



## E-Portfolio as an alternative assessment tool for students with learning differences: a case study.

Dr. Dora Chostelidou; Eleni Manoli

### Abstract

The unprecedented technological and social changes, caused by the Fourth Industrial Revolution, demand that nobody be left behind, and all learners be catered for equally, respecting the principles of inclusion (Collins & Halverson, 2018). However, worldwide, more than 700 million people with dyslexia and learning differences experience failure and marginalization due to standardized testing, which tends to devalue their out-of-the-box mindset (Washburn et al., 2011). According to the National Research Council (2001), an effective way to promote equity in education and optimize learning as well as equip students for their future challenges, is to reflect on and restructure the assessment methods. In this vein, the purpose of the present research is to explore the impact of alternative assessment in the provision of holistic learning conditions. Therefore, e-portfolio was introduced as a research tool in an afternoon EFL class for students with learning differences (n=20 students) in Greece. The learners' active engagement in the self-evaluation processes, the ongoing conferences between the teacher and each student gave insight into the learning progress, and the in-time, constructive feedback comprise the strategies followed in this pilot study, aiming at investigating the learners' emotional reinforcement, change of attitude towards learning English as well as their improvement in the target language. Given the research findings, the e-portfolio enabled the students to employ both cognition and metacognition to prove their level of knowledge, adopt self-regulation strategies to boost their learning curves, and enhance their self-development, indicating the efficiency of the tool.

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# **E-Portfolio as an alternative assessment tool for students with learning differences: a case study.**

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## **Abstract**

*The unprecedented technological and social changes, caused by the Fourth Industrial Revolution, demand that nobody be left behind, and all learners be catered for equally, respecting the principles of inclusion (Collins & Halverson, 2018). However, worldwide, more than 700 million people with dyslexia and learning differences experience failure and marginalization due to standardized testing, which tends to devalue their out-of-the-box mindset (Washburn et al., 2011). According to the National Research Council (2001), an effective way to promote equity in education and optimize learning as well as equip students for their future challenges, is to reflect on and restructure the assessment methods. In this vein, the purpose of the present research is to explore the impact of alternative assessment in the provision of holistic learning conditions. Therefore, e-portfolio was introduced as a research tool in an afternoon EFL class for students with learning differences (n=20 students) in Greece. The learners' active engagement in the self-evaluation processes, the ongoing conferences between the teacher and each student gave insight into the learning progress, and the in-time, constructive feedback comprise the strategies followed in this pilot study, aiming at investigating the learners' emotional reinforcement, change of attitude towards learning English as well as their improvement in the target language. Given the research findings, the e-portfolio enabled the students to employ both cognition and metacognition to prove their level of knowledge, adopt self-regulation strategies to boost their learning curves, and enhance their self-development, indicating the efficiency of the tool.*

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## **1. Introduction**

'Everybody is a genius. But if you judge a fish by its ability to climb a tree, it will live its whole life believing that it is stupid', is a statement adhered to Einstein according to Gribbin and Gribbin (2005).

Successful teaching is closely connected with identifying and implementing the suitable individualised assessment tool to the students, a tool that will match their profile, and embrace their uniqueness while employing the best way to make it an asset as it is stressed in Einstein's quote above.

The purpose of this research is to explore the perspectives of portfolio, used as a means of alternative assessment, which differs from the traditional, standardised tests, showcasing the development and implementation of an e-portfolio for students with Specific Learning Difficulties (SpLDs). In addition, it aims to provide insights into its impact on the target population in terms of the employment of cognition, metacognition, and self-regulation strategies, which can not only boost their learning curves but also enhance their self-development.

The adopted approach to assessment was made in acknowledgement of the fact that formal, ongoing, and flexible types of evaluation, such as portfolios, are believed to be tailor-made for students with learning differences, who need differentiated approaches in their schooling in order to unlock their full potential, and be equally appreciated (Hirvela & Pierson, 2000). Especially in the field of special educational needs (SEN), the students benefit from the parameters of equity in education since all the learners are provided with equal opportunities to succeed (Darling-Hammond, 1995), and from the active participation in their assessment process, which positively appreciates every effort they make (Gomes & Mendes, 2007). It should be noted, that the "self-portrait" of the students' work in a portfolio leads to constant self-reflection and self-improvement, which contribute to building both cognition and metacognition, and are identified as necessary features for the next generation citizens (Veenman et al., 2006). In addition, alternative assessment tools, such as portfolios, have the potential to instill not only academic but also study, and life skills, such as higher-order thinking, self-regulation, self-awareness, compassion for others, empathy, ingenuity, risk-taking strategies among others, creating, thus, a holistic impact on students with learning differences (Gipps, 2002).

