact with this concept and their lack of information could be one possible reason for their decision to not put more effort into an additional course. Second, they might be overwhelmed by recent policy changes and still have to adjust to these before they would be open minded enough again to yet another set of competencies which would need to be introduced into their classrooms. And third, they might simply not agree with the concept or are not in favor of any training course in general. Nevertheless, one can take away from this question cluster that sufficient information on the 21st Century Skills theory has not yet been provided and that one would need to start changing this fact before a possible implementation into the curriculum can be discussed.

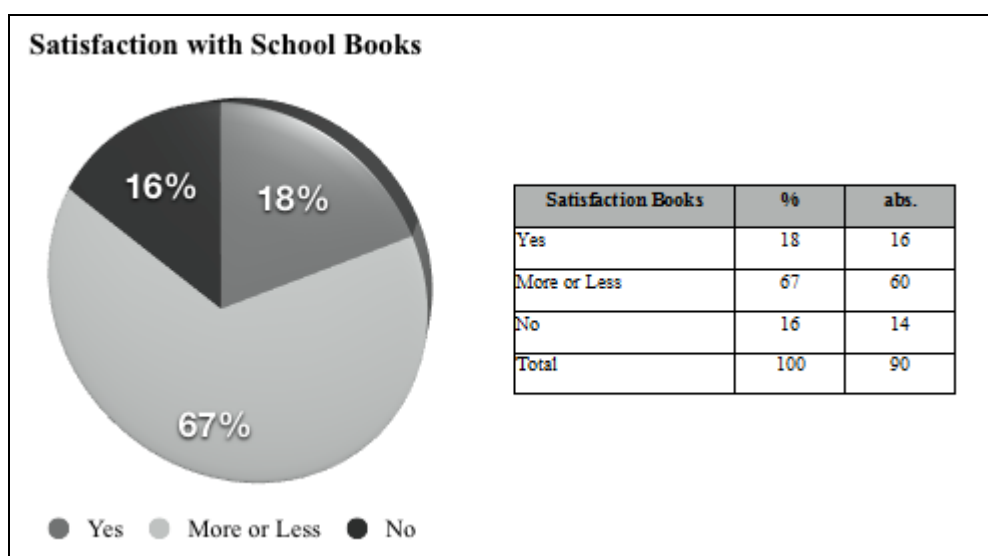
6.1.3. Teaching Materials

Item 5 required the participants to name the course books they are currently using on a regular basis. Many different books were mentioned, but five of them stuck out numerically.

Popular Course Books	%	abs.
Focus on Modern Business	44,67	67
Laser	22,66	34
Focus on Modern Careers	18	27
FCE	8	12
Open Worlds	6,67	10
Total	100	150

Table 11: Item 5 – Popular course books

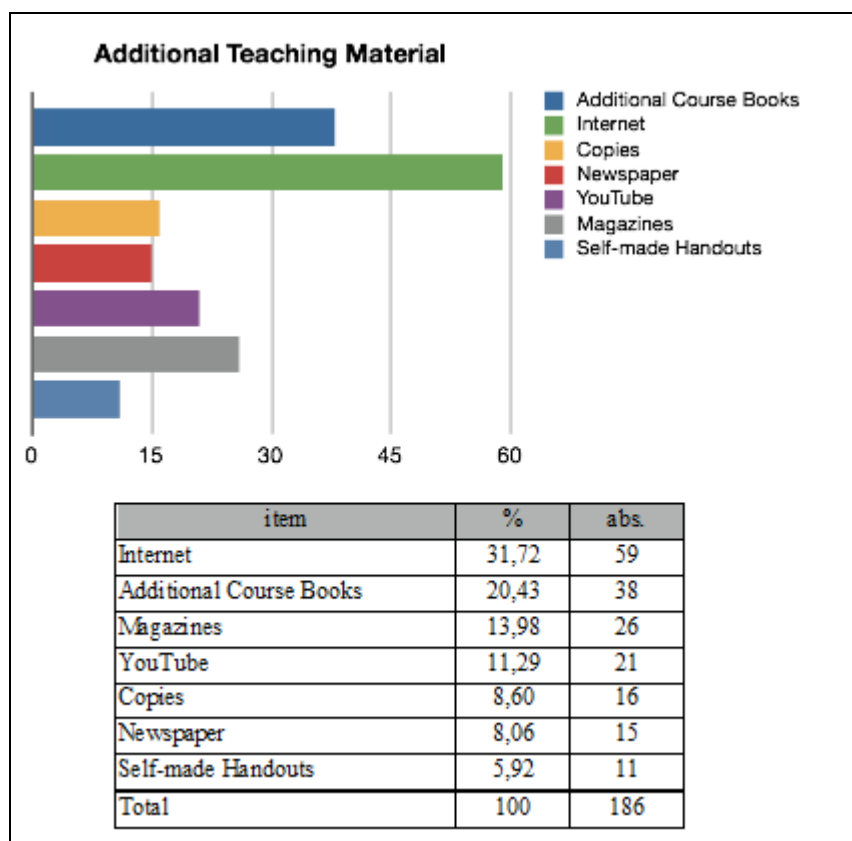
Table 11 presents these books and according to it, Focus on Modern Business is the most frequently used English course book in the Austrian HLW EFL classrooms. The high number of distinct material sources was surprising. The results also showed that the majority of teachers did not rely on one course book only. Most of them are working with a number of different books, which will be discussed together with data panel 4.



Data panel 3: Item 6 - Satisfaction with School Books

Concerning the teachers' satisfaction with the course books offered on the Austrian market, data panel 3 makes it quite clear that 67 per cent of the users are only more or less happy with the material provided in these books. Some of the subjects added further information and named the lack of testing material and activities to practice for the new standardized exams as the main reason for their unhappiness. In addition, they also desired more listening and reading activities, possibly also in combination with additional online material. The suggestion to connect the traditional course book with online activities and further ideas for the English classroom are very much in line with P21's idea of a modern teaching material pool. One could even argue that this will be the future of teaching materials and that it is only a matter of time until all of the course books offer such services. However, it also has to be mentioned that there are already some school books which provide this type of additional teaching material for the teachers.

Overall, one can say that each participant in this study integrates additional teaching material and does not solely rely on one course book.



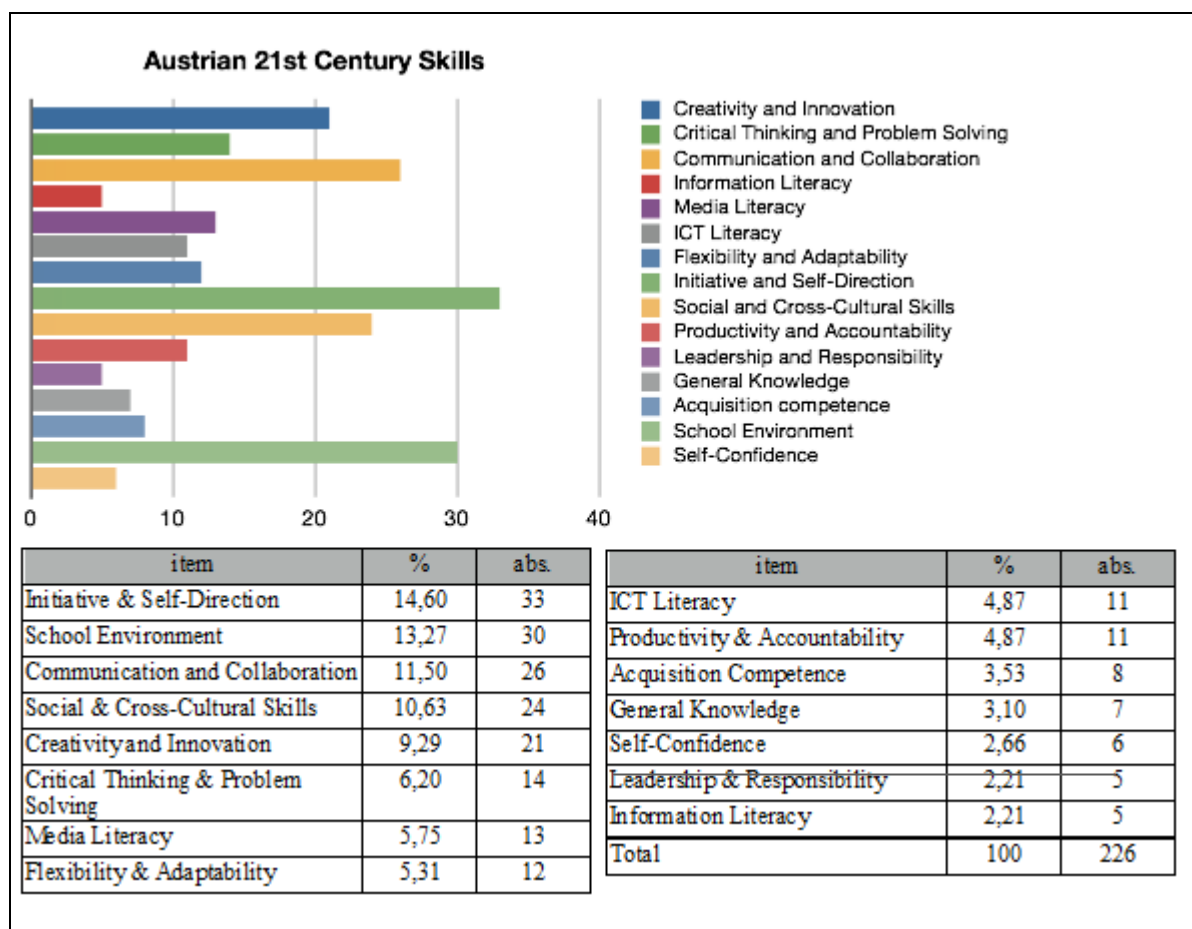
Data panel 4: Item 7 - Additional Teaching Material

Most of the teachers use a variety of material sources. All of those which were mentioned in the answer sheets were included into data panel 4. Therefore, the amount of sources exceeds the number of respondents. In this respect, the internet is clearly the teachers' favorite origin of additional teaching material. Strictly speaking, YouTube videos are also an internet based tool, but since it was mentioned so many times and video clips clearly represent another dimension of the World Wide Web, it is illustrated separately. The classic handouts and self-made activities are still used consistently and together with printed material of different sorts they complete this data.

The fact that Austrian English teachers create their own pool of additional teaching materials shows that the students' exposure to the target language is not limited to one source which was specifically designed for a non-native target group, but rather that they also receive authentic material from various native speaking sources, such as the internet. Also, in terms of P21's 21st Century Skills concept, the participants could easily adapt their habit of collecting and designing activities with the help of new technologies and media and create learning opportunities which would allow the students to practice exactly these skills; ICT, Information and Media Literacy.

6.1.4. 21st Century Skills

The participants' rating of necessary skills for the 21st century is one of the crucial questions of this study. In particular, the comparison of the Austrian subjects' suggestions based on their long-term teaching experience with the American predetermined concept is supposed to shed light on possible similarities and differences. Obviously, common ground between data panel 5 and 6 would subsequently prove that P21's ideology is indeed relevant for the Austrian school context and hence should be considered to further than it has been done so far.

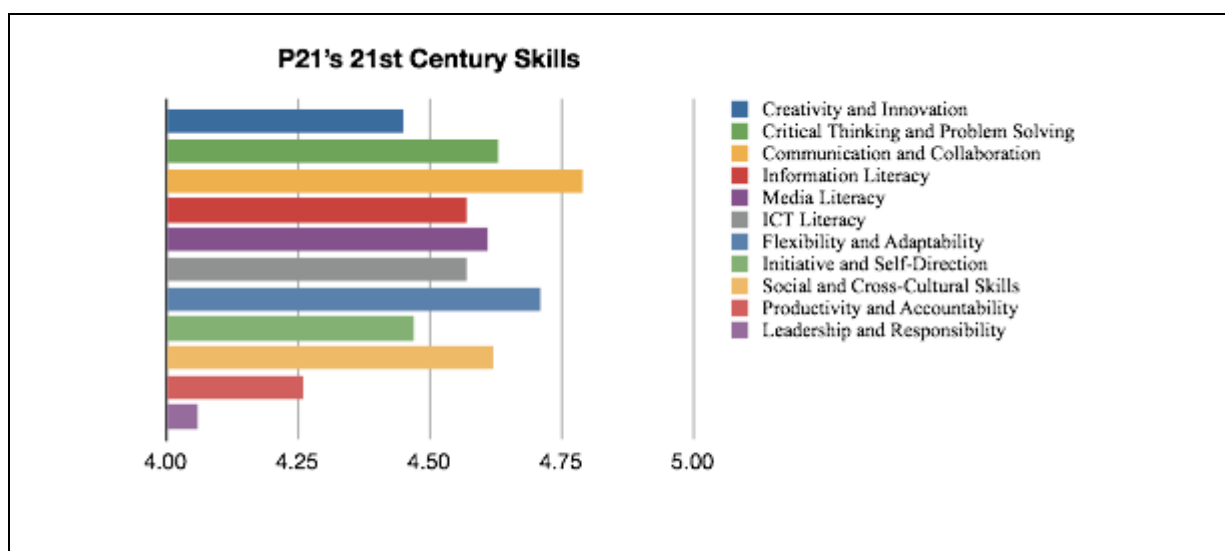


Data panel 5: Item 8 - Austrian 21st Century Skills

All data from panel 5 comes from an open ended question requiring the participants to name their personal crucial skills that 21st century students should acquire at school. Initiative and Self-Direction Skills, such as good work ethic and the ability to focus on work were suggested by the largest group of respondents. It was closely followed by Communication and Collaboration Competence and Social and Cross-Cultural Skills. Four of the mentioned skill

sets could not be categorized into one of the preset P21 skills. Therefore, the acquisition of General Knowledge, the competence to acquire knowledge, Self-Confidence and an improved School Environment were listed separately. As the bar chart shows, School Environment is ranked amongst the top priorities concerning 21st century needs. Obviously, this is not a skill the learners can acquire. It rather represents the external influence on a student's development. Nevertheless, it has been included in the panel since it was suggested so many times as a necessary tool which would support the students on their learning journey. Self-Confidence too is not a skill a young adult can easily acquire. However, several teachers stated that they would wish for their students to believe in themselves more and subsequently, being self-confident could definitely be one of the keys to facilitating the development of other skills, such as leadership skills or the strength to present one's own ideas and creations.

