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BETWEEN THE TECHNOLOGICAL DEVELOPMENT AND RESEARCH; A CRITICAL ABYSM FOR FOREIGN LANGUAGE TEACHING

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ABSTRACT

International markets, increasing mobility, and the overall impact of globalization cause a steadily increasing demand for foreign language skills. Also, traditional courses are progressively being replaced or supplemented by e-and m-learning, even foreign languages are increasingly mediated with innovative methods. Today many new opportunities have emerged to further expand the flexibility of language learning and to offer learners more freedom for self-control in the learning process. Due to the fast-evolving technology, the occurring didactic transformation is mainly theoretical reflected in foreign language teaching. Transferring technology of our century into the class environment for foreign language teaching and the adaptation of various concepts are often seen as a necessity. This requirement of the adaptation for the various educational and training institutions caused directly or either indirectly an increased pressure. The knowledge of how to deal with technological development in the professional life gets more and more important. In one hand the tension between foreign language teaching and on the other hand the trend of technological development. Further competencies have to be developed to reach the ability to teach the new generation Students foreign languages. In the context of this paper, the development of technology in language teaching is first generally analyzed and the status quo summarized. A search and review of existing systems and applications complement by a review of the existing offer of technologies. The adaptation of new technologies in teaching German as a foreign language in the findings of the study is perceived as a process rather than an event. This study aims to provide a comprehensive compilation of the technological concepts, approaches, and projections regarding future activities and pointing to possible errors regarding pedagogical and educational outcomes.

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STRUCTURED ABSTRACT

The changes and transformations which are experienced in technology are shaping our habits and behaviors in our daily lives as well as in many areas. Especially, when it is considered in the historical context, it is clear that the use of technology in foreign language teaching is an inevitable necessity. Therefore, every newly developed technology is presented as a solution to existing problems. Like in foreign language teaching, to increase the success. The main aim of the current study is to seek an answer to the following question "What distinguishes technology-oriented foreign language teaching and why is it given a potential for new didactic concepts?". To reach this goal, the paper aims to explain, how new technologies are characterized foreign language teaching and learning process, and which didactical models are developed in its period of the existing technology with the view in the field of foreign language teaching. The last decade of the twentieth century and in the early twenty-first century called the digital age. Has entered into a very rapid development process and had a huge impact in language education. For this purpose, this paper focuses on summarizing empirical studies between the years 1993 and 2009 which the following technologies; Digital Dictionary, Digital Tutors, Chat Systems and Mobile Technologies. are used in German language studies as a foreign language.

This paper is underlining and determining the range of usage of the technologies in the foreign language teaching, as a historical process and contributing to the related literature. It is out of the question that the existence of such a research coincides with the teaching of German as a foreign language. Also, the study becomes more of an issue regarding providing insight for the following researches in this field, how new technologies can be integrated into foreign language teaching and learning as didactical context.

This study is designed within the framework of the qualitative research model. When the researches in social sciences are examined, it is immediately seen that the most frequently used research method is the qualitative research method. Considering the way in which the qualitative researches take the data collection and the way in which the data obtained are handled, they provide the results of research based on codes and categorizations by reading individual data. For this purpose, the studies related to the use of technology in foreign language teaching was examined with the document examination technique which is one of the qualitative research methods and tried to describe the data obtained within the determined criteria. To reach the research goal, the researcher selected the studies in which the specific technology was used effectively. The reviewed technologies can't cover the whole area of available technological advancement to foreign language teaching. Studies are chosen to limit this summary that focused on a single application rather than multiple Technologies combined at once. Over 253 potentially relevant publications were identified, the studies are selected by using the described constraints, and low cited studies were specifically excluded to point out the fully recognized findings. In this context, it was decided that the most appropriate research method was the qualitative

research method of document review technique, considering the nature of the research and the theses studied within the scope of the study.

According to the findings of the research, it is clear that multimedial technologies are mostly used in foreign language teaching as technology-based teaching materials. Different medias like Text, video, graphics, audio are integrated into a digital media system enable multimediality. In the context of didactical approach, technology-based materials for teaching and learning a foreign language necessitate the “modality” and “coding” of information. The information represents through codes and symbol systems, which include the verbal and pictorial symbolic system or the numerical system. The technology-based materials created via combining of codings are called “multimedia applications. Considering the multimedia applications from the psychophysical or didactic perspective, it is by no means the advantage of the technology to "inflow" information into as many senses as possible of the learner, since the mere addition of different sensory modalities does not give any preference for learning. It is, in fact, one of the widespread myths of technology euphoria that cannot be scientifically proven.

