



Perceptions about Learners' Roles and Functions in Online Higher Education: A Qualitative Research Required

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Abstract: This research aims at exploring the need for investigating the beliefs and perceptions related to online learners' roles and functions of constructing knowledge and learning in higher education. The study attempts to examine the contemporary literature on online education to review the perceptions around online learners' roles as well as the tutors' perspectives on learners' participation and responsibilities in learning and peer-learning. Since higher education learners are usually more aware of teaching and learning objectives than learners at other levels, then, using interviews and observations for such research instead of surveys could produce new and in-depth findings. Furthermore, understanding the conceptualizations of both teachers and students about the 'roles of learners' can be helpful to ongoing pedagogical improvement for quality learning to take place.

Keywords: Learners, Perceptions, Online Learning, Higher Education, Knowledge Construction, Qualitative Research.

1. INTRODUCTION

Online technologies, perhaps, have done the best with the higher education classroom by moving it from 'face-to-face' to 'online interactions' and providing learners with the opportunity of being independent, active and self-directed (Lockyer & Bennett, 2006). A 'strong consensus' about 'securing learning' through activities and interactions (constructivism) is there in the literature (Koochang, 2014, p. 12). Three levels of interactions called 'learner-content', 'learner-learner' and 'learner-instructor' patterns which play a significant role in developing 'constructivist e-learning environment' (Hirumi & Bermudez, 1996) take place in online education. That is why online learning is more learning-centred than face-to-face classroom and the concentration is shifted from the 'teacher' to the 'learners'. Learning is situation based and teaching is reduced here. This applies to active and constructive learning principles more than to face-to-face learning. Moreover, individualized learning is critical here (Berge, 2002) and students are provided with flexibility to keep pace with the learning processes, considering their scheduling problems. Learners are aware of making meaning of learning as well as of the goals of learning. Laurillard (1993) finds the learning process to be iterative, including being discursive, adaptive, reflexive and interactive by nature and the 'mentoring relationship' plays a significant role here. Teachers are the facilitators who interact with the learners, to help them with feedback

or evaluation needed for bridging the gaps between their understanding and the content or between it and other learners' thoughts in online higher education.

In his model of e-learning, Berge (2002) describes the three elements used to design the learning system: learning goals, learning activities, feedback and evaluation. He warns, whatever the context of learning is, teaching should ensure the 'best benefit' to be gained by the learners. 'Delivery' in online learning mostly concentrates on learning and learners, instead of instruction or teaching. So, the process of learning needs to be studied with care so that the much-heard of accusations against online education as being only 'teaching' or 'a teacher's task' can be avoided. Besides, there is also a pre-learning activities session to "situate the learning for a group of particular learners" (p. 183). These include a focus on course materials and organisation, intended learning outcomes, priorities, deadlines and activities for the learners, teaching styles and tasks, assignments and evaluations, etc. Also, there are tutors' instructions on browsing the online environments, such as Adobe Room, where teachers and learners meet for discussions and presentations. Through these pre-learning activities, learners experience clarifications on the nature, structure and possible outcomes of the course and an intimacy with the instructors as well as the instructions.

However, there is a shift in both 'understanding' and 'behaviour' in the learning context and pedagogy too



(Salmon, 2005). Allen and Seaman (2004) have reported online education to be critical to the schools' long-term strategies and success, and three-quarters of the academics believe it to grow equally or be superior to the face-to-face instructions with quality learning. On the other hand, Maor (2006) thinks it to be challenging for academics to 'create and maintain the quality of online learning' (p. 134). The significance of online-learning is not limited to its 'faster access to information', but rather in its 'capacity to facilitate' interactions, ideas, and thus construction of 'meaning and knowledge' (Garrison & Anderson, 2003). To ensure optimal learning, an appropriate match between the pedagogy and instructional objectives as well as the strategies (Diamond, 1989) is required by the teachers; while, the learners' active participation to accomplish those objectives is also desired. Nevertheless, the author's observations of online teaching and learning strategies reveal that learners are often not aware of the teachers' expectations from them or the objectives of such specialised pedagogy. These discrepancies between the teachers' expectations and learners' activities often change the aim of 'learning' and turn it into becoming extremely instrumental. As a result, this review analysis has been attempted to clarify the necessity of rigorous qualitative research on learners' perceptions of their roles in online learning.

