Constructivist e-Portfolios Empowering Transformative Learning of English Language

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Abstract

The research about e-Portfolios has continued to increase exponentially, although much of the study is overlooking ground research in primary sources. In order to stimulate the need, in-depth analysis of e-Portfolios functions in transformative learning is constructed. Methodologically, this article employs thematic approach to analyse the transcript from two focus-group interviews into four themes. They include learning-focused behaviors, affective dimension, learning styles and Cognitive engagement. the findings reported.

Keywords: e-Portfolios, Transformative learning, Constructivist

1. Introduction

According to Guba and Lincoln (1989), evaluation has gone through four generations with inclusion of measurement, description, judgement and construction. As to the fourth generation of evaluation, namely Constructivist evaluation, it is a form of evaluation that enhances the constructivist paradigm. The constructivist paradigm gives constructive meaning to educational evaluation and is a pluralistic process in which the participants share responsibility. The result of evaluation is to construct the merit and value of the evaluation object, that is, the internal characteristics, and the application in the external use or specific context.

There are two stages in implementing constructivism evaluation: discovery stage and assimilation stage. In the discovery phase, the evaluator describes what is happening in the educational context of the school, as well as the object and context of the evaluation. In the assimilation phase, the evaluator incorporates the discovery phase into the existing construct so that the new construct can adapt and function, be relevant and applicable.

This article aims at exploring the ways of Constructivist e-Portfolios empowering transformative learning. Therefore, I try to answer the question: How does e-Portfolio empower transformative learning? Ahead of this, relevant studies were discussed conceptually and theoretically.

1.1 Constructivist e-Portfolios

In literature, two basic theoretical stances to ePortfolio are detected: Constructivist and Positivist approach. Constructivist paradigm encompasses experimental or survey research to the approaches of Enthnograpgy, Ontology and Naturalism. For instance, fieldwork techniques such as case study, unstructured interviews and observations. Moreover, Ontology is usually viewed as the medium for storing various information (Nadutenko et al., 2022). Naturalistic assessors are inclined to approach learning or teaching experiences in multilayered, interactive and shared manners (Bogdan & Biklen 1997).

Therefore, Constructivist stance is more comprehensive and productive in the field of language assessment. It suggests that learners generate knowledge during their attempting to understand learning experiences (Driscoll, 2000). It implies "a learning environment in which the learner constructs meaning" (Barrett, 2007, p. 440).

Moreover, ePortfolio as an ideal medium for teaching, learning and assessment (Peacock et al., 2011), serves as a learning environment in which the meaningful content is constructed. It is assumed that the content differs from person to person, and according to time and purpose. Through the ePortfolio construction, the process of learning journey is presented, and the summaries of individual ePortfolios can be reflected and assessed. The constructivist ePortfolio, as described, varies across individual experiences and structures with purposes in relation to specific social groups and contexts. Also, Yancy (2013) noted that ePortfolios can allow multiple forms of assessment.

Efficient teaching, productive learning and effective assessment comprise major goals for all levels of education worldwide. Learning is regarded as social construction (Clark et al., 2001). The learning constituents emphasises integration and it is shown to be crucial in the process and ePortfolios by Lorenzo and Ittelson (2005); it can be value-added in relation to the learning process, and to student motivation in relation with authentic learning experiences (Tosh & Werdmuller, 2004). Prior knowledge or experiential learning bridges past learning experiences and make the goals and motivations for successive learning explicit beyond formal coursework if it is well-structured and effectively-operated (Santis & Serafini, 2015).

Further, ePortfolio is seen as "sites of meaning construction" (Clark et al., 2001, p. 212) where students use electronic portfolios in the forms of text, images, graphics, sound and video to generate, manipulate, manage and process those media resources in a way that isresponsive and affordable, easy to access, update and reorganised and presented for various purposes and paths. Students perform at highest and effective levels on the condition that they are improving their learning toward the meaningful goals.

Usually as questions have not been sufficiently researched, theory provides guided place in this issue. The efforts to help educators adopt ePortfolios are diminished by the lack of agreement about guiding theory in this field (Lam, 2022). To this end, this research draws on Constructivist ePortfolio theories of learning such as Mezirow's transformative learning, collaborative learning, Kolb's experiential learning and Korthagen's reflective model. It focuses on developmental process of learning through construction of electronic portfolios. The rationale for implementing ePortfolio-based assessment is an authentic student-centred form of assessment with learning evidence in context over time (Eynon & Gambino, 2017; Farrell, 2020). Those lecturers using constructivist portfolios in their classroom practice, strive to fulfil the principles of the highest degree of transformative learning (Pospíšilová & Rohlíková, 2023).