It should also be argued that supposing that the adaptation of technological learning proposals to so-called "learning styles" will be supported by their surprising widespread assumption that they prefer to express a specific meaning independently of habit and situation. It seems almost strange when one encounters it with learning and cognitive-psychological research; there is little evidence of the existence of such persistent learning styles. For this reason, praising technological practices seems unlikely, referring to different "learning styles.” Another feature of technology-based foreign language material is that the interaction can be expanded. A distinction must be made between the exact technical features of the interaction. Today, technology-based foreign language materials are less likely to be hoped for as an "intelligent tutorial system" than it was a few years ago. On the hand, it is important that the learning paths are flexible and learning proposals are adapted to individual learners.

As a result, this paper has focused primarily on the possibility of supporting foreign language learning as long as the technology is changing and developing faster than ever, although in recent years it has been necessary to speed up the use of technology to improve foreign language learning and teaching. In comparison, considerable studies seem to focus on explaining convenience or other ways presented by specific technologies or to rate the effects of increased motivation based on the increased enjoyment in rating or learning activities. Obviously, using technology, students' technology use and enjoyment represent valuable and useful goals, but this selection is not clear. There was no explanation concerning which technology supported or created the activities or what motivated them to increase the learning success. However, the lack of technological tools and practices does not make good teaching bad or vice versa. Even if technology has been successfully used to achieve goals in foreign language teaching, the victory of success will be pedagogical, not a technological.

Keyword: German as a Foreign Language, Technology-Based Teaching Foreign Language, Use of Technology, Technological Perspective.

TEKNOLOJİK GELİŞME VE ARAŞTIRMA ARASINDA; YABANCI DİL ÖĞRETİMİ İÇİN KRİTİK BİR BOŞLUK

ÖZET

Uluslararası piyasalar, artan hareketlilik ve küreselleşmenin genel etkisi, yabancı dil becerilerine olan talebin sürekli artmasına da neden olmaktadır. Buna ek olarak, geleneksel derslerin yerini giderek e-ve m-öğrenme almaya veya bu türde çözümler ile desteklenmeye başlanmış ve yabancı dillerin öğretimi için dahi bu yenilikçi yöntemler aracılık etmektedir. Günümüzde, dil öğreniminde esnekliği daha da artırmak ve öğrenenlerin öğrenme sürecinde kendiliğinden kontrolü için daha fazla özgürlük sunan birçok yeni fırsat ortaya çıkmıştır. Hızlı gelişen teknoloji nedeniyle, ortaya çıkan didaktik dönüşüm esasen yabancı dil öğretiminde teorik olarak yansıtılır. Yüzyılımızın teknolojisini yabancı dil öğretiminde sınıf ortamına aktarmak ve çeşitli konseptleri uyarlamak sıklıkla bir zorunluluk olarak görülmektedir. Bu uyarlama gereksinimi zorunluluğu doğrudan ya da dolaylı olarak çeşitli eğitim ve öğretim kuruluşlarına yönelik bir baskıya neden olmaktadır. Mesleki hayatta teknolojik gelişme ile başa çıkma konusundaki bilgi ve tecrübeler giderek daha da önem kazanmaktadır. Bu, bir yanda yabancı bir dil gerginliği ve diğer yandan teknolojik gelişme eğilimidir. Yeni nesil öğrencilere yabancı bir dili öğretme yeteneğine ulaşmak için daha fazla yeterlilik geliştirilmesi gereklidir. Bu çalışmada, öncelikle dil öğretiminde teknolojinin gelişimi genel olarak analiz edilmekte ve günümüz durumu özetlenmektedir. Var olan sistemlerin ve uygulamaların araştırılması ve incelenmesi, mevcut teknolojilerin gözden geçirilmesi ve derlenmesi ile tamamlanmaktadır. Çalışmanın bulgularında yabancı dil olarak Almancanın öğretilmesi sürecinde yeni teknolojilerin uyarlanması, bir olay olmaktan ziyade bir süreç olarak algılanmaktadır. Bu çalışma, gelecekteki faaliyetlerle ilgili teknolojik kavramların, yaklaşımların ve projeksiyonların kapsamlı bir derlemesini sağlamayı ve pedagojik ve eğitsel çıktılar açısından muhtemel hataları belirtmeyi amaçlamaktadır.