In comparison to the skills listed by the participants as part of a commentary item, data panel 6 represents the teachers' evaluation of the preset skill set by P21. Here, the subjects did not have to come up with their own answers, but were required to rate these skills according to their importance in the Austrian HLW school context, ranging from not at all important (1) to important (5).



Characteristics	Not at all (1)	Very little (2)	A little (3)	Quite a lot (4)	Important(5)	Ø
Creativity and Innovation	2	2	4	50	73	4,45
Critical Thinking and Problem Solving	2	1	0	37	91	4,63
Communication and Collaboration	1	0	0	24	106	4,79
Information Literacy	1	0	3	45	80	4,57
Media Literacy	1	0	1	45	83	4,61
ICT Literacy	1	1	6	37	85	4,57
Flexibility and Adaptability	1	0	2	30	98	4,71
Initiative and Self-Direction	2	1	4	50	73	4,47
Social and Cross-Cultural Skills	1	1	3	37	89	4,62
Productivity and Accountability	2	1	9	67	50	4,26
Leadership and Responsibility	4	0	21	62	40	4,06

Data panel 6: Item 9 - P21's 21st Century Skills as rated by 131 Austrian HLW teachers

Overall, every skill achieved an average score above 4.00. However, it is still possible to see differences in their validation. It might not be a big surprise that the ability to communicate effectively with each other and within a diverse group was ranked first by the participating language teachers. In contrast, the respondents of this study ranked the ability to lead and be a responsible learner relatively low compared to the other skills. Interestingly enough, the result of this evaluation matches the results of the data panel 5. There, leadership skills also did not score very well compared to the other clusters. It might be that they did not know what to make of this term in regard to language teaching. It can be argued that if they had known that this skill included abilities such as setting and meeting goals, planning and managing work and multitasking, they might have given it better scores.

In general, the outcome of both data panel 5 and 6 does not differ overly much. Although the participants had to offer their personal suggestions in the former, they still mentioned elements from every skill set defined by P21. Therefore, one can argue that the teaching approach this thesis is based on would contribute valuable recommendations to the Austrian discussion about the necessities of today's and the future education system because its experts, the teachers, repeatedly granted them high scores in this study.

6.1.5. Teaching Characteristics in the Austrian HLW EFL classroom

This section of items is particularly important. Again, the elements of each P21 skill (see chapter 3) were transformed into EFL classroom relevant ones. Activity examples and teaching methods were used to ‘disguise’ the original set of skills. The participants had to tick the appropriate number according to the frequency of them implementing these example activities into their lesson plans. The range went from never (1) to very often (5). Again, the results have been organized hierarchically, starting with the highest average score and ranging to the lowest one.

Characteristics	Never (1)	Almost never (2)	Some-times (3)	Fairly often (4)	Very often (5)	Ø
participate actively	0,76%	-	3,82%	29,77%	65,65%	4,60
be punctual	0,76%	2,29%	9,92%	25,19%	61,83%	4,45
respect cultural differences	0,76%	1,53%	12,98%	28,24%	56,49%	4,38
articulate thoughts and ideas effectively	0,76%	-	12,21%	39,69%	47,33%	4,33
know where to look for information needed	0,76%	1,53%	12,98%	45,04%	39,69%	4,21
learn to appreciate social and cultural diversity in the classroom	0,76%	4,58%	17,56%	32,82%	44,27%	4,15
learn how to reason effectively	0,76%	-	19,08%	46,56%	33,59%	4,12
work in groups of different sizes	1,53%	1,53%	22,14%	40,46%	34,35%	4,05
learn to positively deal with criticism and feedback	0,76%	2,29%	20,61%	45,04%	31,30%	4,04
interpret information and draw conclusions on their own or in groups	0,76%	1,53%	20,61%	48,09%	29,01%	4,03
learn when it's appropriate to listen and when to speak in a group interaction	0,76%	3,82%	22,14%	42,75%	30,53%	3,98
use information accurately for the issue or problem at hand	0,76%	3,82%	24,43%	42,75%	28,24%	3,94
demonstrate their ability to work effectively and respectfully with diverse teams	0,76%	2,29%	30,53%	37,40%	29,01%	3,92
be responsible to others	2,29%	3,82%	27,48%	35,88%	30,53%	3,89
practice English pronunciation	0,76%	3,82%	28,24%	41,98%	25,19%	3,87
learn how to research effectively	1,53%	4,58%	26,72%	43,51%	23,66%	3,83
solve language problems on their own or in groups	0,76%	3,05%	33,59%	41,22%	21,37%	3,79
learn how to use digital technologies and communication tools to successfully function in a knowledge economy	2,29%	6,87%	30,53%	35,11%	25,19%	3,74
examine how individuals interpret messages differently (points of view and how media can influence beliefs and behaviors)	2,29%	6,11%	38,17%	38,93%	14,50%	3,57
learn how to negotiate effectively	0,76%	9,92%	40,46%	30,53%	18,32%	3,56
learn to provide constructive feedback to others	0,76%	9,92%	39,69%	32,82%	16,79%	3,55
be creative (e.g. creating posters, folder,...)	1,53%	7,63%	42,75%	32,82%	15,27%	3,53
reflect critically on past language performances	1,53%	12,98%	38,17%	29,77%	17,56%	3,49
set goals for themselves	3,05%	15,27%	32,82%	36,64%	12,21%	3,40
come up with new ideas regarding the lesson content (e.g. marketing, products, projects,...)	0,76%	19,08%	45,80%	20,61%	13,74%	3,27

Characteristics	Never (1)	Almost never (2)	Some-times (3)	Fairly often (4)	Very often (5)	Ø
understand the ethical/legal issues surrounding the access and use of information	3,05%	16,03%	44,27%	25,95%	10,69%	3,25
learn how to guide and lead others	3,05%	16,79%	45,04%	25,95%	9,16%	3,21
learn how to use social networks appropriately	10,69%	21,37%	32,82%	20,61%	14,50%	3,07
use self-assessment sheets to keep track of their progress	8,40%	24,43%	35,88%	24,43%	6,87%	2,97

Table 12: Item 10 - Teaching Characteristics in the Austrian HLW EFL classroom

Statements which belong to the skill set of communication (4,60), self-reliance (4,45) and cross-cultural understanding (4,38) are again ranked very high. These findings also reflect the participants' attitude towards P21's definition of crucial skills (see 6.4.) and their self-evaluation in Table 8. Looking up information also seems to be required of the students on a regular basis. Although it scored 4,21 points in Table 12, it was not ranked as important in data panel 4. A possible explanation for this discrepancy could be that knowing how and where to look up information has already become a natural habit in the Austrian HLW EFL classroom and thus was not identified by the respondents to be a skill the students still need to practice and focus on.

In regard to lower ranked statements, it has to be mentioned again, that the results of Table 12 are similar to those in Table 8. Leadership skills (3,21) as well as the use of social media (3,07) are positioned towards the end of the table (see 5.6.2.1.). According to previous answers which indicated a certain hesitation on the subjects' part to use new technological tools and social media as a leading teaching medium, it is not surprising at all that the penultimate statement "learn how to use social networks appropriately" was ranked relatively low too. It is striking that self-assessment sheets for students represent the least popular tool of all suggested items. Especially since the *European Commission for Education and Culture* in cooperation with the *European Centre for the Development of Vocational Training* (Cedefop) promoted this learning instrument extensively. For exactly this purpose, the Europass²³ (ESP) was created. It is a document which is supposed to help young adults keep track of their developments with regard to their personal competences. Therefore, the fact that this item has achieved the lowest score (2,97) in the entire ranking is not satisfying at all.

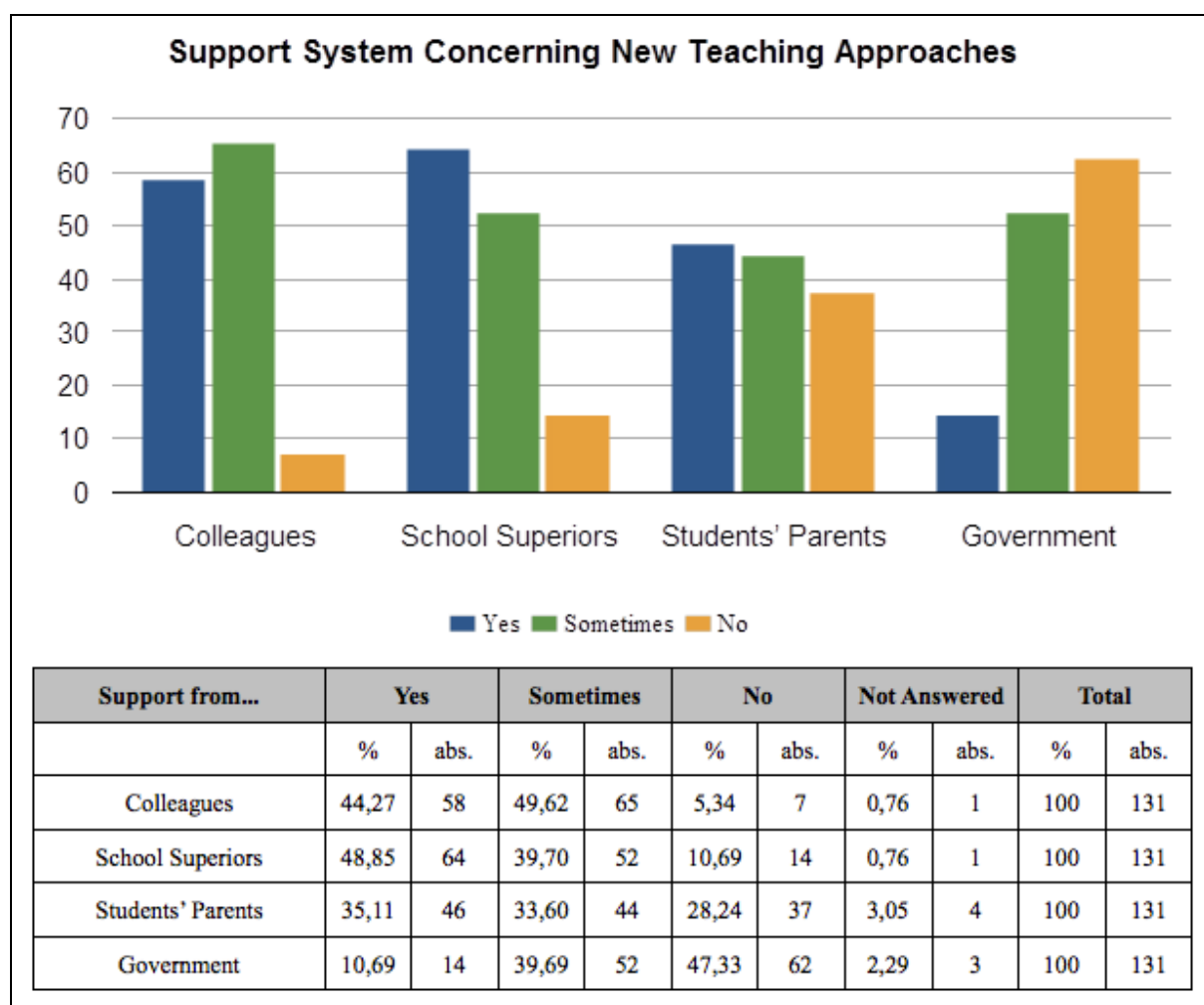
Overall, one has to bear in mind that it is impossible to consider all of these elements in every single English lesson. Naturally, some are easier to integrate in the foreign language

²³ for further information please visit <http://europass.cedefop.europa.eu>

classroom than others and it is not then surprising that the majority of statements did not reach an average score above 4.00 which would indicate that they are considered fairly often. Scoring more than 3.00 points still implies that these skills get practiced more often than sometimes. In general, this means that the results of Table 12 are quite satisfactory with regard to some exceptions which have been mentioned already. In addition, it also has been noted that the findings of the teachers' preferences from Table 8 correlate strongly with the results concerning the frequency of the items' insertion. Therefore, the initially suggested assumption that the participants' personal characteristics play a role in their choice of teaching approach appears to be accurate.

