

Presentation and Evaluation of a Listening Lesson and the role of ICTs

Aggeliki Papadaki, Eleni Karagianni, Anna Maria Driga

karagiannieleni10@hotmail.com, tzelouko@hotmail.com, anna.maria.driga@gmail.com

Abstract: The purpose of the particular paper is to present a listening lesson and evaluate it according to certain criteria. In the first part, there is a brief description of the teaching situation, with reference to students' profile, the curriculum and the coursebook. In the second part, the listening input of the lesson is evaluated, while in the third one, the actual listening activities. In the last part, there are some suggestions concerning the improvement of the listening activities, so as to serve students' needs and interests.

1. Description of the teaching situation

The particular class consists of 15 Greek students (9 male and 6 female ones), aged 10 to 11, attending the fifth grade of a Greek private primary school. All learners are monolingual and they have been learning English, since they were in the first grade. The group's competence levels range from elementary to post elementary (A2-A2+) according to the CEFR (2021). Most of them are highly motivated and willing to engage actively in any kind of activity and interact with their classmates and teachers by using the English language. At the same time, they show a positive stance towards English. Also, their concentration span is high, especially when the topic discussed is relevant to their needs and interests. The book used is called 'English 5th Grade' and it includes thematic vocabulary, grammar taught in context, engaging and captivating dialogues that promote values and critical thinking, listening activities related to students' interests, while at the same time, all language skills are developed. The lesson that is evaluated, can be found in fifth unit of the book with the title 'An Ambitious Project'. The listening is about two friends talking about ways to protect the environment and their participation in a school project on recycling.

2. Evaluation of listening input

The content of the listening input is highly transactional (Brown & Yule, 1983), since the speakers only provide some information about an environmental project through their dialogue.

The listening input is non-authentic, as it is performed by actors who read out a script and it has a pedagogical purpose (Sifakis, 2018: 170). According to Nunan (1999), authentic input has genuine features and a real communicative purpose.

As far as genuineness is concerned, discourse lacks a lot of elements of real spoken language (Rost, 2011: 166; Underwood, 1989: 100). For example, the speed of delivery is not natural (Richards, 1983), since both speakers talk very fast and in fact, perform the scripted text in an unnatural and mechanic way. Furthermore, there are no silent or filled pauses, false starts, natural hesitations (Field, 1998) and speech errors (Richards, 1983). Even the intonation is unnatural and it lacks variations, as the speakers do not seem to adapt their tone to what is being said or express any kind of spontaneous emotions, making it even more profound that they just perform a written text. This is really evident even when they ask questions (Busy? Why? Are you studying?). Moreover, there are no self-corrections, repetitions and paraphrasing. At the same time, one of the speakers (Kostas) gives detailed information about an environmental project without being interrupted by

Mark, while his pronunciation is deliberate and fake. Finally, no slang is used at all, while the density of information is high (Sifakis, 2018: 175).

The input is not especially difficult for learners to follow, since its topic is quite interesting for them and by activating their background schemata (Bartlett, 1932; Richards, 1983), they can easily relate and understand what they hear. Also, it is not simplified (Rost, 2016: 162), since the syntax and grammar used are the ones expected at the particular level of learners, while there is no special use of phonology (pitch), rephrasing and repetitions.

The input is relevant to learners' needs and interests, because they listen to two boys talking about an environmental project on recycling, topic familiar to them because they have already taken part in a similar project and their feedback was really positive. Regarding the target syllabus, the input is part of the fifth unit, which deals environmental issues and actions, making it thus relevant, while at the same time, it includes the unit's already taught vocabulary.

Concerning discourse, it is transactional (Brown & Yule, 1983) since the main focus is on transmitting information about the recycling project. Furthermore, it is fully- scripted and recorded, because it is written out in advance and performed in the studio by actors (Sifakis, 2018: 170). So, there is no background noise, which indicates that the quality of it is pretty good. Also, learners are supposed to listen to the input and do the tasks, without reading any script.

Finally, the schematic structuring of information is descriptive (Sperber & Wilson, 2012), because it describes the process of persuading the teacher and students to take part into a recycling project.

3. Description and evaluation of the listening activities

The main aim of the listening lesson, which has three stages (pre-, while- and post- listening) is to teach vocabulary and encourage learners to take action and start recycling. In all stages, there is integration of other skills (such as speaking, reading and writing), too. The overall orientation is listening-to-learn, since the main listening task's purpose is to test listening through marking the statements as True or False (listening comprehension question) (Lynch, 1998, 2002; Mendelsohn, 1998; Oxford, 1993; Rost, 2002; Rubin, 1994). In this way, the washback effect is negative since if the learners' results are not the expected ones, they will have to be exposed once again to unrealistic and non- authentic tasks, like the one they were. Also, learners are familiar with the particular listening input and that is the reason why, they are interested and motivated in dealing with the tasks. Concerning the time of the tasks, the 'time-on-task' is enough for learners to deal with the activities, while the 'wait time' could be a little longer, since some of them may be inhibited, not confident enough or even unmotivated to participate in the activities. Finally, both the teacher and the learners (peer feedback) provide meaningful feedback during and after the tasks.

