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Advantages and Disadvantages of Eportfolio Implementation in Primary Education

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Abstract: The research presented in this article attempts to capture the views of teachers of elementary education about the advantages, disadvantages, difficulties and obstacles in the application of the portal as a rating and self-evaluation tool by the students. The survey, which constitutes the second part of a major research within the context of master thesis, was conducted in the second semester of 2016-2017 school year using anonymous written and electronic questionnaires, filled in by 215 elementary education teachers of all specialties from the first educational area of Athens. Most respondents are cautious about the benefits of using eportfolio, drawing attention to caution, lack of culture as barriers to its implementation, as well as basic problems such as lack of appropriate classroom infrastructure and the absense of eportfolio-related training.

Keywords: *eportfolio; Student assessment; Advantages of eportfolio, Disadvantages of eportfolio*

Introduction

Student assessment as well as the incorporation of ICT in education are a bet of all modern educational systems (Konstantinou, 1998). Eportfolio is an innovative approach of alternative assessment (Lorenzo & Ittelson, 2005) which is based on ICT.Bibliographic research related to the eportfolio is reported: a) in theoretical part (Abrami & Barrett, 2005; Lorenzo & Ittleson, 2005), b) The advantages of its using (Barrett & Knezek, 2003; Challis, 2005; Strudler & Wetzel, 2005), c) in case studies and applications at all levels of education (Sofos & Liapis, 2007; Papacharalambous, 2008; Papathanasiou & Manousou, 2011), sometimes using specialty systems (Nikolou & Georgopoulos, 2012; Sotiropoulos, 2012; Stylianou, 2013) by simultaneously recording the views of everyone involved (Beresford & Cobham, 2011; Knight et al., 2006; Ritzhaupt et al., 2008; Tosh et al., 2005).

Regarding previous surveys, there are few documented surveys concerning the advantages and disadvantages on the difficulties and obstacles from using the portfolio (Coutinho & Bottentuit, 2008; Parker et al., 2012; Apostolopoulou, 2012). This article attempts to bridge this gap.

Background

Eportfolio is an online collection of digital artifacts such us documents, photos, videos, music composition, presentations and soon (Abrami & Barrett, 2005) which are designed to support pedagogical processes and evaluation purposes. It is the electronic version of the portfolio. Its most important aspect that students decide what eportfolio will contain (Lorenzo & Ittleson, 2005a).

Eportfolio belongs to the alternative forms of assessment that have been developed as a counterweight to traditional methods, aiming at

assessing students' attitudes, skills and performance. They are what is essentially authentic techniques through which students are intended to meet daily routine and real life (Paris & Ayres, 1994), encouraging reflection and self-assessment and contributing to the development of social and metacognitive skills (Segers, 1999).

Eportfolio actively involves students to the educational process (Canada, 2002; Sherry & Barrett, 2005), while at the same time stimulates their interest as they get familiar with Information and Communications Technology (Barrett & Sherry, 2005; Yancey, 2001). Furthermore, eportfolio is characterized by adaptability to the needs, interests, peculiarities and skills of the students (Abrami & Barrett, 2005; Cooper & Love, 2004; Kilbane & Milman, 2005). Also, eportfolio does not restrict classroom learning (Ahm 2004; Health, 2005), while it promotes student-centered learning (Health, 2005). Skills such as feedback(Lorenzo & Ittleson, 2005), collaborative learning communication can be developed by using the eportfolio (Abrami & Barrett, 2005).Concerning the teachers, eportfolio provides a broader picture of the student (Love & Cooper, 2004), as well as being an effective tool for assessing student's skills, knowledge and assessment in general (Barrett, 2000; Health, 2005). Also, the cost of creation and management is minimal to zero (Health, 2005).

However, many critics favor several disadvantages and organizational problems, among which are the claim that eportfolio requires specialized knowledge on ICT (Spring, 2001), it is a tedious and time-consuming process, since reviews as well as the final evaluation require enough time (Galanou, 2007), it questions of the credibility of the assessment, along with the difficulty in evaluating (Linn & Gronlund, 2000), it requires logistical infrastructure (Health, 2005; Butler, 2006), it may lead to more students being evaluated for their technological knowledge (Butler, 2006) and can file students and schools according to their socio-economic level (Seely, 1994).