To sum up, Constructivists view e-Portfolios as a portal or medium taking on meaning rather than a statistical tool or linear process. This shift requires educators assess teaching and learning as well as the external world in shared and collaborative social experiences.

1.2 Transformative Learning Theory

Transformative learning refers to "the process of effecting change in a frame of reference-the structures of assumptions through which we understand our experiences" (Mezirow, 1997, p. 5). Moreover, Mezirow (2000) further defines the transformative learning theory as "the process by which we transform our taken-for-granted frames of reference (meaning perspectives, habits of mind, mind-sets) to make them more inclusive, discriminating, open, emotionally capable of change, and reflective so that they may generate beliefs and opinions that has proved more authentic or justified to guide action" (p. 112), which is composed of critical reflection, centrality of experience and rational discourse. In his research, ten phases concerning transformation are disorienting dilemma, self-examination, critical assessment of assumptions, recognition, exploration of new roles or actions, plan development, acquisition of knowledge and skills, trying out and forging new relations (Mezirow, 1994).

Besides, Mezirow (1981) identified critical characteristics of transformative learning as learning process, learning outcomes and learning conditions supportive of such learning. An age wherein empirical strategies of tutorial studies are taken into consideration with the well-known goal of growing tactics to classroom pedagogy.

Yacek et al., (2021) also suggested that transformative learning theory has already validated to be a vital contribution to empirical studies on technological know-how training. How plenty of the transformative impact of better training is due solely to engagement with path content material as opposed to the function of students' wider revel in being on campus. In academic studies on transformative learning the primary interpretive technique is broadly adopted. The researcher interviews a small variety of people in precise environments or associated with precise issues, does a thematic evaluation of the interview data, and reviews on several themes that seem withinside the data. Interviews are regularly used for comparing transformative learning. Interviews can create consciousness on learners' tale of a specific revel to advantage perception into the strategies or effects of learning, in addition to tune into learners' attitude changes (Romano, 2017).

2. Method

The focus-group interviews were conducted to seek a more comprehensive and in-depth understanding in using ePortfolios. Also, thematic analysis was employed for identifying, analysing and reporting patterns.

The focus groups address the discussion about the English language learning using ePortfolios mainly to examine similarities and differences among various participants about their experiences, perceptions, thoughts and feelings. Eleven volunteered students, consenting as part of this research, were divided into two cohorts and were asked open-ended questions covering their conception and use of ePortfolios, with follow-up questions to encourage

students to reflect and discuss their experiences (Walsh, 2000). This dialogue approach allowed interview data to be exact as the student participants' conceptions and promoted to elucidate and confirm their intended expressions and meanings.

The analysis and categorizing followed a thematic analysis, experienced Sjöström and Dahlgren's (2002) stages. It is important to (i) Familiarisation. The conceptions were analysed from verbatim transcribed interviews, allowing oral discourse to transform into text, and then (ii) Identifying significant keywords and themes. Answers were compiled from participants by identifying the most significant elements in the answers. (iii) Individual answers were summarised to obtain the main themes in dialogue. (iv) The categories constructed were compared and named. And finally, (v) establishing the categories.

3. Results and Discussion

After separate analysis, student perceptions to ePortfolios for improving English language were identified. The more thorough description and discussion is as follows:

3.1 Learning-Focused Behaviors

The functions of ePortfolios were realised in the way to guide, summarise, compare and monitor, mainly as the tool they used to make learning visible.

guiding future learning; make me guiding college English learning; summarize the achievements next semester; looking for and making comparison between each learning, find out progress and continue it and correct poor aspects; monitoring promote learning by documenting weaknesses (Participant 5)

Student participants have reported their ePortfolios serve as showcase of their learning while another said ePortfolio is the mirror to reflect learning. Another student's description was that the ePortfolio assisted revision for the final exams and motivated greater learning forward. Dialogues between teachers and students take place on the transformative perspective of electronic portfolios (Batson, 2011), additionally whether ePortfolios achieve in the transformational way is largely determined by the students' engagement (Stefani et al., 2007). The codes were aggregated into categories to give deeper insights into the using of electronic portfolios from student participants in their learning. Moreover, eleven students frequently talked about concrete applications conducted through their ePortfolios, such as complete, observe and document learning assignments.

