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## VIDEO BASED TEACHING OF AVIATION ENGLISH

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**Abstract.** *The article deals with teaching Aviation English using video. Compliance with new ICAO language requirements has become part of the professional qualification. The article looks at some benefits and potential challenges associated with using video materials in the classroom during language training of air traffic controllers (ab initio).*

**Keywords:** air traffic controller language training; Aviation English; ICAO language requirements; oral language skills development; video materials.

### 1. Introduction

Video is a flexible teaching medium. The more interested and engaged students are, and the more interactive each learning session is, the more students will enjoy, learn from and retain information from the lesson.

Video provides a means of interactive instruction.

Having the ability to stop, start and rewind is absolutely invaluable.

It provides the option to stop each video and challenge students to predict the outcome of a demonstration, and elaborate on, or debate a point of the subject reference.

This article will focus on some ideas how English language training of future air traffic controllers could be improved and oral language skills enhanced by using video materials in the classroom.

### 2. Review of Research Results

Research of appropriate references has demonstrated that the most effective way to use video is as an enhancement to a lesson, or unit of study.

Video should be used as a facet of instruction along with other resource material available to teachers for teaching a particular topic.

Teachers should prepare for the use of a video in the classroom in the same way they do with other teaching aids or resources.

Specific learning objectives should be determined in advanced, instructional sequences should be developed and reinforcement activities planned.

Using video for the Aviation English purposes should be based on the language requirements for aviation personnel, namely air traffic controllers.

The main teaching and learning focus is on oral language skills including listening comprehension and speaking [1, 8].

Video as a teaching tool can enhance the listening experience for the students who are mostly exposed to the recorded conversations, e.g., “ground-to-air” radiotelephony communication.

Therefore, a whole new dimension to aural practice in the classroom can be proposed by using video.

The setting, action, emotions, gestures, etc, that future air traffic controllers can observe in a video clip, provide an important visual stimulus for language production and practice.

It is obvious that there are certain advantages of using video material for the practice and development of oral communication skills.

Let's consider the following.

It is a well known fact that each user of the language possesses different language abilities.

The person can listen to the radio, speak on the phone, read newspapers or write letters.

However, to perform certain actions he/she should be able to acquire some language skills.

J. Harmer identifies four major skills which he further divides into two groups: receptive skills (listening and reading) and productive skills (speaking and writing) [6].

Even though they belong to different groups of language skills, listening and speaking are closely connected, and they both are responsible for efficient oral communication.

It is impossible to develop speaking skills unless one develops listening skills.

In order to communicate successfully with other participants of communication process, the students must understand what is being said to them.

The teacher's job is to prepare the students for listening to and understanding spoken English because this ability is essential for radiotelephony communication according to new language requirements.

It should also be taken into account that levels of the comprehension ability are described in the ICAO language proficiency rating scale under an individual descriptor.

It means that the listening skill is assessed as a target skill of an operational level of the English language performance [8].

Therefore, the students should be exposed as often as possible to English spoken at natural speed.

Listening to spoken English is an important way of acquiring the language for the students “pick up” structures and vocabulary just as they would “pick up” their own language.

It should be noted that when the students live in English speaking country they are constantly exposed to English sounds which makes it easier for them to master the oral language skills.

Thus, the teacher of English who is responsible for teaching Aviation English to students in the classroom environment should create opportunities for the students to listen to English spoken at a natural speed.

It is claimed that students need to hear the language used so that they can both imitate the pronunciation and also subconsciously acquire some of its sounds and patterns ... students should be given as much exposure to people speaking the language correctly as possible [3].

One more researcher, A. Doff, singles out two ways in which people listen in real life [5].

One of them is “casual listening”.

This takes place when we listen with no particular purpose in mind, often without much concentration, e.g. listening to the radio while chatting to a friend.

We usually listen very closely only to information that particularly interests us.

After “casual listening” we usually do not remember much of what we heard.

The other type of listening Doff mentions is called “focused listening” [5].

This takes place when we listen for a particular purpose.