## **2. E-Portfolio as an alternative assessment tool**

### **2.1 Defining e-portfolio**

Embracing the pedagogical use of Information Communication Technology (ICT) in educational contexts, electronic Portfolios or e-portfolios can be regarded as a major innovation brought about by advances in technology to promote both learning and assessment (Woodward & Nanlohy 2004). According to Lorenzo and Ittelson (2005, p.2), it can be defined as "a digitized collection of artefacts including demonstrations, resources, and accomplishments that represent an individual, group, or institution". What is more, an e-portfolio can be identified as a web-based collection of students' works, which includes their responses or reflections to tasks, highlighting the skills they acquired, and their achievements in various contexts for a certain period of time (ibid, p. 2). On the same line, Gray (2008, pp. 6-7), defines it as "a purposeful aggregation of digital items" including ideas, evidence, reflections and feedback, and emphasizes the potential of e-portfolios to provide a record of the learners' "experiences, achievements, and learning," which can be of use to different stakeholders, i.e. teachers, administration, parents, and students (ibid, 2008). It should be noted, however, that the development of an e-portfolio is closely related with "complex processes of planning, synthesizing, sharing, discussing, reflecting, giving, receiving, and responding to

feedback” (JISC, 2008, p. 6).

## ***2.2 Types and purposes of portfolios***

The portfolio is a multidimensional construct which can be employed for different purposes depending on its type. According to Apple and Shimo (2004), three types of portfolios can be identified: (1) The documentation portfolio which includes the collection of all the student's works throughout a course. (2) The assessment portfolio involving a systematic selection of the works produced on the part of the students based on criteria, which have been clearly communicated by the teacher, and are believed to be of major importance in assessing the students' performance. (3) The showcase portfolio which involves a selection of the best samples of the students' work to be included in their portfolio.

Researchers (Hamp-Lyons & Condon, 2000; Burner, 2014) agree that in order to be efficient, a portfolio should display procedures of collection, selection, and reflection, which means identify with the assessment portfolio type highlighted above, and as Moya and O'Malley (1994) point out, it comprises of important pieces of students' work to be shared with various stakeholders.

## ***2.3 The benefits and drawbacks of E-portfolio as an assessment tool***

Reviewing relevant literature, the benefits and drawbacks of E-portfolio as an assessment tool have been identified (Aliweh, 2011; Britten et al., 2003; Burner, 2014; Cambridge, 2010; Chau & Cheng, 2010; Fox, 2008; Gebric et al., 2011; Hung & Huang, 2012; Love & Cooper, 2007; Nunes, 2004; Yin, 2013; Ziegler & Moeller, 2012). According to Brown and Hudson (1998), a portfolio can be beneficial in terms of the following aspects, enhancing student's learning, providing information to teachers, and facilitating the assessment process. Drawing from the findings of empirical studies, Yin (2013), highlights that portfolio assessment overcomes the problematic aspects of traditional tests, and can be aligned to the aims of the curriculum goals. In addition, it can promote the learners' language development, self-reflection, autonomy, cognition, metacognition, and motivation (ibid). Britten et al., (2003) report that as students engage in portfolio assessment student reflection can be enhanced offering useful insights into their progress over time. Hung and Huang (2012) on their part, identify its influence on cultivating a sense of ownership, and a sense of community while Nunes (2004) pinpoints its potential to develop students' reflection.

According to Love and Cooper (2007), the benefits from the use of portfolio assessment are creating the conditions for meaningful learning which is linked to real-world experiences and is self-directed, with students assuming responsibility for their own learning. Burner (2014) highlights the positive impact of portfolio assessment on promoting authenticity by providing the chance for authentic language use. He also comments on further beneficial aspects such as promoting and facilitating interaction not only in the language classroom but also beyond it, introducing anxiety-free conditions for learning compared to traditional testing approaches, besides increasing students' motivation and time spent on the tasks (ibid). Ziegler and Moeller (2012), on their part point out that portfolio assessment as a formative assessment tool can promote intrinsic motivation, and improve the accuracy of self-assessment of learning. On the same line, Cambridge (2010) underlines the merits of the learners evaluating their knowledge and skills as it can provide valuable insights into how they will be able to transfer them in further settings. Aliweh (2011) indicates that the portfolio can be a powerful tool for developing the learners' responsibility for learning

along with their awareness for their literacy and skills. The positive impact of portfolio assessment in helping learners become more independent is also identified by Chau and Cheng (2010) and Gebrie et al., (2011).