observe the learning change, document every drop in English learning; quite well in documenting English learning in this semester; document the first-year learning and living, convenient for documenting learning, living, practicing, creating and individual growth; document English learning in this semester, how much knowledge has been mastered; make personal document richer; more controlling of assignments completing, actively doing the assignments; motivate me actively complete assignments, make sure its quality and literacy; positively urging completing assignments; clear of whether the assignment has been completed or not; document performance and assignment and make corrections; documenting learning process, good for expressions and the format; see the performance from whole semester; summarize prior learning, prepare for future learning (11 participants)

A concern among majority of college students is that they are not engaged in the reflective learning (Parkes, 2013). They are used to sitting still and waiting for the correct answers and cannot think. The electronic portfolios provide opportunities to develop their understanding and thinking skills and the capabilities of analysing and applying the knowledge independently and continuously. A variety of research and experiences of using ePortfolios in tertiary education was explored (Yancey, 2019). Rhodes stated that process of reflective practice in ePortfolios aimed at making connections between knowledge content and the future preparation, the links between ePortfolios content and the ultimate professional goals (Cordie et al., 2019).

The reflection process can be guided by use of prompts and pointed questions not only about language skills but also on cross-sectional competencies. Besides, audience consideration should be determined and accomplished in the process of compiling ePortfolios, which would increase engagement effectively (Cicchino et al., 2019). Furthermore, design consistency is another aspect around features of ePortfolios.

It is in the same point with Koraneekij and Khlaisang's (2015) argument that ePortfolios could enhance reflection on how students learn and whether the goals are achieved. Nguyen (2013) articulated that "ePortfolio serves as a 'living portal' through which students may continually re-articulate their ideas of self to others, bringing about new understandings" (p. 135). ePortfolios provide opportunities for examining multiple dimensions of learning, including understanding of knowledge and concepts and evidence of stated outcomes, and so forth (Rhodes, 2010).

Students also can reflect on learning process. Therefore, it is considered as a way to evaluate thinking and reflecting development. To fully meet the demands, multimedia learning experiences should be covered to deepen student

thinking with the inclusion of artefacts, feedback comments and reflection notes. Findings showed that technology skills, assessment opportunities and learning skills could be motivated and promoted as students compile electronic portfolios as part of the assessment process, and their language skills improved in comparison with those who were reluctant to manage academic progress through ePortfolios. Student participants are positive about using ePortfolios for learning development. They think it is flexible, easy to access and convenient. The digital format provides more possibilities to store and share individual ePortfolios. However, one negative impact of ePortfolios is anxiety due to refusal to embrace technology.

3.2 Affective Dimension

Appreciating college students' emotional responses is vital to expertise and theorising student stories (Linnenbrink, 2006). Emotions are located and dynamic, and like self-efficacy, the end result of a subjective appraisal of the situation (Fredrickson & Cohn, 2008). Emotions consequently arise in the instructional interface, and viewing them this manner permits a clearer understanding of the complicated roles feelings play. For example, Kahu and colleagues (2015) discovered that advantageous topic-associated feelings, hobby and enthusiasm, stem from life-included learning: the intersection among direction cloth and the student's non-public or paintings pastimes and stories. Similarly, challenge-primarily based totally feelings, such as tension, depend upon each the character of the challenge and the student's skills, persona and stories. Emotions in the interface additionally encompass social feelings, the ones associated to humans inclusive of admiration and empathy (Pekrun & Linnenbrink-Garcia, 2012). Regarding emotional and affective aspects of participants, majority expressed low-anxiety, low-stress environment, confidence and enjoyment in practices of ePortfolio assessment. This finding corroborates that of Steen-Utheim and Hopfenbeck (2018). The term of satisfaction was mentioned and connected to learning goals. It is in accordance with the claim of Doll and Torkzadeh (1991) that users' satisfaction could influence their intention and attitude toward ongoing using tools. It was argued that students expressed diverse emotions they experienced and absorbed more knowledge during creating ePortfolios. In contrast, anxiety and demotivation narrow and restricted learning scope. Some student participants expressed their great concern about learning and mentioned the learning strategy and assessment techniques.