Anahtar kelimeler: Yabancı dil olarak Almanca, teknoloji tabanlı yabancı dil öğretimi, teknoloji kullanımı, teknolojik bakış açısı.

Introduction

Technology also characterizes the life of today's children and students and their cultural circle to a high degree. Not only books, newspapers and magazines, radio and TV also smartphones, computer, and the internet are available to them at any time without problems. The technological development plays for example in economy, culture, and politics or science but also in teaching a great role. The modern information and communication technologies are existing everywhere.

The new learning technologies are for most teachers and students especial welcome change in their everyday teaching and learning. This may have different reasons; wasn't it a tremendous moment when a video player and television were brought into the classroom? Fascinating for students but also fewer lessons preparing for the teachers and from the didactic site maybe less learning pressure effect. This excitement has turned to a "technological medium hysteria" which evolved today to a kind of "Technology-hype" based on the acceptance that the access to new technologies will solve all the Education problems. There is a kind of technology obsession especially in the foreign language teaching area reasoned in the hope of that technology could expedite the arduous process of language teaching and dissolve effortlessly the language learning in general.

From this viewpoint, a lot of expectation from educational technology consists. The practice of technologies in foreign language teaching is thus far also largely promising. However, the existing technologies are solutions that are more Ad hoc; a kind of commercial interests coined the language teaching industry. There is relatively little information on specific aspects and effects of specific technologies usage generally to the acquisition of knowledge and learning a foreign language in particular. These rather critical observations should not mean a general rejection of technologies in foreign language teaching (Heyoung&Yeonhee 2012).

The experience in language teaching area at the time is a phase of technology enthusiasm with time pressure. Adopting new technologies into language teaching became a race against time. New technologies are being developed faster than ever (Patrick Suppes & Robert Smith). This not only affects the skills of teaching, the ability to create a learning environment that is responsive to needs, interests and learning preferences which define the new role of the teacher (Chanlin, 2007). It may also change the possibility of the realization of the necessary research for specific technologies for language education. Aside the adaptation of the technology, the needed time for the process of a research, to test didactic-linguistic concepts and collect qualitative results is a time-consuming activity. An activity, which cannot compete with the enormous technological development speed (Claudia & Lawrence 2011; Henderson & Romeo 2015).

Research findings are outdated before researchers can share them; so, the research is behind the technological development. From this point, educators are facing a hard process for determining which technological tools or new methods are appropriate for implementing them in their teaching day (Greenhow & Hughes 2009; James & Elisabeth 2011).

Technology in the classrooms

The question of how to influence learning processes through the use of new technology has been concerned with pedagogic-didactical research since the growing development and spread of these technologies from the very beginning.

Even from a historical perspective, the use of different technologies for and in foreign language teaching and learning has a kind of tradition. Starting with clay tablets as a medium of writing throughout the Bronze Age to the mobile phones of the modern classrooms. The uses of technologies and the produced tools have influenced practice in educational systems. On the other hand, it is hard to explain the clear, present position of technology in and for foreign language teaching or ever harder to predict what the next integration of the near future is. The investment into unpredictable technologies (Jonassen, Howland & Marra, 2011; MNE 2012; Chih, 2014); which will not last for years, for example, the clay tablets or even the mythologized technologies. It is easy to see that the educational environment in the context of technological developments and educational systems will remain changing by increased technological components.

In this perspective, the fundamental questions are, what characteristics of new technology are relevant to learning, how learning processes are done with new technologies, and how they can be optimized. To explain the learning with technology, the research is often based on didactical principles. The technological concepts and the didactical models of immense technology development in the field of foreign language teaching are presented first.