Purpose and research questions

The aim of this paper is to explore the attitudes and perceptions of elementary school teachers concerning the advantages and disadvantages of using eportfolio as well as the difficulties and obstacles - problems of organizational nature of exploitation of eportfolio as a diffentiated means of student assessment and self-assessment.

For this reason, these research questions have arisen: a) what do participant teachers think are the most important advantages and disadvantages of using eportfolio? b) What do teachers think of the difficulties and the obstacles - problems of the organizational nature of the use of eportfolio? c) How do the perceptions and attitudes of teachers are related to the advantages and disadvantages of using eportfolio, as well as the difficulties and obstacles of using it as individuals?

Methods

The research presented in this article is the second part of a large-scale research, which was conducted in the context of postgraduate thesis, involving 215 primary school teachers from Athens' first educational district about the use of the portfolio as a tool for evaluating students where the views of teachers about the advantages, drawbacks, difficulties and obstacles to

the implementation of the portfolio are also seen. An anonymous questionnaire was used.
The first part of the questionnaire includes general and demographic data. The second part includes elements of exploiting ICT in the school. The third part includes four questions related to the advantages, disadvantages, difficulties and organizational problems regarding the use of eportfolio.

The program used for statistical analysis was SPSS v21. For the level of reliability, the Cronbach's Alpha index was used, which showed a high credibility coefficient score (0.809> 0.70) for all questionnaire scales (Bryman, 2015; Coughlan, Duhachek & Iacobucci, 2005). Below are presented the reliability analyzes of the questionnaire scales of this survey.

Assessing the Significance of Advantages of Eportfolio: The scale consisted of seven items graded on a 5-grade scale, which evaluate the importance of eportfolio's benefits. The scale reached a high Cronbach's Alpha score (0.886). The results demonstrated that the seven-question eportfolio merit scale is of a very good level of reliability.

Assessing the Significance of Disadvantages of Eportfolio: The scale consisted of seven items rated on a 5-point scale, which evaluated the significance of the drawbacks of eportfolio. The scale achieved an acceptable Cronbach's Alpha score (0.702). The results demonstrated that the seven-question eportfolio scale evaluation scale having a satisfactory level of reliability, too.

Assessment of the significance of problems related to the use of eportfolio: The scale consisted of nine questions (items) rated on a 5-point scale, which assess the importance of problems related to the use of eportfolio. The scale achieved an acceptable Cronbach's Alpha score (0.790). The results showed that the scale of assessing the significance of the problems related to the use of eportfolio with 9 questions is also a satisfactory level of reliability.

Assessment of the organizational nature of the problems related to the use of eportfolio: The scale consisted of five (5-point) rankings which assessed the importance of the organizational nature of problems related to the use of eportfolio. The scale reached an acceptable Cronbach's Alpha score (0.727). The results demonstrated that the scale of assessing the significance of the organizational nature of problems related to the use of eportfolio with 5 questions is of an adequate level of reliability, as well.

The analysis of questionnaires was done with appropriate Pearson r controls for to establish whether there are statistically significant differences in the percentages between groups of questions, where a level of statistical significance was used a = 0.05 (5%).

The analysis of the questionnaires was done with correlation tables, appropriate Pearson r controls to see if there are statistically significant differences in the percentages between groups. A statistical significance level of a = 0.05 (5%) was used for the controls. Finally, Crosstabs were tested for possible relationships between particular variables.

Results

The table 1 shows the highest percentages of participants' general and demographic data

The Profile and the Qualifications of the Participants Involved in the Survey

Table 1

Data Related to the Profile and Qualifications of the Participant Involved

Categories	Subcategories	Frequency	Percentage
Studemy sections (the segmants from which a school is composed)	8/segments	16	7.4
	11/segments	18	8.4
	12/segments	119	55.3
Sex	Male	63	29.3
	Female	152	70.7
Age	41 – 50 years old	79	36.7
	51 - 60 years old	81	37.7
Years serve in education	11 – 20 years	89	41.4
	21 – 30 years	67	31.2
Years serve in the current school	0 – 5 years	97	45.1
	6 – 10 years	60	27.9
Marital status	Married	123	57.2
Specialty	Elementary school teachers	168	78.1
Permanent position in school or not	Permanent	172	80.0
Qualifications	Postgraduate Degree	52	24.2
	Second Degree	59	27.4
	Doctoral degree	10	4.7
	Nothing	61	28.4
Training	On paidagogical	198	92.1
	subject	15	7.0
	Other		
Certification in the ICT	Yes	157	73.0
	No	58	27.0
Certification in the First level of ICT	Yes	137	63.7
	No	78	36.3
Certification in the Second level of ICT	Yes	54	25.1
	No	161	74.9
Another Cerification	No	167	87.0
Level of knowledge of those who are not certified in the ICT	Good enough	26	12.1
	A little good	17	7.9