In the pre-listening stage, there is a task where learners are given a picture and they are supposed to predict what they see (Brown, 1977; McKeating, 1981; Richards, 1983). Its purpose is to activate their background schemata (Bartlett, 1932; Richards, 1983) with the use of a visual, essential element for learners' listening comprehension (McDonald, 2010) and help them relate it to the actual listening input that follows. Fry (1977) stressed the importance of prediction in the process of receiving speech.

In the while- listening stage, the actual listening task is divided into two smaller parts. In the first part, learners listen to the recording and focus on the gist of the boys' conversation, which means that they are supposed to understand the main message of their dialogue. In the second part, learners listen to the same dialogue again and they are asked to mark the sentences as True or False, task that can inhibit them and decrease their confidence on their listening skills (Porter & Roberts, 1981). This is a bottom-up process focusing on listening and searching for specific information (intensive comprehension checking activity) (Lynch, 1998, 2002; Mendelsohn, 1998; Oxford, 1993; Rost, 2002; Rubin, 1994). Thus, the focus is on the product (correct answers) and not on the actual process of

listening (Berne, 1998; Mendelsohn, 2001), since in that case there would be a follow-up activity clarifying the underlying difficulties (Brown, 1986; Sheerin, 1987) and its purpose is to test (Sheerin, 1987; Thomas 1982). Such kind of tasks focus on memory and not real comprehension (Roberts, 1983). In this part, there is integration of writing too, but in a restricted way, because learners must only mark the utterances as T/F.

In the post-listening stage, there are four tasks. In task 3, learners form pairs and based on the ideas given by their teacher and the actual listening input, they are asked to keep notes on how to produce less rubbish. So, the skill of writing is integrated, since learners have to focus on ways to reduce rubbish and write them down. Writing skills are not extensive here, because learners are asked to take notes and not write long texts.

In task 4, learners take turns and act out a dialogue in pairs, providing solutions to the problem of pollution, raising at the same time their classmates' awareness of environmental issues. In this part, the skill of speaking is integrated with listening, while interaction is incorporated, too (Nunan, 1991: 279). Its importance is vital, because only through the offering and receiving of meaningful feedback, comprehension can be achieved (Davis, 2003; Ghaith, 2003; Lightbrown & Spada, 1993).

In task 5, learners are asked to create a list of recommendations to help the environment, based on the data collected in the previous tasks. This task requires writing (listing solutions) and speaking (choosing the most important ones and arguing accordingly).

In task 6, learners are asked to work in pairs to do a quiz relevant to the listening input, so as to realize the damage people cause to the natural world around them. In this way, they are supposed to cooperate and develop their speaking skills and critical thinking. However, this goal is not actually achieved, since the task is not well-structured and clear.

4. Suggestions about improving the listening activities

There can be some suggestions for the improvement of the particular tasks.

The first task is quite useful, because it assists learners in understanding what will follow. Although, it could include more visuals (pictures) for learners to compare and relate to the input.

The first part of the second task would remain the same. The second one focuses on bottom -up listening (hard focused) (Hedge, 2000) and it has the form of a closed type activity (T/F), where the answer can be either correct or incorrect and its purpose is to test (Sheerin, 1987; Thomas, 1982). According to Richards (1983), in such kind of tasks learners are supposed to depend on their memory to deal with the tasks instead of their understanding of the real text. This task could be replaced by a communicative one, which would focus on the top-down process (soft focused listening), motivating learners to listen for meaningful purposes.

In the third task, an ideational framework (Burgess, 1994: 310-313) could be used so as to guide learners on how to organize their ideas/ ways to produce less rubbish instead of just listing them.

In the fourth task, learners act-out a dialogue about ways to protect the environment. This activity could ask them to adopt different roles as listeners and speakers or even take part in scenarios (Oura, 2001) and engage in a really communicative dialogue. Also, learners could be asked to form pairs according to their level of proficiency and act out easier or more demanding dialogues accordingly. Finally, the teacher's role in their exchange is not mentioned, so there is no evidence whether the dialogue is guided, semi- guided or autonomous.

The fifth task is not really interesting for learners and autonomous, since if the previous one was missing, it would not make any sense. At this point, an alternative task could be asking learners to perform a role-playing activity as interviewers- interviewees, politicians, animals, homeless or just residents of a town, expressing their feelings over pollution, describing the overall situation and searching for solutions to the environmental issues and write them down. This would be more interesting and interactive, too (Rost, 2016).

In the sixth task, no background information is provided to learners, while at the same time it is a quite boring activity. Learners are supposed to make calculations taking into consideration facts that they do not know and they are not interesting both for their age and level. So, this task could be removed.

5. Conclusion

The particular listening lesson was appropriate for the learner's CEF level (A2-A2+) and the tasks were quite satisfactory. Although, there can be some improvements to fit students' needs. The listening tasks would be more authentic-like if they were more relevant to the real world (Bransford et al., 1990; Cronin, 1993; Duchastel, 1997; Gordon, 1998; Herrington & Herrington, 1998; Lebow & Wager, 1994; Oliver & Omari, 1999; Sternberg et al., 1993; Winn, 1993; Young, 1993), while they should not focus on testing, by asking learners to provide only correct answers, but interpretations in context (Brown & Yule, 1983: 57-69). At the same time, learners should be provided with authentic material (Gebhard, 1996; Nunan, 1991: 279), such as visuals, video (Stempleski & Tomalin, 1990) and realia to increase their motivation and attention (Freeman, 2009; Richards, 2001), compare and relate the language learning with the external world (Berardo, 2006; Brinton, 1991; Oguz & Bahar, 2008; Parsons & Ward, 2011) and prepare them for real life (Richards, 2001), whereas they should be taught listening strategies (Chamot, 1995; Mendelsohn, 1994: 36-47; Sharma, 2011).