3.3 Learning Styles

Through ePortfolios, the deeper learning, active learning and self-management were promoted to some extent. The self-evaluation, group-work and pair work were also enacted.

for deeper learning; self-management and self-educating, effectively adopting measures to develop; push autonomous and active learning; actively doing the assignments; motivate me actively complete assignments,

make sure its quality and literacy; positively urging completing; evaluate learning and clarify learning level and the direction; effectively learning and self-evaluation (Participant 1)

Active learning refers to the activities conducted in class in which students engage with learning journey and against passive participation (Prince, 2004), whereas becoming the centre of the learning process. Freeman. (2014) performed the advantages of active learning of assessing learning performance by various sizes and large class. The techniques incorporate problem-based approach, collaborative and cooperative approach and flipped technique. DeLozier and Rhodes (2017) stated that the active learning techniques also involves participants' responses, discussion- based questions, quizzes, group presentations and other activities. These methods are also visible in the observations of two lecturers in this study. Meanwhile, the active learning is proposed as a control variable standardised within pedagogical research.

ePortfolios did not simply encourage improvement of language abilities and skills, but also information technology to assist learning performance.

Encourage ability and skills in using apps and softwares; gradually skillful in using emails and other softwares, very helpful and enhancing abilities (Participant 4)

Besides learning-catalyst, ePortfolios are beneficial in terms of reflection and collaboration. systemize College English learning, finding out weaknesses and make corrections, lot of help to English learning (Participant 11)

convenient for knowing strengths and weaknesses and learning with focuses, (Participant 2)

timely amendments, aware of weaknesses and make improvements on time clearly and directly see learning effects and problems, help me with problem solving and promote exam grades (Participant 4)

systematically and clearly know strengths and weaknesses, make me improve the weaknesses and promote English learning (Participant 9)

helpful with sorting out learning focuses and content, clearly know weaknesses and improvement (Participant 7)

Interest is regarded as a central component influencing student learning. Interest is "a relatively stable evaluative orientation towards certain domains" (Ainley, 2006, p. 393). Kahu (2017) made a more detailed definition that interest involves the emotional size of the student's engagement and brought on within side the academic interface due to the interaction among the state of affairs and the student. Dewey (1913) stated that interest is vital for satisfying pleasing studying, and studies have shown that it predicts each intrinsic motivation for studying and essential emotion.

Generally speaking, students are triggered by external prompts; their interest may emerge and then well-development is required. During these phases, the way students consider their abilities and skills need to be evaluated. In the same vein, Thomas (2012) pointed out that student learning should be linked with interest and goals which is key to student success. Learners depend to some extent on the situations and tend to be malleable, although the total words they master and lexical diversity, as well as anxiety, confidence and motivation could be improved by using ePortfolios (Cepik & Yastibas; 2013; Putu Indra Kusuma et al., 2021).

Hence the interplay between participants and context is fundamental to transform learning behaviours and emotions. The finding showed that students engaged multi-dimensionally through combination of ePortfolios and language assessment which provides greater opportunities to develop learning progress for students. Furthermore, we transcribed interview results into English and analysed the contents by thematic analysis. From the in-depth discussion of the results, three main themes were defined with inclusion of student use, students' engagement and challenges. From these categories, we uncover statements about how students were transformed by their own experiences of learning. These statements were described in such terms or sentences: I truly aware and "get deep learning" to snapshot transformation moment they experienced. Participants indicated that they did reflective practice on the English learning, largely in the objectives. They enjoyed defining their weaknesses and disparities and had the desire to develop learning. It was also reported that when they self-evaluated themselves, they tended to think back on their experiences on the gaps towards present learning goals.

Consequently, they could become better managers of their learning and be active and autonomous learners. The phrases, such as learning samples, references to future learning and evidence were found in the transcripts. This addressed the learning need about the ePortfolio from students' viewpoint.

3.4 Cognitive Engagement

Further, learning habits, learning interest, learning attitude, learning confidence and motivation could be detected in students verbatim. The ePortfolios- based learning led to these cognitive aspects prominent.

continue good learning habits; cultivate learning habits; and much more interest in English learning; more interesting and funny; mirror the learning attitude within a period of time and progress or not; enabling reviewing learning and the attitude at different time; helpful in stimulating learning interest and motivation; the improvements to consolidate confidence; know the strengths to offer confidence and keep learning; gaining confidence in using ePortfolios (Participants 5, 6, 10)

This also exhibited individual characteristics of students such as learning motivation, expectation, and positive attitudes. All students talked about the aspects of learning objectives, learning method, focus, language skills and abilities, learning analysis and efficiency, making adjustment and improvement exhibited via ePortfolios. Students aimed to improve exam results and develop learning process.