However, according to criticism, alternative assessment tools lack reliability and validity since it is difficult to pass judgement, and produce stable or consistent results, compared to standardized tests (Mason et al., 2004). This issue can be overcome by means of coherent, consistent, and systematic collection of evidence, which take place over a long period of time, and provide data representative of the teaching practices and the learners' performance, reflecting the underlying skills measured (Baume, 2002; Berk, 2002; Hamp-Lyons & Condon, 2000). Besides, it should be noted that by assimilating assessment to the process of teaching and learning and by tackling norm, linguistic, and cultural issues related to traditional testing approaches, alternative assessment tools, such as portfolios, can gain in terms of both validity and reliability (Huerta-Macias, 1995, p.10).

Another estimated shortcoming of designing portfolios as an assessment tool is its utility and practicality (Lo, 2010). Portfolio development demands more time on the part of the teacher, according to Harmer (2007), with Barrett and Knezek (2003) as well as Birgin and Baki (2007) agreeing that the process of creating a portfolio is time-consuming and costly, necessitating loads of materials, such as books, photocopied materials, folders, colored paper, among others. A further issue of introducing portfolio assessment is that various stakeholders, including parents or administration, may object or disapprove of its use due to rooted beliefs on traditional testing, and lack of knowledge concerning the particular tool (Mokhataria, 2015).

The spread of technology has led to the emergence of e-portfolio tackling shortcomings of portfolios as assessment tools, such as utility and practicality (Hung, 2008). The process of creating a digital portfolio is no longer as time-consuming and costly as it used to be, necessitating materials such as books, folders, and colored paper, among others as in the case of paper portfolios (Barrett & Knezek, 2003; Birgin & Baki, 2007); rather the collection, organization, and storage of students' work in various formats is greatly facilitated by technology (Barret, 2000).

### **3. The study**

#### **3.1 Teaching context**

The implementation of the intervention employing e-portfolio as an alternative assessment tool for an EFL course for students with SpLDs and other challenges, took place in a weekly Kids' English Art Workshop in a private educational organization. The class consisted of 20 mixed-ability students with an age range from 9-12, aiming at A2 level certification, according to the Common European Reference for Languages (CEFR) (Council of Europe, 2002) at the end of the school year. The EFL teacher has specialised knowledge for teaching the target group of students as all are identified with both mild and severe learning difficulties. In particular, most of the students are diagnosed with dyslexia and ADHD, while two of them belong to the autism spectrum disorder. They are all monolingual students, whose mother tongue is Greek, and are learning English as a foreign language; hence, they are identified as belonging in the expanding Kachruvian circle (Kachru, 1985), in which English is learnt as a medium for international communication.

Having suffered the effects of marginalization and the disheartening effect of unfair stereotypes due to their different way of learning, the students seem to consider schooling as an unbearable burden (Manoli, 2018). Their main difficulty is the refusal and negativity towards learning while they appear to be overwhelmed with anxiety and frustration concerning their educational performance, which, in turn, is affected by the way they feel.

### ***3.2 The aim and objectives of the EFL workshop***

According to the limbic system theory, the connections between emotions and learning are bidirectional and conducive either to success or failure (Chen et al., 2008). Thus, the teacher set her priority to unlock these students' academic potential by building their psycho-social development, and empowering their creativity, self-regulation, self-awareness, and critical thinking skills. By extension, the teacher's main goal is to modify the students' attitude towards learning and progressing, not only in English but in other school subjects as well (Rogers, 2002). What is more, particular emphasis was laid on the development of the students' soft skills, such as communication and cooperation skills, empathy and positivity, ideation and implementation of innovative solutions for real-life problems, patience and perseverance, which are regarded as essential for a well-rounded citizen with holistic cultivation in the modern society (Kolb, 2014). Transmitting life skills to the students does not connote to ignoring language perfection and towards the goal of mastering English as a foreign language, as the students are exposed to genuinely valuable opportunities to use English replicating authentic language cases (Gidley, 2010).