Finally we have to underline the role of digital technologies in education domain that is very productive and successful, facilitates and improves the assessment, the intervention and the educational procedures via Mobiles [23-27], various ICTs applications [28-51], AI & STEM ROBOTICS [52-68], and games [69-72]. Additionally the combination of ICTs with theories and models of metacognition, mindfulness, meditation and emotional intelligence cultivation [73-117] as well as with environmental factors and nutrition [19-22], accelerates and improves more over the educational practices and results, especially in language learning domain.

6. References

- [1] Sheerin, S. (1987). Listening comprehension: Teaching or testing?. *ELT journal*, 41(2), 126-131.
- [2] Sifakis, N. (2018). "Written and spoken discourse. Introduction to Oracy". In N. Sifakis, A. Georgountzou & M. Hill, AGG11: Introduction to the M.Ed. Teaching Oracy Skills: Listening and Speaking. Patras: Hellenic Open University.
- [3] Sifakis, N. (2018). "Teaching listening: teaching methodology and the listening input". In N. Sifakis, A. Georgountzou & M. Hill, AGG11: Introduction to the M.Ed. Teaching Oracy Skills: Listening and Speaking. Patras: Hellenic Open University.
- [4] Sifakis, N. (2018). "The structuring, adaptation, and creation of listening activities". In N. Sifakis, A. Georgountzou & M. Hill, AGG11: Introduction to the M.Ed. Teaching Oracy Skills: Listening and Speaking. Patras: Hellenic Open University.
- [5] Silvia, S. R. MODERN STRATEGIES IN FOREIGN LANGUAGE TEACHING. *Food technology*, 542, 488.
- [6] Arianie, M. (2017). Authentic material and interactive activities in EFL classroom. *ENGLISH FRANCA: Academic Journal of English Language and Education*, 1(2): 115-134.
- [7] Burgess, J. (1994). Ideational frameworks in integrated language learning. *System*, 22(3), 309-318.

- [8] Field, J. (1998). Skills and strategies: Towards a new methodology for listening.
- [9] Oura, G. K. (2001). Authentic task-based materials: Bringing the real world into the classroom. *Sophia Junior College Faculty Bulletin*, 21, 65-84.
- [10] Global scale - Table 1 (CEFR 3.3): Common Reference levels <https://www.coe.int/en/web/common-european-framework-reference-languages/table-1-cefr-3.3-common-reference-levels-global-scale> accessed 6th May 2021.
- [11] Hedge, T. (2001). *Teaching and learning in the language classroom* (Vol. 106). Oxford, UK: Oxford university press.
- [12] Kolovou, E., & Kraniotou, A. *English 5th Grade*.
- [13] Melanliozlu, D. (2013). Impacts of authentic listening tasks upon listening anxiety and listening comprehension. *Educational research and reviews*, 8(14), 1177-1185.
- [14] McDonald, A. (2010). *Authentic listening step by step*.
- [15] Nunan, D., & Miller, L. (1995). *New ways in teaching listening*. Alexandria, VA: TESOL.
- [16] Porter, D., & Roberts, J. (1981). Authentic listening activities. *ELT journal*, 36(1), 37-47.
- [17] Richards, J. C. (1983). Listening comprehension: Approach, design, procedure. *TESOL quarterly*, 17(2), 219-240.
- [18] Sharma, N. (2011). Strategies for developing listening skills. *ELT Voices*, 6, 12-18.
- [19] Stavridou Th., Driga, A.M., Drigas, A.S., 2021. Blood Markers in Detection of Autism, *International Journal of Recent Contributions from Engineering Science & IT (iJES)* 9(2):79-86.
- [20] Zavitsanou, A., & Drigas, A. (2021). Nutrition in mental and physical health. *Technium Soc. Sci. J.*, 23, 67.
- [21] Driga, A.M., Drigas, A.S. 2019 “Climate Change 101: How Everyday Activities Contribute to the Ever-Growing Issue”, *International Journal of Recent Contributions from Engineering, Science & IT*, vol. 7(1), pp. 22-31. <https://doi.org/10.3991/ijes.v7i1.10031>
- [22] Driga, A.M., and Drigas, A.S. 2019 “ADHD in the Early Years: Pre-Natal and Early Causes and Alternative Ways of Dealing.” *International Journal of Online and Biomedical Engineering (IJOE)*, vol. 15, no. 13, p. 95., doi:10.3991/ijoe.v15i13.11203
- [23] Stathopoulou, et al 2018, Mobile assessment procedures for mental health and literacy skills in education. *International Journal of Interactive Mobile Technologies*, 12(3), 21-37,
- [24] Kokkalia G, AS Drigas, A Economou 2016 Mobile learning for preschool education. *International Journal of Interactive Mobile Technologies* 10 (4)
- [25] Stathopoulou A, Karabatzaki Z, Tsiros D, Katsantoni S, Drigas A, 2019 Mobile apps the educational solution for autistic students in secondary education *Journal of Interactive Mobile Technologies* 13 (2), 89-101
- [26] Drigas A, DE Dede, S Dedes 2020 Mobile and other applications for mental imagery to improve learning disabilities and mental health *International Journal of Computer Science Issues (IJCSI)* 17 (4), 18-23
- [27] Alexopoulou A, Batsou A, Drigas A, 2020 Mobiles and cognition: The associations between mobile technology and cognitive flexibility *iJIM* 14(3) 146-156
- [28] Drigas, A. S., J.Vrettaros, L.Stavrou, D.Kouremenos, 2004. E-learning Environment for Deaf people in the E-Commerce and New Technologies Sector, *WSEAS Transactions on Information Science and Applications*, Issue 5, Volume 1, November
- [29] Drigas, A.S., Vrettaros, J. and Kouremenos, D. (2004) ‘Teleeducation and e-learning services for teaching English as a second language to deaf people, whose first language is the sign language’, *WSEAS Transactions on Information Science and Applications*, Vol. 1, No. 3, pp.834–842.
- [30] Drigas, A., Koukianakis, L., Papagerasimou, Y., 2011, Towards an ICT-based psychology: *Epsychology, Computers in Human Behavior*, 27:1416–1423. <https://doi.org/10.1016/j.chb.2010.07.045>
- [31] Drigas, A. S., Stavridis, G., & Koukianakis, L. (2004). A Modular Environment for E-learning and E-psychology Applications. *WSEAS Transactions on Computers*, 3(6), 2062-2067.