From this view, the teacher is facing a course of determining which technological tools or new methods are appropriate to for implementing the given classrooms and their challenges. However, improvements in a technological perspective have also a critical influence on foreign language teaching (Louise 2012; Magner et al. 2014). The following timetable, which has no claim to be completed, is experimenting to demonstrate the dramatically altering relationships of technology with in foreign language education.

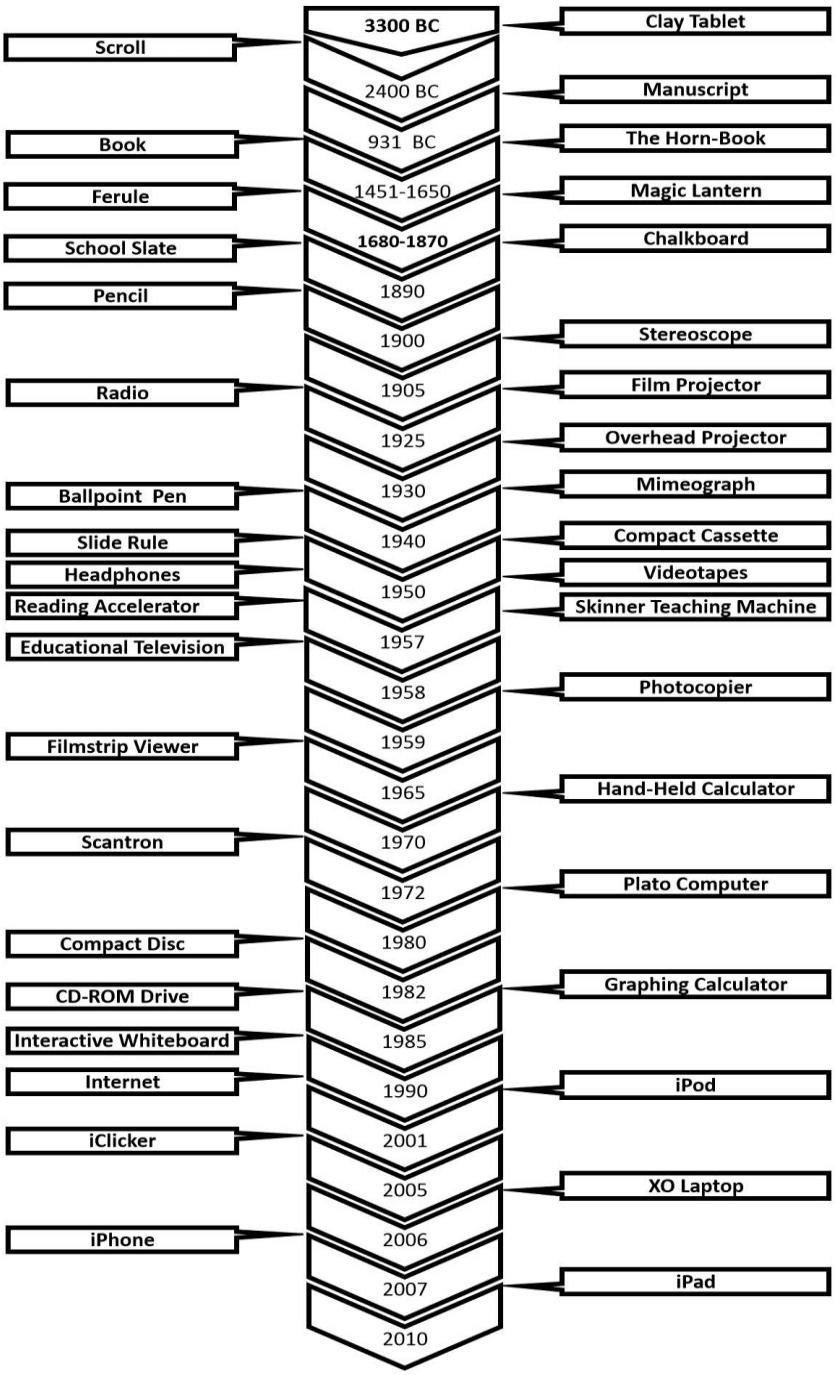

Figure 1. *Timetable of integrated technologies into foreign language teaching and learning.*