### ***3.3 The teaching intervention: a descriptive account***

The teacher provided the students with differentiated, one-to-one tutoring of the English language for three hours per week, along with the two-hour, weekly workshop for an academic year. The students' needs were catered for holistically; in other words, both language competency and emotional growth was built (Kolb & Kolb, 2009), while they were attending the individual and team sessions respectively. The syllabus of the workshop was global, citizenship-oriented, and every week's sessions included hands-on, experiential projects. Indicatively, some of the modules the students elaborated on were: 'Paving towards Sustainability', 'Establishing Global Quality Education', 'Global Peace' and 'Climate Super Heroes'. Through out-of-the-box activities, and involvement with real-life global problems, which tend to boost learning curves and promote reasoning, puzzle-solving, abstract way of learning, effective, fruitful cooperation, compassion, empathy, EQ and CQ building, it was aimed that the students would practice the target vocabulary by building their own mnemonic strategies, employ functional language in dialogues, enhance their listening and presentation skills while presenting their work in front of their peers and their teachers.

Student-based and project-based art-empowered learning, in combination with jigsaw and collaboration strategies, contribute to the students' moving from formalistic, exam-centered learning environments to experiential, transformative ones, which concentrate on formative rather than summative ways of assessment (Brown et al., 2008).

### ***3.4 The rationale for introducing portfolio assessment***

In consideration of the numerous benefits of portfolio assessment (see section 2.3), its efficiency to



accommodate the learners' needs in various learning contexts needs hardly be argued. In addition, taking into consideration the emotional barriers provoked to students with SpLDs by traditional tests (Pappa, 2013), the rapid technological and societal changes, which impose that nobody be left behind (Bloem et al., 2014; Gidley, 2014), and the need for inclusion (Collins & Halverson, 2018), a portfolio is regarded as an advantageous method of assessment to be employed (Webb et al., 2003).

Along with the pedagogical benefits of introducing e-portfolio (see section 2.3) and the parameters mentioned above, the need for the cultivation of soft skills, rather than solely focusing on the hard ones, in line with the demands of the Fourth Industrial Revolution path (Bloem, et al., 2014), calls for a diversified approach to assessment, as such skills are not easily measured or proven like the typical qualifications or certificates deriving from the standardized types of testing. In this respect, portfolio assessment was considered as an efficient approach to assess the students' development of communication and cooperation skills, empathy and positivity, ideation and implementation of innovative solutions for real-life problems, patience and perseverance, which are identified as necessary features in which students of the 21st century should be trained (Schulz, 2008).

### ***3.5 The procedure for developing the e-portfolio***

The procedure of developing the e-portfolio, which can be identified as an assessment portfolio, following the categorisation by Apple and Shimo (2004), took place in three phases, collection, selection, and reflection (Burner, 2014). During the previous academic year from September until May, the teacher kept a record of the students' projects in all of their stages until their completion, by taking pictures and videos of them using a tablet while she also kept an observation diary. Both the parents and the students were informed about the photo shooting, and their consent was given in a written form despite the fact that the former tended to be quite negative about the effectiveness of this type of assessment. The students eventually had a big number of both individual and group pictures of their work, therefore, in order to enhance the students' involvement in their self-assessment process, each one of them negotiated with the teacher about which photos presenting their effort should be included in the collection of their work. The screening of the photos and the decision over which were the most suitable ones to represent the learners' end-product took place at the end of each project after the students had completed an evaluation checklist with ten items, given in Greek to ensure comprehensibility (see Section 3.8, Table.1).

The teacher intending to familiarise the learners and their families with cutting-edge technology decided to make the portfolios digital on a presentation platform system (<https://prezi.com/dashboard/next/>). She worked closely with the students, and in the last five minutes of each workshop session, they negotiated about which images, proof of evidence, should be saved and which ones should be erased. At the end of each syllabus module, about once in a month, the teacher interacted with each learner on a decision-making process, and they designed together the format and content of each slide of their portfolio presentation. The link of each student's portfolio was saved in a public mode, but the student's name was written in a jumbled order to secure the student's online protection, and lack of inappropriate exposure (J@\$on instead of Jason, which is the student's real name). The links were rendered into a Qr code (<https://www.qrstuff.com/>) (Appendix 1), and placed on a 3D paper suitcase, which represented the students' journey of knowledge, self-exploration, and self-achievement, making the portfolio more vivid and powerful (Pasareti et al., 2011;

Wojciechowski & Cellary, 2013). Extra emphasis was placed on the presentation of the portfolio to an audience other than their peers. This is why it was not given to the students and their families as a CD or sent as a link via a typical e-mail; instead, all the students had the opportunity to present the end-product of their hard work during the end-of-the-year celebration.