Evaluation of the significance of advantages and disadvantages of eportfolio

Table 2
Assessing the Significance of Advantages of eportfolio

	Totally agree (%)	Partly agree (%)	Neither agree nor disagree (%)	Partly disagree (%)	Totally disagree (%)	Average Terms (%)
Learning focuses on the learner	33 (15.3)	118 (54.9)	50 (23.3)	10 (4.7)	4 (1.9)	3.77
The student is actively involved in assessing his progress	45 (20.9)	106 (49.3)	52 (24.2)	9 (4.2)	3 (1.4)	3.84
Eportfolio allows the assessment of a wide range of cognitive skills of the student	40 (18.6)	102 (47.4)	59 (27.4)	10 (4.7)	4 (1.9)	3.76
Eportfolio encourages collaboration between student and teacher	51 (23.7)	85 (39.5)	63 (29.3)	13 (6.0)	3 (1.4)	3.78
Projects can be shared, developed, searched and presented from different perspectives	65 (30.2)	99 (46.0)	45 (20.9)	5 (2.3)	1 (0.5)	4.03
The work is released from the paper	71 (33.0)	95 (44.2)	36 (16.7)	8 (3.7)	5 (2.3)	4.02
Eportfolio increases the student's participation and care	32 (14.9)	85 (39.5)	79 (36.7)	14 (6.5)	5 (2.3)	3.58

Table 3

Assessing the Significance of Disadvantages of eportfolio

	Totally agree (%)	Partly Agree (%)	Neither agree nor disagree (%)	Partly Disagree (%)	Totally disagree (%)	Average Terms (%)
Assessment of the eportfolio is a laborious and time - consuming process	42 (19.5)	86 (40.0)	57 (26.5)	27 (12.6)	3 (1.4)	3.64
Appropriate equipment and specialized assistance are required in some cases	121 (56.3)	68 (31.6)	22 (10.2)	4 (1.9)	0 (0.0)	4.42
It emphasizes the student's strengths despite his weaknesses	23 (10.7)	77 (35.8)	84 (39.1)	24 (11.2)	7 (3.3)	3.40
It focuses on assessing the stufent's products rather than the processes leading to these products	34 (15.8)	91 (42.3)	67 (31.2)	18 (8.4)	5 (2.3)	3.61

The credibility of the student's score	19 (8.8)	78 (36.3)	81 (37.7)	26 (12.1)	11 (5.1)	3.32
The diversity of rating criteria by evaluator	27 (12.6)	91 (42.3)	71 (33.0)	21 (9.8)	5 (2.3)	3.53
The disadvantage of students who do not have family help	82 (38.1)	79 (36.7)	38 (17.7)	14 (6.5)	2 (0.9)	4.05

Assessing the Importance of Problems and Organizational Barriers Affecting the Use of the eportfolio