It is, due to nature, quite difficult to determine and present a complete timetable. Some of the technologies were integrated extensively, and some are rarer for the foreign language teaching. Viewed from theoretic angle ingrained technologies, like the personal computer or the access to the internet, are evolved practically ever-present for foreign language learning in many contemporary

educational systems. Likewise, comparatively fresh technologies, such as smartphones or similar mobile devices with internet access, are more and more accessible. This new technology becomes readily available and is adapted for foreign Language learners. Students may adjust their teaching strategies or change their learning activities to most adequately utilize available resources for themselves. This kind of unified technological modernization can increase learner interest and motivation. And, at their best, it can establish new competitive advantages for learners and instructors. The worst scenario is that new technologies will have results like inappropriate input or shallow interaction between teacher and students which will lead inter alia to inaccurate feedback; some kind of frustration with hardware or/and software; confusion from the learning objectives; and a general over-positiveness on learning and teaching goals.

Technology in the foreign language context of today

In order to return to the role of learning platforms or learning programs in the foreign language novelty, one should first point out the intersectionality between teachers and learners in a classical glottodidactic structure (Szerszeń 2014). It is based on the fact that the teacher, on the one hand, interacts intentionally with certain stimuli on the learner in such a way that the latter generates a certain knowledge or competence in the brain. The extent of the knowledge generated or the competence generated or, in other words, the effect of a given stimulus cannot be assessed on the basis of direct observation. Technology in foreign language teaching means generally concrete technological learning and teaching products, which belong to two categories: tools and learning programs or learning platforms.

The term "learning platform", which has actually been used for about a decade, will include, among other things, As a system installed on a server and available on the Internet, which connects a certain computer program or possibly certain computer programs with a database or databases which have been set up for the purpose of realizing didactic learning objectives. In addition, the learning platforms provide organizational, communication and cooperation opportunities to enable learning (Würffel 2010).

In the technical literature one uses, among other things, Such as the Learning Management System (LMS), the content management system (CMS), the Learning Content Management System (LCMS), and the Learning Content Management System (LCMS)), VCS (Virtual Classroom System), as well as some other terms that refer to the processes within and / or with the learning platforms, and are often oriented towards a branding effect, such as interactive learning, virtual classroom, or nowadays "learning in cloud".

The most important tasks of most learning platforms are in the organization of learning processes and presentation of learning contents mostly via web pages, web applications or via its own application (Ulrich 2012). The highly-represented tasks and/or exercises include, among others, Gaps and deformation exercises, drag and drop mapping exercises, multiple choice exercises, and audio-visual exercises like for example interactive video exercises, or finding mistakes on images in the form of hotspot exercises, etc. The question is not only what a learner should ultimately learn when new technology is used in the foreign language course, but also how the learner's performance growth while the new technology is used.

For the most part, these are the usual, easily programmable ready forms or platforms. Those platforms are mostly not being questioned in their relevance to foreign languages. In addition, the learning platforms can make a great contribution to collaborative learning as well as to autonomy-promoting approaches and thus contribute to the social component of learning. Within the second category of e-learning products, the learning platforms, such as Moodle and others, which are also

used in many, non-foreign-speaking learning environments, are to be mentioned as learning programs used in a foreign language context.

Status Quo

Successful knowledge conveying means a guided transfer of understanding and action of information of a specific discipline in a fair form for the recipients in the sense of positive knowledge transfer between teachers to learners. Technologies open up a wide variety of possibilities of information presentation and teaching. Consider the question of how learning with these diverse forms of the information presentation "function" is the first and basic characteristics of the individual representation or representation research.

For this purpose, the term “technology”, which refers rather to technical features is not sufficient for the researchers. The didactical context becomes the combination of different forms of communication. Display techniques in the form of computers. CD and AV technology. In the written or spoken texts, static or animated images and graphics. Movies as well as music in variable Combinations.

This paper summarizes empirical studies between the years 1993 and 2009 which are focused on the research of following Technologies; Digital Dictionary, Digital Tutors, Chat Systems and Mobile Technologies. Studies were selected which represents that the particular technology use was effective. The reviewed technologies will not cover the whole area of available technological advancement to foreign language teaching for sure. Studies are chosen to limit this summary that focused on a single application rather than multiple Technologies combined at once. Over 253 potentially relevant publications were identified, the studies are selected by using the described constraints, and low cited studies were specifically excluded to point out the fully recognized findings.

