THE USE OF MANY LISTENING MEDIA TYPES IN ONE MULTIMEDIA LISTENING APPLICATION

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Abstract

The positive effects of using different listening texts (i.e. audio, video) in listening enhancement as a part of FLL are already well known. As multimedia enables us to combine and present these media types, - which are the main listening elements-, more effectively on the same computer platform, they can be presented to language-learners in one multimedia listening application (MLA) in different forms as different listening media types (i.e. audio-only, audio + visuals, audio + animation, video-only, video + visuals). This study investigated forty five autonomous intermediate and upper intermediate NNSs learners' (AILLs) perceptions of the use and priority of different listening media-types in one MLA that aimed to enhance the listening skills of the participants. The results revealed that the learners are in favour of the presence of different listening media types in one MLA. They believe that the presence of different listening media types in one MLA improves their listening skills and helps prepare for the real-world. Similarly, learners prefer some listening media types more than others in one MLA. In the same way, not only do learners think that some listening media types improve their listening more than others, but learners also believe that they prepare better for the real-world.

Keywords: Listening, media types, multimedia, presentation of information, listening texts, foreign language learning

1. Introduction

When the available CD-ROMs for intermediate learners on the market are examined carefully, it will be seen that while some of them consist of *video-only*, e.g. English for Business- Introduction to a company and the other products of the same series, the others feature only *audio + visuals*, e.g. Getting the Message or *audio + animations*, e.g. Let's Go, Firsthand Access, Dynamic English. Is this really what autonomous intermediate learners want to see in an MLA? Is it what we are pedagogically supposed to provide in one MLA for self-study? None has investigated the presence of different media types in one MLA. We need to find out what learners want to see in one MLA, which is also a concern in the field of CALL (Al-Seghayer 2001: 203, Brett 1999: 344).

2. The use of many media in one MLA

As a whole, aural-texts (i.e. audio, video), which are the main listening elements, can be presented in different forms as different listening media types (i.e. *audio-only, audio + visuals, audio + animation, video-only, video + talking heads (THs) -visuals*) in an MLA. Their use, priority and design, like many other elements, play a significant role in the effectiveness of an MLA. To this end, the following can be said: In terms of priority, we can say that at the moment we do not have any concrete evidence that favours the priority of any media types to the others in general. However, certain media types are preferred over others in certain contexts. For example, when the target learners are children, it is better to use *audio-only* accompanied by a majority of *animations* as well as video featuring animations. This is because children overwhelmingly favour them, although not all combinations always help them comprehend and retain information (Acha 2009:23-31).

Similarly, in terms of richness, video can be given priority, as it features visuals, which is its strength in telling a story (Hart: 1992: 5) and exposing the 'real world'. (2) In other words, they feature the target speakers behaving authentically (although not always the case). Thus, the way they dress, act, smile, laugh, reject, eat and greet; facial expressions, body language and the like tend to be authentic. Not only do these enable the learners to be aware of the 'target-world', but they also help them to better understand the target culture, language, life style, cultural differences and the like (Tschirner 2001: 310). As a result, learners will acquire many things more quickly. Regarding its role in MC, Peter (1994: 202) also says that 'video is a rich medium that can be included in a program…'

In terms of improving the target learners' acoustic-channel, which is the most privileged in terms of getting used to spoken-language, *audio-only* can be more beneficial. Since they do not feature any visuals, the learners have to rely completely and heavily on what they hear. This naturally and ultimately improves their acoustic channel.

Moreover, some students are highly visually oriented and some are highly auditory oriented (Reid 1987: 92, 96 - 97; Dunn 1983: 496 - 506; Dunn & Dunn 1979: 238: 44). In terms of learning style preferences, we need to provide both *audio-only* and *audio-visuals* (i.e. *audio + visuals*, *audio + animation*, *video-only*, *video-THs + visuals*) because listening relies on the senses of sight and hearing.

Providing different (listening) media types is particularly easy in a multimedia environment, as it enables more effective presentation of them in different ways (Tschirner 2001: 312-3). For example, it can slow down communicative behaviour and is able to highlight and focus on various features (Tschirner 2001: 312 - 3, Zhao 1997: 57-8, 60).

As each listening media type facilitates the role of learning of specified groups in its own way, and multimedia enables more effective combination and delivery of media types, a power which might affect the priority of listening media types in an MLA, then what should our approach be if we are to develop an effective MLA?

First, it might be said that all forms of listening media types (i.e. *audio-only, audio + visuals, audio + animation, video-only, video-THs + visuals*) should be provided in one MLA. The assumptions would be that different forms of media types meet the needs of (1) learners with different learning style preferences or different (dominant) senses of learning, (2) different learners at different levels and (3) age-groups and (4) prepare them all better for the real-word. For example, not only does *audio-only* enable learners to focus on what they hear (i.e. making use of hearing sense fully), but it also prepares for some real-life situations in which there are no visuals such as speaking on telephone and listening to radio-programmes. Similarly, *audio-visuals* enable learners not only to make use of available visuals, but also to comprehend and acquire listening texts better, as visuals can help in many different ways (Herron et al. 2002: 37, Ginther 2002: 133 - 67; Rubin 1994).

Secondly, since the participants are adult intermediate (and upper intermediate), priority should be given mostly to *audio-visuals* because of the positive aspects of visuals and the level of the target learners.

Thirdly, *audio-only* should be given less priority due to the lack of visuals and the level of the target learners. If the learners were advanced and proficient, then *audio-visuals* would be given less and *audio-only* more priority, as they need less visual support due to having ample linguistic knowledge. However, is this really what autonomous intermediate learners want to see in an MLA? Is it what we are pedagogically supposed to provide in one MLA?

In short, we need to find out what AILLs want to see in one MLA, which is also a concern in the field of CALL (Al-Seghayer 2001: 203, Brett 1999: 344).

Therefore, in order to determine the priority of the listening media types in one MLA, the following need to be investigated:

1) Do AILLs want to see all listening media types (i.e. *audio-only*, *audio + visuals*, *audio + animation*, *video-only*, *video-THs + visuals*) in one MLA in terms of (1) preference, (2) improving their listening, and (3) preparing them better for the real-world?
   a) Is the presence of all listening media types in one MLA effective in improving listening development?
   b) Does the presence of all listening media types in one MLA motivate in listening development?
   c) Does the presence of all listening media types in one MLA help improve listening development?
2) Which media types do AILLs want to see mostly in one MLA in terms of (1) preference, (2) improving listening and (3) preparing them better for the real-world?