### 3.6 The research tools used to complement portfolio assessment

To overcome the alleged limitations of alternative assessment, deal with parents' disapproval of the unfamiliar tool, and their demand for data concerning their children's progress, the teacher employed observation diaries, keeping detailed record files for each individual student's performance. It should be noted that many parents were especially reluctant to accept the explanation provided by the teacher so as to comprehend how portfolio would be beneficial for the learners. Additionally, a self-evaluation checklist was completed every trimester by the students upon the completion of the modules with the aim to provide further insights into the positive impact of the implementation of the e-portfolio.

### 3.7 The findings from the teacher's diaries

Throughout the academic year, the teacher closely observed the students' performance in terms of communication strategies, oral interaction, and written production, and kept observation diaries, which recorded the students' progress, and were translated into line graphs to highlight the efficiency of the adopted approach in helping the learners make progress despite the absence of data from traditional testing. As presented in figures 1-4, which depict the average group progress attained throughout the academic year in relation to specific descriptors of the (CEFR), by the end of the school year, the students had reached the level, which was as set at the beginning of the course, that is, A2, and in many cases even A2+ according to the (CEFR), (Council of Europe, 2002).

Concerning their communication strategies, which are presented in Figure 1, addressing audiences was the one in which the highest development was identified, followed by asking for clarification, taking the floor or turn-taking, and cooperation strategies. Of them, it is interesting that addressing audiences and turn-taking followed a more dynamic pattern of development.

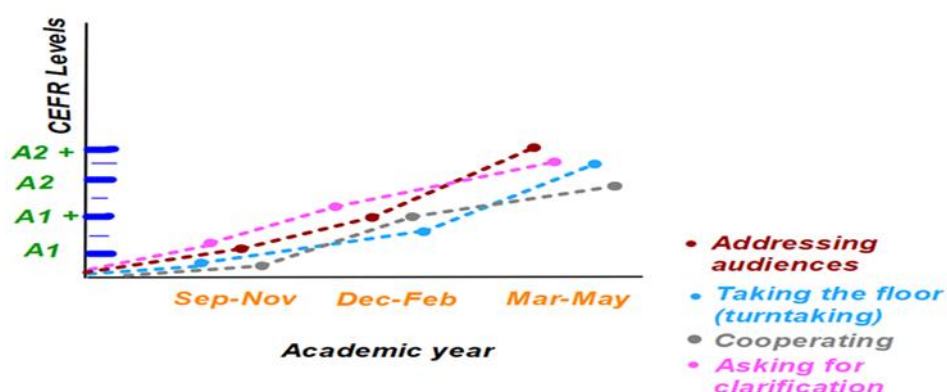


Figure 1. The students' progress in terms of communication strategies

Concerning the students' improvement in terms of oral interaction, as shown in Figure 2, informal discussion among friends was identified as the most improved strategy, information exchange for a variety



of purposes came next while the overall amount of spoken interaction followed. It should be noted, however, that over the last trimester, the development of all three followed a parallel pattern.

