

E-Learning Methodology for Adult ESL Teaching and Learning in Austria — A Discussion of Methodological Teaching Approaches

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Abstract: This article discusses findings of a pilot study designed to explore effective usage strategies of the English e-Grammar in Austrian Adult ESL courses. The overall aim of the study — launched in one of Austria's largest Adult Education Institutions — was to generate methodological guidelines for an appropriate use of the English e-Grammar. This article explores the results of the study and the challenges in the application of computer-assisted language learning by generating methodological and pedagogical guidelines for teaching and learning. The evidence is based on: (1) the results of the teacher's self-reflexive thinking about efficient teaching and learning scenarios and (2) empirical data of the pilot study mainly gained by the analysis of learners' questionaires and learning diaries. Therefore, the methodological and pedagogical guidelines put forward in this article display recommendations for an efficient implementation of the English e-Grammar in Adult ESL courses. They mirror good-practice examples and experiences of the teachers of the pilot study and the perspective of the adult learners in their own usage of the tool. Evidence suggests that the usage of the e-Grammar depends to a large extent on the following issues: (1) the teacher's self-concept with regard to digitally supported language learning and to an innovative teaching approach, (2) personal attitude of adult ESL learners towards (self-directed) learning with digital media and its implicit relationship to blended-learning scenarios and (3) the need for institutional support provided by the Adult Education Institution in its realization of an innovative and self-directed approach to digital language learning.

Key words: e-Learning, teaching methodology, adult education, adult language learning

1. Introduction

E-Learning is a term hard to define (Niegemann, 2006; Issing & Kaltenbaek, 2006; Yuan, 2007). Therefore, there are multiple terminologies with different approaches that all refer to learning with digital media involvement: computer-assisted learning, classroom-based online learning, multimedia learning, distance learning — to name just a few (Yuan, 2007). E-Learning in the broadest sense refers to the support of learning processes by digital media usage. In this article e-Learning shall be considered from the perspective of computer-assisted language learning and therefore refer to the "the search for and the study of applications of the computer in language teaching and learning" (Levy, 1997, p. 1). Since this article provides methodological guidelines for an appropriate

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usage of a particular e-Learning tool (the English e-Grammar) in Austrian Adult Education, the term e-Learning methodology to refer to the larger framework of efficient pedagogical and methodological principles in language learning will still be used here.

1.1 English E-Grammar for Adult ESL Learners

The lack of digital involvement in adult language learning in Austrian Further Education gave rise to the development of an English e-Grammar. It is a digital English grammar covering all aspects of an English grammar tailored to the needs of adult language learners. Developed in corporation with English native speakers and academic support, the English e-Grammar provides grammar in a contextualized form embedded in the semantic field adult learners are likely to encounter in their real-life. Therefore, the language focus revolves mainly around English at work (Office English, English for meetings etc.). It operates at B2 CEFR proficiency level and offers frequent modes of interaction for the learner to guarantee active learner's involvement.

1.2 Exploring Usage Strategies in A Pilot Study

The English e-Grammar was tested in a pilot study from November 2011 until April 2012 in the so-called Wirtschaftsförderungsinstitut (henceforth WIFI), one of Austria's largest Adult Education Institutions. Various usage strategies of the English e-Grammar were explored in 15 adult ESL courses by 8 teachers. Teachers were given much freedom in their usage of the English e-Grammar and evidence shows a variety of different usage strategies ranging from full in-class usage and blended learning scenarios to using the tool for self-study only. Results were gained by the analysis of questionaires, learner diaries and group discussion by participating teachers. The data showed: (1) the significance of the self-concept of the teacher, (2) the necessity for implementation of the e-Grammar in the course in the form of blended-learning scenarios and (3) age-related differences in the frequency of the English e-Grammar usage (Auer, 2012).