6.1.6. Support System concerning new teaching approaches

Another important factor, especially in terms of implementing new teaching approaches such as the concept of 21st Century Skills depicts, is the support system. Aid can be provided from different sides in the school context. Naturally, the government plays a crucial role in this respect. They make the rules and therefore pave the way for the teachers. In the everyday school life, teacher's colleagues are also valuable sources for support. School superiors and the students' parents can also facilitate or complicate the introduction or even experiment with new teaching approaches.

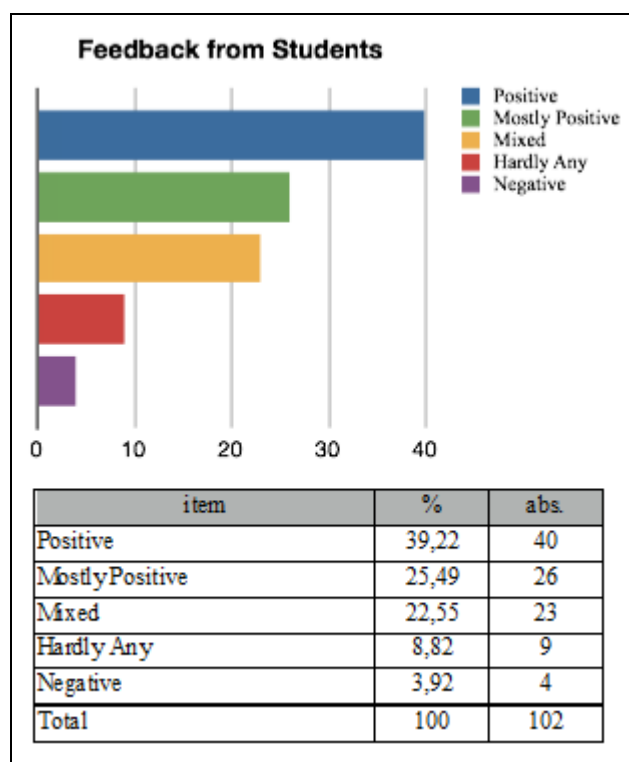


Data panel 7: Item 11/12/13/14 – Support System Concerning New Teaching Approaches

The findings with regard to the support system in Austrian HLW schools suggest that teachers do not feel to be very well supported by the government. 47,33 per cent of the participants share this opinion and only 10,69 per cent of the subjects disagree with this statement. In comparison, most of the respondents (44,27%) feel supported by their peers and only 5,35 per cent argue otherwise. Similarly, a higher percentage of participants (48,85%) replied to be satisfied with the help provided by their school superiors than those who are not (10,69%). Concerning the support system from the parents, the results were distributed almost evenly with slightly more satisfied teachers (35,11%) than discontent ones (28,24%). Overall, the results illustrate that a considerably big group of respondents felt partially supported by all parties, possibly dependent on the individual situation.

The group of people that is most affected by the introduction of new teaching approaches are the students themselves. Most of the time they do not have a say in whether the teacher can try out new techniques or not, but they are the ones in the position to provide necessary

feedback for their instructors. Whether they explicitly state their opinion or show their feelings unconsciously to the teachers, the participants of this study were required to reflect on past experiences with their students. Again, the answers were collected in an open ended question format and then grouped together in 5 different categories; positive, mostly positive, mixed, hardly any, negative.



Data panel 8: Item 15 - Feedback from Students

From the bar chart representing the results of Item 15, it can be seen that the greatest number belongs to positive feedback. It is followed by the second, mostly positive reviews. Only 4 subjects stated that they had a negative experience with the implementation of new teaching ideas. It is quite clear then that the overall response from the students was positive and that it certainly is worth experimenting with innovative teaching ideas in the Austrian HLW classrooms.

However, quite a lot of the respondents also added that it takes a while for the students to get used to new activities and that they are sometimes a bit overwhelmed by the amount of different new methods. Here are some excerpts from the answer pool:

“they like new things as long as you don’t overdo it - continuity is still important, especially because lots of students lack it at home”

In this respect, some of the subjects suggested a combination of traditional and innovative methods to achieve the best possible outcome:

“very good feedback, but it must be a mix of old and new methods - otherwise the new methods gets boring as well and some (weaker) students need more guidance than new teaching methods allow”

One of the participants made an interesting statement saying:

“They're usually open to new things - especially things/tools that are normal in their everyday life”

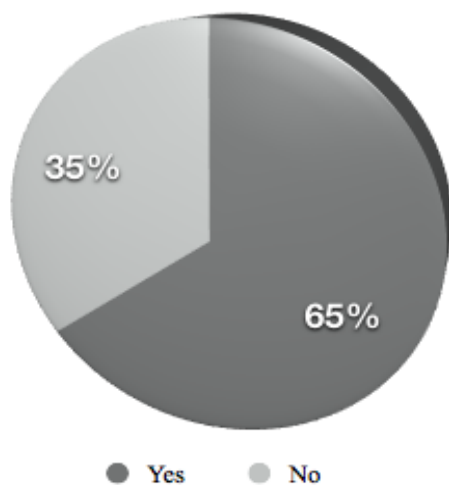
This observation represents the core idea of the *Partnership for 21st Century Skills*. In order to prepare the students for the challenges of this century, we first have to accept that this generation acquires knowledge differently than the previous ones. Therefore, it only makes sense to apply the new tools of the adolescents' everyday life to the learning environment at school.

In general, the data extracted from item 11-16 (data panel 7 and 8) indicates that Austrian HLW EFL teachers are open to new teaching approaches and that they feel quite supported by most of the parties involved. However, it has also been commented on the possible pitfalls of such innovation attempts, and that one always has to decide what and when to try out according to the individual needs of a class. The information collected also suggests that, as reported by the participants, the government does not meet expectations with regard to their support for innovative teachers in Austria.

6.1.7. Project Based Teaching Approach

Trilling & Fadel (2009: chapter 7) recommend the transformation of today's school system into a project based learning setting. Data panel 9 and 10 deal with the question of whether or not the Austrian EFL teachers have already worked with this teaching approach and what experiences they have had with it.

Have you ever tried out PBL before?

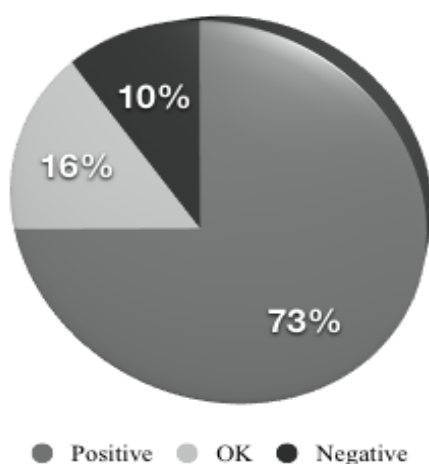


PBL	%	abs.
Positive	65	85
Negative	35	46
Total	100	131

Data panel 9: Item 17 - Have you ever tried out Project Based Learning before?

From the pie chart above, we can see that the great majority (65%) of the subjects not only have heard of the PBL approach, but have worked with it themselves. This result reflects the open-mindedness of Austrian EFL teachers and shows that although they have to focus on major changes concerning the new standardized school leaving exam, they have still found the energy to experiment with the Project Based Learning approach, which is known for its time consuming preparation process.

PBL Experience



PBL Experience	%	abs.
Positive	73	49
OK	16,5	11
Negative	10,5	7
Total	100	67

Data panel 10: Item 18 - Project Based Learning Experience

Fortunately, data panel 10 shows that in 73% of the cases, the teachers reported a positive PBL outcome. Only 10% of the participants who answered this open follow up question described their experience with this teaching approach as a negative trial. Therefore, it is worth pointing out that the Project Based Learning approach seems to be a valuable method which should also be considered for future policy changes. The promotion of this approach should not be ignored, but rather extended.

6.2. Future Prospects

Obviously, nobody can truly predict how the world and with it the way we live and learn will have changed in 20 years from now. Nevertheless, the following items are based on Trilling & Fadel's Four Question Exercise which they used in order to give their readers a better feel for the upcoming developments in education:

Question #1: *What will the world be like twenty or so years from now when your child has left school and is out in the world? [...]*

Question #2: *What skills will your child need to be successful in this world you have imagined twenty years from now?*

Question #3: Now think about your own life and the times when you were really learning, so much and so deeply, that you would call these the "peak learning experiences" of your life. *What were the conditions that made your high performance learning experiences powerful? [...]*

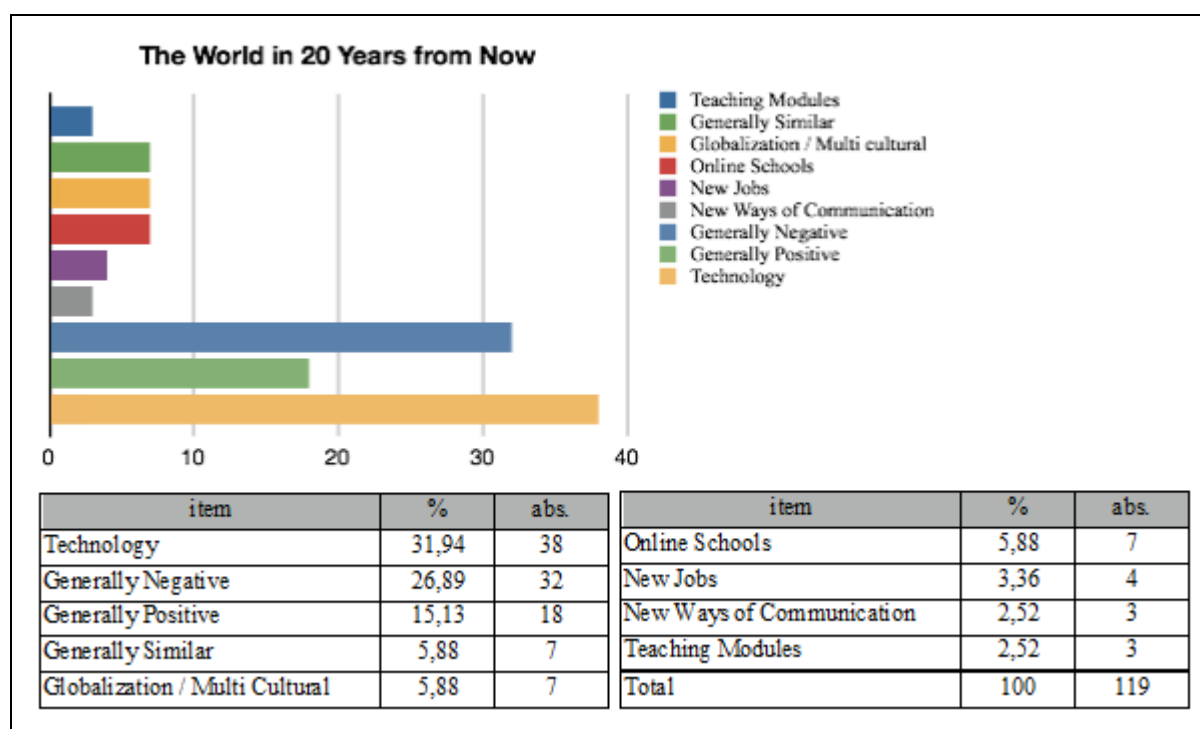
Question #4: *What would learning be like if it were designed around your answers to the first three questions?*

(Trilling & Fadel 2009: xxx/xxxi)

For the purpose of this study, the third question about the readers' personal learning experiences was omitted since it would not have contributed crucial enough information. The remaining three questions formed part of the questionnaire and elicited some interesting insights into the respondents' future prospects which will be discussed on the following pages.

6.2.1. The World and Education in 20 Years from now

The lead-in question of this section required the participants to describe the world as they thought it might look like in 2034. As has been done with previous open-ended questions, the predictions mentioned by the subjects were assigned to their resultant groups. In total, the collected evidence suggested 9 supergroups, which are presented in data panel 11.