3. The study

3.1. The aim of the study

The study gathered some empirical data to tease out what learners thought of the presence of different media types in one MLA which aimed to enhance their listening skills as part of FLL (during self-study). The study did not aim to measure empirically whether an improvement in listening development had resulted from the use of the different media types in one MLA. The purpose was only to gather information about the learners' perceptions of the use of the different listening media types in one MLA for self-study. Not only did it enable the researcher to know what the learners think of the use of the different listening media types in one MLA, but it also provided useful insights for using them in one MLA in particular for self-study.

3.2. The participants

The participants were 45 NNS students (56.5% male, 43.5% female). They were at intermediate and upper intermediate level (100%) in listening and attending an intermediate course of General English. They had been tested, grouped and placed by the ELP units of the institutions. To some extent, they were a ready group (i.e. clustered sampling) for the study. In terms of background, they were heterogeneous, as they were of 16 different nationalities: Libyan, Saudi, Syrian, Japanese, Taiwanese, Chinese, Spanish, Colombian, Italian, Kurdish, Mongolian, Vietnamese, Estonian, Portuguese, Bulgarian and Israeli (see *Appendix* 1).

3.3. The software

The software was an IMM application, which facilitates the development and practice of learners' listening-skills as well their listening development as a part of FLL. The programme contained five chapters and each chapter was composed of at least a few subsections. Each subsection (lesson) featured at least one video or audio clip, the length of which varied from 00.21 seconds to 2:59 minutes, and was made up of three gradual stages: the preparation, the while-listening and the post-listening stages. In total, it featured around 20 minutes of *video* and 15 minutes of *audio*, which were authentic and presented in different forms.

Audio-only: One of the media types that was used in the MLA was in the form of *audio-only* (Figure 1). It featured in one chapter and consisted of six different clips, the length of which varied from 00:14 to 00:58 seconds. In total, it was more than 3 minutes.

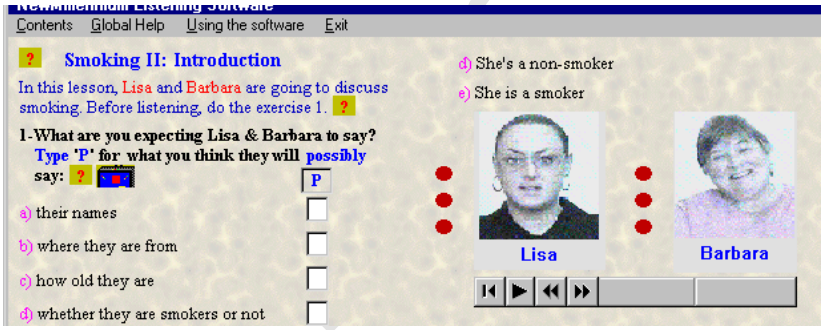

Figure 1: A sample of *audio-only* as a media type

Audio + visuals: Another media type that was used in the MLA was in the form of *audio + visuals*. It consisted of *audio-only* clips, but it was presented with supplementary contextual visuals at the post-listening stage (Figure 2).

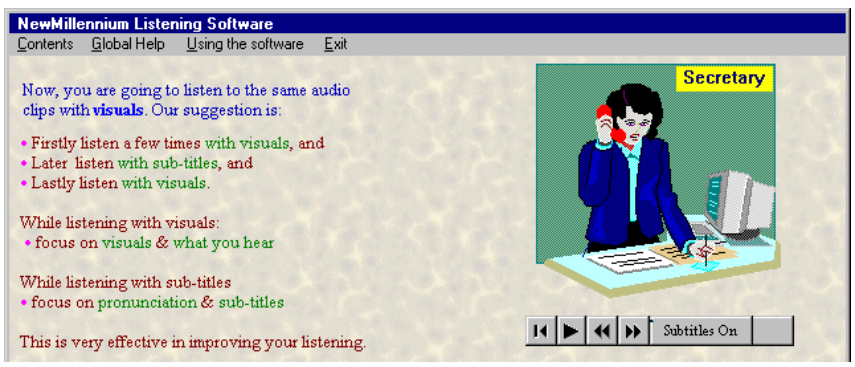

Figure 2: A sample of *audio-visuals* as a media type

Audio + animation: Another media type that was used in the MLA was in the form of *audio + animation* (Figure 3). The animations were supplementary contextual. It featured in one chapter and consisted of 10 different clips and it was more than 3 minutes in total.

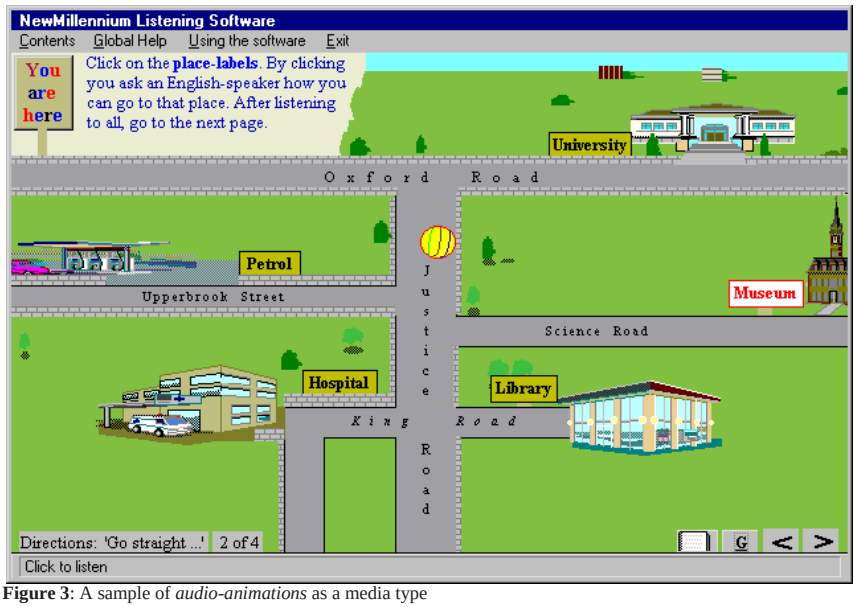

Figure 3: A sample of *audio-animations* as a media type

Video-only: Another media type that was used in the MLA was in the form of video-only (Figure 4). It featured in one chapter and consisted of 10 different clips, the length of which varied from 00:18 to 00:93 seconds. It was 8 minutes in total.