2. Methodological Recommendations

The following recommendations describe strategies for an appropriate usage of the English e-Grammar in the context of Austrian adult language learning. Relying on study's findings and on its relevance by data taken from practice, a number of theoretical recommendations can be highlighted — a debate from the methodological perspective that has not been conducted yet:

2.1 The Importance of the Teacher's Self-Concept

A teacher's own attitude towards learning with digital media contributes highly to a successful usage of the English e-Grammar in the course. As in all pedagogical learning contexts, it is obvious that the self-concept of the teacher determines if and to what methodological extent the English e-Grammar is used. The teacher's self-concept also determines how much learners are willing to make use of it outside the classroom. The study showed clearly that teachers who are technically fit and very keen on using digital media in their courses and who have turned the English e-Grammar into an integrative part of learning were able to increase learner's motivation. However, teachers who have reduced the usage of the e-Grammar to a facultative self-study tool and have not embedded it in their course design had poor results in its actual usage by the learners. This tendency is clearly supported by an analysis of the average usage time per learner (Auer, 2012).

These findings as well as the teacher's group discussion add support to the following conclusions with regard to the importance of the teacher's general attitude towards digital media involvement in language classes and the usage of the English e-Grammar:

(1) With their own self-concept and their attitude towards language learning with digital media teachers embody an attitude — in positive and negative terms — that determines vigorously what learners are willing to contribute:

The acceptance and usage of the English e-Grammar depends to a large extent on the personal attitude of the teacher; his/her attitude towards an innovative learning culture and course design. Despite their own positive attitude towards self-directed learning with digital media, learners do not want to take on any work more than necessary if they do not see immediate benefits for them (credits, personal advantages for the exam etc.). With a positive self-concept alongside a proper lesson plan, teachers are able to provide incentives in order to engage the learners in technologically supported language learning.

The following teacher's statement clearly illustrates the role of the teacher as an impetus for learning and highlights that the acceptance and usage of the English e-Grammar depend to a large extent on the teacher's attitude towards learning with digital media and on the teacher's orientation on an innovative learning culture. It describes the perspective of the teacher and, although translated from German, keeps the original voice of the person. However, adjustments to establish logical coherence were made in the square brakets.

"One has to be convinced about the tool and the group has to be accompanied and it [meaning: English e-Grammar] has to be used in class to keep it present in the learners' heads. [It is advisable] to try out very many different usage strategies in class, to find out how the group is oriented and how it loves to learn (my present group constantly needs competition - it always has to be about winning something in order to keep them attentative in class). (Taken from the teacher's questionaire; translated from German C.A.)

(2) Teachers are to introduce, support and accompany learners in their usage of digital media for language learning:

In this respect, the teachers' main tasks include to provide technical and pedagogical support of learners on their learning path. This is all the more important when it comes to dealing with the target group of younger learners¹ who — as the study showed — associate digital media primarily with entertainment rather than with the issue of language learning.

"Once the participants have taken the time to check out how to open the programme and use it, the programme will then also be used. But this takes time. The excuse "I do not have a computer" or "My computer is out of order" is a simple way to avoid doing the homework. I have made the experience that apprentices do not consider the computer as a medium for learning, but just for entertainment. They are not used to working with the computer. They do not even do their written homework on the computer but hand in a hand-written piece. (Taken from the teacher's questionaire — "Lehre mit Matura" course teacher; translated from German C.A.)

"I have to teach apprentices (aged 16) and I have made the experience that they do not like to use the computer. Therefore, to make them work with the e-Grammar and to make them accept it as part of the course so that they actually use it at home is really challenging. (Taken from the teacher's questionaire — "Lehre mit Matura" course teacher; translated from German C.A.)