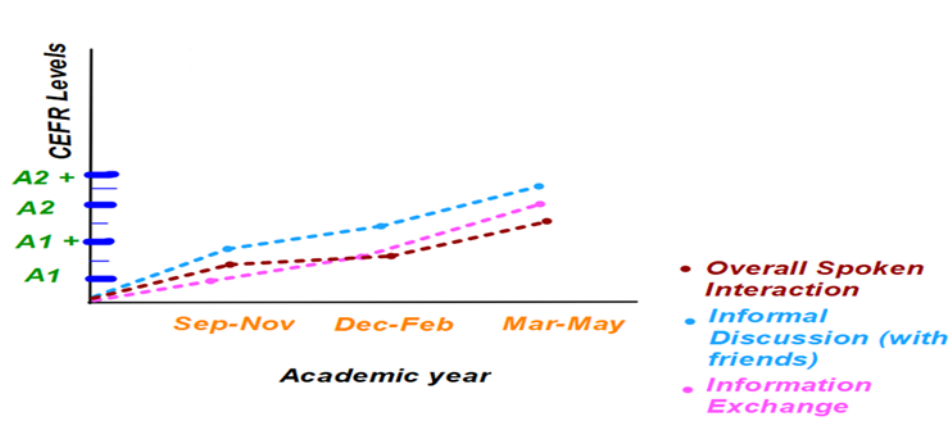


Figure 2. The students' progress in terms of oral interaction

When it comes to written production, which is an aspect of language learning which presents major difficulties for students with SpLDs, the students' performance in goal-oriented cooperation was highly improved, creative writing was next in terms of development along with reading for orientation, all following an almost parallel development, as shown in Figure 3. The latter, reading for orientation, was a little below A2 level.

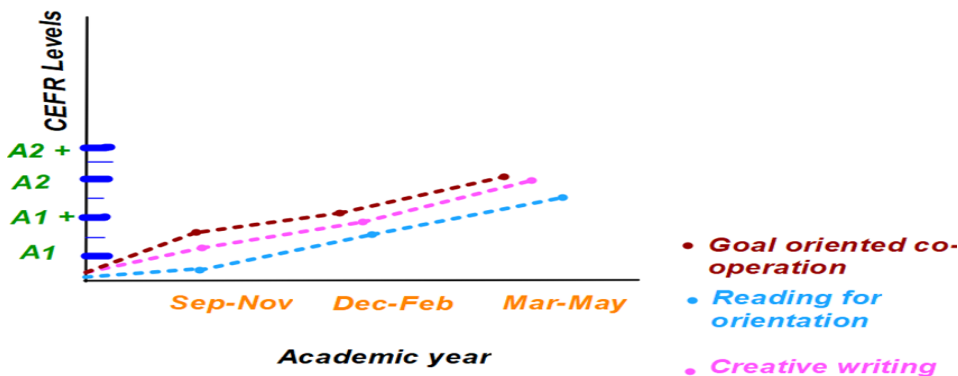


Figure 3. The students' progress in terms of written production

In terms of their performance concerning listening comprehension, as shown in Figure 4, the learners developed listening as a member of a live audience mostly; they also improved their overall listening comprehension skills, besides listening to announcements, and instructions reaching A2 level, which had been identified as the goal.

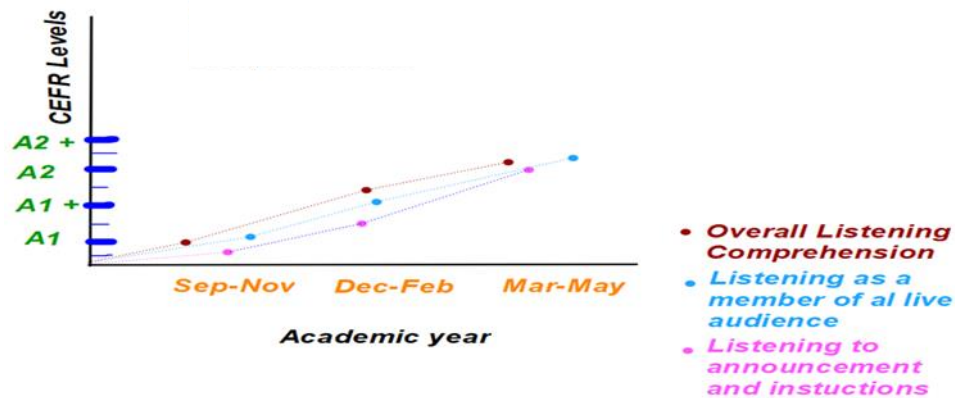


Figure 4. The students' progress in terms of listening comprehension

### 3.8 The findings from the students' self-evaluation checklists

Upon the completion of each trimester, the students' completed a self-evaluation checklist, comprising in total ten items, given in Greek to secure comprehension and enhance the reliability of the data produced. They were asked to provide a response indicating their performance and conditions of learning in the workshop sessions, on the basis of a Likert scale from 1 to 5; 1 (Not at all), 2 (to a small extent), 3 (to a moderate extent), 4 (to a large extent) and 5 (to a great extent). The mean scores of the students' answers in the three self-evaluation checklists are presented on Table 1.