Table 4

Evaluation of the Significance of Problems Related to the Use of eportfolio

	Totally (%)	Very much (%)	Enough (%)	A little bit (%)	Not at all (%)	Average Terms (%)
The workload required by using eportfolio	43 (20.0)	68 (31.6)	77 (35.8)	27 (12.6)	0 (0.0)	3.52
Problems in curriculum scheduling due to the pressure of the curriculum	48 (22.3)	68 (31.6)	75 (34.9)	21 (9.8)	3 (1.4)	3.64
The teacher’s aloofness	69 (32.1)	84 (39.1)	42 (19.5)	20 (9.3)	0 (0.0)	3.94
The fear that it will contribute to creating a competitive climate among students	19 (8.8)	51 (23.7)	70 (32.6)	53 (24.7)	22 (10.2)	2.96
The lack of a culture of use of alternative forms of assessment	83 (38.6)	68 (31.6)	41 (19.1)	22 (10.2)	1 (0.5)	3.98
Lack of support from parents and the school community	46 (21.4)	76 (35.3)	52 (24.2)	37 (17.2)	4 (1.9)	3.57
Differentiating views among teachers on the meaning or value of evaluation through the e - portfolio	41 (19.1)	78 (36.3)	76 (35.3)	17 (7.9)	3 (1.4)	3.64
It is considered premature and bold to use eportfolio in the primary school	31 (14.4)	38 (17.7)	74 (34.4)	56 (26.0)	16 (7.4)	3.06
Avoiding risk and applying innovations	51 (23.7)	63 (29.3)	58 (27.0)	31 (14.4)	12 (5.6)	3.51

Table 5

Assessment of the Organizational Nature of the Problems Related to the Use of eportfolio

	Totally (%)	Very much (%)	Enough (%)	A little bit (%)	Not at all (%)	Average Terms
Lack of adequate infrastructure in the classes	122 56.7)	55 (25.6)	35 (16.3)	3 (1.4)	0 (0.0)	4.8
Lack of training on the subject	130 (60.5	49 (22.8)	30(14.0)	6 (2.8)	0 (0.0)	4.1
The absence of a computer lab in school	88 (40.9	41 (19.1)	57 (26.5)	25 (11.6)	4 (1.9)	3.86
The internet connection problems of the classes	95 (44.2	52 (24.2)	45 (20.9)	18 (8.4)	5 (2.3)	4.00
The difficulties of use due to your lack of familiarity with New Technologies	77 (35.8	49 (22.8)	48 (22.3)	30 (14.0)	11 (5.1)	3.70

According to data, statistically significant correlations emerged. Regarding the importance of the eportfolio's benefits, the findings are as follows:

(a) a weak positive correlation (0,177) was found along with the qualifications (Table 6) with a margin of error of less than 1% (p = 0,010).

Table 6

Qualifications and Scale Estimation of the Significance of eportfolio Advantages

		Scale of assessing the significance of the benefits of eportfolio
Degree titles / level of knowledge other than the basic degree of appointment	Pearson Correlation Significance(2-tailed) N	0.177** 0.010 214

*. Correlation is significant at the 0.05 level (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).

(b) a weak positive correlation (0,144) in combination with ICT certification (Table 7) with a margin of error of less than 5 % (p = 0.034),

Table 7

Non-Qualification or Non-Certification of New Technologies and eportfolio Assessment Scale

		Scale of assessing the significance of the benefits of eportfolio
Are you Certified in ICT	Pearson Correlation Significance(2-tailed) N	0.144* 0.034 215

*. Correlation is significant at the 0.05 level (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).

(c) a weak positive correlation (0.244) combined with the degree of agreement of the participants on the necessity to use ICT (Table 8) with a margin of error of less than 0.1% (p <0.001). Highly qualified teachers who have been certified in ICT and consider its use necessary believe that the eportfolio has a lot of advantages in its use.

Table 8

Associate the Necessity of Using ICT in Education and the Estimation Scale

		Scale of assessing the significance of the benefits of eportfolio
Do you consider that the use of ICT is necessary for the effective conduct of the educational process?	Pearson Correlation Significance(2-tailed) N	0.244** 0.000 215

*. Correlation is significant at the 0.05 level (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).

In regard to the significance of eportfolio disadvantages it comes:

a) a weak negative correlation (-0,161) with a margin of error of less than 5% (p = 0,018) combined with the B level qualification in ICT (Table 9).

Table 9

Acquisition of certification or not ICT B level and the Efficiency Assessment Scale

		Scale of assessment of the significance of disadvantages of eportfolio
ICT B level	Pearson Correlation Significance(2-tailed) N	- 0.161* 0.018 215

*. Correlation is significant at the 0.05 level (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).

b) a weak positive correlation (0,155) with a margin of error of less than 5% (p = 0,023) in combination with sex (Table 10).