- [32] Papanastasiou, G., Drigas, A., Skianis, C., and Lytras, M. (2020). Brain computer interface based applications for training and rehabilitation of students with neurodevelopmental disorders. A literature review. *Heliyon* 6:e04250. doi: 10.1016/j.heliyon.2020.e04250
- [33] Drigas, A. S., John Vrettaros, and Dimitris Kouremenos, 2005. "An e-learning management system for the deaf people," AIKED '05: Proceedings of the Fourth WSEAS International Conference on Artificial Intelligence, Knowledge Engineering Data Bases, article number 28.
- [34] Pappas, M.A., & Drigas, A.S. (2015). ICT based screening tools and etiology of dyscalculia. *International Journal of Engineering Pedagogy*, (5)3, 61-66.
- [35] Drigas, A., & Kostas, I. (2014). On Line and other ICTs Applications for teaching math in Special Education. *International Journal of Recent Contributions from Engineering, Science & IT (iJES)*, 2(4), pp-46. <http://dx.doi.org/10.3991/ijes.v2i4.4204>
- [36] Alexopoulou, A, Batsou, A, Drigas, A. (2019). Resilience and academic underachievement in gifted students: causes, consequences and strategic methods of prevention and intervention. *International Journal of Online and Biomedical Engineering (iJOE)*, vol. 15, no. 14, pp. 78.
- [37] Drigas, A. & Ioannidou, R. E. (2013). Special education and ICT's. *International Journal of Emerging Technologies in Learning* 8(2), 41– 47.
- [38] Drigas, A., & Papanastasiou, G. (2014). Interactive White Boards in Preschool and Primary Education. *International Journal of Online and Biomedical Engineering (iJOE)*, 10(4), 46–51. <https://doi.org/10.3991/ijoe.v10i4.3754>
- [39] Drigas, A. S. and Politi-Georgousi, S. (2019). Icts as a distinct detection approach for dyslexia screening: A contemporary view. *International Journal of Online and Biomedical Engineering (iJOE)*, 15(13):46–60.
- [40] Lizeta N. Bakola, Nikolaos D. Rizos, Drigas, A. S., 2019 "ICTs for Emotional and Social Skills Development for Children with ADHD and ASD Co-existence" *International Int. J. Emerg. Technol. Learn.*, 14(5), 122-131.
- [41] Kontostavlou, E.Z., & Drigas, A.S. (2019). The Use of Information and Communications Technology (ICT) in Gifted Students. *International Journal of Recent Contributions from Engineering, Science and IT*, 7(2), 60-67. doi:10.3991/ijes.v7i2.10815
- [42] Drigas, A. S., and Vlachou J. A., 2016. "Information and communication technologies (ICTs) and autistic spectrum disorders (ASD)," *Int. J. Recent Contrib. Eng. Sci. IT (iJES)*, vol. 4, no. 1, p. 4, <https://doi.org/10.3991/ijes.v4i1.5352>
- [43] Drigas, A. S., Koukianakis, L, Papagerasimou, Y. (2006) "An elearning environment for nontraditional students with sight disabilities.", *Frontiers in Education Conference, 36th Annual. IEEE*, p. 23-27.
- [44] Drigas A., and Koukianakis L. 2006 An open distance learning e-system to support SMEs e-enterprising. In proceeding of 5th WSEAS Internationalconference on Artificial intelligence, knowledge engineering, data bases (AIKED 2006). Spain
- [45] Drigas A, Petrova A 2014 ICTs in speech and language therapy *International Journal of Engineering Pedagogy (iJEP)* 4 (1), 49-54
- [46] Bravou V, Oikonomidou D, Drigas A, 2022 Applications of Virtual Reality for Autism Inclusion. *A review Retos* 45, 779-785
- [47] Chaidi I, Drigas A, 2022 "Parents' views Questionnaire for the education of emotions in Autism Spectrum Disorder" in a Greek context and the role of ICTs *Technium Social Sciences Journal* 33, 73-91
- [48] Bravou V, Drigas A, 2019 A contemporary view on online and web tools for students with sensory & learning disabilities *iJOE* 15(12) 97
- [49] Drigas A, Vrettaros J, Tagoulis A, Kouremenos D, 2010 Teaching a foreign language to deaf people via vodcasting & web 2.0 tools *World Summit on Knowledge Society*, 514-521
- [50] Chaidi I, Drigas A, C Karagiannidis 2021 ICT in special education *Technium Soc. Sci. J.* 23, 187