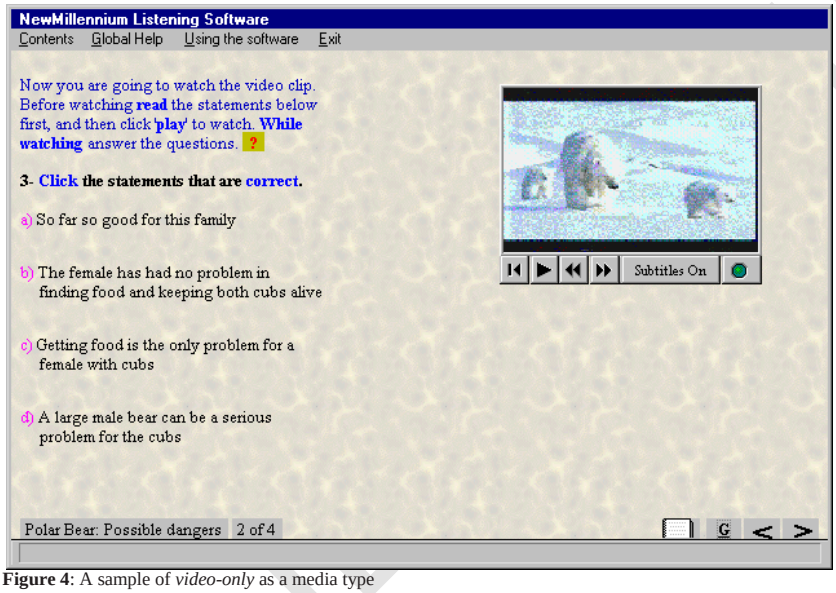

Figure 4: A sample of *video-only* as a media type

Video- (THs) + visuals: The other media type that was used in the MLA was in the form of *video (Talking Heads - THs) + visuals*. The visuals were supplementary contextual (Figure 5). *Video (THs) + visuals* featured in two chapters and consisted of 10 different clips, the length of which varied from 00:21 to 02:59 seconds. In total, it was more than 12 minutes.

Figure 5: A sample of *video (THs)* + visuals as a media type

Similarly, the software featured a wide variety of tasks to help learners to practise and develop their acoustic and visual channels, as well as receptive and productive skills. Through the material, learners were instructed (1) at what stage what kind of strategies they needed to follow and what they needed to do, (2) how they could improve and develop their listening and listening skills, and (3) why they needed to study in the ways instructed. While improving their listening skills and development, the software also aimed to help learners to become familiar with the target culture, different accents, authentic language and its features such as intonation and stress, fillers, false starts, grammatical mistakes and so on. It was also expected to improve their vocabulary and pronunciation, which are necessary and essential for listening development and improvement.

3.4. The procedure

The learners accessed the software in separate classes, with a maximum of 12 in each class. There were 14 Pentium PCs with appropriate headphones. The learners were introduced to the software in the first 10 / 15 minutes of the first session. They were shown its major features using a computer projector, including how to run and control it, and how to make use of it fully. The subjects were then requested to complete the learners' profiles questionnaire (Appendix 1), the main source of which came from Brett's data collecting procedures for the same purposes (1999: 465 - 9, 474). Afterwards, they were then free to use it as they wished for *at least* two teaching sessions. Each session was between two and three hours. Most of the students attended all sessions fully. Those who could not attend the sessions used the software at the time that was convenient for them. The researcher was on-hand to deal with and overcome any potential technical problems or otherwise.

3.5. Methodology

Observations (Appendix 2), questionnaires (Appendix 3), interviews, and log-files were used to gather data. The questionnaires were the key data collecting means. They were structured questionnaires and featured multiple measures of similar attitudes to safeguard against inaccurate answers. They were conducted after the learners had finished working with the software. Afterwards, up-to- 9 (out of 45) learners were interviewed, which was sometimes shortly after or within a one or two week period of time. The selection was based on the principle of 'first-accessed, first-interviewed'. Although they were used to crosscheck the main data (as a support data), they also revealed some interesting issues. The observation type preferred was checklists, as they enabled the researcher to focus on what had already been determined. They were conducted while the learners were using the software. The log-data were used to track and register how much time each subject spent with the software at each session.

The results of the questionnaires were obtained through descriptive statistics (i.e. SPSS - one-way frequency method / test) and measures of central tendency of SPSS. The qualitative data (i.e. interviews) were categorised according to some categories that were derived from the data itself and were then applied.

The correlation between the variables of attitudes, and the type of learners and attitudes was analysed by using SPSS. The Spearman test in Bivariate was used, as the variables were ordinal (SPSS 1996: 203, 165, Norusis 1998: 365-6), and the results were further cross-tabulated. When at least one of the variables was not ordinal, their correlation was computed by using Chi-square in Crosstabs (SPSS 1996: 164, Norusis 1998: 352). When the expected value in one or more cells was low (cell count was below 5), then Fisher's exact test was used instead of Chisquare (SPSS 1996: 164, Norusis 1998: 315).

4. Results

As the variables were nominal (Appendix 3), the results of the questions 1, 2, 3, 14, 15 and 16 were presented in both descriptive and inferential analysis such as mean, standard deviation, variance, and a one-way-frequency, The results of the questions 4, 5 and 6 were presented as measures of central tendency of SPSS, as the variables were ordered categorical. In some cases of the measures of central tendency, due to the way the data (items 4, 5 and 6) was coded (i.e. 1= most preferred, 5= least preferred) the lower the value (i.e. mean, sum) the more preferred it is. The higher the value is the less preferred it is. In other words, the lowest value is the most preferred; the highest value is the least preferred. The results of the item 13 were obtained with the aid of a one-way frequency (descriptive statistics of SPSS). The observation items 1, 2, 3, 4, 5, 6, 7 and 8 (Appendix 2) were used to check if the participants used the media types or not. Interviews were also used to elicit the learners' perceptions of the presence and priority of different media types in one MLA.