Table 10

Gender and Scale Estimation of the Significance of eportfolio Disadvantages

		Scale of assessment of the significance of disadvantages of eportfolio
Sex	Pearson Correlation	0.155*
	Significance(2-tailed)	0.023
	N	215

*. Correlation is significant at the 0.05 level (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).

c) a weak positive correlation (0,135) with a margin of error of less than 5% (p = 0,048) in combination with the existence of a computer laboratory in schools (Table 11). Teachers certified in capacity of ICT consider that the disadvantages of the eportfolio are not as important as female teachers and those who work in schools that do not have a computer lab.

Table 11

Linking the existence of a computer lab in schools and Scale Estimation of the Significance of eportfolio Disadvantages

		Scale of assessment of the significance of disadvantages of eportfolio
Does your school have an organized computer lab?	Pearson Correlation	0.135*
	Significance(2-tailed)	0.048
	N	215

*. Correlation is significant at the 0.05 level (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).

Regarding the scale of assessing the organizational nature of problems related to eportfolio use, a relatively weak positive correlation (0.366) with a margin of error of less than 0.1% (p = 0.001) was identified and combined with the upgrading of the quality of teaching and the learning process from computer use (Table 11). Teachers who have stated that the quality of the teaching and learning process has been upgraded through the use of computers, regard the organizational problems of exploiting the eportfolio as very important.

Table 12

Linking the upgrade *of the quality of training with the use of New Technologies and the Scale of the assessment of the organizational nature of the problems related to the use of eportfolio*

	Scale of assessment of the organizational nature of problems related to the use of eportfolio

To what extent do you consider that the quality of the teaching and learning process has been upgraded from the use of PCs?	Pearson Correlation	0.366**
	Significance(2-tailed)	0.001
	N	215

*. Correlation is significant at the 0.05 level (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).

Discussions

As to the first research question concerning the most important advantages of using eportfolio (table 2) the respondents "partly agree" in all the sub – categories. More specifically, 54.9% believe that learning is focused on the student, while 49.3% of the students are actively involved in the evaluation of their progress. The use of eportfolio enables the assessment of a wide range of cognitive skills of the student (47.4%), encourages cooperation between student and teacher (39.5%), and increases student participation and attendance (39.5%). Work can be shared, developed, searched and presented from different perspectives (46%), while being free of paper work (44.2%). The second consecutive percentage in all sub-questions applies to "neither agree nor disagree". The very high percentages of the two categories (partly agree, I do not agree, nor disagree) are consistent with the relevant surveys, which highlight lack of knowledge (Arthur et al., 2005; Chan, 2009; Holmgren, 2010; Meisels & Steele, 1991; Šinkovec, 2008) and the advantages of which have been fully elucidated (Abrami & Barrett 2005; Ahn, 2004; Arter & Spandel, 1992; Canada, 2002; Challis, 2005; Love & Cooper 2004; Heath 2005; Milman et al., 2005; Sherry et al., 2005; Strudler & Wertzel, 2005; Wade et al., 2005; Yancey, 2001).

Continuing the first research question about the major drawbacks of eportfolio use (table 3), respondents partly agree (40%) that eportfolio assessment is a laborious and time-consuming process (Galanou, 2007), while they fully agree (56.3%) that appropriate equipment and specialized assistance are required (Health, 2005; Butler, 2006). There is no clear point of view (and I do not agree, nor disagree) about whether eportfolio highlights the student's strengths rather than their weaknesses (39.1%) or the reliability of the student's score (37.7%), but they agree (42.3%) that it focuses on the student's product evaluation and on the diversity of the evaluation criteria by evaluator (32.3%). They fully agree with Seely (1994) that the disadvantage of non-family students (38.1%) is considered a key disadvantage. Generally, seems to be hesitation in the views of the participants regarding the disadvantages as they have been highlighted in international and domestic literature (Butler, 2006; Challis, 2005; Galanou, 2007; Health, 2005; Linn & Gronlund, 2000; Seely, 1994; Spring, 2001;).