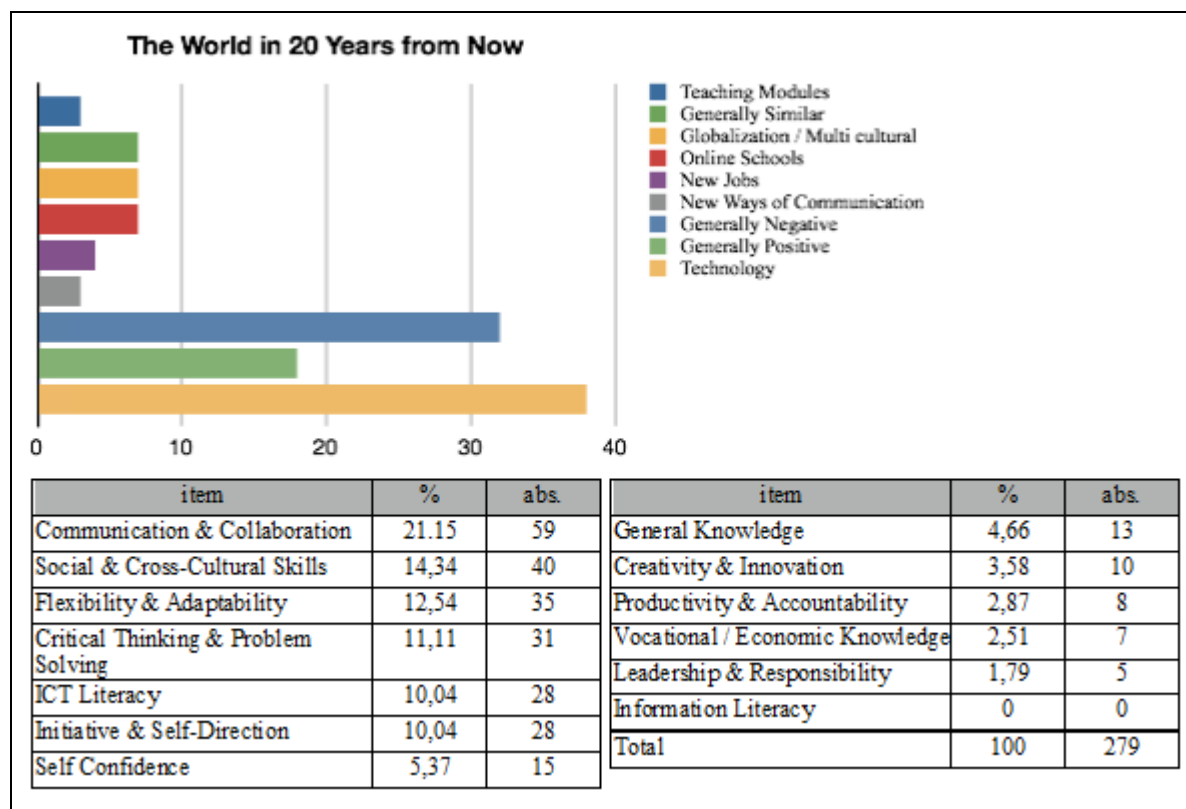
Data panel 11: Item 19 - The World in 20 Years from Now

A fairly large group of participants restricted their answers to a single positive or negative prospect. When comparing only these two remarks with each other, it is striking that almost twice as many participants predict a negative future for this world. Scenarios listed were for example a world with ‘more wars and conflicts’, ‘more natural disasters’, ‘overpopulation’ and ‘more stress for less money’. Some subjects additionally mentioned that they pity today’s young generation for the challenges they will need to deal with in the future. On the bright side, positive forecasts included ‘clean environment’, ‘no wars’, ‘more value on family’ and ‘health conscious’ settings.

The major specific theme identified in the data is technology. That is to say, the greatest number of participants expected new technology to become even more important than it already is today. Their perception of this development was dualistic and ranged from a neutral description of possible changes to concerning predictions of ‘isolation of the individual and a lack of empathy as a consequence of technological advances’.

Other themes mentioned by the subjects were a multicultural futuristic world, the creation of yet more unpredictable new jobs and ways of communication. In terms of education, a new modular school system which would allow the students to create their individual curriculum, and the introduction of online schools were also listed.

The second question asked the participants to imagine the world they just predicted and think about the skills a citizen would need to thrive in such a setting. The answers given were categorized into P21's skill sets and the remaining terms were added to the list of items in data panel 12 so that a comparison with items on the status quo in education could be made.

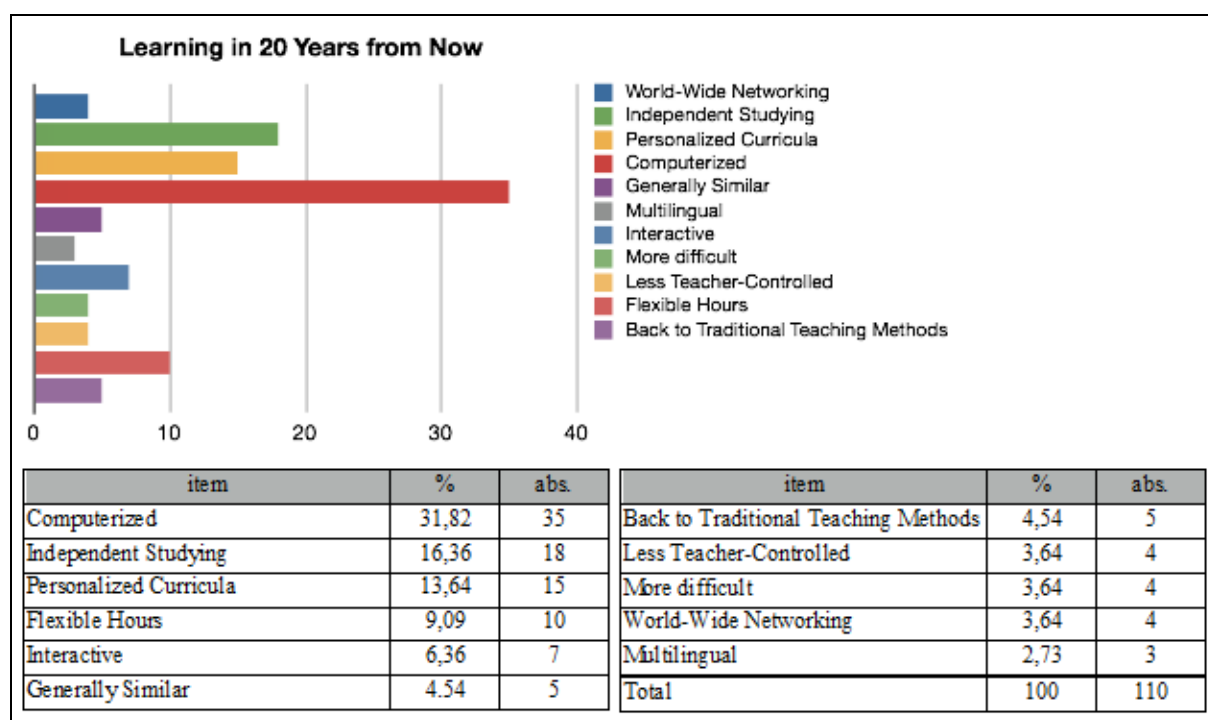


Data panel 12: Item 20 - Crucial Skills in 20 Years from Now

The results obtained from this item indicate that Communication and Collaboration is expected to play a leading role in the future. 45 per cent think that it will be the most important skill to master in order to be a successful citizen in 20 years from now. In reference to data panel 4 on the teaching characteristics in today's English classes, it needs to be pointed out that these also represent the skills Austrian teachers already practice to a great extent during their lessons. Also, Social and Cross-Cultural Skills have been proven in the same item to be valued by the participants. The most striking result in data extract 19 is the absence of any evidence regarding the importance of Information Literacy skills. None of the participants mentioned the ability to filter important information and to know where to obtain the information one is seeking. It seems possible that the respondents believe that this skill will be a given in 20 years from now, or they simply did not think of it as an important factor

to consider. Critical Thinking & Problem Solving, Flexibility & Adaptability, ICT-Literacy and Initiative & Self-direction were also ranked quite high in comparison to other skills. However, this result is not very surprising, since they were also considered to be crucial in combination with today's needs (see 4.2). Nevertheless, it is noteworthy that the participants obviously believe that these skills will continue to form essential parts of a meaningful education and thus they should not be forgotten to be incorporated into today's lessons as well. Three of the suggested competencies did not fit in one of the predetermined definitions of P21's concept. Therefore, Vocational/Economic Knowledge, General Knowledge and Self Confidence have been listed as separate items. According to the participating subjects, specialized professional training as well as a good foundation of general knowledge will be of an instrumental advantage for its owner. Likewise, being self-confident is also supposed to help the future citizens to succeed in their world. The same term came up in previous questions concerning the necessary set of skills for students nowadays. One can thus argue that self-confidence seems to be a characteristic that teachers make a point of fostering.

The last question in this section focused on how students will acquire knowledge in the world that the participants already predicted in the previous two items. All of the 11 supergroups visualized in the following bar chart were suggested by the participants themselves and were mapped onto already defined terms as has been done in preceding charts.



Data panel 13: Item 21 - Learning in 20 Years from Now

In general, the distribution of arguments was quite even. However, three ways of learning stuck out numerically. For example, 26,18 per cent of the participants believe that computerized learning will be a crucial component in this imagined future setting. Therefore one can argue that the way people are expected to learn in 20 years from now correlates with the prognosis of an increasingly technology based society. It is also noteworthy that 13,74 per cent of the respondents think that independent studying and personalized curricula (11, 45%) will become progressively essential. This finding is specifically interesting and could contribute valuable food for thought to the ongoing discussion of Austria's future school system.

When analyzing the information in data panel 13, one has to bear in mind that the majority of subjects participating in this study are looking back on a long career as HLW English teacher and thus due to their experience, predictions must be taken seriously. These findings contribute valuable insight into what the professionals observe in their surroundings. Based on their long-term experience in this field, the assumption that less teacher-controlled classrooms, flexible hours of schooling in combination with computerized and independent world-wide networking studying sounds like a plausible recipe for a 21st century learning environment. As is also reflected in the data, traditional teaching methods and school elements similar to those nowadays may also be part of this new concept of school.

6.3. Interpretation of the Results

Meaningful information has been gathered in the course of this project. The results presented on the preceding pages indicate some important trends which could help improve the quality and relevance of English teaching in the Austrian HLW classrooms. These findings provide further support for the hypothesis that the concept of 21st Century Skills is relevant for the Austrian context and that some of the elements are already covered by the teachers. However, the results also suggest that skills which do not appeal to the respondents are not executed as much as those they personally approve of. One of the skills which should be implemented more in the EFL classroom according to the respondents is technology in combination with new media literacy. It turns out that the participants are still rather hesitant when it comes to the usage of technology and media tools in the foreign language context. In addition, Leadership & Responsibility could also be pushed in the English lesson plans a little more and one should not forget that self-assessment was found to be lacking ground in Austria's classes. Then again, competencies such as Self-Direction, Communication & Collaboration

and Social & Cross-Cultural Skills were consistently ranked as valuable and well-practiced skills in items concerning the status quo as well as future-related questions. According to the professional opinion of experienced teachers in the Austrian HLW context, learner autonomy, ICT related learning opportunities and the enhancement of individual learner talents are amongst those skills that need more promotion in today's curricula so that the graduates of the future will be well prepared for life.

Part 3 - The Implications

7. Implications for 21st Century Teaching in Austrian HLW EFL Classrooms

“The significant problems of our time cannot be solved by the same level of thinking that created them.”

- Albert Einstein²⁴

The third and final part of the present thesis focuses on how the results of the research presented in the previous part can be adapted for the EFL classroom in Austrian HLW schools. Bellanca & Stirling (2011: 17) refer to an evolutionary change model which also seems to be the best option for this purpose. They describe this approach as a “step-by-step change model in which a school or individual teachers adapt new methods for teaching and assessing one at a time”. They argue that “the move to 21st century skills is gradual” and therefore, the transformation from current teaching habits to a modernized 21st century appropriate school setting will also take time. Trilling & Fadel (2009: 38) tried to visualize this gradual shift and came up with a scale which tries to balance traditional approaches with 21st century themes.

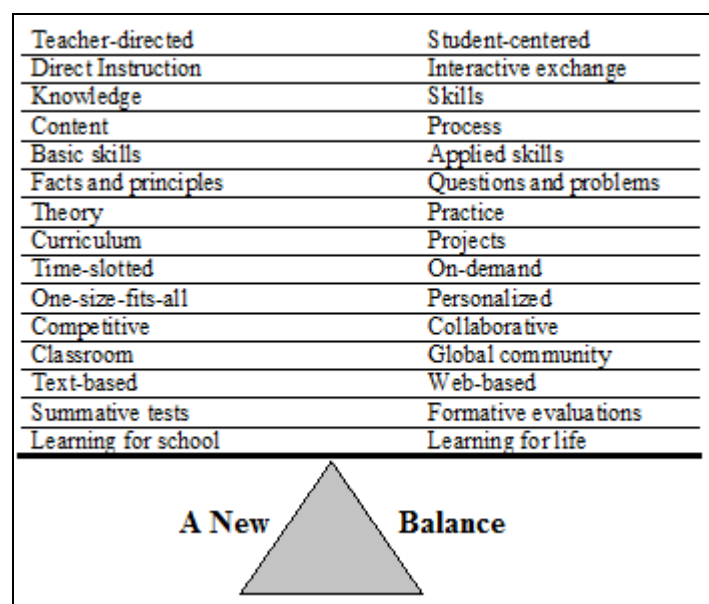


Figure 5: 21st Century Learning Balance (Trilling & Fadel 2009: 38)

²⁴ Quote taken from: <http://www.wisdomquotes.com/quote/albert-einstein-73.html> (Accessed May 2014)

In figure 5 one can see that teacher-directed classes, for example, should rotate with student-centered lessons. Theory is supposed to be practiced and learning for school and grades should at best be exchanged with learning for life centered activities et cetera. In order to facilitate this exact transformation for interested teachers, example activities which are supposed to function as a starting point for lesson plans will be suggested in this section. Some of these tasks were taken from literature specialized in 21st century exercises, the internet or inspired by traditional tasks and adapted to the purpose at hand. It should quickly become clear that a lot of these activities are far from complicated, but easy to apply to a regular foreign language class. Furthermore, the exercises were assigned to the skills group according to the most prominent skill needed to perform the task. However, usually there are several 21st Century Skills involved in one activity and one can also adapt and change content to adjust the tasks to the language level needed.