In this kind of listening we listen more closely but still we do not listen to everything we hear with equal concentration.

We usually know beforehand what we are listening for and we concentrate on the most important and essential points of information [5].

D. Nunan also reports two types of listening: reciprocal where there is the opportunity for the listener to interact with the speaker, and to negotiate

the content of the interaction and nonreciprocal, which involves listening to the radio or a formal lecture where the transfer of information is in one direction only – from the speaker to the listener [7].

It is obvious that in order to be able to face the complexity of listening successfully a future air traffic controller should learn the skill of identifying spoken signals from other surrounding sounds and segmenting the stream of speech into words.

In addition to the mentioned skills the listener should also possess a wide range of non-linguistic knowledge and skills, like the social and cultural knowledge specific for the flight crew.

Penny Ur gives main factors which might influence listening skill in real life [10].

Some of them would be mentioned here.

The first one is “purpose and expectation” – she claims that we listen for certain key phrases or words but in order to do so we must have a purpose in listening to something, otherwise we shall not listen at all, let alone understand.

Heard discourse which corresponds closely to what the listener expects and needs to hear is far more likely to be accurately perceived and understood than that which is unexpected, irrelevant or unhelpful [10].

In case of teaching aviation English this fact is of key importance regarding specificity of radiotelephony communication which is regulated by rules [1].

The other very important factor is “the visibility of the speaker”- it is usual that in real-life listening situation, towards which the teacher wishes to train his/her students, the speaker is present.

For teaching general English it is considered that one of the drawbacks of using audio recordings is depriving the students of the ability to see the speaker, his facial expression and movements which may provide the students with some aids to comprehension [10].

However, in case with teaching Aviation English use of the recordings provides the learners with valuable expose to a far greater range of different voices and accents, moods, registers and background effects which should be precisely comprehended by participants of radiotelephony communication [8].

It is interesting that Penny Ur mentions so called ‘environmental clues’ – where “Apart from the speaker himself – his facial expression, posture, eye direction, proximity, gesture, tone of voice – a real life listening situation is normally rich in environmental clues as to the content and implications of what is said” [10].

Anderson and Lynch notes that “we listen for a purpose [...] since we have non-linguistic purposes in listening, it follows that listening effectively also involves non-linguistic skills” [3].

They also claim that listening is an active process and should never be regarded as passive.

According to Anderson and Lynch the listener has to use various type of knowledge and apply what he/she knows to what he/she hears.

Only then can the listener try to find out what the speaker wanted to say [3].

What are the implications of all these for listening comprehension and practicing language skills in the Aviation English classroom?

The teacher should try to incorporate all the characteristics of real-life listening into the classroom practice.

However, in addition to audio recordings video materials seem to be the perfect choice for the purpose.

Films or video programs can provide students with enjoyable listening.

As Penny Ur states, they are an excellent medium for giving students some entertaining and useful listening practice [10].

The major advantage of video tapes is that students, usually, see the speakers and can have the visual context for what is being said.

Thus, the factors which influence listening skills in real life, which were already mentioned, can be met in the English classroom: the visibility of the speaker, the presence of environmental clues and, thanks to the use of certain techniques, purpose and expectation.

By creating professionally oriented video materials, prepared specially for the use in Aviation English classroom, it makes possible to present aviation profession environments and contexts.

On the other hand video is effective to make full use of “environmental clues” and “the visibility of the speaker” introducing the real life elements into the classroom.

This could be considered a great advantage for learning purposes, especially for the visual type students, for they may feel more secure while listening to foreign sounds which are accompanied by visual aids [9].

Appearance of people on video can tell the learners a lot about the people engaged in the conversation.

Even if they come from a different country, there are certain clothes or personal belongings which became symbolic of a group or a nation, e.g. a kilt, and

may be easily recognized by the language learners thus, adding information about the interlocutors.

The learners of Aviation English can be taught different accents associated with different appearances.

Also the setting may provide many clues as to the content of the conversation.

The learners may have certain expectations of how people should behave in certain physical surroundings [10].