Table 1. Average results of the students' self-evaluation checklists

	Checklist 1 September- November	Checklist 2 December- February	Checklist 3 March- May
1. I understand the teacher's instructions in class.	2.4	3.2	4.7
2. I use English as much as possible when I want to express my intentions in class.	1.9	2.8	4.2
3. I am willing to use written language in my projects.	1.8	2.4	4.3
4. I find the projects in the workshop appealing.	3	4.4	5
5. I can cooperate harmoniously with my classmates.	2.8	3.9	4.8
6. I feel confident enough to express my opinion in front of everyone at the workshop.	1.6	3	4.6
7. I learn interesting things at the workshop useful for my life as a global citizen.	2.8	3.7	4.7
8. I feel the workshop has nothing to give me.	3.1	2	1
9. I feel too tired during the-two-hour lesson.	3.2	2	1.4
10. Keeping a record of my work helps me understand the best strategies to follow.	1.8	3.7	4.6

The mean scores highlight the positive impact of the adopted approach in the EFL workshop as the students' mean scores reveal their perceptions concerning their considerable improvement in terms of the aspects presented in the self-assessment checklist. It is interesting that the scores recorded at the end of the first trimester improved significantly at the end of the second trimester, and even more at the end of the third one, indicating the efficiency of the approach to fulfill its goals.

#### **4. Reflection on the holistic impact of alternative assessment**

The teacher decided to create an eco-friendly, digital portfolio in order to overcome issues of utility and practicality (Lo, 2010), and avoid the paper load and the cost of buying the necessary materials for a paper one (Barrett & Knezek, 2003; Birgin & Baki, 2007; Mullen, et al., 2005). Following the process previously described (see section 3.5), the students managed to build 21<sup>st</sup> century skills (Schulz, 2008), which no pen and paper test could equip them with (Yin, 2013). This eco-friendly and technologically advanced testing tool enabled them to view a different perspective of learning, appealing to their age, needs, and preferences. The ingredient of technology grabbed their attention (Eynon & Gambino, 2018); the fact that both their learning and assessment were incorporated in it, helped to create coherence and continuity in this process (Huerta-Macias, 1995), purging it from all their previous assessment experiences related to failure.

Their weekly active involvement gave the students the time needed to reflect on their progress and make the appropriate connection between previous knowledge and materials currently taught (Britten, 2003). What emerged through the students' self-reflection was that they were encouraged to reset their learning goals by carefully monitoring their own progress and observing their way of learning (Nunes, 2004; Reinders & Cotterall, 2001; Yin, 2013). Hence, learning was made visible, and the students became aware that the assessment outcome was the result of their work (Aliweh, 2011; Kohonen, 2000). This element strengthened their self-awareness and self-monitoring abilities, since they were given the chance to review and reflect on their accomplishments (Little, 2007), which were further enhanced by the three self-evaluation checklists devised upon the completion of each trimester (see section 3.8).

The use of the e-portfolio as an assessment tool led to learning to use the target language in a real-life context, assessing the learners on the basis of what they know, and need to do in real-life situations (Lynch, 2001; Love & Cooper). Besides, it provided all the learners with equal opportunities to succeed (Darling-Hammond, 1995), it supported their motivation to achieve their goals (Burner, 2014; Yin, 2013; Ziegler & Moeller, 2012), and appreciated their effort to learn, along with their creativity (Gomes & Mendes, 2007). In addition, the e-portfolio proved advantageous concerning the emotional growth and self-confidence of the learners providing non-judgmental assessment, which is based on the principles of respect towards diversity of learning as well as the transmission of significant life skills in each student, which are regarded as essential for the shaping of a well-rounded personality (Bell, 2010; Little, 2009). Through their active participation in the assessment process, the learners noticed their step-by-step progress and reflected on it, week after week, until they eventually reached their end-product. In doing so, the students learnt to embrace their different way of perceiving reality, mainly in a right-brained fashion, and understood the extent of their potential, since their self-acceptance and self-respect were reinforced.

In contrast to the features of traditional testing, which tend to block the students' concentration and

comprehension (Shohamy, 2014), portfolio assessment released their creativity, and provided the appropriate conditions for learning not just mere testing, as the Aristotelian educational paradigm indicates. By taking into account the low-self-esteem the students used to have before being involved in this program of cognitive, meta-cognitive, and limbic-brain system empowerment, their multi-level transformation was considerable, and worth mentioning. Not only did they manage to break all the stereotypes previously reigning in their mind and heart by eliminating the stigma of dyslexia, and other learning differences, but also, they modified their mindset towards learning (Durlak et al., 2011; Nichols & John, 2009).