Since the findings of the survey presented in Part 2 of this thesis illustrated that there is a lack of new technology tools and media usage in Austrian HLW EFL classes, the exercises proposed mainly focus on these skills. In addition, the shortage of activities targeting information and media literacy has been taken into consideration, and tasks which combine both the integration of ICT as well as the ability to deal with a vast amount of information and new media were preferred over activities proved to already be in practice. The first step in this process is getting to know the students and their needs. Experience will demonstrate the learners' abilities, what the learners contribute to the learning environment and which skills the learners need to practice. Then, tracking sheets help teachers visualize the balanced implementation of 21st Century Skills.

Tracking Integration of 21st Century Skills												
UNIT	Creativity and Innovation	Critical Thinking	Communication	Collaboration	Information Literacy	Media Literacy	ITC Literacy	Flexibility and Adaptability	Initiative and Self-Direction	Social and Cross-Cultural Skills	Productivity and Accountability	Leadership and Responsibility

Figure 6: Tracking Integration of 21st Century Skills Sheet (Beers 2011: 29)

Figure 6 provides an example of such a tracking sheet²⁵. Here, the teachers mark the skills they have already considered in their lesson plans. It is the most efficient way to make sure that each unit in the course book reviews all the 21st Century Skills. Some skills are implemented naturally while others require conscious effort to integrate into meaningful activities. However, reflecting on planning habits and adapting them for future English lessons is a beneficial and direct method to initiate the transformation process towards 21st century education.

7.1. Critical Thinking and Problem Solving

Critical Thinking activities often pair with Information Literacy skills. One naturally needs to access data first before a critical evaluation is possible and the following task provides an example of such an activity. Beers proposes (2011: 56-58) a ‘Based on the Facts’ exercise to practice critical thinking skills. The task asks students to categorize gathered information on a given topic into two groups: facts and opinions. First, a brainstorming task illustrates the pre-knowledge of the students. Also, the distinction between a fact and an opinion needs to be defined, either by the teacher or elicited from the class. Then, the learners research the topic and related information on the Internet, take notes and write down the citation. This activity could be done as an individual-, group- or for homework. Once the students have their information sheets²⁶ the following questions recommended by the author should be discussed in class:

- How did you determine what was a fact versus what was opinion?
- How could you double-check facts if you were unsure?
- Describe your thinking as you arrived at your conclusion.
Which facts were most influential in your thinking process?
- Do you think your own biases or opinions influenced the facts you selected?
Why or why not?
(Beers 2011: 57)

In general, the adolescents develop an awareness of the distinction between facts and opinions, which subsequently allows them to critically evaluate information from different sources. The theme of this activity is also connected to Media Literacy. By thinking critically, the students become aware of the influence today's media has on their points of view and beliefs. Therefore, this skill should be practiced in every class.

²⁵ See the appendix for a master copy of this template

²⁶ See the appendix for a master copy designed by Beers (2011: 58)

Problem solving activities are usually associated with mathematics in the school context, but there are still meaningful activities that tackle obstacles the learners are facing in the foreign language classroom. One common problem that can and should be discussed is test anxiety. Marzano & Heflebower's checklist on this issue represents one possible method to introduce this topic to the students.

Directions: Read each statement, checking those that apply before or during an examination or both.

Do you:

- ☐ Get nervous before an exam?
- ☐ Get nervous during an exam?
- ☐ Find it difficult to keep your jitters under control?
- ☐ Develop a queasy stomach or cold hands, clammy hands, or both?
- ☐ Sometimes hyperventilate, feeling faint or light-headed?
- ☐ Often find that the test, at first glance, appears foreign or unfamiliar?
- ☐ Consider yourself a sensitive person when it comes to other aspects of life?
- ☐ Have poor or personally unacceptable study habits?
- ☐ Often blank on exams, exhibiting minimal recall?
- ☐ Have a personal history of failure on tests?
- ☐ Worry excessively about the prospect of failure and its consequences?
- ☐ Have excessive pressure to succeed either from yourself or from other sources?
- ☐ Often compete with peers, family members, or friends for grades?
- ☐ Experience test panic due to the realization that you are unprepared?
- ☐ Fear having to maintain the burden of success?
- ☐ Have pressing concerns or problems that occupy your mind?

Figure 7: Test anxiety checklist (Marzano & Heflebower 2012: 149)

There are different symptoms given on the sheet that the students might recognize. The teachers can use the handout in various ways. First, In order to practice group work, the statements can be discussed in teams, requesting each team to come up with strategies to overcome test anxiety. Also, the handout can be used as a survey sheet, which would prove to the class mates that they are not alone in their fear of failure. Then, in pairs or groups, the learners come up with problem solving strategies. For example, learners answer questions like “What could they do to overcome the fear of tests and competitive situations?”. Pupils who enjoy the thrill of competitive challenges should be given the opportunity to explain their point of view and to share their experiences with their peers. Later, the answers of all groups should be collected on the board. The teacher may add more suggestions to the list. Marzano & Heflebower recommend (2012: 150) a template they adapted from the *Tennessee Department of Education*. It discusses problem solving strategies concerning the preparation phase before a test, the phase during test taking and what the phase after test taking in order to decrease their test anxiety. While practicing this real life problem solving skill, the pupils also develop collaboration skills. Sharing their ideas in groups and supporting the students suffering from test anxiety influences the class dynamics positively. The teachers, however,

must be aware of their role as peacekeepers during this type of activity. A safe learning environment can only be implemented if the teachers make sure that the class mates respect each others' perspectives and do not make fun of their colleagues' weaknesses.

Before Tests	During Tests	After Tests
<ul style="list-style-type: none"> • Maintain good study habits—do your class work. • Have a clear understanding of homework assignments before leaving class. • Keep a record of assignments received and completed. • Make a study schedule and follow it. • Tell your parents about school-work and homework. • Turn in homework on time. • Get makeup assignments when returning from an absence. • See teachers for additional help. • Seek and use past homework assignments, class notes, and available review materials. • Read and follow any directions presented for test review. • Find out when tests will be given. • Get a good night's rest. • Eat a normal breakfast before testing. 	<ul style="list-style-type: none"> • Read and pay careful attention to all directions. • Read each passage and accompanying questions. • Read every possible answer—the best one could be last. • Read and respond to items one at a time rather than thinking about the test as a whole. • Reread, when necessary, the parts of a passage needed for selecting the correct answer. • Don't expect to find a pattern in the positions of the correct answers. • Don't make uneducated guesses. Try to get the correct answer by reasoning and eliminating wrong answers. • Decide exactly what the question is asking; one response is clearly best. • Don't spend too much time on any one question. • Skip difficult questions until all other questions have been answered. On scrap paper, keep a record of the unanswered items to return to, if time permits. • Make sure to record the answer in the correct place on the answer sheet. • Only change an answer if you are sure the first one you picked was wrong. Be sure to completely erase changed answers. • Work as rapidly as possible with accuracy. • After completion of the test, use any remaining time to check your answers. • Keep a good attitude. Think positively! 	<ul style="list-style-type: none"> • Examine your test scores; ask the teacher to explain your test scores, if needed. • Congratulate yourself on identified areas of strength. • Identify areas of weakness which you will want to improve for a better performance next time. • Ask your teacher to suggest areas of study that will help you perform better on the next test.

Figure 8: How to deal with test anxiety (Marzano & Heflebower 2012: 150)

7.2. Communications, Information, and Media Literacy

Distinct communication opportunities already form a major part of the EFL classroom. The findings from part 2 support this claim. However, the evolution of online tools provides a

variety of new opportunities for a communicative classroom. For example, mailvu.com is an online audio tool that allows the learners to send recordings to the teacher's mail account. Sales pitches, dictations or read aloud activities are only some examples of the communicative possibilities this webpage offers. Such a tool holds various benefits. It is a fun and different kind of homework for the students, which allows them to produce target language output, practice and, most importantly, receive direct and individual feedback from the teacher. Especially for shy students who do not enjoy participating in class, recording, deleting and recording until they are satisfied with their output could increase communication confidence in the target language. This particular audio tool also offers a self-destruction feature to ensure that the teachers or peers do not upload the video clips that are solely produced for language learning purposes.

Such dealing with privacy issues leads to another crucial theme in this context. Raising awareness for the appropriate utilization of media and information comprises an essential part of this skill cluster, which, as has the survey proved, is often ignored by EFL teachers. Media safety, social media ethics or plagiarism were found to be inadequately presented in Austrian schools. In this respect, Bellanca & Stirling recommend (2011: 67) that schools start by defining an effective policy every member of the learning community has to follow. Concerning this matter, it also has to be mentioned that it is not only the students who need to learn how to work with the Internet. It is crucial that teachers know the consequences and rules regarding the publication of pictures of minor students, homework, curious test answers or posts about their students on their private social media sites. So far, there are no official laws on this topic, and therefore it is the school's obligation to have both students and teachers comply with a developed, reasonable framework for digital communication and interaction. Concerning the students' online behavior, a contract for digital citizens could be a meaningful discussion opener (Crockett, Jukes & Churches 2011: 83/84)²⁷. Such a contract should include rules on how to protect your information, interactions with others and others' online property. In addition, it should emphasize the importance of respecting and protecting oneself, others and others' intellectual property in the World Wide Web. The awareness of plagiarism, what it is and how it can be avoided as well as possible consequences for ignoring its rules, should subsequently be raised. Web pages such as plagiarism.com/teaching.htm offer tutorials on how to teach this topic. Sources like mediaawareness.ca support the teachers

²⁷ See the appendix for a master copy designed by Crockett, Jukes & Churches

with fun activities for the students to grow accustomed to questioning what the media presents as the absolute truth. The exploration of these homepages could also be part of an online homework. The students' findings can then be discussed in class.

1. **When searching for information, look for specifics, don't just browse:** You know you are browsing when you jump quickly from one site to another. If you need to, make a list of the information you are searching for, and make sure what you are looking at is relevant to that list.
2. **When searching for information, use multiple websites:** This means using library (school, local, and otherwise) resources, specialized search engines such as Google Scholar, research databases such as the Education Resources Information Center (ERIC), and sites that content experts operate. For example, NASA's site might be relevant to you if you are looking for information about the moon.
3. **Create a wide range of possible keywords to use when gathering information:** This might mean including synonyms (such as including *arachnids* when looking for information on spiders), words for causes or effects (such as including *spay* or *neuter* when looking for information on controlling the local animal population), or words for parts of a whole (such as including *ultraviolet* or *infrared* when looking for information on the light spectrum). You might also use specific terms or examples of a general phenomenon; for example, you might search for *Chernobyl nuclear accident* when looking for the general effects of nuclear radiation.
4. **Make sure that the information you find is relevant to the topic being researched:** You can do this by referring often to your search question. If you cannot explain the connection between your search question and what you are looking at in two sentences or less, then you might not be looking at relevant information.
5. **Make sure the information you find comes from a valid, reliable source:** You can do this by making sure you know who is providing the information. If the source has no credentials, then you should not use that information. Look for bias and for agenda: does this source benefit from the information being reported? For example, if you find information that appears to prove that a particular prescription drug is beneficial, but the information comes from a source that profits from the sale of that or other prescription drugs, the information may not be reliable. In general, blogs and wikis are not reliable sources of information. Use common sense, and think about the information being reported: is it more similar to something you would find in a newspaper or in a tabloid? It never hurts to double-check the information you find. If you cannot find another valid source that confirms the truth of the information you initially found, it might not be reliable.
6. **Make sure you read and think about the information you gather:** Remember that getting the information is not enough. Make sure that there are no contradictions, and that the information you found really supports your thesis or answers your question. You can do this by regularly comparing your thesis or question to the information you have found.
7. **When gathering information, sometimes there will be a lot of material to read:** Break it down into chunks you can manage. Remember that if you give yourself enough time, you can read everything, but you do not have to read everything at once.
8. **When searching for information, keep in mind the complexity of your topic:** Are there different points of view to consider? Are there different ways of looking at the topic? Remember that one clear and easy answer is not always available.
9. **When searching for information, remember that depth is not found strictly in facts:** In order to really understand a complex topic you may need to go beyond facts and look at points of view, future speculations, and so on. For example, think of the facts of your life. Your height, age, gender, address, and grade point average are facts about you; however, knowing those things might not help someone know you as a person.