- [51] Xanthopoulou M, Kokalia G, Drigas A, 2019, Applications for Children with Autism in Preschool and Primary Education. *Int. J. Recent Contributions Eng. Sci. IT* 7 (2), 4-16
- [52] Chaidi E, Kefalis C, Papagerasimou Y, Drigas, 2021, Educational robotics in Primary Education. A case in Greece, *Research, Society and Development* 10 (9), e17110916371-e17110916371
- [53] Drigas, A.S., Vrettaros, J., Koukianakis, L.G. and Glentzes, J.G. (2005). A Virtual Lab and e-learning system for renewable energy sources. *Int. Conf. on Educational Tech.*
- [54] Drigas, A., Dourou, A. (2013). A Review on ICTs, E-Learning and Artificial Intelligence for Dyslexic's Assistance. *iJet*, 8(4), 63-67.
- [55] Anagnostopoulou, P., Alexandropoulou, V., Lorentzou, G., Lykothanasi, A., Ntaountaki, P., & Drigas, A. (2020). Artificial intelligence in autism assessment. *International Journal of Emerging Technologies in Learning*, 15(6), 95-107. <https://doi.org/10.3991/ijet.v15i06.11231>
- [56] Pappas, M., & Drigas, A. (2016). Incorporation of artificial intelligence tutoring techniques in mathematics. *International Journal of Engineering Pedagogy*, 6(4), 12–16. <https://doi.org/10.3991/ijep.v6i4.6063>
- [57] Lytra N, Drigas A 2021 STEAM education-metacognition–Specific Learning Disabilities *Scientific Electronic Archives* 14 (10)
- [58] Mitsea E, Lytra N, A Akrivopoulou, A Drigas 2020 Metacognition, Mindfulness and Robots for Autism Inclusion. *Int. J. Recent Contributions Eng. Sci. IT* 8 (2), 4-20
- [59] Stavridis S, D Papageorgiou, Z Doulgeri 2017 Dynamical system based robotic motion generation with obstacle avoidance, *IEEE Robotics and Automation Letters* 2 (2), 712-718
- [60] Kastritsi T, D Papageorgiou, I Sarantopoulos, S Stavridis, Z Doulgeri, 2019 Guaranteed active constraints enforcement on point cloud-approximated regions for surgical applications 2019 *International Conference on Robotics and Automation (ICRA)*, 8346-8352
- [61] Stavridis S, Z Doulgeri 2018 Bimanual assembly of two parts with relative motion generation and task related optimization 2018 *IEEE/RSJ International Conference on Intelligent Robots and Systems ...*
- [62] Stavridis S, P Falco, Z Doulgeri 2020 Pick-and-place in dynamic environments with a mobile dual-arm robot equipped with distributed distance sensors *IEEE-RAS 20th International Conference on Humanoid Robots (Humanoids)*
- [63] Papageorgiou D, S Stavridis, C Papakonstantinou, Z Doulgeri 2021 Task geometry aware assistance for kinesthetic teaching of redundant robots *IEEE/RSJ International Conference on Intelligent Robots and Systems ...*
- [64] Kastritsi T, I Sarantopoulos, S Stavridis, D Papageorgiou, Z Doulgeri Manipulation of a Whole Surgical Tool Within Safe Regions Utilizing Barrier Artificial Potentials *Mediterranean Conference on Medical and Biological Engineering and Computing ...*
- [65] Stavridis S, D Papageorgiou, L Droukas, Z Doulgeri 2022 Bimanual crop manipulation for human-inspired robotic harvesting *arXiv preprint arXiv:2209.06074*
- [66] Stavridis S, Papageorgiou D, Zoe Doulgeri, 2022, Kinesthetic teaching of bi-manual tasks with known relative constraints, *Conference: 2022 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS-2022) Kyoto, Japan*
- [67] Ntaountaki P, et al 2019 Robotics in Autism Intervention. *Int. J. Recent Contributions Eng. Sci. IT* 7 (4), 4-17
- [68] Demertzi E, Voukelatos N, Papagerasimou Y, Drigas A, 2018 Online learning facilities to support coding and robotics courses for youth *International Journal of Engineering Pedagogy (iJEP)* 8 (3), 69-80
- [69] Chaidi I, Drigas A 2022 Digital games & special education *Technium Social Sciences Journal* 34, 214-236
- [70] Doulou A, Drigas A 2022 Electronic, VR & Augmented Reality Games for Intervention in ADHD *Technium Social Sciences Journal*, 28, 159.

