BEZPIECZEŃSTWO / SECURITY

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SUBTITLED AUDIO-VISUAL CONTENT AS A LEARNING TOOL WITHIN HIGHER MILITARY EDUCATION SYSTEM OF NATO PARTNER COUNTRIES

Introduction

There is no doubt that the rise of Information and Communication Technologies (ICT) has profuse implications on our everyday life. Education is one of the areas that have been given many opportunities thanks to growing access to the digital technology[1]. There are numerous publications on the use of technology in the process of foreign language acquisition with regards to its instructional and non-instructional context. Many researchers are tirelessly investigating novel ways to apply digital technology in the process of developing learner's language skills. Also, rapid development of ICT requires much more effort to be put on education on the emerging technologies and threats that come with them[2].

The topic of this paper is directly linked to the use of multimedia in education – more specifically – subtitled audio-visual content. Throughout this paper, the term "audio-visual content" will simply refer to a combination of sound and vision. What is more, the subject has been chosen due to the author being an instructional designer at a higher military education institution with a solid background in foreign language teaching. What is more, the author frequently attends NATO DEEP ADL workshops and meeting, providing expertise in instructional design for NATO DEEP countries – mainly Azerbaijan, North Macedonia, and Ukraine.

This paper will review the research conducted on the use of subtitled audio-visual content in the area of foreign language acquisition. The main objectives of this study are to determine how to use such content as a learning tool and find

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[1] P. Gawliczek, *Cyfrowi imigranci i tubylcy. Jak pokonać e-wykluczenie i radzić sobie ze zmianami w cyfrowym świecie?* „Zeszyty Naukowe KSW", Włocławek 2017, vol. XLIV, pp. 25–38.

[2] W. Guzewicz, *Information and communication technologies in the security environment – useful tools or necessary evil? Conclusions from the educational practice at Ełk Branch Campus of the University of Warmia and Mazury in Olsztyn*, Proceedings of the scientific conference „Security and Russian Threats", ed. Jan Kochanowski University, Kielce 2019, pp. 134–145.

possible ways to integrate it within distance learning framework. The author will present two ready-to-use lessons with a detailed commentary and provide in-depth information as far as future of this project is concerned.

Pedagogical use of subtitles

The author of this article distinguishes two basic types of subtitles based on Henrik Gottlieb's work[3] and referring to their nature: language and technology. The subtitles that are language-focused are:
• Interlingual subtitles – translation subtitles in the native language.
• Intralingual subtitles (captions) – there is no change of language.
On the other hand, the subtitles that are focused on the side of technological application are the following:
• Open − integral part of the video.
• Closed − optional (can be controlled).
The pedagogical use of subtitles has been broadly commented and researched by many authors. A research paper from 2010 by Birules-Muntane and Soto-Faraco[4] (1−3) have presented that subtitled audio-visual content can dramatically help learners with their vocabulary and phonology skills. The authors also point out that phonology is frequently a big problem for adult learners, while they may have less problems learning other elements of the foreign language (2)[5]. Regardless of the form of subtitles, it has been proven that subtitles also help with plot comprehension and acquiring lexis.

As reported by Paula Winke et al.[6] the research in the area of captioned audio-visual content as a learning focuses on three key aspects and their implications on language competences.

First of all, the researchers investigate whether there are differences between using and not using subtitles while exposing students to audio-visual content. The study that was carried out in 2002 by Bird and Williams[7], examined how subtitles can influence language learning. They found out that it is beneficial for the learner to be exposed both to the text and sound of the word while considering vocabulary acquisition[8].

Secondly, the question that rises frequently is when to use captioned audio-visual content, meaning the level of proficiency of the learner. To date there

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[3] H. Gottlieb, *Subtitling*, in: *Routledge Encyclopedia of Translation Studies*, ed. Mona Baker, Routledge 2001, pp. 244−247.

[4] J. Birulés-Muntané, S. Soto-Faraco, *Watching Subtitled Films Can Help Learning Foreign Languages*, „PLOS ONE" 11/6(2016): e0158409, par. 1−3.

[5] Ibidem, par. 4.

[6] P. Winke, S. Gass, T. Sydorenko, *The Effects of Captioning Videos Used for Foreign Language Listening Activities*, „Language Learning and Technology" 14(2010), pp. 60−64.

[7] S. Bird, J. Williams, *The effect of bimodal input on implicit and explicit memory: An investigation into the benefits of within-language subtitling*, „Applied Psycholinguistics" 23(2002), pp. 509−513.