Table 1. *Selected empirical studies between the years 1993 and 2009.*

Year	Used Technology	Participants	Researcher/s
1993	Dictionary	80	Aust et al.
1993	Dictionary	71	Leffa
1993	Tutor	34	Nagata
1995	Chat	40	Kern
1996	Chat	38	Sullivan and Pratt
1996	Chat	16	Warschauer
1997	Tutor	30	Nagata
1999	Tutor	22	Holland et al.
1999	Tutor	33	Harless et al.
2000	Dictionary	14	Liou
2000	Chat	11	Kitade
2000	Chat	58	Payne and Whitney
2005	Dictionary	39	Loucky
2005	Chat	24	Payne and Ross
2005	Mobile	81	Thornton and Houser
2006	Dictionary	75	Laufer and Levitzky Aviad
2006	Chat	12	Lai and Zhao
2006	Chat	16	Shekary and Tahririan
2007	Dictionary	64	Koyama and Takeuchi
2007	Tutor	266	Dodigovic
2007	Mobile	52	Lan et al.
2008	Chat	16	Chen
2008	Chat	30	Lee
2008	Chat	90	Satar and Ozdener

2008	Chat	36	Kitade
2008	Mobile	15	Chen and Hsu
2008	Mobile	30	Lu
2008	Mobile	120	Sathe and Waltje
2009	Chat	34	Blake

In a professional manner, the shape and structure to explicate the contents of the mediation and represented is a didactically respectively mathetic oriented approach while we use today's technology (Auinger u. Stary, 2005, Eichelberger et al., 2008).

Technology in language learning has been used for ages, and it is a research subject since the existence of the particular technology itself. The state of the literature of today's used technologies such as a computer or the internet reflects a lack of a unified research schedule (Chappelle, 1997; Felix, 2005) and sturdy, validated findings (Felix, 2005; Stockwell, 2007). Common problems are in the research design caused by studies based on experimental technologies used by untrained users. This also indicates the reason for the weak selection of variables to be investigated and the deficiency of relevant data regarding participants and an overall systematic absence in analyzing key factors that may enhance the effectiveness of foreign language learning and teaching (Zhao, 2003; Felix, 2005; Hubbard, 2005; Stockwell, 2007). These circumstances created a challenge for foreign language researchers pursue to evaluate the efficacy of technology use in foreign language learning and teaching. It is not enough to equip schools technically, as is software and didactic concepts, which do not leave the use of technology in the lessons for the purpose but added a real value in technology use.

What distinguishes technology oriented foreign language teaching and why is it given a potential for new didactic concepts? Technology-based teaching materials are mostly multimedial, unlike most traditional teaching materials. The integration of different media e.g. Text, video, graphics, audio into a digital media system enable multimediality. The consideration of technology-based teaching materials from a didactic perspective requires a further differentiation of learning-psychologically relevant categories: the "modality" and "coding" of information. Technology-based teaching materials are multicodal in the presentation option: this is meant by codes and symbol systems for the representation of information. In our culture, these are e.g. the verbal and pictorial symbolic system or the numerical system. Monocodal would thus be only text; multicodal would be a text with images.

It is essential that the advantage of so-called "multimedia applications" From a psychophysical or didactic point of view, is less in the multimodality, but in a certain preparation of the contents, in which several codings are combined. It is, therefore, by no means the advantage of the technology to "inflow" information into as many senses as possible of the learner, since the mere addition of different sensory modalities does not give any preference for learning. It is, in fact, one of the widespread myths of technology euphoria that cannot be scientifically proven.

It is also disputable to assume that the adaptation of technological learning offerings to so-called "learning types" would be supported, according to the surprisingly widespread assumption in practice, would differ habitual and situation-independent in that they would prefer a certain sense-channel like visual, auditory, etc… in the learning. In many areas, this hypothesis is assured, which seems almost strange when one encounters it with learning and cognition-psychological research, which provides little evidence of the existence of such persistent learning types. It, therefore, seems unwise to conceive technological applications in such a way that they address different "learning types". Rather, research shows that an advantage of technology-oriented foreign language materials

can result when differently encoded information is combined in a certain way. Thus, the combination of texts and images can lead to better retention performance. It is true that a picture says more than a thousand words, but also this advantage of pictures in teaching texts only results under certain conditions.