These statements add support to general findings of age-related media use in Austria. Empirical findings of media usage data claim that younger learners show an intense usage of the computer and respectively the Internet

¹ In this study younger learners are to be found in the course type "Lehre mit Matura" — a preparatory course for the school leaving examination that runs parallel to their apprenticeship. Therefore, learners in these courses are mainly 16 to maximum 18 years of age.

predominantly for entertainment purposes (chats, games, internet-surfing with no special aim)² (Stark, 2009, p. 146). Age-related usage of digital media is determined by a number of factors among which generations, social milieu, gender and personal biographical aspects are just a few key issues (Schäfter, 1998, p. 51). Empirical data of the pilot study showed that renunciary attitude of using the English e-grammar was only to be found in the cohort of young apprentices aged 16. It would still be of interest to analyze younger ESL learners of a higher social milieu to see if they would show the same reluctant attitude towards the tool and self-directed language learning.³

From the pilot study, learners between 30 and 40 years of age and beyond articulate a high degree of satisfaction and seem to possess distinct awareness of the benefits of self-directed learning. This tendency would again support Stark's findings that older learners show an information-oriented use of digital media (in Stark's particular case: the Internet) (Stark, 2009, p. 146):

Feedback by learners 30+:

"It is one of the best programmes (for language learning) I have ever seen: (1) it is suitable for younger and older learners, (2) methodologically perfect and (3) simple. Great!!" (Taken from the learner's diaries; translated from German C.A.)

"I like it because it is fun and very user-friendly." (Taken from the learner's diaries; translated from German C.A.)

"It is very good to have this support for learning. Helps very much to consolidate the new content." (Taken from the learner's diaries; translated from German C.A.)

As a consequence, it can be claimed that if language learning aims to be technologically supported and should be carried out in a self-directed way, all learners and especially younger learners require a substantial methodological and pedagogical guidance. This could be realized as follows:

2.2 Introduction to the English E-Grammar

The usage of computer-assisted learning programmes has to be clearly explained prior to its initial use. All features (usage, navigation, content, technical help etc.) have to be clear and available for the users from the beginning.

From the entire sample (80 learners' questionnaires), the suggestion for future usage of the English e-Grammar given by the learners illustrates the demand for more classroom use^4 and a better explanation of the tool as such. Below there are a few extracts taken from the questionnaire of the learners to support the clusters of the Figure 1.

This call for more classroom use explains why teachers gained best results when the programme was used as a central element of language learning in the course in the form of in-course-sessions and blended-learning scenarios. Since learners have to be made familiar with the tool as such, raising awareness for new, computer-assisted language learning represents an essential takes for the teacher. Professional teachers should be

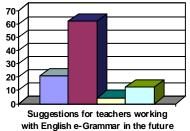
² "... etabliert sich in einem immer früheren Alter eine intensive Internetnutzung auf einer hohen Ausgangbasis. Geprägt wird diese in der jüngeren Altersgruppe hauptsächlich von einer unterhaltungsorientierten Nutzung, bei der Spiele, Chats und zielloses Surfen im Mittelpunkt stehen. Ältere Personen nutzen das Internet dagegen stärker informations- und serviceorientiert, wobei das gezielte Surfen, Internet-Banking und der Zugriff auf Zeitungsinhalte eine größere Rolle spielen." (Stark, 2009, p. 146)

³ This target group was not part of the pilot study since the course type "Lehre mit Matura" is just open for apprentices parallel to their apprenticeship. This population group would be found in regular school settings and not in adult education environment.

⁴ Classroom use refers to the implementation of the tool in the actual course through on-the-spot usage as well as in form of blended-learning scenarios. It is opposed to using the tool for self-study with no pedagogical and methodological guidance.

able to instantly answer general questions about content and structure of the programme and technical issues (Log-in, account status etc.). Teachers who have themselves introduced the English e-Grammar in a computer lab and who have offered learners time to explore the programme themselves, have reached better results in the actual usage of the English e-Grammar throughout the pilot study.