Figure 9: Student guidelines for successful Internet searching (Marzano & Heflebower 2012: 39)

Dealing with the vast amount of information is another important factor. The depth of the Internet can be disorienting. One link leads to another and suddenly, precious hours have passed without actually having worked on the assigned task. Figure 9 shows a possible handout which provides information literacy guidelines and strategies to work efficiently online. The constant accessibility of information has made us less effective. Therefore, tasks that identify the core arguments and the reliability of sources are of high value in the 21st century education as they help tackle this development and support the students' focus. As the results of the survey have shown, the EFL classroom usually ignores this matter, although an English course would provide the perfect ground for practicing communication, information

and media literacy due to its natural focus on language and distinct media conveying it.

7.3. Collaboration, Teamwork, and Leadership

Similar to the audio tool presented in the last section, voxopop.com or vyew.com provide additional opportunities for online group work. In a private conversation, the members of a group can agree on a certain time and then meet for a live conversation or contribute with a recorded clip to the project. Since this type of activity asks the students to organize themselves, it is also beneficial for the development of the learners' self-reliance and leadership skills. Blogs or e-learning platforms are supplementary collaboration aids. There, the students can post their ideas, outcomes, progress sheets or general homework. A prerequisite for such online-based tasks is that the teachers need to feel comfortable working with this online tool. Bellanca and Stirling (2011: 38) see a variety of possible applications for the school setting.

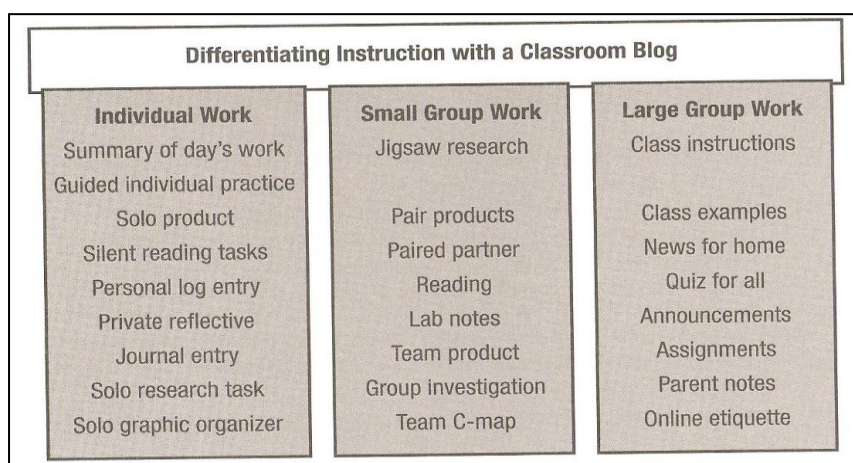


Figure 10: Differentiating Instruction with a Classroom Blog (Bellanca and Stirling: 2011: 38)

Figure 10 exhibits the examples the authors proposed with regard to collaboration via a classroom blog. Teachers could post fun or interesting videos, news or games for the learners so that the learners' concepts of English transform from solely school related towards real-life application. Also, information necessary for homework, notes for parents or even grades can be made accessible for the students. Wikispaces.com is an example of an educational online platform. Via tutorials, the teachers can quickly learn how to set up a useful wiki. Besides working on collaboration skills within a class or school community, collaborating with online school networks on a global scale is another method to expand the teamwork radius. (see 6.7.).

Greenstein, an experienced teacher who mainly investigates 21st century adequate assessment techniques, sees a variety of opportunities to incorporate leadership supporting tasks into the classroom. She argues (2012: 153) that daily responsibilities in the classroom or within a group project is a good approach to teach the students accountability. Also, according to the expert, community service projects that connect school with real life learning should be considered in 21st century curricula. Greenstein asserts that providing the learners with real life projects benefits their leadership and responsibility skills.

<i>Leadership Skills I Demonstrated</i>	<i>Example</i>
I set goals.	
I developed and followed a workable time plan.	
I took personal responsibility for my work.	
I used resources, skills, and knowledge successfully.	
I worked with others to make decisions, work toward a common goal, make a positive contribution, and listen to others.	
The three most important things I learned about leadership are 1. 2. 3.	

Figure 11: Leadership and Responsibility Log (Greenstein 2012: 155)

In order to be able to assess the progress concerning this skill, Greenstein designed a template for a leadership self-evaluation log entry. As figure 11 illustrates, the students reflect on their learning progress and add examples of their findings and development. In the English classroom, leadership could also be practiced by improving oral presentation techniques. Body language as well as confidence with the target language are crucial factors for such activities.

Checklist for a Presentation		Comments
✓ if performance is satisfactory according to the standard NI if performance Needs Improvement based on the standard		
	Introduction captures the attention of the audience	
	Objectives are stated in the introduction	
	Content is clear and understandable	
	Presentation is logically sequenced	
	Projects voice so all can hear	
	Uses technology to effectively support message	
	Summary synthesizes main ideas	

Figure 12: Checklist for a Presentation (Greenstein 2012: 55)

In this respect, providing constructive feedback for peers or accepting others' critiques are important experiences to mold leadership skills. Figure 12 suggests a number of points that make up a feedback sheet. By making the students reflect on specific elements of a presentation, the students will learn and adapt their future speeches accordingly. Especially for language learners with a limited range of vocabulary, speaking in front of others creates fear and anxiety. Therefore, regular practice opportunities are very important since oral communication in the target language could also become an important part of their future employments. Additionally, this type of activity is tied to responsibility as well as self-direction, collaboration and teamwork, which are all valuable employment skills. To support the students in their development, it is highly recommended to establish a positive learning environment where the learners can practice these types of skills. To do so, the teachers have to function as role models by explicitly modeling and teaching these skills through the activities mentioned above. For example, teachers should collaborate with their colleagues, provide feedback and be open to constructive feedback. Solving problems together, sharing teaching materials and respecting each other's points of view should be part of their skill sets as well.

7.4. Creativity and Innovation

Recent research in Austrian classrooms (Rohacek 2013) has shown that whenever students are asked to use their imagination they are more creative and less hesitant in their use of language

because expressing themselves becomes more important to them than the risk of making mistakes. Music and visual input can be used to increase the use of creativity as a teaching strategy. For example, rap songs that are classroom appropriate are often full of metaphors and culture specific references the teacher can use to let the learners interpret what the artist wanted to express. Such an activity also aligns with media literacy. Often young adults do not think about what they listen to on the radio or what a song is about because they only focus on the melody. By letting them explore the lyrics of popular songs, the students' motivation to understand the English texts might consequently increase. A more visual approach would be to use short films in the language classroom. film-english.com offers a lot of free video clips with pre-designed lesson plans ready to be downloaded and used. To activate the students' imagination, short films can first be presented without sound. Here the learners get the opportunity to interpret what they see and come up with a storyline. videonot.es provides additional aid. This webpage was created to add synchronized notes to the video clip. The students can describe what they see or make of a scene and add a comment in the according time slot. Without the guidance of audio support, such as music or narrative, a storyline can be interpreted differently and the teachers can use this individuality to their advantage. If time allows, such an activity can be expanded further. shotclip.com and loopster.com, for example, offer movie editing tools which allow the students to produce their own video. Again, real life related tasks would improve the benefits of such a task furthermore. Creating a product, like cutting a promotion clip for a company or class project, is an activity where students innovate, produce and prove to be ICT-literate. Creativity and innovation skills in the English classroom do not necessarily need to be implemented in combination with new technologies. However, the Internet does offer a lot of additional learning opportunities not available in traditional classrooms, and therefore should be considered in a 21st century classroom.

7.5. Computing and ICT-Literacy

Computing and ICT-Literacy skills have become essential parts of everyday life. Therefore, it is crucial that schools provide up-to-date technology and competent instructors to prepare the learners for the challenges of this century. Fast Internet, new presentation tools and an effective school policy regarding the handling of online ethics should be standard in every educational institution. It is also highly important that the teachers know how to use the opportunities new technologies have to offer.

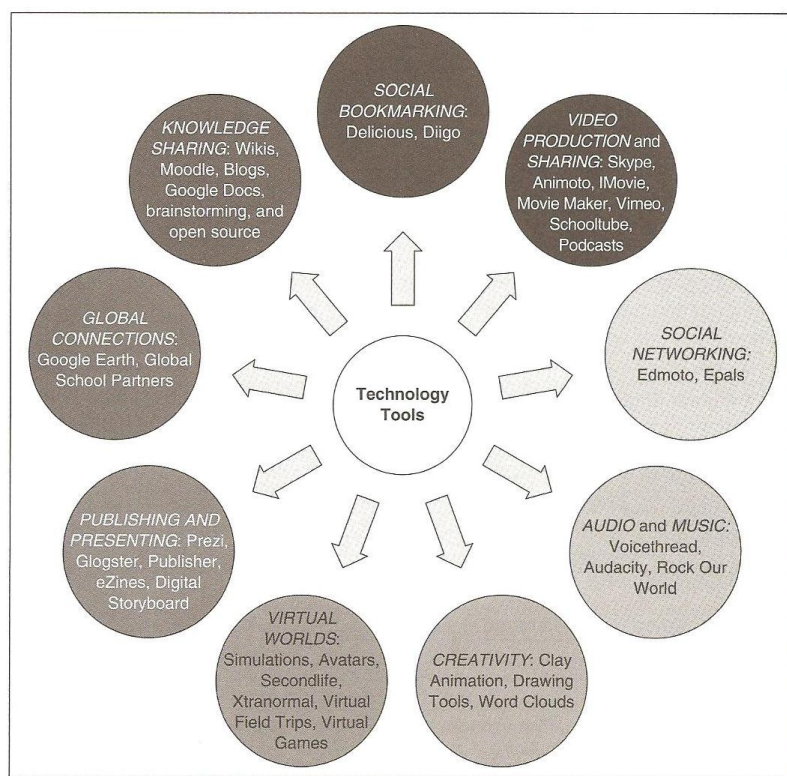


Figure 13: Technology Tools (Greenstein 2012: 131)

Greenstein (2012: 131) visualized her classroom ideas for a technology-based learning environment and unsurprisingly, communication constitutes the most prominent theme (see figure 13). Social networking in a local, global or virtual context can be integrated into the foreign language course as well as producing, sharing or publishing creative texts. Such activities can all be supported by new technology tools as Greenstein suggests. To begin with, web pages such as teach-ict.com provide a lot of basic ideas, tutorials and background information teachers can use to improve their own ICT-literacy skills. Furthermore, free apps, which can be downloaded onto phones or laptops, offer additional help for the teachers as well as for the students. GradeBookPro for example, offers many convenient assessment tools for instructors. Attendance, assignments and test results can be checked easily and made available to the students at any time. Bellanca & Stirling (2011:48) argue that new technology holds great benefits for modern teachers. They claim that once the teachers know how to work with such tools, the teachers can save a lot of time because the software calculates summative grades automatically. Besides, apps that help with lesson planning and grading, like edmodo, represent the communicative aspect of new technology. This app can also be downloaded for free and depicts a safe, education friendly alternative to Facebook groups. The teachers can

post what they think the students should watch for fun or even as part of some homework or group work. In addition to supplementary school related apps, the number of tools designed for the private and individual use of young adults is increasing. MyWordBook2 is such an application. The British Council created it, and it allows learners to improve their vocabulary with an interactive notebook that offers a variety of study support for English learners. They can add words they have to study for school, add pictures, share their flashcards with peers or practice vocabulary categorization in different levels or topics. Voxy is another interesting app. It claims to personalize lessons according to the needs of the subscriber. It offers live tutoring classes with native speakers, preparation for achievement tests, daily updated real life news at different proficiency levels and other target language material chosen for the individual learner according to the learner's personal interests and learning goals.

Teachers do not necessarily need to implement such applications into their lesson plans. However, pointing out to the learners that there are fun and free learning opportunities online does not pose any threats to the learner's continued education and can therefore be recommended to them. An alternative possibility would be to assign groups to different learning apps. The groups would explore their learning app and discuss their findings in class. With regard to ICT-Literacy in the English classroom, it is particularly important that teachers keep an open mind to these new developments. The implementation of any new technology tools are not considered failures in the classroom even if it does not work. The teachers must always consider impartiality when exploring new technology in the classroom and experiment with it. As the results of the survey confirm, the students appreciate the effort of a teacher who obviously leaves the comfort zone of a traditional classroom for the students' benefit. The students of the 21st century acquire knowledge in a different way than previous generations did, and Computing and ICT-Literacy form a fundamental part of their learning habits.