- [71] Kokkalia, G., Drigas, A., & Economou, A. (2016). The role of games in special preschool education. *International Journal of Emerging Technologies in Learning (iJET)*, 11(12), 30-35.
- [72] Kefalis C, Kontostavlou EZ, Drigas A, 2020 The Effects of Video Games in Memory and Attention. *Int. J. Eng. Pedagog.* 10 (1), 51-61
- [73] Drigas, A., & Mitsea, E. (2020). The 8 Pillars of Metacognition. *International Journal of Emerging Technologies in Learning (iJET)*, 15(21), 162-178. <https://doi.org/10.3991/ijet.v15i21.14907>
- [74] Drigas, A. S., and M. Pappas, 2017. "The Consciousness-Intelligence-Knowledge Pyramid: An 8x8 Layer Model," *International Journal of Recent Contributions from Engineering, Science & IT (iJES)*, vol. 5, no.3, pp 14-25, <https://doi.org/10.3991/ijes.v5i3.7680>
- [75] Drigas A, Karyotaki M (2017) Attentional control and other executive functions. *Int J Emerg Technol Learn iJET* 12(03):219–233
- [76] Drigas A, Karyotaki M 2014. Learning Tools and Application for Cognitive Improvement. *International Journal of Engineering Pedagogy*, 4(3): 71-77. From (Retrieved on 13 May 2016)
- [77] Drigas, A., & Mitsea, E. (2021). 8 Pillars X 8 Layers Model of Metacognition: Educational Strategies, Exercises & Trainings. *International Journal of Online & Biomedical Engineering*, 17(8). <https://doi.org/10.3991/ijoe.v17i08.23563>
- [78] Drigas A., Papoutsi C. (2020). The Need for Emotional Intelligence Training Education in Critical and Stressful Situations: The Case of COVID-19. *Int. J. Recent Contrib. Eng. Sci. IT* 8(3), 20–35. [10.3991/ijes.v8i3.17235](https://doi.org/10.3991/ijes.v8i3.17235)
- [79] Kokkalia, G., Drigas, A. Economou, A., & Roussos, P. (2019). School readiness from kindergarten to primary school. *International Journal of Emerging Technologies in Learning*, 14(11), 4-18.
- [80] Pappas M, Drigas A. 2019; Computerized Training for Neuroplasticity and Cognitive Improvement. *International Journal of Engineering Pedagogy*.9(4):50-62
- [81] Papoutsi, C. and Drigas, A. (2017) Empathy and Mobile Applications. *International Journal of Interactive Mobile Technologies* 11(3). 57. <https://doi.org/10.3991/ijim.v11i3.6385>
- [82] Papoutsi, C. & Drigas, A. (2016). Games for Empathy for Social Impact. *International Journal of Engineering Pedagogy* 6(4), 36-40.
- [83] Karyotaki, M., & Drigas, A. (2015). Online and other ICT Applications for Cognitive Training and Assessment. *International Journal of Online and Biomedical Engineering*. 11(2), 36-42.
- [84] Papoutsi, C., Drigas, A., & Skianis, C. (2019). Emotional intelligence as an important asset for HR in organizations: Attitudes and working variables. *International Journal of Advanced Corporate Learning*, 12(2), 21–35. <https://doi.org/10.3991/ijac.v12i2.9620>
- [85] Chaidi I. Drigas, A. S., 2020. "Autism, Expression, and Understanding of Emotions: Literature Review," *Int. J. Online Biomed. Eng.*, vol. 16, no. 02, pp. 94–111, <https://doi.org/10.3991/ijoe.v16i02.11991>
- [86] Drigas, A. S., & Karyotaki, M. (2019). A Layered Model of Human Consciousness. *International Journal of Recent Contributions from Engineering, Science & IT (iJES)*, 7(3), 41- 50. <https://doi.org/10.3991/ijes.v7i3.11117>
- [87] Drigas, A. S., Karyotaki, M., & Skianis, C. (2018). An Integrated Approach to Neurodevelopment, Neuroplasticity and Cognitive Improvement. *International Journal of Recent Contributions from Engineering, Science & IT (iJES)*, 6(3), 4-18.
- [88] Karyotaki M. and Drigas, A. S., 2016. "Latest trends in problem solving assessment," *International Journal of Recent contributions from Engineering, Science & IT (iJES)*, vol. 4, no. 2, 4-10.
- [89] Mitsea E., Drigas, A. S., and Mantas P., 2021. Soft Skills & Metacognition as Inclusion Amplifiers in the 21st Century," *Int. J. Online Biomed. Eng. IJOE*, vol. 17, no. 04, Art. no. 04, <https://doi.org/10.3991/ijoe.v17i04.20567>