Allan calls the last two visual elements “extralinguistic elements” [2].

The student’s knowledge of the world and the aid of extralinguistic context may certainly add to the development of listening comprehension in the Aviation English classroom.

Yet, thanks to video materials, which present the English language learners with the target language culture, the students may learn not only about a linguistic system but may become familiar with the foreign cultural system.

Gaps in our knowledge of the L2 culture, of the associations and references available to native users, can present obstacles to comprehension [2].

By giving the visual support, the video may help to avoid the obstacles.

It should be mentioned that the real life type of listening experience can be provided mainly by the authentic video materials which were designed for native speakers of English.

Such materials can be presented to the advanced level students to build up their listening and comprehension skills.

With the use of such a video material the teacher may practice “focused listening”, mentioned by Doff, that is, listening for a particular purpose [5].

However, the factor of “purpose and expectation”, mentioned by Ur, has to be fulfilled for the listening to be successful.

The students should be prepared for the viewing, they should be encouraged to make predictions about what they are going to hear and see.

Such a preparation will certainly help in their comprehension of the commentary to the video [10].

In the visual aided comprehension the target language is presented in a well-contextualized setting where the learner sees and hears the target language.

Combining of the two elements to make the meaning clear for the students of a foreign language is a great advantage of videos.

The communicative situations in aviation context contain enough visual clues to leave the learner to

focus on listening. Printed material may give the learners little information about how the language is spoken. Therefore video material combines visual and audio stimuli, provides context for learning.

### 3. Purpose of the work

To become good listeners, future air traffic controllers have to be able to distinguish not only the linguistic clues like sounds or words, but also all paralinguistic cues like intonation and stress, as well as non-linguistic cues like gestures and background information. As Rost states, it is vitally important for the listener to become engaged in the process of listening and develop a desire to understand [9].

The video can help the learners to become independent listeners by giving them an opportunity of the contact with 'real life' listening experience in the classroom conditions.

The listening skills can be practiced and developed by the use of various techniques, like: freeze frame, sound only, jigsaw viewing, repeated viewing or silent viewing followed by the activities which would confirm students' expectations [6].

In our teaching practice we use specially designed video clips demonstrating use of English in aviation context. To make video materials a teaching aid you should follow some rules to use video in the classroom:

*Keep the Video Short:* chunk up and divide up videos with focused activities.

*Always preview the video:* be sure to watch the whole video yourself before using it in class.

You never know what content might be inappropriate or hurtful to your students.

*Make it available outside the classroom:* provide students with a webpage or link so they can watch the video and practice outside of classroom time.

Many students learn better independently and this is a great opportunity to foster student independence.

*Use video your students want:* this may seem obvious but use your best judgement and find a balance between videos that highly motivate and those that are strongly educational.

Below we give an example of the classroom activities based on video materials designed to the film "Flying on Empty".

The activities involve pre-viewing, while-viewing and post-viewing tasks. Here is an example of practical ways to use video for the students.

**PRE-VIEWING.** The activities are done before watching the video. They help prompt student schema and background knowledge. It is often a way

for the teacher to assess student knowledge and interest.

Focus on Information:

1. Suggest the ideas of possible problems which might impair performance of Airbus.

2. Work in pairs and discuss the following issues. Then voice your opinion to the group.

Is it possible to fly with empty fuel tanks?

What reasons can provoke such a catastrophic situation?

How can computer failure impair a/c performance?

What can cause fuel leak?

What is the difference between fuel starvation and fuel exhaustion?

How would you define emotional state of the passengers when a/c is in trouble?

3. Using the words below write down 2-3 versions of the facts which are in the video.

Predict possible development of the events.

MAY DAY; forced landing; glide; investigation
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Focus on Vocabulary:

4. Match the column A with the column B. Choose three of them and make up your own sentences with them.

A	B
starvation	<i>finally, in conclusion</i>
ditch	<i>alteration, arrangement</i>
smooth	<i>eating, utilization</i>
adjustment	<i>during the middle of the night</i>
congestion	<i>advanced, newest</i>
consumption	<i>easy, effortless</i>
ultimately	<i>need, want</i>
dead of the night	<i>land on water</i>
state-of-the-art	<i>jam, overcrowding</i>

5. Match the phrasal verbs 1-5 to their equivalents a-e.

Choose at least two verbs and write down your own sentences to illustrate their meanings.