Another characteristic of technology-oriented foreign language materials is their extended possibilities of interactivity. A distinction must be made between the purely technical features of the interactivity, e.g. The random access to information on a digital data carrier, the possibilities for the interactive use of a medium. The concept of interactivity in the technology didactics means much more than clicking buttons and selecting content in menus. Nevertheless, the hope has proved to be unrealistic that computers in the human-machine interaction develop a dialogue capability as we expect it from the teaching process and the communication between teachers and learners. The hope of technology-oriented foreign language materials as an "intelligent tutorial system" seems less likely today than it was a few years ago. However, the flexibility of learning paths and the adaptation of the learning offer to the individual learners are important features.

Summary

In the latest few years, various technologies are more and more integrated than ever in the most areas of education (William, 2013). There are so many pieces of technology, and studies about these technologies, which should be included in the selection. This is a very comprehensive topic, and a broader selection or even an in-depth analysis of the selected studies would easily exceed the scope of this paper. There is no doubt that the technology has a certain influence on the daily life of a foreign language teacher and researchers. One of the significant reason is the ambition to the offered colossal prospects for increasing the effectiveness and efficiency of foreign language teaching and learning.

In spite of a lot of studies and published literature available about the topic o technology use in foreign language learning and teaching, the indication that the specific technology has a measurable impingent for foreign language learning or teaching is limited. One of the strongest evidence is some studies investigating the use systems of chat for learning a foreign language. These studies proved that the used chat technologies, the number of learners' language production and its complexity significantly increased. However, is this based on the technology that is used or the basic mechanism of the chats', which is not changed much, so that the participants overcome the non-experience barrier with their knowledge? The revealed publications show the neutral support for the appeal that technology use changed the process of learning; for instance, it caused in several studies more frequent look-ups of dictionaries or faster word usage tasks completions. Anyhow, further surveying resolute that increased frequencies of the dictionary look-ups and use did not reach a significant distinctness in learning outcomes. The literature also exposed limited acceptance for some other stances by using technology in the classroom than more traditional methods; providing productive feedback to learners; and boost noticing and focus on form. Most of the selected studies proved that foreign language learners like using technology and they choose using technology over known traditional approach and materials. Learners tend to be more committed to the foreign language learning process while they have a positive opinion towards learning via technology. This statement is supported by qualitative self-reported and observational data, which might have an effect and motivation spread across several used Technologies.

Conclusion

Even supposing the use of technology to improve foreign language learning and teaching has to expand expeditiously during the last years, research has mainly focused on the viability for supporting foreign language learning while the technology itself changed and thrived faster than ever.

Comparatively, quite a few studies seem to focus on in or the other way to describing the affordances offered by particular technologies or grading their effects on increased motivation or increased enjoyment of learning activities. Obviously representing students' use of technology and the enjoyment when using technologies are valuable and useful objectives, this section remains unclear. No statements about what extent the activities supported or created by the technology or what motivation potential increased learner's gusto indeed.

One reason might be the options for self-selecting learning activities which led to more engagement with language and to more time on tasks thusly increased proficiency and motivation. However, for most used technologies the actual increases in learning or proficiency have yet to be demonstrated. The domain of technology in a foreign language has not been systematically investigated, and some potential uses of technology for learning or teaching foreign language in a location specific context have not been explored at all. The empirically relayed evidence is required to quantify, characterize, and document the impact of the specific technology in foreign language teaching.

The challenges for studies are very real, the pre-existing administrative requirements or scheduling, and the need to scope changes in learning over extremely small increments of time. Not only the technology is in development also the teaching environments are changing rapidly according to the influenced technological practice in educational systems. Before the researchers prepared their studies setup, the selected technology is already outdated. This may be the reason for repeated research.

It is hard to define the current spot of each specific technology in the education systems or ever harder to predict what the next integration will be. From this perspective institutions of education yet continue to make educational reforms and invest in unpredictable technologies. The technological tools and applications lack, will not make good teaching bad or vice versa. Even if the technology is evidently used successfully to achieve goals in foreign language teaching; the triumph of success will be a pedagogical and not a technological.

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