- [90] Angelopoulou, E. Drigas, A. (2021). Working Memory, Attention and their Relationship: A theoretical Overview. *Research. Society and Development*, 10(5), 1-8. <https://doi.org/10.33448/rsd-v10i5.15288>
- [91] Tourimpampa, A., Drigas, A., Economou, A., & Roussos, P. (2018). Perception and text comprehension. It's a matter of perception! *International Journal of Emerging Technologies in Learning (iJET)*. 13(7)
- [92] Drigas A, Mitsea E 2020 A metacognition based 8 pillars mindfulness model and training strategies. *International Journal of Recent Contributions from Engineering, Science & IT* 8(4), 4-17.
- [93] Papoutsis C, Drigas A, C Skianis 2021 Virtual and augmented reality for developing emotional intelligence skills *Int. J. Recent Contrib. Eng. Sci. IT (IJES)* 9 (3), 35-53
- [94] Kapsi S, Katsantoni S, Drigas A 2020 The Role of Sleep and Impact on Brain and Learning. *Int. J. Recent Contributions Eng. Sci. IT* 8 (3), 59-68
- [95] Drigas A, Mitsea E, Skianis C 2021 The Role of Clinical Hypnosis and VR in Special Education *International Journal of Recent Contributions from Engineering Science & IT (IJES)* 9(4), 4-17.
- [96] V Galitskaya, A Drigas 2021 The importance of working memory in children with Dyscalculia and Ageometria *Scientific Electronic Archives* 14 (10)
- [97] Chaidi I, Drigas A 2020 Parents' Involvement in the Education of their Children with Autism: Related Research and its Results *International Journal Of Emerging Technologies In Learning (Ijet)* 15 (14), 194-203.
- [98] Drigas A, Mitsea E 2021 Neuro-Linguistic Programming & VR via the 8 Pillars of Metacognition X 8 Layers of Consciousness X 8 Intelligences *Technium Soc. Sci. J.* 26, 159
- [99] Drigas A, Mitsea E 2022 Conscious Breathing: a Powerful Tool for Physical & Neuropsychological Regulation. The role of Mobile Apps *Technium Social Sciences Journal* 28, 135-158
- [100] Drigas A, Mitsea E, C Skianis 2022 Clinical Hypnosis & VR, Subconscious Restructuring-Brain Rewiring & the Entanglement with the 8 Pillars of Metacognition X 8 Layers of Consciousness X 8 Intelligences. *International Journal of Online & Biomedical Engineering (IJOE)* 18 (1)
- [101] Drigas A, Karyotaki M 2019 Attention and its Role: Theories and Models. *International Journal of Emerging Technologies in Learning* 14 (12), 169-182
- [102] Drigas A, Karyotaki M 2019 Executive Functioning and Problem Solving: A Bidirectional Relation. *International Journal of Engineering Pedagogy (iJEP)* 9 (3)
- [103] Bamicha V, Drigas A 2022 ToM & ASD: The interconnection of Theory of Mind with the social-emotional, cognitive development of children with Autism Spectrum Disorder. The use of ICTs as an alternative form of intervention in ASD *Technium Social Sciences Journal* 33, 42-72
- [104] Drigas A, Mitsea E, C Skianis 2022 Neuro-Linguistic Programming, Positive Psychology & VR in Special Education. *Scientific Electronic Archives* 15 (1)
- [105] Drigas A, Mitsea E, Skianis C. 2022 Virtual Reality and Metacognition Training Techniques for Learning Disabilities *SUSTAINABILITY* 14(16), 10170
- [106] Drigas A., Sideraki A. 2021 Emotional Intelligence in Autism *Technium Soc. Sci. J.* 26, 80
- [107] Drigas A, Mitsea E, Skianis C.. 2022 Subliminal Training Techniques for Cognitive, Emotional and Behavioural Balance. The role of Emerging Technologies *Technium Social Sciences Journal* 33, 164-186
- [108] Bakola L, Drigas A, 2020 Technological development process of emotional Intelligence as a therapeutic recovery implement in children with ADHD and ASD comorbidity. . *International Journal of Online & Biomedical Engineering*, 16(3), 75-85
- [109] Bamicha V, Drigas A, 2022 The Evolutionary Course of Theory of Mind - Factors that facilitate or inhibit its operation & the role of ICTs *Technium Social Sciences Journal* 30, 138-158
- [110] Karyotaki M, Bakola L, Drigas A, Skianis C, 2022 Women's Leadership via Digital Technology and Entrepreneurship in business and society *Technium Social Sciences Journal*. 28(1), 246-252.

- [111] Drigas A, Bakola L, 2021The 8x8 Layer Model Consciousness-Intelligence-Knowledge Pyramid, and the Platonic Perspectives International Journal of Recent Contributions from Engineering, Science & IT (iJES) 9(2) 57-72
- [112] Karyotaki M, Drigas A, 2016 Online and Other ICT-based Training Tools for Problem-solving Skills. International Journal of Emerging Technologies in Learning 11 (6)
- [113] Mitsea E, Drigas A., Skianis C, 2022 Breathing, Attention & Consciousness in Sync: The role of Breathing Training, Metacognition & Virtual Reality Technium Social Sciences Journal 29, 79-97
- [114] Mitsea E, Drigas A, Skianis C, 2022 ICTs and Speed Learning in Special Education: High-Consciousness Training Strategies for High-Capacity Learners through Metacognition Lens Technium Soc. Sci. J. 27, 230
- [115] Drigas A, Karyotaki M, Skianis C, 2017 Success: A 9 layered-based model of giftedness International Journal of Recent Contributions from Engineering, Science & IT 5(4) 4-18
- [116] Drigas A, Papoutsi C, 2021,Nine Layer Pyramid Model Questionnaire for Emotional Intelligence, International Journal of Online & Biomedical Engineering 17 (7)
- [117] Drigas A, Papoutsi C, Skianis, 2021, Metacognitive and Metaemotional Training Strategies through the Nine-layer Pyramid Model of Emotional Intelligence, International Journal of Recent Contributions from Engineering, Science & IT (iJES) 9.4 58-76

APPENDICES

Appendix i

Task sheet

5 Unit

Lesson 1 AN AMBITIOUS CLASS PROJECT

A LEAD-IN ▶▶

What does this sign tell you? Where can you find it?
You can check your ideas in the following website: www.greenpeace.gr



B LISTENING 📻

1. Mark is back at home. Listen to the conversation that Mark and Kostas are having today. What are they talking about?
2. Listen again and see which of these sentences are true (T) and which are false (F).