"One can clearly see that participants who have worked much with the English e-Grammar are much more self-confident in applying English grammar in speaking and writing." (Taken from the teacher's questionnaire — "Berufsmatura" course teacher; translated from German C.A.)



with English e-Grammar in the future from the learner's perspective (in%) need for more explanations
need for classroom use
rejection of e-Grammar
other

	A few extracts of the questionnaires (translated from German)
Need for more	That they should explain it better
explanations:	Introduction for users is necessary
	Explain better at the beginning
	Explain the usage of the tool
	To discuss it better before using it
Need for classroom use:	Use it more often
	Mixture of digital and "normal" teaching
	That it is more often used in class
	Integrate it more often in the course (maybe because of absence)
	Obligatory for the course or the certificate, as homework for example
	Telling learners that English online is a "fix part" of the course
	To give parts of the EG. as homework for the next course
	That it is used in the course
	To integrate it more in the course
	To go through it verbally
	To do many exercises verbally in class
	Necessary to integrate it in the course
	To use the programme more frequently in class
	To explain it first and then to really use it in class
	To use it and above all to refer to it
Rejection of the EG.:	"Real" teaching is better
Other:	To motivate for self-study at home
	To give more additional exercises online
	I can't judge

Figure 1 Learner's Questionnaire: What Would You Suggest to Future Teachers When They Use the English E-Grammar?

A good technical introduction to the tool requires time for explanation and practice in class.

"[It is important] to calculate that much time is needed to explain, try out the exercises online." (Taken from the teacher's questionnaire — "general English" course trainer; translated from German C.A.)

"...always make sure that there is enough time for various exercises. At the beginning I always taught 15 minutes longer than the course lasted." (Taken from the teacher's questionnaire — "Berufsmatura" course trainer; translated from German C.A.)

2.3 Pedagogical Support in Achieving Educational Success

Teachers should encourage learners to take on responsibilities for their own learning. Through conversations in which teachers act as mentors, learners should be encouraged to actively define their individual learning aims not covered in the syllabus as well as to reflect and define their own attitude towards learning with digital media. In this respect, the English e-Grammar could be a helpful tool to deepen grammatical knowledge and thus, to reach individual learning aims.

2.3.1 Raising awareness for the benefits of self-directed learning

Teachers as well as learners should bear in mind that technology can support self-directed learning. However, for this to happen, pedagogical support is needed. Learning with digital media is a form of learning not every learner is familiar with or open to. Indeed, many learners — in the case of the English e-Grammar pilot study — younger learners tend to reject digital language learning due to a lack of interest in using the computer as a means of learning. If language learning should be self-directed, a methodological and pedagogical guidance by the teacher, possibly through involvement in and awareness raising for self-directed learning, is essential.

Literature on self-directed learning supports the view that especially younger learners are faced with a number of psychological and personal challenges with regard to self-directed learning and also highlights the implicit role of the teacher in this matter:

"This attention to learning for life reminds us, as we address adolescent students [...], that we are dealing with whole life - not just intellectual emotions and performance as well. [...] The challenge is the transition to leave childhood behind and to stand on the threshold of adulthood with purpose and confidence. That means maturing a person, finding a social place, becoming independent, and finding focus for work. The key to such readiness for students is self-efficacy, that feeling of certainty, forged in action, that they can set a course and then make the journey. SDL teachers enjoy a number of advantages when working with students of all kinds. As students learn how to learn, or how to teach themselves, they often work individually and independently. This enables the teacher to meet with individuals and small groups regularly for special attention and guidance that are so important in this process. But teaching SDL is demanding." (Gibbons, 2002, pp. 1–5)

2.3.2 Guaranteeing transparency for successful learning

Teachers reveal all learning aims of a course and identify which learning aims could be covered, completed or — in case of teacher's or learner's illnesses or in case of a learner's considerable lack of grammatical competence — could be caught up with a self-directed use of the English e-Grammar at home. Through this, learners would be given a transparency about what has to be acquired within a given time frame. In addition, learner's grammatical competence. Handing out a catalogue of all grammatical learning aims of the course in the form of can-do statements and self-checks for learners would facilitate self-directed learning and guarantee a high level of professionality provided that there is enough teacher support in mutually designing the self-directed learning process with the learner. This approach illustrates some of the andragogical principles of adult teaching and conditions of learning put forward by Knowles (Knowles n.y.: 57f): Due to the mutual process of formulating one's own learning objective, learners participate actively in designing their own learning process — an empowerment which would, consequently, help to foster learners' commitment towards learning as such.