4.1. The learners used the listening media types

Our observations (Table 1), log-data and interviews revealed that the learners used all media types, as shown below.

The number of the observed learners	*Video-only*	*Video- (THs) + visuals*	*Audio + animation*	*Audio-only*	*Audio-only +visuals*
27	100%	100%	100%	100%	100%

Table 1: The learners' use of the media types according to our observations

> 'You … listened audio clips with 'supplementary visuals'. You watched 'video version' of 'audio clips'. You listened to only 'audio clips'. You accessed 'Animation + audio' part. You listened to 'how to go to University' of 'Animation + audio' part. You listened to 'Where the petrol station is' of 'Animation + audio' part.' (Log data ID Code: 2)

> 'I think very good the variety of, what you say [media types] media types. I can keep motivation." (Subject 9/Interview)

> 'I think the presence of different media types, it is very useful to understand everything in the software. Of course, when we watch video, and video + visuals, and audio, audio + visuals, it is very very helpful for the person who is learning the English language to understand everything what it means in the programme.' (Subject 1 / Interview)

The data show that the learners listened to all listening media types in the software.

4.2. Learners wanted to see different listening media types in one MLA

More than half of the learners wanted to see *all* listening media types (Table 2 and 3). 93.3% seemed to want to see *video -THs+ visuals* and *audio + animation*, 84.4% want to see *audio + visuals*, 77.8% want to see *video-only* and 57. 8% want to see *audio-only* in one MLA.

Which media types do you want to see in listening software?

		Audio	Audio + Visuals	Audio + Animation	Video	Video + Visuals
N	Valid	45	45	45	45	45
	Missing	0	0	0	0	0
Mean		.58	.84	.93	.78	.93
Std. Deviation		.499	.367	.252	.420	.252
Variance		.249	.134	.064	.177	.064

Table 2: Distribution of mean of the learners' attitudes to the presence of different media types in one MLA

Item 1	Which media types do you want to see in MLS	Number	Don't Want	Want
1a	*Audio-only*	45	42.2	57.8
1b	*Audio-only + visuals*	45	15.6	84.4
1c	*Audio + animation*	45	6.7	93.3
1d	*Video-only*	45	22.2	77.8
1e	*Video-THs + Visuals*	45	6.7	93.3

Table 3: Simplified distribution of frequency of the learners' attitudes to the presence of different media types in one MLA

4.3. The presence of different listening media types helped improve learners' listening

When the learners were asked which media types they thought helped improve their listening (item 2), more than half (between 66.7% and 95.6%) appeared to think that the presence of all listening media types in one MLA helped improve their listening (Table 4 and 5). 95.6% thought that *audio + animation*, 84.4% *audio + visuals*, 77.8% *video-THs + visuals*, 71.1% *video-only*, and 66.7% *audio-only* helped improve their listening.

Which media types do you think help improve your listening?

		Audio	Audio + Visuals	Audio + Animations	Video	Video + ViIsuals
N	Valid	45	45	45	45	45
	Missing	0	0	0	0	0
Mean		.67	.84	.96	.71	.78
Std. Deviation		.477	.367	.208	.458	.420
Variance		.227	.134	.043	.210	.177
Range		1	1	1	1	1

Table 4: Distribution of mean of the learners' attitudes to the presence of different media types in improving listening

Item 2	Which media types do you think help improve your listening	Number	Want	Don't Want
2a	Audio-only	45	66.7	33.3
2b	Audio-only+visuals	45	84.4	15.6
2c	Audio+animation	45	95.6	4.4
2d	Video	45	71.1	28.9
2e	Video-THs+Visuals	45	77.8	22.2

Table 5: Simplified distribution of frequency of the LLs' attitudes to the presence of different media types in improving listening

4.4. The presence of all listening media types in one MLA is effective and motivating in improving listening-development

When the learners were asked whether the presence of all media types in one MLA was effective and motivating in listening development with two-choices in both positive and negative forms (items 14-16), majority of the respondents agreed (Table 6).

No	Items	Number	Agree	Disagree	No-answer
14	The presence of all media types in MLS is effective in improving listening development	45 Missing :1	97.8		2.2
15	The presence of all media types in MLS is motivating in improving listening development	45 Missing: 1	97.8		2.2
16	The presence of all media types in MLS does not help improve listening development	45 Missing: 1		97.8	2.2

Table 6: Simplified frequency distribution of the learners' attitudes to the presence of different media types in improving listening

97.8% seemed to think that the presence of all of the listening media types in one MLA was effective and motivating in improving their listening development.

4.5. The presence of different listening media types in one MLA helped prepare learners for the real-world

When learners were asked which listening media types they thought helped prepare them better for the real-world (item 3), more than half (between 60% and 77.8%) appeared to think that the presence of all listening media types in one MLA helped prepare better for the real-world (Table 7 and 8).

Which media types do you think help prepare you for the real world?

		Audio	Audio+ Visuals	Audio + Animation	Video	Video + VIsuals
N	Valid	45	45	45	45	45
	Missing	0	0	0	0	0
Mean		.60	.71	.76	.76	.78
Std. Deviation		.495	.458	.435	.435	.420
Variance		.245	.210	.189	.189	.177

Table 7: Distribution of mean of the learners' attitudes to the presence of different media types in preparing them for the real-world

Item 1	Which media types do you think help prepare you better for the real-world?	Number	Agree	Disagree
3a	*Audio-only*	45	60.0	40
3b	*Audio – only + visuals*	45	71.1	28.9
3c	*Audio + animation*	45	75.6	24.4
3d	*Video - only*	45	75.6	24.4
3e	*Video – THs +visuals*	45	77.8	22.2

Table 8: Simplified distribution frequency of the LLs' attitudes to the presence of different media types in preparing for the real-world

77.8% seemed to think *video-THs + visuals*; 75.6% *audio + animation* and *video-only*; 71.1% *audio + visuals* and 60% *audio-only* helped prepare them better for the real-world. Further more, all of the qualitative data (9 out of 9) also supported the quantitative findings. There were some interesting reasons given: The presence of different listening media types in one MLA:

- was useful and helpful (mentioned 9 times)
  'I think the presence of different media types, it is very useful to understand everything in the software. Of course, when we watch video, and video + visuals, and audio, audio + visuals, it is very very helpful for the person who is learning the English language to understand everything what it means in the programme.' (Subject 1 / Interview)
  '…
  I: So, you mean it's useful to have different media types?
  S: Yeah' ' (Subject 10 / Interview)
  'I think it's useful to have different type different media type in the same software.' (Subject 8 / Interview)
- avoided boredom (mentioned 5 times)
  '… I think it's good because it gives us unboring when I … watch many many different visions. That's better to help us to help me to study more.' (Subject 6 / Interview)
  'S: Yes, I think … very useful because it's very interesting.
  I: Why is it very interesting?
  S: Because don't boring if you just listen to one of them.
  I: I see. You get bored you mean when there is only one of them.
  S: You get bored when you have one of them for a period of long time, but if it's different, you are interested more. (Subject 7 / Interview)
  '…
  S: … media types are very good because we are not boring and we can feel fresh when we study. So it's good…
  I: … are they boring?
  S: Not boring.' (Subject 10 / Interview)
- made it interesting (3 times mentioned)
  '…
  I: When you have more than one type of media types, is it then more interesting? S: Yes, it's more interesting…' (Subject 8/Interview)
  '…
  I: So … when you have different media types like video, video + visuals, animation… Does it become more interesting for you?
  S: Yes, more interesting, yes, a change…. And also to make different types emm… to understand more. For example there are some difficult words, as I said, there is visuals and if there is, no need to video, there is audio. It's better. ' (Subject 3 / Interview)
- enabled learners to have a change (once mentioned)
  'I think it's good to be different types to make a change, not the same way to study in the same way. And it's better. ' (Subject 3 / Interview)
- motivated learners (5 times mentioned)
  '…
  I: When you have more than one type of media types, does it motivate you? S: Yes, motivate me to understand.' (Subject 8/Interview)
  'I think very good the variety of, what you say, [media types] media types. I can keep motivation.' (Subject 9/Interview)
  'S: I think … emm…. some … media types are very good … I: Do they motivate you?
  S: Yeah.' (Subject 10 / Interview)
  '…
  I: Does it motivate you when you have different types?
  S: Yes.' (Subject 7 / Interview)
- improved their listening (once mentioned)
  'Yeah, yeah, yeah. It also improves my listening.' (Subject 6 / Interview)

4.6. Language learners preferred some listening media types in one MLA more than others

When the learners were asked which listening media types they preferred in the software mostly (item 4), they revealed that they preferred some listening media types more than the others (Table 9). The learners preferred *video-THs + visuals* the most, which had the *mean* value of 1.80 and the *sum* value of 81. It also had the *mode* value of 1, which meant that most of the learners preferred *video-THs + visuals* as the most preferred media type.

Which media types do you prefer in this software mostly? (1 most - 5 least)

		Audio	Audio + visuals	Audio + animation	Video	Video + visuals
N	Valid	45	45	45	45	45
	Missing	0	0	0	0	0
Mean		4.31	2.93	2.84	3.09	1.80
Std. Error of Mean		.185	.181	.149	.185	.176
Median		5.00	3.00	3.00	3.00	1.00
Mode		5	4	3	4	1
Std. Deviation		1.240	1.214	.999	1.240	1.179
Variance		1.537	1.473	.998	1.537	1.391
Range		4	4	4	4	4
Sum		194	132	128	139	81

Table 9: Measures of Central Tendency of the learners' attitudes to the priority of media types (the lower the value is, the more preferred it is)

The second most preferred media type is *audio + animation.* It had the *mean* value of 2.84 and the *sum* value of 128. It also had the *mode* value of 3, which meant that most of the learners (out of all) preferred *audio + animation* as the third most preferred media type although as a whole it was the second most preferred media type. The third most preferred media type was *audio + visuals*. It had the *mean* value of 2.93 and the *sum* value of 132. It also had the *mode* value of 4, which meant that most of the learners (out of all) preferred *audio + visuals* as the fourth most preferred media type. The fourth most preferred media type was *video-only*. It had the *mean* value of 3.09 and the *sum* value of 139. It also had the *mode* value of 4. This meant that most of the learners preferred *video-only* as the fourth most preferred media type. The least preferred listening media type was *audio-only*. It had the *mean* value of 4.31 and the *sum* value of 194. It also had the mode value of 5, which meant that most of the learners preferred *audio-only* as the fifth most preferred media type.

4.7. Learners thought that some listening media types in MLS improved their listening more than others

When the learners were asked which listening media types in the software they thought improved their listening mostly (item 5), results revealed that they believed that some listening media types improved their listening more than others (Table 10). Table 10 shows that they thought *video-THs + visuals*, which had the *mean* value of 2.22 and the *sum* value of 100, improved their listening most. It also had the *mode* value of 1, which meant that most of the learners preferred *video-THs + visuals* as the media type that improved their listening most. The second most preferred media type was *audio + visuals*. It had the *mean* value of 2.71 and the *sum* value of 122. It also has the *mode* value of 2, which meant that most of the learners (out of all) preferred *audio + visuals* as the media type that improved their listening second most. The third most preferred media type was *audio + animation*. It had the *mean* value of 2.76 and the *sum* value of 124. It also had the *mode* value of 3, which meant that most of the learners preferred *audio + animation* as the third most preferred media type that improved their listening. The fourth most preferred media type was *video-only*. It had the *mean* value of 3.36 and the *sum* value of 151. It also had the *mode* value of 4, which meant that most of the learners preferred *video-only* as the fourth most preferred media type in terms of improving their listening. The least preferred listening media type was *audio-only*, which had the *mean* value of 3.93 and the *sum* value of 177. It also had the *mode* value of 5, which meant that most of the learners preferred *audio-only* as the fifth most preferred (the least preferred) media type for improving their listening.