Regarding the difficulties (table 4) and obstacles to using eportfolio (table 5), interesting results have emerged. As far as the problems arising from the application of eportfolio in the educational and teaching process is concerned, the 38.6% of the participants greatly agree that lack of a culture and the inability to use alternative forms of assessment is significant, while they very much agree on the teachers' reluctance (39.1 %). They also strongly

believe that lack of support from parents and the school community (35.3%) and the diversification of views among teachers (36.3%) are a problem in the implementation of eportfolio, as well as supporting proportion (31,6%), problems in curriculum scheduling (34,9%), because of early use of eportfolio in primary school (34,4%), %). Finally, respondents believe that teachers do not want to take the risk and do not want to apply innovations (29.3%) fearing a competitive climate among students (32.6%). These findings are in line with the relevant bibliography related to the problems of lack of support (Kyridis, Drosos & Tsakiridou, 2003), the limitations of the curriculum (Doukakis, 2006; Fotopoulou, 2012; McMillan, 2004) (McKinsey & Company, 1997) that are often inhibited (Kern et al.,2007, Somekh, 2008). In the second sub-class concerning the organizational nature, teachers are very clear here as they " very much agree" that lack of adequate infrastructure in the classes (56.7%), the lack of a computer lab in school (40.9%), as well as internet connection problems (44.2%) are an obstacle in the implementation of any alternative rating proposal such as eportfolio. In addition, they point out by "very much agreeing" how critical lack of training on the use of eportfolio (60.5%) along with familiarity with ICT (35.8%).

The findings of this question are in line with similar research that highlights the importance of knowledge and training (Tsitouridou & Vryzas 2003; Chen & Chang 2006; Cartelli, 2008; Zarani & Oikonomidis, 2009; Christodoulou-Gliouou & Gourgioyou 2009) and problems when ICTs are generally integrated into education without strategical and educational planning (Nikolopoulou, 2009). The high rates of computer labs and Internet connection problems are in agreement with the relevant literature (Butler, 2006; Fotopoulou, 2012; Health, 2005; Konstantinidis & Theodosiadou, 2015) pointing to the importance of the above mentioned as a blocking factor of the implementation of eportfolio.

Conclusions

Consequently, based on the findings of the survey, the following conclusions arise. Regarding the advantages of using eportfolio, the majority of teachers are skeptical, as the portfolio is a tool that does not requires the use of paper, which teachers highly consume in recent decades. Teachers, who also have a higher level of education, certification in ICT and those who consider it necessary to use ICT in education, are very much in agreement with the advantages of using eportfolio. The views of the majority of sample educators on the disadvantages of using eportfolio highlight as main reasons for contribution of non-family assistance, as well as the appropriate equipment required and the specialized knowledge they need to have. Of course, the sample participants who have been certified in the second level of ICT do not consider the disadvantages of eportfolio so worth mentioning. On the other hand, female teachers as well as teachers who do not have a computer lab in their school feel that the disadvantages regarding the use of eportfolio are so worth considering. Regarding the difficulties and obstacles of eportfolio utilization, the majority of respondents rank very high on the scale of assessing the significance of problems in using eportfolio, lack of culture, the avoidance of innovation, the differentiation on the part of teachers, while stressing lack of support from parents and the school community. On the other hand, most teachers perceive lack of adequate infrastructure in the classes and lack of relevant training related to the subject of eportfolio

as major problems. The aforementioned are emphasized by the fact that the teachers who claim that the quality of the teaching and learning process has been upgraded from the use of PCs consider the organizational problems concerning the use of eportfolio very important.

Limitations

For the conduct of the survey, simple random sampling was chosen as a selection method to ensure a representative sample. According to Neuman (1997) the representativeness of the sample for a population of less than 2,000 is sufficient for 30% of the population and 10% for 10,000 - 100,000. Since the 1st educational area in Athens counts more than 4,000 teachers of all specialties, permanent or seasonal, the desired rate is close to 15%. The 215 questionnaires collected correspond to 5.4% of the population of teachers in Athens. As can be seen from the foregoing, no generalization of research can be carried out.

The survey was limited to a specific area of Greece, not conducted nationwide. Another issue that may potentially inhibit and give different results to the research is the social stratification of the regions belonging to the 1st educational area in Athens. For example, teachers who work in areas with a high proportion of immigrants and where the technical infrastructure of the school is rare, they are expected to give different responses from teachers working in areas with a high standard of living and the technical infrastructure of the school is much greater.

Proposals for further research

Due to research constraints, several proposals for further research arise as such: a) the implementation a similar survey among teachers across the country, b) Pilot implementation in all classes of elementary school in order to explore the advantages, disadvantages or weaknesses, c) Exploring the views of teachers and students who participated in the implementation of eportfolio programs.

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