2.4 Personal Attitude of Adult ESL Learners towards (Self-Directed) Learning with Digital Media and Its Implicit Relationship to Blended-Learning Scenarios

Since evidence of the pilot study showed clearly that an implementation of the English e-Grammar in the

classroom in the form of blended-learning scenarios has brought best results (Auer, 2012), the English e-Grammar should cover an integrative part of the course design. Reducing the English e-Grammar to a self-directed use only and with no teacher guidance has proven not to be efficient. Teachers of the pilot study agreed that it is very unlikely that learners instantly see benefits in using the English e-Grammar at home if there is no requirement to do so. Moreover, they agree that there seems to be a lack of realizing the importance of self-directed learning, insufficient need for active participation in designing their own learning progress as well as the learners' reluctant attitude towards learning with digital media.

In the group discussion of the teachers involved in the pilot study, good practice examples for the usage of the English e-Grammar in the course were gathered and shall be illustrated here:

(1) English e-Grammar as initiator for grammar acquisition: Lead-in by playing the audio dialogues of a particular chapter and using the semantic field of the dialogues for follow-up classroom activities in form of role plays, simulations or written texts. (such as: introduction and presentation of the protagonists to make use of the adjectives to describe people's appearance)

(2) English e-Grammar for promoting explorative learning: Listening to the dialogue in class and generating hypothesis about new grammatical structures as warm-up or awareness-raising activities for new grammatical issues.

(3) English e-Grammar as a means to foster grammatical knowledge at one's own pace at home: The English e-Grammar can represent a summary of grammatical issues previously learned in class. It represents therefore, a helpful tool to deepen learners' grammatical competence and allows usage outside of the classroom regardless of time and location.⁵

(4) English e-Grammar exercises as home assignments: Using the English e-Grammar at home allows self-directed learning at one's own pace and offers corrective feedback to online exercises tailored to the content of the e-Grammar. Teachers have agreed that the online exercises were efficient for both — learners and teachers — since immediate feedback was given and learners know instantly their results. For teachers, the auto-correction of online-exercises is higly beneficial since they have no further correction to do and can rely on a standardised form of the grammar that offers content and exercises ready to use. In addition, they have access to the actual time each learner is logged in to the English e-Grammar and what kind of self-tests each learner has successfully accomplished. However, learners need to know that the home assignment is a prerequisite for the next session in class. Therefore, it is essential to create a blended-learning character by tracing back the online home assignment to the classroom use in whatever form. Teachers of the pilot study suggested to give additional free-writing tasks based on the grammatical aspects and the semantic field acquired by specific modules which would guarantee visible outsomes showing the individual usage of newly acquired grammatical structures in the form of texts.

(5) English e-Grammar as a means for social learning through competitions: The usage of the English e-Grammar has proven highly effective when it encourages motivational aspects in the form of competitions. Motivational issues are fostered by working in two teams, both of which have to study grammatical chapters individually at home in order to compete against each other in a grammar-quizz in the next session in class. (see also Turecek, Peterson, 2012, p. 42f)

(6) Resource-based learning with English e-Grammar as a reference tool to promote learning in groups:

⁵ Empirical data indicates that adult learners who have successfully used the English e-Grammar suggest their peers to: (1) engage more in self-directed learning (more than 60%) and (2) to find an own approach to learning with this medium (appr. 25%).