7.6. Career and Learning Self-reliance

This section addresses the question of how teachers can support EFL learners in the classroom so that they can become career and learner self-reliant individuals. Scharle & Szabó (2000: 4) argue that "in order to foster learner autonomy, we clearly need to develop a sense of responsibility and also, encourage learners to take an active part in making decisions about their learning". Therefore, it is important that 21st century teachers are aware of their role as coaches who simultaneously offer guidance when necessary and let students leave their

comfort zones to grow and become responsible decision makers of their own. They conclude (2000: 5) that “learner responsibility can really only develop if you allow more room for learner involvement” and suggest a gradual, instead of an abrupt and dramatic change, in the teacher role. In other words, the learners’ freedom in making decisions on their own should grow gradually from small decisions about self-reliant actions. Progress sheets and self-assessment sheets are valuable exercises the learners should grow accustomed to from day one at a HLW school. Pre-tasks could additionally involve the setting of goals. Bellanca provides an example of a possible goal chart (2009: 277).

Goal Chart					
Goal	Rank	Why important	How to achieve	Checkup	By when
1. Pass keyboarding	3	I need to know how to use a computer.	Practice more.	Every Friday	End of semester
2. Participate in all track meets	2	Running makes me feel great.	Rearrange job schedule; get all homework done early.	Every Friday	Ongoing until June
3. Save \$3,000 for a car	4	Would make getting around easier.	Save 50% of every paycheck.	In a month	By June 1
4. Make dean's list	1	Want to do my best, plus it'll help me get in to a good college.	Study, work hard, do all assignments.	Every Friday	End of semester
5. Select two to three colleges to visit	5	Need to learn more about colleges.	Review catalogs, talk to guidance counselor.	In a month	By June 1

Figure 14: Goal Chart Example (Bellanca 2009: 277)

Figure 14 shows the learners are asked to not simply state a goal but also to think about the prerequisites needed, their motivation behind it and their personal deadline. Setting long-term goals could as well be taught in connection with the planning of a career. Marzano & Heflebower (2012: 135/136) suggest an activity called Positive Possible Selves. The variety of how to implement this task into the EFL classroom ranges from providing positive examples of people who had to overcome major obstacles to fulfill their life dreams to face-to-face interviews with interesting people who are successful in different fields of expertise. However in this respect, teachers can also flip classes and assign research tasks to the learners asking them what they would need to do in order to reach their preset goals. They should find

out on their own what kind of education, courses or training they would need to succeed. Using the flipped-class teaching approach allows the students to browse through their resources conveniently at home. Once they have collected all the information necessary, the students can discuss their results in class and support each other in their progress.

Health is another important issue the students should recognize. Nowadays, career skills are often associated with a healthy lifestyle focused on a balance between work and life. It has become a crucial skill to know how to treat the body and mind in order to achieve a happy but economically successful life. Especially in Austrian HLW schools, students are fortunate to have nutrition science classes, which include learning how to prepare healthy food from scratch as part of the official curricula. In the EFL classroom, course books also cover these topics, like nutritious food and healthy diets. The teachers, however, could connect the theory with real life practice by experimenting with health progress sheets or journals the students have to keep for a specific time.

My Health Goals		
Goal: _____		
How I did / _____	/	/
Not yet	OK	Wow!
Goal: _____		
How I did / _____	/	/
Not yet	OK	Wow!
Goal: _____		
How I did / _____	/	/
Not yet	OK	Wow!

Figure 15: Health Goals Reflection Sheet (Bellanca 2009: 141)

Figure 15 illustrates a template created by Bellanca (2009: 141). Here the students have to set health goals and then take notes on whether they achieved these goals or not. By this method, everything they cover on that topic in class can be put into practice at home. Obviously, it will not be possible for the teacher to control student behavior while at home, but the young adults might at least have practiced writing and such a task and its content can always be extended to further text formats. By providing the opportunity to practice this type of writing task, the teachers ensure that students receive preparation to extend this type of writing to other areas of life. In general, the objective concerning the development of Career & Self-Reliance Skills in the EFL classroom is that the students should improve their language skills via health and work related content. Additional technology tools can be used for this purpose, such as blog entries or open social media conversations to transform this health challenge into an

attractive, entertaining activity for the students.

7.7. Cross-cultural Understanding

Implementing Cross-Cultural Skills into the foreign language classroom is not a new idea, as the research results in this paper indicate that it is done frequently. However, some teaching ideas can still be added here. For example, Bellanca & Stirling (2011: 65) provides a list of international networks helps improve this set of skills with their partners through collaboration.

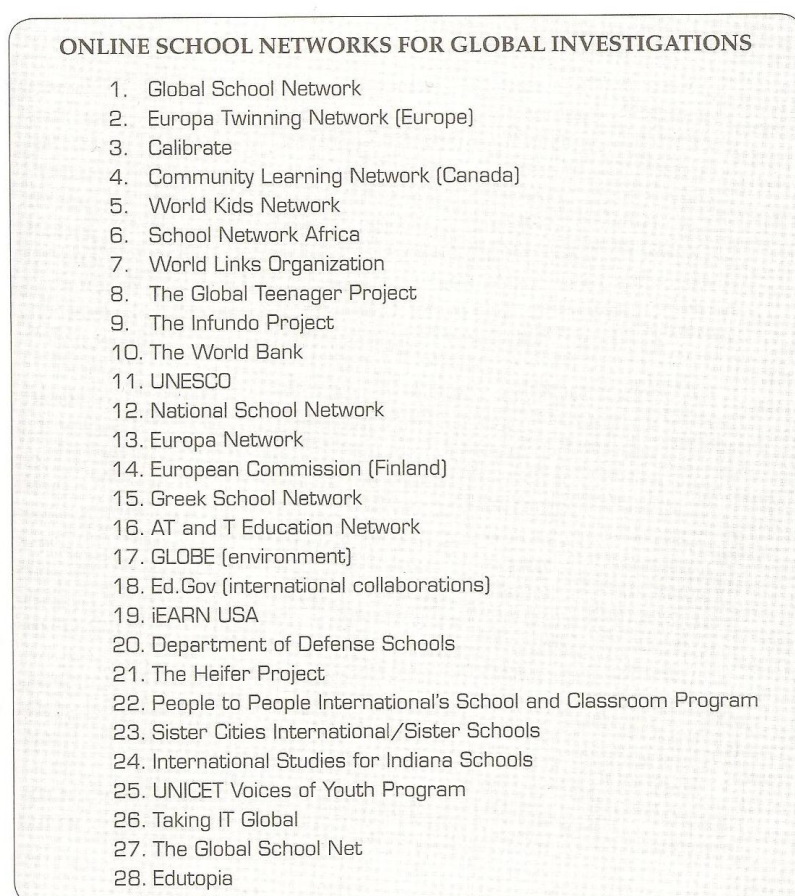
- 
- ONLINE SCHOOL NETWORKS FOR GLOBAL INVESTIGATIONS
1. Global School Network
 2. Europa Twinning Network (Europe)
 3. Calibrate
 4. Community Learning Network (Canada)
 5. World Kids Network
 6. School Network Africa
 7. World Links Organization
 8. The Global Teenager Project
 9. The Infundo Project
 10. The World Bank
 11. UNESCO
 12. National School Network
 13. Europa Network
 14. European Commission (Finland)
 15. Greek School Network
 16. AT and T Education Network
 17. GLOBE (environment)
 18. Ed.Gov (international collaborations)
 19. iEARN USA
 20. Department of Defense Schools
 21. The Heifer Project
 22. People to People International's School and Classroom Program
 23. Sister Cities International/Sister Schools
 24. International Studies for Indiana Schools
 25. UNICET Voices of Youth Program
 26. Taking IT Global
 27. The Global School Net
 28. Edutopia

Figure 16: Online School Networks for Global Investigations (Bellanca & Stirling 2011:65)

Organizations such as UNICEF's Voices of Youth give in-school and out-of-school youth activists the opportunity to work as reporters by contributing their opinions to debates on pressing transnational topics (www.voicesofyouth.org). Contact with adolescents from other countries and discussions of important issues with them should consequently have a positive impact on the development of cross-cultural understanding. Since all of the 28 international networks listed in Figure 16 are in English, exploring their purpose and services would also

be a meaningful activity for the EFL classroom. In addition, individual interested students or a class as a whole could participate actively in international projects or write texts for these webpages. In these activities, the learners will simultaneously improve their English language skills and their Cross-cultural Understanding competence. Once a contact is made with other schools, international Skype dates could follow to support a communicative English lesson. Getting to know another culture in the 21st century does not mean that the learners study stereotypical descriptions of habits and people living in a specific country. Rather, a variety of people representing their culture can widen the students' horizons by interacting through online and digital mediums. New technology tools are a great aid when it comes to keeping in touch with people from the other side of the world, and they should be used accordingly to enrich the learners' development.

8. Conclusion

At first sight, the notion of 21st Century Skills in education might have seemed like an idealized American conception of learners who are thought to become happy, responsible and economically successful citizens. These ideal future graduates of higher education schools are supposed to meet all the complex challenges of life, become productive and creative workers for the country's economy and, at the same time, live a fulfilling and happy life. However, throughout the course of this thesis the power of the 7Cs' (Critical Thinking & Problem Solving, Communications, Collaboration, Creativity, Computing, Career & Learning Self-reliance and Cross-cultural understanding) simplicity should have been revealed. Most importantly, it should have become obvious that the concept of 21st Century Skills is a comprehensible one which every teacher can adapt accordingly to the needs of their students and gradually transform the traditional classroom into an appropriate modern learning environment.

The research part of this thesis supported the hypothesis that the innovative teaching approach defined by the Partnership for 21st Century Skills is highly relevant and applicable to the Austrian EFL context. Furthermore, evidence has been found that ICT as well as Information and Media Literacy are not represented sufficiently so far. Overall this topic was not familiar to the majority of the 131 participants of this survey, but they proved to be open-minded to the testing of innovative teaching material and approaches. The presentation of modifiable example activities might then serve as food for thought for the readers and hopefully also inspire them to continue exploring the possibilities and opportunities which come with the practice of the 21st Century Skills.

On a final note it should be stressed that we have arrived in the knowledge era, which requires all individuals to become life-long learners in order to keep up with the fast pace of innovation and development that comes with it. As teachers, role-models and learning coaches it is part of our job description to understand how today's learners acquire knowledge and adapt our teaching methods accordingly. We have to become information literate ourselves, look into the newest computerized learning aids and figure out how to find a life work balance which allows us to continue being learners as well. The duration of the journey to adequate nationwide 21st century education in Austria is dependent on various parties, but one should not underestimate the power of a motivated teacher who, within his/her means,

does her/his best to prepare today's adolescents for the work and life challenges ahead of them.

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9.3. Webpages Mentioned

Skill	Link	Description
Information Literacy	http://www.plagiarism.com/teaching.htm	Learn what plagiarism is, how to detect and how to avoid it
Media Literacy	www.mediaawareness.ca	free online game tutorials, collection of additional links
Media Literacy	http://www.freedocumentary.tv	online resource for learning and watching documentaries
Communication	www.mailvu.com	record and e-mail your video clips
Collaboration, Teamwork and Leadership	www.voxopop.com	voice-based e-learning tools to practice speaking
Collaboration, Teamwork and Leadership	http://vyew.com/s/	provides visual workspaces for individuals or teams
Collaboration, Teamwork and Leadership	www.wikispaces.com	provides social writing workspaces
Creativity & Innovation	http://www.videonot.es	take notes synchronized with video clips
Creativity & Innovation	http://www.shotclip.com	create and share videos with this link
Creativity & Innovation	http://www.loopster.com	simple video editing site
Creativity & Innovation	http://film-english.com/2013/09/04/my-shoes/	lesson plans based on short video clips
Computing & ICT Literacy	www.teach-ict.com	tutorials, teaching ideas, material for teachers
Computing & ICT Literacy	www.edmodo.com	safe social networking especially created for the school context
Computing & ICT Literacy	www.collaborizeclassroom.com/	collaborative education platform
Cross-Cultural Understanding	www.skype.com	video calls
Cross-Cultural Understanding	www.tokbox.com	video calls

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The resources with no author given are of my own making.

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10. Appendix

10.1. Master Copies

Based on the Facts

List several facts you have gathered about the topic, and identify the source of each fact. Review the facts and develop a generalization, prediction, or opinion based on them.

Topic: _____

Fact	Source

GENERALIZATION, PREDICTION, OR OPINION

--

Beers 2011: 58



21st Century Fluency Project

Digital Citizenship Senior School Agreement

Looking After Yourself

- Choosing online names that are suitable and respectful.
- Only inviting people you actually know in the real world to be your friends in the online world.
- Only visiting sites that are appropriate and respecting the rules that web sites have about age. Some sites are only for adults. If you wouldn't feel comfortable showing the web site to your parents or grandparents then it's inappropriate.
- Setting your privacy settings so only the people you know can see you and your personal information.
- Only putting information online that is appropriate and posting pictures that are suitable. Not everyone seeing your profile or pictures will be friendly.
- Always reporting anything that happens online which makes you feel uncomfortable or unhappy.
- Talking to trusted adults, like your parents and teachers, about your online experiences. This includes both the good and the bad experiences.