- | | | |
|---|--------------------------|--------------------------|
| | T | F |
| 1. Kostas is busy today because he's studying. | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Their teacher asked them to think about ways they can save the environment. | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. They're going to organize a project on recycling. | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. They're handing out leaflets and brochures about recycling tomorrow evening. | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Mark is thinking about trying it out with his classmates. | <input type="checkbox"/> | <input type="checkbox"/> |

C ACTING OUT ACTIVITY 🎭 ✍️

Your teacher has told you that one way of saving our environment is by not producing so much rubbish. Imagine you and your partner are Mark and Kostas. Which of the following actions could you take? The teacher will provide you with a model or alternatively you can create one of your own.

Ways to produce less rubbish

- Re-use books and notebooks
- Re-use plastic bags for shopping at the supermarket
- Use re-chargeable batteries
- Buy water or refreshments in glass bottles which can be recycled.
- Check if the package of the things you buy is environmentally friendly – i.e. can be recycled.
-
-



Enrich your conversation by using expressions like:
One thing I could do is

D ADVICE FOR THE HOME



- Now write down clearly as many of the recommendations you came up with in Activity C.
- Take them home and discuss with your family.
- By the end of the school year report back into class on how many of these you and your family were able to do.

If you want to find out more about recycling, check the websites included in the Appendix, page 140.

F QUIZ: "WHAT A WASTE!"



Work with your partner and find how much energy will be saved if you decide to apply your plan at school. Try to make the calculations. Here are the facts you need to take into consideration:

For the production of 1 tonne (1.000 kg) of paper we spend :

- 1) 4.000 kg of wood 2) 40.000 litres of water 3) 7.000 kWatts of energy

Can you work out how many trees, how much water and how much energy we waste in Greece if we think of the 700,000 tonnes of paper we send to the landfills each year?

- 700,000 tonnes of paper = 1) kg of wood
2) litres of water
3) kWatt of energy



Appendix ii

Transcript

Kostas: Oh, hi, Mark! I'm fine, very busy...

Mark: Busy? Why? Are you studying?

Kostas: Not exactly. You see, I'm working on an environmental project.

Mark: Oh, that sounds interesting! What exactly are you doing?

Kostas: Well, our teacher suggested that we should think of various ways to protect our environment. So, we're going to organise a project on recycling.

Mark: Wow, that's great, Kostas! Are you going to hold an exhibition at school?

Kostas: Well, actually we're going to try to persuade our friends and our teachers to recycle paper, aluminium, glass and plastic.

Mark: Oh, I haven't thought of recycling plastic... Is that possible?

Kostas: Yes, of course it is. Everything needs to be possible if we want to save our planet. So, tomorrow morning we're handing out leaflets and brochures giving information and encouraging everyone at school to take recycling seriously. If we succeed, we'll manage to do something about our future.

Mark: That's a terrific idea! I think I'll try it out myself with my classmates. I'll let you know as soon as I have news. But, please, do let me know about your results.

Kostas: Ok, I will. I must get back to work now. Talk to you soon.

Mark: Yes, talk to you tomorrow!

Post-Listening

- Ask pupils to read and discuss the statements in the second part of this activity.
- Play the tape/ CD again and let them check their answers.
- Explain unknown words or phrases. You could use realia in order to teach words like leaflets or brochures. For the rest of the vocabulary you could use L1 so that pupils transfer knowledge from their Environmental Education subject.

KEY

1 F, 2 T, 3 T, 4 F, 5 T

hand, 4. persuade, 5. recycle, 6. hold, 7. save, 8. terrific, 9. let, 10. results
DIFFERENTIATED ACTIVITY A • p. 75

KEY

A4-A14: environment, 15I-15B: brochure, 1C-1L: exhibition, 14E-14K: project, E14-E8: protect, 7E-7K: recycle, F3-F8: leaflet, 3E-3K: results, K6-K13: persuade, M11-M3: encourage, K9-H12: save, C3-C10: organize

C. ROLE PLAY

PB page: 62 / Time: 10-15 mins / TB Introduction p. 11

→ Cross-curricular link: ENVIRONMENTAL STUDIES.

Pre-Role Playing

- In pairs. Here's the part of the dialogue they should use in their role-play – it must be either photocopied or written on the blackboard. Alternatively, the pupils could create their own dialogue.

Kostas: Well, our teacher suggested that we should think of various ways to protect our environment. So, we're going to organize a project on recycling.

Mark: Wow, that's great, Kostas! Are you going to hold an exhibition at school?

Kostas: Well, actually we're going to try to persuade our friends and our teachers to recycle paper, aluminium, glass and plastic.

Mark: Oh, I haven't thought of recycling plastic... Is that possible?

Kostas: Yes, of course it is. Everything is possible if we want to save our planet.

- This section can be changed with the prompts provided in the Pupil's Book.
- Pupils should take turns and act out the dialogue.
- To provide a model, role play the dialogue with one of the pupils in front of the class.

While-Role Playing

- Make sure they use L2 during the activity.
- Move among the pairs and help when you