Collaborative and social aspects of language learning can be initiated in group works or grammar projects by the usage of the current English e-Grammar as the major reference tool. During the pilot study, teachers articulated to have gained respectable results in setting up group assignments where all group members had to use the English e-Grammar to study particular chapters of the grammar at home. This method for self-directed learning at home served as a source of self-directed learning and each group had to present and explain the newly acquired grammatical information of their chapter to the colleagues in class.

2.5 The Need for Institutional Support Provided by the Adult Education Institution in Its Realization of an Innovative and Self-Directed Approach to Digital Language Learning

Besides the relevance of the teacher's self-concept and the significance of installing blended-learning scenarios promoted by appropriate methodological and pedagogical guidance, Adult Education institutions play a key role in computer-aided language learning. If digital language learning wants to make its way into adult language learning, it is essential for an Adult Education institution to provide organizational support and to display an innovative approach to language learning with digital media.

"Institutional, social and political expediencies may be helpful to justify eLearning investment, but they are not sufficient on their own. There must also be a conviction that technological tools improve teaching and learning to ensure long-term commitment to their use, and to ensure appropriate implementation." (Nichols, 2003, p. 6)

For efficient e-Learning and e-Teaching to happen, organizations need to offer technical support in the form of trainings for teachers and learners and to provide classrooms and computer labs with the technical equipment required for an efficient use of digital media in language learning. In addition, technical support should also include immediate help for teachers who are less technically-fit but enthusiastic about using the English e-Grammar in their courses. This could be realized by installing telephone hotlines or a contact person in charge of solving technical problems. Technical support in these forms seems essential to guarantee non-stop functionality. If the English e-Grammar can not be opened by a learner at home due to a faulty computer setup for example, the problem has to be fixed immediately in order to keep the learner's motivation high. Learners and teachers who are willing to use digital media, but see themselves confronted with too many technical constraints which they are unable to solve themselves, are very likely to lose interest in engaging in technically supported language learning and will consequently drop all attempts to do so.

Moreover, an Adult Education institution has to show an innovative approach to language learning. To be more precise, this means to have teacher staff who possesses technical competences in using digital tools appropriately and who also serve as role models for innovative teaching practices through their methodological and pedagogical background knowledge. This specific competence could be acquired and deepened through seminars and workshops, teacher trainings etc. and would guarantee a professional teacher staff, which is state-of-the-art.

Besides the investment in the teaching staff and the technical support, digital media involvement in Adult Education institutions requires a strong support by the syllabus for language learning. If language learning with digital media is manifested in the foreign language learning syllabus or even more so, if an innovative approach to learning with digital media represents a key issue of the institution itself, it will be a major component in language classes.

To facilitate the usage of digital media in foreign language learning, it is necessary to help, support and

accompany teachers in their actual realization of innovative learning strategies. This could be in the form of particular usage strategies that allow teachers to loosen the rigid forms of in-class learning and to open the learning classroom to more blended-learning strategies going along with a reduction of the required number of attended classes. The possibility to reduce in-class presence up to a certain percentage could be an incentive for learners and teachers to engage more frequently in self-directed learning. This could be of interest for specific target groups who are preoccupied with work or frequently on business travel.⁶ In addition, digital media could also be made use of in case of trainer shortage or sickness to bridge the gap between periods of little or no classroom teaching.

3. Summary

This article aimed to provide methodological and pedagogical guidelines for digital media involvement in adult language learning by referring to data of the pilot study launched in one of Austria's largest Adult Education institutions (Wirtschaftsförderungsinstitut/WIFI). The central issue in this respect was the English e-Grammar, a digital English grammar specifically tailored to adult learners' needs and exclusively designed for WIFI-adult ESL learners only. The suggestions for efficient usage strategies largely point to the English e-Grammar itself but sometimes also show a very general character supported by relevant literary sources. Evidence from the pilot study is added to guarantee credibility and to provide theoretical basis. This is carried out by the reference to empirical data taken from the analysis of the questionnaires and by the reference to personal learner and teacher statements.