1. Work out	a. be left without
2. Keep an eye on	b. spill
3. Run out of	c. sit down
4. Settle down	d. calculate
5. Pour out	e. watch

**WHILE-VIEWING.** Students have a task while watching the video.

They perform tasks and activities during the video, either with or without the teacher pausing the video.

6. Mark the statements as true (T), false (F) or not mentioned (N/M). Put down an appropriate letter under the black dot on the left.

If the statement is false, write its right version on the space below the statement.

A fully loaded Airbus A330 with 306 people onboard ran out of fuel midway over the Atlantic in September 2001.

\_\_\_\_\_

A twin-engine Airbus A330, was being flown by a young co-pilot Dirk De Jager and an experienced captain Robert Piche.

\_\_\_\_\_

Both, Captain Piche and co-pilot Dirk De Jager had an experience to fly in very severe conditions.

\_\_\_\_\_

Despite the computerized systems some procedures need to be done by hand.

\_\_\_\_\_

The pilots strongly believed there were computer errors.

\_\_\_\_\_

When pilots asked Air Transat Maintenance Group in Montreal for help, the ground crew had no immediate solution.

\_\_\_\_\_

The pilots received an immediate indication that it could be a fuel leak.

\_\_\_\_\_

Captain Piche was forced to divert the flight and asked for the nearest airfield.

\_\_\_\_\_

The reason of the accident was a computer distress.

\_\_\_\_\_

There were some injured passengers.

\_\_\_\_\_

**POST-VIEWING.** After watching the video, the students practice the language forms and vocabulary encountered in the video. Students might discuss, retell, roleplay or complete exercises during this stage.

Focus on Vocabulary:

7. In the sentences one word is missing.

Fill in the spaces with the words below.

starvation	consumption
ditch	ultimately
smooth	dead of the night
adjustment	state-of-the-art
congestion	

How could a \_\_\_\_\_ computerized airliner suffer such a catastrophic failure?

We've lost both engines due to fuel \_\_\_\_\_, we are gliding now.

To avoid \_\_\_\_\_ ATC directs the flight 60 miles south of its original route.

Everything runs smoothly on the flight deck apart from a small \_\_\_\_\_ to the route.

We have to \_\_\_\_\_ in the water.

By comparing the amount of fuel in the tanks with the amount the flight started with, the pilots can keep an eye on the fuel \_\_\_\_\_.

In the \_\_\_\_\_ even with a torch the fuel leaking from the engine is impossible to see.

This night the computers assist the \_\_\_\_\_ take-off of Flight 236.

8. Replace the underlined words with the actual words that are used in the film.

On the night of the 24th of August 2001, a fully loaded Airbus A330 with 306 people onboard *ran out off* fuel midway over the Atlantic.

Passengers *settled off* for the long crossing.

By comparing the amount of fuel in the tanks with the amount the flight started with, the pilots can *keep an eye of* the fuel consumption.

In daylight the fuel *pouring from* of the back of the wing would have been clearly visible

The pilots must *work it by* themselves.

Focus on Information:

9. Read the passage from the radiotelephony script and identify who is speaking: ATC, Co-pilot or Captain.

Put an appropriate number in the left hand column:

1 – ATC; 2 – Co-pilot; 3 – Captain.