[8] Ibidem, p. 518.

has been little agreement in this area - literature in this field of study presents mixed results. Some researchers (Winke et al. 66)[9] observe that it might be wise to use subtitles only when required, for example, in instances when the material might be hard to understand for the learners. Contradictory findings have been observed by other researchers, as some of them report that subtitles only served as a distraction for them as found out by Borras and Lafayette[10].

Thirdly, again according to Winke et al.[11] students tend to use different learning strategies when it comes to using subtitled audio-visual content. Basically, what the research suggests is that it is beneficial for a longer time to take notes while viewing; however, no effect on short-term vocabulary acquisition had been reported.

Content and Language Integrated Learning

The lesson scenarios for this research are based on an innovative approach in teaching – Content and Language Integrated Learning (CLIL) that is defined by David Marsh[12] in the following way:

> CLIL refers to situations where subjects, or parts of subjects, are taught through a foreign language with dual-focused aims, namely the learning of content and the simultaneous learning of a foreign language.

The abovementioned definition means that content is both taught and learnt in a foreign language and lesson objectives reflect both content and language skills. The two lesson scenarios will follow the idea behind CLIL, and its main framework coined by Coyle et al. – the 4C[13]:
• Content – acquiring new skills and knowledge.
• Cognition – enhancing critical thinking skills and problem-solving.
• Culture – sensitizing students on cultural differences and intercultural awareness.
• Communication – using a foreign language in the process of learning, polishing language skills.

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[9] P. Winke, S. Gass, T. Sydorenko, *The Effects of Captioning Videos*…, p. 66.

[10] I. Borras, R. Lafayette, *Effects of multimedia courseware subtitling on the speaking performance of college students of French*, „Modern Language Journal" 78/1(1994), pp. 361–365.

[11] P. Winke, S. Gass, T. Sydorenko, *The Effects of Captioning Videos*…, p. 67.

[12] D. Marsh, *LIL/EMILE –The European Dimension: Actions, trends and foresight potential*, Public services Contract EG EAC. European Commission 2002, p. 72.

[13] D. Coyle, P. Hood, D. Marsh, *CLIL. Content and Language Integrated Learning*, Cambridge University Press 2010, pp. 41–42.

Practical notes on how to use subtitled audio-visual content while self-learning and using the content as a tutor

One of the most important things when it comes to practical notes is to acknowledge that the Internet is a rich source of subtitled audio-visual content. However, tutors should beware of the quality of the subtitles, as there is incredibly high number of amateur subtitling taking place. The author suggests using the following sources, keeping in mind that the content needs to be verified by the teacher: TED, media outlets, respectable sources, YouTube.

There is a very high probability that when we use video content from a respectable, official source (like media outlets), it is going to be of good quality. However, tutors are not restricted to use only official sources. For example, as far as quality assurance is concerned at TED, the translation process is taken care of in a comprehensive manner. The subtitles are added by volunteers that need to be proficient at least in two languages (source and target language). Also, they need to follow TED's subtitling guidelines. Experienced volunteer-translators can also review other people translations. The process of subtitling at TED has four distinct stages (TED, website)[14]:

1. Transcription – original transcript is being developed.
2. Translation – from the source language to target language (f.ex. from English to Polish).
3. Review – experienced volunteers review submitted translation.
4. Approval – TED staff members responsible for translation finally approve the translation.

Project of a pilot study

For the purpose of this pilot study, the author used LMS ILIAS as a base for activities. This is an open-source learning management system used around the world by many institutions, specifically within higher defence education. The system offers a wide range of tools that can be applied for language learning purposes: dictionaries, collaborative work tools, quizzes and many more. There are numerous success stories of higher education institutions as to the use of this great open-source tool[15].

This part of the paper will focus on practical implementation of subtitled audio-visual content into a teaching situation within e-learning. The author of this paper will present two lesson scenarios integrated into LMS ILIAS.

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[14] TED: Ideas Worth Spreading. Website: <www.ted.com>, access: 25.03.2019.

[15] P. Gawliczek, *Jak wykorzystać nowoczesne media w rodzinie, szkole i na uczelni? Rekomendacje i doświadczenia Kujawskiej Szkoły Wyższej we Włoclawku z użytkowania platformy e-learningowej LMS ILIAS*, in: *Rodzina wobec globalnej zmiany cywilizacyjno-medialnej*, ed. R. Brzezińska, Włocławek 2017, pp. 77–88.