Looking After Others

- Show you care by not flaming (sending hurtful or inflammatory messages) other people, or forwarding messages that are unkind or inappropriate.
- By not getting involved in conversations that are unkind, mean or bullying.
- By reporting any conversations you see that are unkind, mean or bullying. Imagine if the things being written were about you. If you would find them offensive then they are inappropriate.
- Some web sites are disrespectful because they show people behaving inappropriately or illegally—or are racist, bigoted or unkind. Show your respect for others by avoiding these sites. If you visit one by accident, close it and tell your teacher or an adult.
- Show respect for other's privacy by not trying to get into their online spaces without invitation, by not stalking them or copying their pictures.

Looking After Property

- By not stealing other people's property. It's easy to download music, games and movies, but piracy (downloading media that you have not bought) is just the name given to stealing online.
- By not sharing the music, movies, games and other software that you own with other people.
- By checking that the information you are using is correct. Anyone can say anything on the web, so you need to check that the research is correct by using reliable sites. When in doubt ask your teacher or your parents.
- By looking after other people's web sites, acting appropriately when visiting them, not making changes or vandalizing them, and reporting any damage that you finds.

By signing this agreement, I undertake to always act in a manner that is respectful to myself and others, and to act appropriately, and in a moral and ethical manner.

I, _____ agree to follow the principles of digital citizenship outlined in this agreement and accept that failing to follow these tenets will have consequences.

Signed: _____

Name: _____ Date: ____/____/____



21st Century Fluency Project

Digital Citizenship Senior School Agreement

Respect Yourself

I will show respect for myself through my actions. I will select online names that are appropriate. I will consider the information and images I post online. I will not post personal information about my life, experiences, experimentation, or relationships. I will not be obscene.

Protect Yourself

I will ensure that the information I post online will not put me at risk. I will not publish my personal details, contact details or a schedule of my activities. I will report any attacks or inappropriate behavior directed at me. I will protect passwords, accounts and resources.

Respect Others

I will show respect to others. I will not use electronic mediums to flame, bully, harass, or stalk other people. I will show respect for other people in my choice of web sites. I will not visit sites that are degrading, pornographic, racist, or inappropriate. I will not abuse my rights of access and I will not enter other people's private spaces or areas.

Protect Others

I will protect others by reporting abuse, not forwarding inappropriate materials or communications, and not visiting sites that are degrading, pornographic, racist, or inappropriate.

Respect Intellectual Property

I will protect others by reporting abuse, not forwarding inappropriate materials or communications, and not visiting sites that are degrading, pornographic, racist, or inappropriate.

Protect Intellectual Property

I will request to use the software and media others produce. I will use free and open source alternatives rather than pirating software. I will purchase, license, and register all software. I will purchase my music and other media, and refrain from distributing these in a manner that violates their licenses. I will act with integrity.

By signing this agreement, I undertake to always act in a manner that is respectful to myself and others, and to act appropriately, and in a moral and ethical manner.

I, _____ agree to follow the principles of digital citizenship outlined in this agreement and accept that failing to follow these tenets will have consequences.

Signed: _____

Name: _____ Date: ____/____/____

Tracking Integration of 21st Century Skills

[illegible]

Beers 2011: 160

<i>Leadership Skills I Demonstrated</i>	<i>Example</i>
I set goals.	
I developed and followed a workable time plan.	
I took personal responsibility for my work.	
I used resources, skills, and knowledge successfully.	
I worked with others to make decisions, work toward a common goal, make a positive contribution, and listen to others.	
<p>The three most important things I learned about leadership are</p> <ol style="list-style-type: none"> 1. 2. 3. 	

Greenstein 2012: 155

<i>Checklist for a Presentation</i>		<i>Comments</i>
✓ if performance is satisfactory according to the standard NI if performance Needs Improvement based on the standard		
	Introduction captures the attention of the audience	
	Objectives are stated in the introduction	
	Content is clear and understandable	
	Presentation is logically sequenced	
	Projects voice so all can hear	
	Uses technology to effectively support message	
	Summary synthesizes main ideas	

Greenstein 2012: 55

10.2. The Online Questionnaire

21st Century Skills in Austrian HLW schools

Thank you for taking the time to complete this survey concerning the future of Austrian EFL education.

By answering the following questions, you will become part of my diploma thesis project on 21st Century Skills in Austrian HLW English-classrooms.

This survey should only take about 10 minutes of your time. Your answers will be completely anonymous and it will be of utmost importance that you answer the questions honestly.

Please note that any questions marked with an asterisk (*) require an answer in order to progress through the survey.

In case you have any questions regarding the survey, please contact me at a0809339@univie.ac.at.

Thank you for your help and have a nice day!

Weiter

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* 1. What is your gender?

- ☐ female
☐ male

* 2. What is your age?

- ☐ under 30 years old
☐ 30-40 years old
☐ 40-50 years old
☐ 50-60 years old
☐ 60 years or older

* 3. Where do you teach?

- ☐ Vienna
☐ Lower Austria
☐ Upper Austria
☐ Salzburg
☐ Tyrol
☐ Carinthia
☐ Vorarlberg
☐ Styria
☐ Burgenland

4. In case you have any, please list past job experiences other than teaching:

* 5. When did you start teaching at a HLW school?

- ☐ less than 2 years ago
☐ less than 5 years ago
☐ less than 10 years ago
☐ less than 20 years ago
☐ more than 20 years ago

Zurück

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* 6. Please tick the appropriate answer.

	no	very little	a little	quite a lot	yes
I like to work creatively	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I like to communicate new ideas to others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I view failure as an opportunity to learn	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am a solution-oriented person	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I appreciate team diversity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I like working with my computer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I share my teaching materials with colleagues	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I follow the news	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I use apps on my smart phone	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Zurück

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21st Century Skills in Austrian HLW schools

* 7. Please tick the appropriate answer.

	no	very little	a little	quite a lot	yes
I understand the hype about social networks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I like to receive feedback from my colleagues	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I adapt quickly to new situations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I like leading other people	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I set goals for myself	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I reflect on my teaching experiences	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I like to learn about cultural differences	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My students respect me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I like to communicate with people who don't share my opinions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I like being responsible for others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Zurück

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* 8. What course books/s do you use?

9. Are you happy with the course book, or would you wish for more...

10. In case you also use other materials, please name them here:

Zurück

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11. The Austrian school system is facing a lot of changes right now. In your opinion, what tools for a successful and happy life do students need nowadays, but have not yet been considered by the educational authorities sufficiently?
In other words, what are your personal 21st Century Skills? (please answer briefly)

Zurück

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12. In case you like to try out new teaching methods, materials and/or technologies, do you feel supported by your teacher colleagues?

no

☐

sometimes

☐

yes

☐

13. In case you like to try out new teaching methods, materials and/or technologies, do you feel supported by your school superiors?

no

☐

sometimes

☐

yes

☐

14. In case you like to try out new teaching methods, materials and/or technologies, do you feel supported by your students' parents?

no

☐

sometimes

☐

yes

☐

15. In case you like to try out new teaching methods, materials and/or technologies, do you feel supported by the government?

no

☐

sometimes

☐

yes

☐

16. In case you like to try out new teaching methods, materials and/or technologies, what feedback do you receive from your students?

17. In case you would like to add any further information or examples, please do so briefly:

21st Century Skills in Austrian HLW schools

*** 18. In your opinion, what will the world look like in 20 years? (please answer with keywords only)**

Zurück

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*** 19. In your opinion, which skills will HLW graduates need to be successful in this world you have imagined twenty years from now? (please answer with keywords only)**

Zurück

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***20. In your opinion, what would learning be like in the futuristic world you described in the previous questions? (please answer with keywords only)**

Zurück

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***21. Please complete the following sentence and tick the appropriate answer. It does not matter whether you consciously plan to teach these things or unconsciously integrate them.**

In my English classroom students have to....

	Never	Almost never	Sometimes	Fairly often	Very often
interpret information and draw conclusions on their own or in groups	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
learn to provide constructive feedback to others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
solve language problems on their own or in groups	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
demonstrate their ability to work effectively and respectfully with diverse teams	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
work in groups of different sizes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
be responsible to others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
learn how to negotiate effectively	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
articulate thoughts and ideas effectively	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
learn how to reason effectively	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Zurück

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21st Century Skills in Austrian HLW schools

***22. Please complete the following sentence and tick the appropriate answer. It does not matter whether you consciously plan to teach these things or unconsciously integrate them.**

In my English classroom students have to...

	Never	Almost never	Sometimes	Fairly often	Very often
be creative (e.g. creating posters, folders, ...)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
come up with new ideas regarding the lesson content (e.g. marketing, products, projects,...)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
know where to look for information needed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
learn how to research effectively	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
practice English pronunciation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
understand the ethical/legal issues surrounding the access and use of information	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
learn how to use digital technologies and communication tools to successfully function in a knowledge economy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
use information accurately for the issue or problem at hand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
participate actively	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Zurück

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21st Century Skills in Austrian HLW schools

***23. Please complete the following sentence and tick the appropriate answer. It does not matter whether you consciously plan to teach these things or unconsciously integrate them.**

In my English classroom students have to....

	Never	Almost never	Sometimes	Fairly often	Very often
examine how individuals interpret messages differently (points of view and how media can influence beliefs and behaviours)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
learn how to use social networks appropriately	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
respect cultural differences	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
learn to positively deal with criticism and feedback	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
use self-assessment sheets to keep track of their progress	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
set goals for themselves	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
reflect critically on past language performances	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
learn when it's appropriate to listen and when to speak in a group interaction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
learn to appreciate social and cultural diversity in the classroom	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
be punctual	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
learn how to guide and lead others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Zurück

Weiter

21st Century Skills in Austrian HLW schools

***24. In your opinion, how important are the following skills for 21st century graduates of a HLW school?**

	not at all	very little	a little	quite a lot	important
Creativity and Innovation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Critical Thinking and Problem Solving	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Communication and Collaboration	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Information Literacy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Media Literacy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ICT (Information, communications, and Technology) Literacy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Flexibility and Adaptability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Initiative and Self-Direction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Social and Cross-Cultural Skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Productivity and Accountability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Leadership and Responsibility	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Zurück

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21st Century Skills in Austrian HLW schools

***25. Have you ever tried out a project based teaching approach?**

- ☐ yes
☐ no

26. If yes, how was this experience for you and what do you think of it? (Please answer briefly)

Zurück

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21st Century Skills in Austrian HLW schools

*27. Have you ever heard of 21st Century Skills before?

- ☐ no
☐ yes

*28. Would you like to receive more information on this topic?

- ☐ no
☐ yes

*29. Would you be interested in taking an advanced training course about one or more subareas concerning the 21st Century Skills?

- ☐ no
☐ maybe
☐ yes

Zurück

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21st Century Skills in Austrian HLW schools

THE END

The entire study is based on the concept of 21st Century Skills by "The Partnership for 21st Century Skills" and their cooperation with the authors of my primary source "21st Century Skills: Learning for Life in our Times", Bernie Trilling & Charles Fadel.

For more information, please visit their homepage: <http://www.p21.org>

THANK YOU FOR YOUR TIME!

I really appreciate your help.

Your input has been extremely valuable.

Have a great day!

Zurück

Fertig

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10.3. Curriculum Vitae

Persönliche Angaben

Name	Beate Lichtenegger
E-Mail	beate_lichtenegger@hotmail.com
Staatsangehörigkeit	Österreich
Geburtsdatum	02.11.1983

Schul- und Berufsbildung

Seit Herbst 2008	Lehramtsstudium Englisch & Spanisch Universität Wien
Herbstsemester 2012	University of Maryland, USA
1998-2003	HBLA Hollabrunn
1994-1998	IBHS Eggenburg
1990-1994	Volksschule Eggenburg

Berufserfahrung

Seit September 2013	Büroangestellte
Mai – September 2008-2013	Selbstständige Freibadbetreiberin & Event-Veranstalterin
August 2012 – January 2013	Volunteer bei dem “Homeless Children’s Playtime Project” in Washington D.C., USA
Oktober 2011 – Juni 2012	Freiberufliche Englischlehrerin im Kindergarten
Oktober 2009 – Jänner 2010	Organisation des Universitätstheaterprojekts “El Secreto a Voces”, initiiert von PD. Dr. Wolfram Aichinger und Mercedes Miriam Vargas
Juni 2006 – April 2008	Erste Rezeptionistin, Tirol
Dezember 2005 – April 2006	Rezeptionistin, Tirol
Dezember 2004 – November 2005	Chef de Rang, Tirol
Oktober 2004 – November 2004	Befristete Anstellung als Bürokraft, AMS Horn
März 2004 – August 2004	Marketingangestellte bei Marcadi, Madrid, Spanien
September 2003 – Februar 2004	Au-pair, Madrid, Spanien
Juni 2001-August 2001	Küchenpraktikantin im Zuge des verpflichtenden Schulpraktikums der HBLA Hollabrunn