Which media types in this software do you think improve your listening mostly? (most - 5 least)

		Audio	Audio + visuals	Audio + animations	Video	Video + visuals
N	Valid	45	45	45	45	45
	Missing	0	0	0	0	0
Mean		3.93	2.71	2.76	3.36	2.22
Std. Error of Mean		.243	.173	.163	.183	.193
Median		5.00	3.00	3.00	4.00	2.00
Mode		5	2	3	4	1
Std. Deviation		1.629	1.160	1.090	1.228	1.295
Variance		2.655	1.346	1.189	1.507	1.677
Range		4	4	4	4	4
Sum		177	122	124	151	100

Table 10: Measures of Central Tendency of the learners' attitudes to the priority of media types in terms of improving their listening (the lower the value is, the more preferred it is)

4.8. Learners did not believe that all listening media types in one MLA improved listening equally

When the learners were asked whether all listening media types improved their listening equally (item 13), a big majority (84.1) agreed that all listening media types did not improve their listening equally (Table 11). Rather, they believed that some listening media types improved their listening more than the others did.

No	Item	Number	SD	Disagree	Neutral	Agree	SA	Don't Know
13	All media types (*audio-only, audio-only+visuals, audio+animation, video-only, video-THs+visuals*) improve their listening *equally*	45	**15.6**	**66.7**	4.4	4.4	6.7	2.2

Table 11: A simplified one-way frequency of the learners' attitudes to the priority of media types in terms of improving their listening

4.9. Learners believed that some listening media types in one MLA prepared them better for the real-world

When the learners were asked which media types in the software they thought prepared them for the real-world mostly (item 6), the results revealed that they seemed to think that some listening media types prepared them more than the others did (Table 12).

Which media types in this software do you think prepare you for the real world? (1 most - 5 least)

		Audio	Audio +visuals	Audio + animations	Video	Video + visuals
N	Valid	45	45	45	45	45
	Missing	0	0	0	0	0
Mean		3.87	3.18	2.98	2.73	2.24
Std. Error of Mean		.233	.169	.164	.186	.225
Median		5.00	3.00	3.00	3.00	1.00
Mode		5	4[a]	3	3	1
Std. Deviation		1.561	1.134	1.097	1.250	1.510
Variance		2.436	1.286	1.204	1.564	2.280
Range		4	4	4	4	4
Sum		174	143	134	123	101

a. Multiple modes exist. The smallest value is shown

Table 12: Measures of Central Tendency of the learners' attitudes to the priority of media types in preparing them for the real-world (the lower the value is, the more preferred it is)

Table 12 shows that the learners seemed to think *video-THs + visuals*, the *mean* value of which was 2.26 and the sum value was 101, prepared them for the real world mostly. The *mode* value of *video –THs + visuals* was 1, which meant that most of the learners preferred *video –THs + visuals* as the media type that prepared them most for the real-world. The second most preferred media type was *video-only*. The mean value of video was 2.73 and the *sum* value was 123. It also had the *mode* value of 3. This meant that *video-only was* the third most important media type choice (out of five) for preparing them for the real-world. The third most preferred media type was *audio + animation*, the *mean* value of which was 2.98 and the *sum* value was 134. It also had the *mode* value of 3. This meant that *audio + animation* was the third most-important media type choice for preparing them for the real-world. The fourth most preferred media type was *audio + visuals*. The *mean* value of *audio + visuals* was 3.18 and the *sum* value was 143. The *mode* value was 4. This meant that *audio + visuals* was the fourth most preferred media type for preparing them for the real-world. The least preferred media type was *audio-only*. It had the *mean* value of 3.87 and the *sum* value was 177. The mode value was 5, which meant that most of the learners preferred audio-only as the least preferred media type for preparing them for the real-world. In sum, the results from the standpoint of view of (1) preference, (2) improving listening and (3) preparing for the real-world meant that the learners preferred some media types more than the others, as summarised below (Table 13).

No	*Items*	*Audio-only*	*Audio-only + visuals*	*Audio + animation*	*Video-only*	*Video-THs + visuals*
4	Which media types do they prefer in this software mostly?	5	3	2	4	1
5	Which media types in this software do they think improve their listening mostly?	5	2	3	4	1
6	Which media types in this software do they think prepare them for the real world mostly?	5	4	3	2	1

Table 13: The priority of media types in one MLA according to the learners' attitudes (1 = most preferred, 5 = least preferred)

In all three cases, *video-THs + visuals* was preferred most, and *audio-only* was preferred least. The priority of the other three (*audio + visuals*, *audio + animation*, *video-only*) varied depending on the objective of the prioritisation. When the means of all items in terms of three different aspects were collapsed, the priority of the media types as a whole became clearer (Table 14).

	Audio-only	*Video-only*	*Audio-only + visuals*	*Audio + animation*	*Video-THs + visuals*
Which media types do LLs prefer in this software mostly *as a whole* in terms of (1) preference, (2) improving listening, and (3) preparing for the real world?	4.04	3.06	2.94	2.86	2.09

Table 14: The priority of the media types when the means of all the items are collapsed (the lowest mean is the most preferred, and the highest mean is the least preferred)

This means that the learners preferred *video - (THs) + visuals* most, *audio + animation* second most, *audio-only + visuals* third most, *video-only* fourth most and *audio-only* fifth most (least). The quantitative-results were also supported by the qualitative data, as shown below.

'S: I prefer video + visuals … most
I: Second most?
S: Audio + animation
I: Third most?
S: Audio + visuals
I: Fourth most?
S: Video
I: And the last one?
S: Audio…' (Subject 10 / Interview)
'I: Which media types do you think help most in MLS?
S: I think all of them are very important and very useful in this programme. I think all of them, but the best, I think, is video. And also visuals are very very important in this programme.' (Subject 1 / Interview
'Except audio type, four of them much help me' (Subject 9 / Interview) 'I: Which of them do you like most, do you find more useful?
S: Ehh… audio + visual.
I: Audio + visuals. So, this is the one you like most.
S: It improves my listening…' (Subject 8 / Interview)
'I think the first thing is about audio + animation animation animation. And the second one is video + visual. And the … the other thing is, I think, not many different between them. The most important is the first one and the second one.' (Subject 6 / Interview)
'I think video + visuals help (more) than the other(s)' (Subject 2 / Interview)

It also became clear that the learners found supplementary contextual visuals in particular those which included difficult and salient features of the input very useful.