The lesson scenarios consist of the following segments: description of the teaching situation, specific aims of the lesson, anticipated problems that may occur, procedure, technical implementation, and post-lesson reflections. For the purpose of this research paper, the author has placed all the scenarios in a simulated teaching simulation at the university level. The focus of the activities will be dual – the presented scenarios have aims regarding language and content itself. There are three categories of exercise distinguished for the purpose of this paper:

1. Pre-viewing – used before learners are exposed to the video,
2. Viewing – used at the moment of watching a video and directly corresponding to it,
3. Post-viewing activities – used after the video had been watched.
    Both scenarios are based on the same prerogatives:
- the participants are civilian university students of national security faculty,
- the estimated level of English is B1-B2,
- the lesson scenarios can be used in e-learning and in a blended learning environment, combining regular classes and e-learning activities,
- there are two main objectives of the scenarios regarding language and content,
- there is emphasis on language production and group-learning,
    The anticipated problems:
- technical issues connected to recording students' submissions (audio/video),
- different level of English across the learners.

    The scenarios follow the idea of clear and concise weekly schedule with exercises that are combined into step-by-step approach. The "pre-viewing" activities are supposed to give the learners general idea about the topic. The exercises that are grouped as "viewing" are directly corresponding to subtitled video content and require the learner to watch the video and then check if the learner has understood the content. The last category of activities is "post-viewing" − they emphasize language production suitable to the lesson theme.

Lesson scenario – hybrid threats

    As hybrid threats are becoming gradually more visible in the 21st century warfare, there is a need to provide sufficient education on this matter[16]. There are two main objectives of the lesson: to teach vocabulary revolving hybrid threats, and to teach the essential theory of hybrid threats. The table below shows the properly categorised exercises with a brief commentary.

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[16] P. Gawliczek, *Militarne i niemilitarne działania hybrydowe. Aspekt edukacyjny,* in: *Bezpieczeństwo człowieka a wychowanie*, t. II: *Aspekty poznawcze i edukacyjne*, Siedlce–Drohiczyn 2016, pp. 201–210.

Table 1. Hybrid threats summary

Category	Exercise	Comments
Pre-viewing	Step 1. Hybrid threats report	It is a scientific report that explains the most common terms and defines basic concepts that are connected to the topic of hybrid threats.
	Step 2. Hybrid threats word bank	The students need to add at least two terms from the above text that are linked to the topic of hybrid threats.
Viewing	Step 1. How does NATO counter hybrid threats?	Main object of the lesson. The video is about NATO's policy regarding hybrid threats. It is an official short documentary with optional captions that are of high quality.
	Step 2. How does NATO counter hybrid threats? Test	The students need to answer ten questions regarding the content of the video.
Post-viewing	Step 1. Audio recording	The students need to produce their own commentary about hybrid threats. The topic of the recording: Give an example from real life of hybrid warfare.
	[Optional] Audio recording self-help	This section is devoted to troubleshooting any technical problems or questions that may appear.

Source: own study.

Lesson scenario – presentation skills

There are two main objectives of the lesson: to teach students how to perform a high-quality presentation, and to polish their presentation skills in English. The table below shows the properly categorised exercises with a brief commentary:
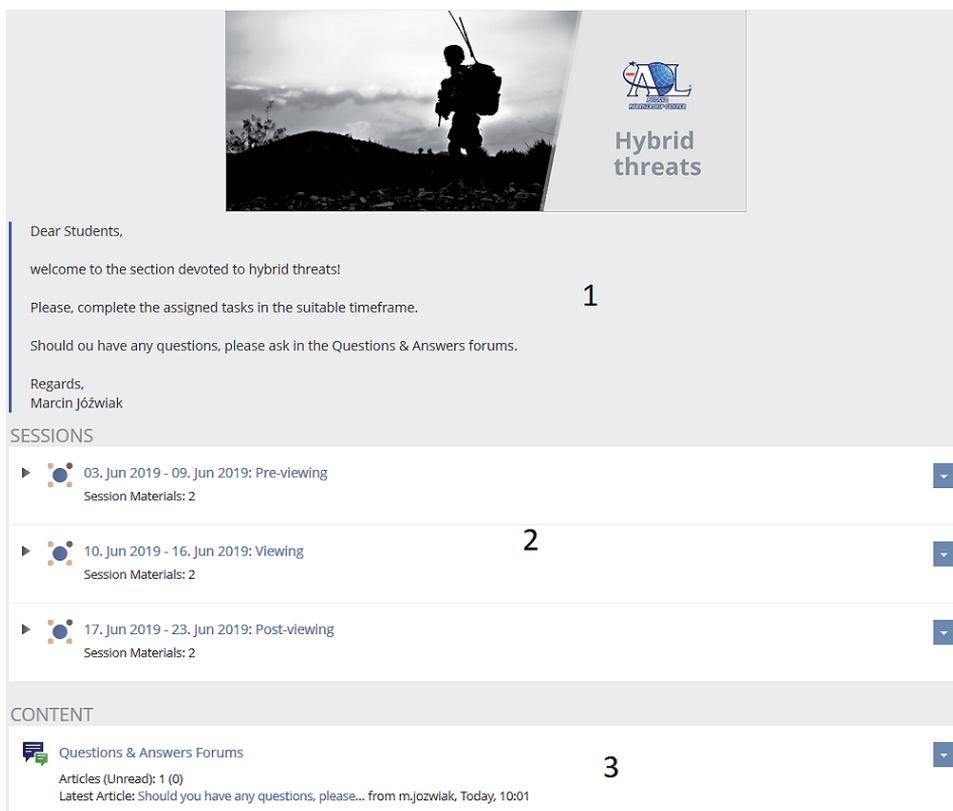
Table 2. Presentation skills summary