Their progress is more than obvious in comparison to their entry level, as evidenced by the data of the students' own responses in the three self-assessment checklists, which were delivered one every three months (Table 1). By self-evaluating their work, the students managed to have a clear picture of their performance (Ziegler & Moeller, 2012) in a number of fields, such as cooperation with their classmates, creativity, a combination of synthetic, and analytical thinking, unimpeded use of the target language, development of self-confidence, and emotional growth. The holistic impact of alternative assessment on the learning progress is further evidenced by the data from the teacher's observation diaries, which provided a detailed record for the achievement of each student, and was translated into four line graphs depicting the average group progress throughout the academic year, in relation to specific descriptors of the CEFR (see section 3.7).

The students managed to make use of the feedback they got from the teacher while utilizing constructively the conclusions drawn from their self-evaluation. In their first projects, they did not use to apply the principles of self-monitoring and no strategy of 'learning how to learn' was implemented (Bellanca & Brandt, 2010). Nevertheless, they gradually understood what could make them more efficient in terms of communication strategies while the techniques they employed improved as well (see section 3.7, Figure 1). Their presentation skills were enhanced by watching themselves on videos, and their written language and listening skills were strengthened (see section 3.7, Figures 2-4). They, also, practiced applying design thinking elements in inventing solutions to real-life problems (English & Kitsantas, 2013; Koh et al., 2015). What at first, was considered as too hard to accomplish, finally, was manageable and feasible. The portfolio as an assessment tool acted beneficially upon the students' mindset since it unblocked their motivation and gave prominence to their strong potential (Huerta-Macias, 1995). Once this happened, the students devised their own successful practices for acquiring knowledge and skills, which can be effectively transferable to various learning environments (Cambridge, 2010). The learners started considering the English lessons as the means to their goals-fulfillment, instead of a hindrance; the factors of learning commitment and ownership strengthened those learners' positive feelings towards the target language (Libbey, 2004).

By presenting their e-portfolios, the students felt proud of their hard work while demonstrating the perfect proof of their constant progress in comparison to previous years. Such feeling of ownership (Hung & Huang, 2012) added to the learner's self-confidence, self-love, and self-acceptance enhancement, which contributed to creating the ideal conditions of self-growth and evolution (Chen et al., 2008; Dörnyei & Schmidt, 2001). They were proud of their hard work and enjoyed their opportunity to prove their value to their teacher and family in a practical way. Their sense of accomplishment derived from the freedom they experienced to include and showcase the artifacts which represented their best moments (Bender, 2012).

In consideration of all the above, e-portfolio can be efficiently employed as an alternative assessment tool

in the EFL classroom, overcoming the adverse attitude of potential stakeholders concerning its supposed drawbacks or limitations, which can be transformed into advantages and success stories, enhancing its usefulness and multiplying its learning benefits for students with learning differences.

## 5. Conclusion

The e-portfolio provided the learners with holistic learning conditions to succeed and further develop their language competence, strategies, and skills in the target language, in line with the set objective, to reach A2 level according to the CEFR (Council of Europe, 2002) while boosting their learning curves. In addition, by catering for the students' needs holistically, they benefitted in terms of enhancing their emotional growth as well. Concluding, the implementation of the e-portfolio was efficient in promoting the learners' cognition, metacognition, and self-regulation strategies, which identifies it as a valuable tool that has earned its place in the EFL classroom, serving the needs of students with learning differences. After all, it should not be ignored, that the most brilliant and intelligent students do not shine in standardized tests because they do not have standardized minds (Ravitch, 2001).

## 6. Limitations of the study & suggestions for further research

The primary limitation of the study can be regarded the limited number of participants. The same study should be repeated with a larger group of students in order obtain a larger amount of data that would allow generalizability of the results. What is more, the case study took place in an English Art Workshop in a private educational organization, so it would be interesting to investigate the impact of the implementation of an e-portfolio in a public school or other context to gain further insights into the matter. Besides, e-portfolio can be used as an assessment tool to investigate further aspects of students' learning gains in terms of skills and strategies. On the same line, a longitudinal study could be initiated to explore long-term achievement factors of implementing e-portfolio.

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## Appendices

### Appendix 1