'S: I think audio and visual.
I: Why?
S: ... it's helpful and make it easier to find the right word. But just if it's difficult not just for make it visual, but if there's some difficult word or a new word, to remind us and to catch a word very well. It's better.' (Subject 3 / Interview)

4.10. There were significant correlations

There were some significant relationships (correlation) between different variables at the .05 level (two-tailed test). The learners who wanted to see *audio-only* in MLS also tended to want to see *video-only*. The learners who wanted to see *audio + visuals* in MLS also tended to want to see *video-THs + visuals* in a listening-application. Those who thought that *audio-only* helped improve their listening also tended to believe that *video-only* helped to improve their listening. There were some significant correlations between the learners' characteristics variables and their attitudes at the .05 level (two-tailed test). More male learners and less female learners wanted to see *audio + animation* in MLS and this tendency was significant. Those who did not speak a third language wanted to see more *audio-only*. More female learners and less male learners thought that *audio-only* helped prepare them better for the real world.

There were some significant positive and negative correlations between different variables at the .01 level (two-tailed test) and at the .05 level (two-tailed test). The learners who preferred *video-THs + visuals* tended not to prefer *audio-only* or vice verse. The learners who preferred *audio + visuals* and *audio + animation* tended to not to prefer *Video-only*. The learners who felt confident about learning English also preferred *audio-only*. The learners who felt confident about understanding when listening to English did not prefer *video-only*.

5. Discussion

When the available MLAs are reviewed carefully, it will be seen that they mostly feature only one type of media, e.g. Getting the message (only *audio + visuals*) - 1990, Introduction to a Company (*video-only*) -1994, Let's Go and Firsthand Access (*audio + animation*); although there are some which feature more than one media type (Beginning Turkish -*video-only, audio-only*- 1999, Türel 2002: 2).

In this study, more than half of the learners wanted to see all listening media types (*video-THs + visuals, audio + animation, audio + visuals, video-only and audio-only*) in one MLA although some are preferred more than the others. Learners thought that the presence of all listening media types in one MLA helped improve their listening and was effective and motivating in improving listening development. Additionally, learners thought it helped better prepare them for the real-world.

The results pedagogically match the findings in the field of learners' ESL learning style preferences (Dun and Dun 1979, Dunn 1983, Reid 1987: 96-7), as learners are either visual, auditory, kinaesthetic or tactile. Therefore, we need to provide different listening media types in one MLA so that it meets the needs of learners who vary in their learning style preferences or different senses of learning. While, for instance, *audio-visuals* meet the needs of visual-learners (and auditory-learners), *audio-only* meets the needs of auditory-learners. Similarly, following *audio-visuals* (*audio + animation*), as in the sample software, can meet the needs of tactile- and kinaesthetic-learners. The results also psychologically match common sense, as the variety of media types in one MLA can avoid boredom and maintain motivation. The results further match the other findings in that learners had preferred *audio-visuals* more than *audio-only*. The assumption is that most learners are visual in their learning such as Korean, Chinese and Arabic learners (Reid 1987: 96-7) as well as most of children (Dunn and Dunn 1979). By obtaining the results which reveal that the learners want to see all listening media types in one MLA, the findings match the results of different investigations which researched different media types individually. Peter (1994: 203) found, for instance, that 'video is a rich medium that can be included in a programme'.

These mean that providing a variety of listening media types in one MLA can help language learners tremendously during the FLL process, which is very likely to help them on future occasions. At least, this is what the learners think and believe. Due to those reasons, pedagogically, psychologically as well as in terms of FLL, so-far mentioned media types should and need to be provided in one MLA. This means that the presence of different listening media types in one MLA would be a positive enhancement of learners' listening development and a better preparation for the real-world. Ultimately, it can contribute to and result in FLL. If such a design (the inclusion of different listening media types in one MLA) can benefit learners in this way, it is assumed that intermediate (and upper intermediate) learners ought to be provided with different listening media types in one MLA. Further investigation might try to uncover what the effects, benefits and contributions of the presence of different listening media types in one MLA to FLL are, relating them closely to learners' proficiency level in listening and other characteristics such as age.

It was said above that it is vital to know which media types are preferred more by which group of learners in terms of the production of learning effective MLS. It was also emphasised that most of the available MLAs feature only one type of media. Moreover, the ones that include more than one media type, the number and variety of which are limited, do not give priority to any particular media. From the standpoint of MLA production, it is vital to know which media types are preferred more by which group of learners. Then, we will be able to create better and more learning effective MLAs that can meet the needs of the target learners, contribute to FLL more, and are cost effective.

It should also be noted that, *video-only*, which is preferred fourth most *as a whole*, was taken from the BBC, which means that professionals filmed it. The *video-THs+ visuals* format filmed and recorded by the researcher, however, was ranked highest in all cases. Although the *video-only* had been produced by the experts, the 'quality' production did not appear to have had any 'positive effect' on the learners' preferences.

The results substantiate the findings in the field of FLL (Herron et al. 2002: 37, Ginther 2002: 133 - 67; Al-Seghayer 2001: 203; Brett 1997: 46-7; Secules et al 1992: 480 - 90; Rubin 1994; Mueller 1980: 340; Omagigo 1979; Arnold and Brooks 1976: 713-16; Casambre 1962: 51-55). Visuals in general facilitate the understanding of intermediate learners, which is likely to result in FLL. Therefore, the results also match comprehension input hypothesis. In the same way, the results match what pointed out by Peter (1994: 90) in that it is said that relevant information in / around the visuals stage area can be very useful. On the other hand, they do not match what Peter (1994: 90) says, which is based on the results of an experiment conducted with NSs, in that she says that 'a video window not containing a talking person seemed to work better'. It should, however, be re-emphasised that what preferred most here is more than a talking-person, as it features supplementary contextual visuals.

The results also parallel Brett's findings (1997: 46-7) in that he found that language learners regard the combination of different learning elements most beneficial, and visuals (i.e. pictures) secondly most. The most preferred three media types (*video-THs + visuals, audio + visuals, audio + animation*) in this study are the combination of different learning-elements (i.e. audio, still or motion visuals). Such a combination, which also features visuals, can facilitate recognition, comprehension and learning (Carroll 1977: 509), which leads to acquisition (Long 1983: 138, Carroll 1977: 500). The results are also consistent with the dual coding theory and redundancy hypothesis. Learners preferred the listening media types that consist of more than one element that aims to teach one thing, which provides more paths of recall and is therefore more effective in building recall cues in memory. The results are consistent with other studies (Jones and Plass 2002: 546-61, Al-Seghayer 2001: 202-32) which show that learners recall better when they were assigned to combined elements and the effects of visuals were much longer for pictorials.