1	236 heavy, follow A320 Air Canada. Turn left on Romeo and hold short on 24R
	Roger, follow A320 Air Canada, left turn Romeo and hold short of 24R
	Transat 236 Heavy, cleared for takeoff
	240 at 8, cleared for takeoff 24R, Transat 236 Heavy
	OK
	We are getting to our next checkpoint
	Two tones on the right. 11 point: two tones on the left
	Fuel check complete, levels normal for the distance flown
	All right
	Look, I'm getting a warning signal. Oil temp low and oil pressure higher on engine #2
	Well, pressure is within normal limits on engine #1, on #2 is slightly high
	I can't see anything here. I'll look in the FCOM
	Call the company!
	Transat 236 to Mirabel Operations
	Hi, we have a little problem. We are getting a warning: oil temp low and an oil pressure high for engine #2. There is nothing in the manual or in the FCOM. Can you help us?

10. Act the conversation out with the partner.

11. Role-play: Press-conference of Captain Piche for the journalists.

Student A: you are a journalist.

Think over 2-3 questions to the Captain and ask them.

Student B: you are Captain Piche.

Respond to the journalist's questions.

#### 4. Conclusions

Using video materials in the classroom for teaching purposes can be very much effective if designed and used correctly.

Among the most popular methods to design the video materials are as follows:

*Split viewing* – Some students see and hear a sequence; others only hear it.

*Vision on/ Sound off* – Students view a scene with the sound turned off.

They then predict the content of the scene, write their own script and perform it.

*Observe and write* – Students view a scene (this always works better if there is a lot happening) then write a newspaper article on what they have witnessed.

Pre-viewing and while-viewing tasks allow them to work on new vocabulary, while the post-viewing task gives them plenty of practice in communication.

*Watch and observe* – You can teach and test your students' vocabulary by asking a series of true/ false questions and asking them to put a series of events in order.

*Video as a listening tool* – Pronunciation is trained through concentrating on specific dialogues to enable the students to learn. It is necessary to challenge them to listen when dealing with features of pronunciation.

Thus, video materials are good source of authentic listening material for the practice of pronunciation.

English is a stressed-timed language, meaning that certain syllables in a sentence have prominence.

Prominence, which is the speaker's choice, is used to convey meaning.

Video as a listening tool motivates the students to enjoy and understand a real movie clip.

The use of video is an advantage to practice grammar for more complex communication.

It involves working with a conversation as a jumbled text first then using the video to check.

Conversations normally have a logical order and videos are a great source.

There is a role-play which encourages students to practise conversational Aviation English.

For teaching Aviation English it is also important that video can provide, for instance, authentic speech in the diversity of American accents and those other English-speaking cultures are extremely rich.

The video material is authentic, the language is real, but this reality has finally become manageable, i.e., useable for students working alone, and a godsend for teachers.

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**О.П. Петрачук<sup>1</sup>, О.М. Скипальська<sup>2</sup>. Навчання авіаційної англійської мови з використанням відеоматеріалів**

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Присвячено проблемі навчання авіаційної англійської мови на базі відеоматеріалів. Показано, що використання відеоматеріалів сприяє забезпеченню узгодженості з новими мовними вимогами ІКАО як частини покращеної професійної кваліфікації. Розглянуто переваги та труднощі, пов'язані з використанням відеоматеріалів в аудиторії під час мовної підготовки майбутніх авіадиспетчерів. Наведено зразок методичної розробки відеоматеріалів в авіаційному контексті.

**Ключові слова:** авіаційна англійська мова; відеоматеріали; мовна підготовка авіадиспетчерів; мовні вимоги ІКАО; розвиток усномовленневих умінь.

**Е.П. Петрачук<sup>1</sup>, Е.Н. Скипальская<sup>2</sup>. Обучение авиационному английскому языку с использованием видеоматериалов**

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Рассмотрена проблема обучения авиационному английскому языку на базе видеоматериалов. Показано, что использование видеоматериалов способствует обеспечению согласованности с новыми языковыми требованиями ИКАО как части улучшенной профессиональной квалификации. Приведены преимущества и трудности, связанные с использованием видеоматериалов в аудитории во время языковой подготовки будущих авиадиспетчеров. Представлен образец методической разработки видеоматериалов в авиационном контексте.

**Ключевые слова:** авиационный английский; видеоматериалы; подготовка авиадиспетчеров; развитие устноречевых умений; языковые требования ИКАО.

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