help me better understand learning for improvement; clarify learning objectives; diversify learning methods,; more convenient in understanding learning method; the learning objectives and learning; produce clearer goals;

clearer of understanding and analysing learning in this semester; help to future learning and focusing; assist my English learning, make learning more focused clear of the level and goals; wish to correct them; and take more

specific action in future learning and helpful for improving learning efficiency; clarify the objectives for future learning; altering learning method; systematically know learning goals and the progress; clear of right direction

and make changes, learning objectives and methods; learning English in future; have goals and directions, rather helpful to English learning; learning with specific goals for English skills learning to some extent know learning, finding some learning methods and keeping promoting abilities; compensate English knowledge; , and clarify the future learning goals; help in improving writing skills, solid and revision, improve learning efficiency and summary

Most of participants improved their technology skills while managing their ePortfolios. These responses were consistent with findings by Koraneekij and Khlaisang (2015) that users could develop IT skills in the procedures of creating electronic portfolios although faced with setbacks. Saravanie and Clayton (2009) addressed technology enables more engagement with learning and strengthens instruction. Tamin et al. (2011) examined the range and

effect of ePortfolio in classrooms and found that it exhibited improved engagement and performance while used to support learning. Sliško (2017) progressed digital technology with active learning environment through bi-direction into curriculum. Glazewski (2019) observed that ePortfolios could provide a space for lecturers to widely interact with students to achieve learning goals. Besides, they were reluctant to share information about learning processes, especially their shortcomings. The reasons for this were the insecurity and fear of unexpected judgements by peers and lecturers. Some students expressed their intention to learn collaboratively and share learning gains or difficulties with others.

In the same vein, Fredricks, Blumenfeld, and Paris (2004) conceptualised student engagement into three dimensions of behavioural, emotional, and cognitive. All these facets could be found in the transcription. Students' engagement positively related with academic achievement whereas cultural values may have moderate influence. Student engagement with the use of ePortfolios. "A large part of the impact of college is determined by the extent and content of one's interactions with major agents of socialization on campus, namely faculty members and student peers" (Pascarella & Terenzini 1991, p. 620). ePortfolios open up more opportunities for students' engagement in the learning progression. As this process uncovers, teachers make decisions together with students where to go in the future. It supports the finding of Lo (2010) that more engagement with subject-specific learning is encouraged and hence holistic approach to English language learning is promoted.

Since ePortfolio is student-centred, thus it is proper to conduct a study from students' standpoint of independence and management. This may promote absorption in what they are learning and intensive connection with a greater whole. The active engagement and continual reflection of learning experiences allows integration of new knowledge and development giving students more opportunities to control their learning. ePortfolios mainly correspond to learner-centred and personalised learning. In the classroom, both lecturers and students experience a shift from teacher-centred emphasis to the student-centred approach to instruction which means educators "need to do more than just lecture during class" (Lumpkin et al., 2015). Teacher-centred approach is traditionally more negative and destructive than constructive (Wood, 2019).

4. Conclusion

Based on the transcripts from focus-group interviews, e-Portfolio may bring out transformations on English language learning in terms of students' behaviours, emotion and cognition. This is in line with report of success factors identified by Tobias (2020). However, the shift on learning styles, for instance, active learning, deep learning and autonomous learning in this study are not embraced in the previous findings.

In a word, both e-portfolios and transformative learning theory promote learning. Also, the e-Portfolios provide opportunities for fulfilment of transformative learning approach. In other words, the transformative process of learning can be strengthened through construction of e-Portfolios.

It is noticeable that transformation does not automatically happen and imply radical improvement. Transformative learning theory is from the constructivist paradigm holding the view how learners understand and interpret their experience is the key to meaning-making and process of learning. Both are transformed via reflection happening in the problem-solving whereas the latter is focused, shaped and delimited by frames of references for the purpose of greater awareness, responsibility and effectiveness in full realisation of learning. All the conditions serve to facilitate learning with new knowledge and skills.

Watty and McKay (2016) illustrated transformational potential as one of the essential aspects of ePortfolios and assessment with various perspectives interconnected to learning outcomes, including: shifting instructional plan and implementation from teacher-dominated to student-centred classroom, introducing equality and fairness.

In short, ePortfolio can be transformative in terms of capturing overall learning experiences and process, enabling continuous and meaningful association across present and future, across teaching and assessing.

5. Declarations

Competing interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Authors contributions

The literature review, materials and methods, analysis and writing of the research article was done by both authors.

The authors have read and agreed to the published version of the manuscript.

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