Category	Exercise	Comments
Pre-viewing	Step 1. Repository of inspiring speeches	The students need to add two links to speeches that they have personally liked and think that they are engaging and nicely structured.
	Step 2. Tell us about your hobby!	Language production in this area will help students with post-viewing exercise.
Viewing	Step 1. TED's secret to great public speaking	The video content touches the topic of presentation, presenting and the essential skills that the presenters need to have.
	Step 2. What are the qualities of a good presentation?	The students need to write a +/- 500 words essay on the qualities of a good presentation. They are asked to use the video as a reference but are not limited to it.
Post-viewing	Step 1. Submit your own TED-like presentation	The learners need to record their own TED-like presentation that will take around 2 minutes and peer-review 2 other students (simply give a comment).
	[Optional] Video recording self-help	This section is devoted to troubleshooting any technical problems or questions that may appear.

Source: own study.

Lesson implementation within LMS ILIAS

Both lesson scenarios are ready-to-use on the e-learning platform of the War Studies University. Below there is one of the lesson plans featured as an example:

Picture 1. Hybrid threats
Source: own study.

The featured items serve as distinct sections that have their own purpose:
(1) Introductory section – responsible for basic communication (Tutor – Students) and mere introduction for the learners. The tutor can, for example, post here important information regarding the course.
(2) Class section – each of the classes has its own section (session) available for one week at a time and visible here.
(3) General section – the last section is devoted to two-way communication between students and the tutor (and students with other students). Learners can post their questions here at any moment of the course.

Picture 2. Pre-viewing lesson example: presentation skills.
Source: own study.

The activities are presented in a clear manner, as everything is structured with the idea of "steps". Above you can see just an example of one of the weeks. The first step of the week is to share information with other students: each of them needs to upload two links to inspiring speeches from the Internet. The second one is language production – each of the students' needs to create a new thread with description of their hobby, the students may ask each other questions for bonus points.

Future developments and the way ahead

This paper, in its initial form, was presented at the 7th Annual Nordic ADL Conference May 14th–16th 2019 (Gol, Norway). During that time, the author was employed as an instructional designer at the War Studies University (Poland), and thus represented that institution. Since that time, the association of the author has changed due to a recent nomination to the role of the NATO DEEP ADL Portal Instructional Designer. The project will be continued within the NATO DEEP ADL initiatives and e-learning systems and resources provided by the Ełk Branch of the University of Warmia and Mazury in Olsztyn.

Since the presented scenarios are just a concept, the next step for the author would be to demonstrate the validity of this course by a proof of concept pilot group(s) of students. In the upcoming months, the author estimates that it will be possible to discuss the matter with our partners to choose the right higher military university or a civilian university with the

The author presented only two topics, but there is a wide variety of subjects that can be possible implemented within the framework of the course. The topics are segregated accordingly into two distinct groups focusing on different themes, meeting the requirement of being suitable inside the framework of military higher education or security studies. The possible ideas with within certain themes are listed below:

− Military – cybersecurity and cyberwarfare, emerging security threats, modern warfare specificity, NATO mission, current military conflicts.
− Academic – communication, Military English, culture awareness.

After the courses are tested within a pilot project study, they are going to be available for all our partners within NATO DEEP to use, remix and build on the idea.

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SUMMARY

This paper presents recent research focused on the role of subtitled audio-visual material on foreign language acquisition. The author distinguishes various types of subtitled audio-visual content and comments on their usefulness and possible impact on the learning process, presenting other researchers' opinion and his own perspective. Different types of content (videos, games) are categorized and properly commented regarding their influence on different language skills and competences. Also, the author shows ways the learners can experience such content for learning purposes. Possible application of such methods for advanced distributed learning is investigated, with LMS ILIAS used a base for exercises.

KEY WORDS: video-based learning, language learning, LMS ILIAS, higher military education