It was highlighted that regardless of the learner's general attitude towards digital media involvement in language learning, the key issue for the success of technologically supported language learning is the self-concept of the teacher and his/her implicit attitude towards language learning with digital media. In addition, technical and pedagogical support by the teacher has to be provided in order to guarantee long-term usage. The latter should mainly focus on raising learner's awareness for the benefits of self-directed learning and on guaranteeing transparency for successful learning. Both issues were discussed in detail.

Since empirical data called for more blended-learning scenarios, a number of good-practice examples for an efficient use of the English e-Grammar were given. These examples are based on experiences from practice by the eight participating teachers of the pilot study.

Finally, the article stressed the need for insitutional support provided by the Adult Education Institution and its necessity to portray an innovative and self-directed approach to learning. If digital language learning wants to enter adult educational settings, well-trained teaching staff, technical support and a strong syllabus support are needed to guarantee long-term usage.

In conclusion, it can be stated that technologically-supported language learning of adult learners is a very complex matter depending on many different personal, technical, pedagogical and organizational variables (Berge/Collis, 1996). The attempt to provide methodological guidelines for an appropriate use of digital media in adult language learning alongside with the call for more institutional support, probably present initial steps to enrich adult language learning through digital media involvement. However, this field of study is still open for

⁶ In the Adult Education Institution that launched this pilot study, it is frequently the case that learners are unable to attend classes. This applies mainly to learners of the coursetype "Lehre mit Matura" who regularly have to follow job-related trainings but also to learners of the coursetype "Berufsmatura" who study English extra-occupationally.

further investigation, especially the relationship between literary theory and actual teaching and learning practice would require more scholarly attention.

References

- Auer C. (2012). "E-learning methodology in Austrian adult education based on the English e-grammar for adult ESL learners", in: *Proceedings of International Conference "ICT for Language Learning* (5th ed.).
- Berge Z. and Collins M. (1996). "Facilitating interaction in computer mediated online courses", available online at: http://www.emoderators.com/moderators/flcc.html.
- Gibbons Maurice (2002). The Self-Directed Learning Handbook: Challenging Adolescent Students to Excel, San Francisco: Jossey-Bass.
- Knowles M. (no Year). *The Modern Practice of Adult Education: From Pedagogy to Andragogy*, revised and updated, NJ: Englewood Cliffs, Cambridge Adult Education.
- Levy M. (1997). Computer-Assisted Language Learning: Context and Conceptualization, Oxford: Oxford University Press.
- Issing L. and Kaltenbaek J. (2006). "E-Learning im Hochschulbereich-Stand und Ausblick", in: Arnold R. & Lermen M. (Eds.), *E-Learning Didaktik*, pp. 49–64.
- Nichols M. (2003). "A theory for eLearning", available online at: http:// www.ebiblioteka.lt.
- Niegemann H. (2006). "Besonderheiten einer Didaktik des e-Learning", in: Arnold R. & Lermen M. (Eds.), *ELearning Didaktik*, pp. 65–74.
- Schäfter W. (1998). "Die 'Arroganz' der Jüngeren?", in: Faulstich-Wieland H., Nuissl E., Siebert H. & Weinberg J. (Eds.), Report-Literatur- und Forschungsreport Weiterbildung, Heft 42. Frankfurt/Main: Deutsches Institut für Erwachsenenbildung, pp. 48–62.
- Stark B. (2009). "Constants and Changes of Media Use in Austria Empirical Findings of Media Analysis Data: 1996–2007", in: SWS-Rundschau (49.Jg.) Heft 2, pp. 130–153, available online at: http://www.sws-rundschau.at.
- Turecek K. and Peterson B. (2012). WIFI-Lernbuch: Lebendig und nachhalting lernen, Wien: Hubert Krenn.
- Yuan Z. (2007). "Problems in researching e-learning: The case of computer-assisted language learning", in: Andrews, R. & Haythornthwaite C. (Eds.), *The SAGE E-learning Research*, pp. 413–436.