For the production of MLAs for intermediate (and upper intermediate level) learners, the implication is that priority needs to be given to some listening media types more than the others. This would have a positive enhancement of motivation, learners' listening development and on preparation for the real-world. Ignoring it, however, lead to poor motivation, less comprehension and ineffective learning. The underlying assumption is that attitudes are consistently related to achievement (Masgoret and Gardner 2003: 123-63, Linebarger 2001: 288-298, Baltova 2000, Chapelle and Jamieson 1991: 43). Additionally, learning style preferences, different hypothesis (i.e. *noticing hypothesis*,) and theories (i.e. *the dual-coding theory, the attention theory, the comprehension input theory*), epistemology, senses of human beings, the concern in the field of multimedia and findings (in the field of visuals, multimedia, audio) authenticity, the realities of the real-word and common sense require the use of different listening media types in one MLA for FLL purposes.

Further studies might try to investigate the presence of which media types in one MLA are the most effective and beneficial and contribute most to FLL, relating them closely to learners' proficiency level, their learning objectives and other characteristics. Moreover, it is more important to know whether such gains and benefits of media types prioritisation in MLAs can be transferred to real-life.

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Appendixes

Appendix I: The learners' pre-exposure-characteristics - questionnaire results (in %)

Gender	*Male* 56.5 %				*Female* 43.5 %	
Nationality	Libyan : 30.4 Japanese : 10.9 Spanish : 4.3 Kurdish : 2.2 Saudi : 6.5 Tai : 13 Colombian : 2.2 Mongolian : 2.2 Syrian : 4.3 Chinese : 8.7 Italian : 2.2 Vietnamese : 2.2 Estonian : 2.2 Portuguese : 4.3 Bulgarian : 2 .2 Israeli : 2.2					
Native language	Arabic : 43.5 Spanish : 6.5 Mongol : 2.2 Bulgarian : 2.2 Japanese : 10.9 Kurdish : 2.2 Russian : 2.2 Portuguese : 4.3 Chinese : 19.6 Italian : 2.2 Vietnamese : 2.2 Mandarin : 2.2					
	11-15 years	*16- 20 years*	*21-25 years*	*26-30 years*	*More than 30 years*	*No answer*
Age group		4.3	23.9	34.8	34.8	2.2
Any other languages (apart from English and their native language) they speak			No		Yes	
			76.1		23.9	
	1 - 2 years	*3 - 5 years*	*6 - 10 years*	*More than 10 years*	*No answer*	
The period of learning English	37	26.1	21.7	8.7	6.5	
	Pre-intermediate		*intermediate*		*Advanced*	
Their level in English			87		13	
	Pre-intermediate		*Intermediate*		*Advanced*	
Their level in listening			100			
Their reasons for learning English	Post-study : 45.7 Job : 21.7 No-answer: 4.3 World language : 26.1 Communication : 2.2					
Computer literacy	*Basic User* *1*	*2*	*3*	*4*	*5*	*Proficient User*
	37	10.9	32.6	17.4	0	No-answer: 2.2
					No	*Yes*
Those who used software for learning a foreign language before					76.1	23.9

How they feel about learning English	*confident*	*1*	*2*	*3*	*4*	*5*	*No-answer*	*not confident*
		13	21.9	39.1	10.9	4.3	8.7	
	relaxed	13	19.6	50	8.7	4.3	4.3	*not relaxed*
	good at it	8.7	26.1	41.3	13	0	10.9	*not good*
How they feel about understanding when listening to English	*confident*	8.7	13	41.3	21.7	8.7	6.5	*Not confident*
	relaxed	6.5	15.2	39.1	21.7	8.7	8.7	*not relaxed*
	good at it	6.5	10.9	52.2	15.2	6.5	8.7	*not good*
How they feel about improving their listening	*confident*	6.5	19.6	41.3	17.4	6.5	8.7	*not confident*
	relaxed	8.7	19.6	39.1	17.4	8.7	6.5	*not relaxed*
	good at it	6.5	23.9	37	19.6	2.2	10.9	*not good*

	a lot	*often*	*Sometimes*	*Occasionally*	*never*	*No-answer*
Do they normally study English alone?	10.9	30.4	54.3	4.3		
Do they normally practise listening alone?	6.5	28.3	52.2	8.7	4.3	
Do they want to learn English with computers?	21.7	26.1	32.6	15.2	2.2	2.2
Do they want to practise listening with comp.?	32.6	26.1	26.1	8.7	2.2	4.3

Appendix 2: Observations about the priority of media types in one MLA

Subject no / name: .....

About the priority of media types		
1	They listened to the *video*-only	
2	They listened to the *video-only* with visuals	
3	They listened to *video + visuals*	
4	They listened to *video + visuals* without *visuals*	
5	They listened *audio +animations*	
6	They listened *audio +animations* without *visuals*	
7	They listened to *audio- only*	
8	They listened to *audio- only* with *visuals*	

Non-participant observer's name: …… Signature & Date: ……

Appendix 3: Questionnaire about the priority of media-types in one MLA

This questionnaire is about *the priority of media types* in the *NewMillennium* multimedia-listening software.

Please tick the appropriate choices (more than 1 is possible)

No	*Questions*	*Audio*	*Audio + Visuals*	*Audio + Animation*	*Video*	*Video + Visuals*
1	Which media types do you want to see in listening software?					
2	Which media types do you think help improve your listening?					
3	Which media types do you think help prepare you better for the real world?					
4	Which media types do you prefer in this software mostly? **Write 1 (most) - 5 (least)**					
5	Which media types in this software do you think improve your listening mostly? **Write 1 (most) - 5 (least)**					
6	Which media types in this software do you think prepare you for the real-world? **Write 1 (most) - 5 (least)**					

	Questions	*SA*	*A*	*N*	*D*	*SD*	*DK*
13	All media types (**video + visuals**, **video**, **audio + visuals**, **audio + animations** and **audio**) improve listening equally						

	Questions	*A*	*D*
14	The presence of all media types in listening software is effective in improving listening development		
15	The presence of all media types in listening software is motivating in improving listening development		
16	The presence of all media types in listening software does **not** help improve listening		
21	Would you like to add anything about media types		

Your full-name: …… Thank you very much