2. PERCEPTIONS, KNOWLEDGE CONSTRUCTION, AND QUALITATIVE RESEARCH

Perceptions are thought to be the process of receiving and interpreting information from the environment. Perceptions reflect a person's 'emotions, expectations, and needs' (Liaw *et al.*, 2007). Learners' perceptions of learning activities involve four essential elements including interest, challenge, choice and joy (Gentry *et al.*, 2002), and these have been acknowledged as the 'significant determinants' of learners' academic achievement in addition to their 'goal orientations' (Ghanizadeh & Jahedizadeh, 2015). In other words, students' perceptions are strongly interrelated with the available 'supportive environment', which can enhance motivation for learning. Besides, researchers found that students' perceptions are correlated with tutors' interpersonal behaviour (Hardré & Sullivan, 2007), cognitive learning strategies (Young, 1997), epistemological beliefs on approaches to learning (Ozkal *et al.*, 2008), teachers' support and intervention (Lee *et al.*, 2009), and autonomous learning and motivational beliefs (Kharrazi & Kareshki, 2010). Again, Kandiko (2012) reported that students expect 'personalized higher education' with individual experiences, small sessions of teaching, and opportunities to meet other students. They expect their 'individual circumstances' to be 'acknowledged and accommodated with flexibility', 'authorship' to some extent and a 'tailored education'.

As for knowledge construction, it is the fourth one among the five steps of OLE (Online Education) where 'access and motivation' begins with receiving instructions on learning from the tutors. Online socialisation is initiated through messages, making acquaintances, and establishing connections between cultural, social and learning contexts. Exchange of views and information occurs through support in understanding tasks and using materials. And, knowledge is constructed by facilitating the process through interactions with the tutor as well as the peers. Finally, development is understood through tutor's responses to problem solving or applications of knowledge (Salmon, 2000). Here, teachers co-construct knowledge by emphasising the importance of statements and questions, listening actively, understanding learners' development, raising keenness for an investigation, and responding to learners' approaches.

According to Davenport and Prusak (2000), transfer of knowledge entails two steps called transmission and absorption. Learning begins with activating knowledge which is called 'knowledge transmission' and includes reading books, articles, PowerPoint slides, and drafted lectures. The knowledge-building process begins with knowledge absorption through synthesising, analysing and sharing. Knowledge building is thought to be constructing 'new cognitive artefacts' by asking questions, engaging in conversations, and continuous self-transcending (Bereiter & Scardamalia, 2003). On the other hand, Koh *et al.* (2010) emphasise 'negotiating meaning through discussion and collaboration' for constructing knowledge, and learners co-construct knowledge from lower to higher psychological functions (Gunawardena *et al.*, 1997). The five phases of knowledge construction Gunawardena *et al.* (1997) recommend are: a.) Sharing/comparing information; b.) Discovering and exploration of dissonance or inconsistency among the ideas, concepts, and statements advanced by different participants; c.) Negotiating meanings and co-constructing knowledge; d.) Testing and modification of co-construction, the phrasing of an agreement, statement(s); and e.) Applications of the newly constructed meaning (Cited in Heather & Terry, 1998, p. 7). That is, learners share and compare information before they negotiate, test, and apply. On the other hand, Garrison *et al.* (2000) prioritise the 'quality of learning' which, they believe, is determined by students' ability to construct 'deep understanding through sustained critical discourse' (p. 284); and they, subsequently, proposed a framework including four stages called triggering event, exploration of ideas, integration of ideas, resolution of a dilemma (Cited in Koh *et al.*, 2010). Triggering events arise in the 'shared world' of online learning, though the exploration, integration, and resolution of confusions come personally or in groups. And, learners construct knowledge and understanding by interacting with personal and social reflections within the online learning context.



What is not there in the proposed models in the literature is a continuous evaluation process of 'individual understanding' and 'conclusions' through adding and discarding new and old knowledge (assimilation and accommodation). The evaluation process persists throughout knowledge construction as well as after the 'conclusion' is formed. Koohang (2012) proceeded with an 'active learning model' consisting of three key stages called underpinning, ownership and engaging that avoid any end-point of knowledge construction. The process begins with the tutor 'designing the elements' into 'activities and assignments' at the underpinning stage. Then, the ownership components are prepared to facilitate active involvement of the learners. Engaging is the last step to follow after the former stages of new knowledge construction (Koohang, 2012).

Qualitative research is defined as the methodical investigation 'into social phenomena', such as, how people experience the different aspects of their lives, how individuals or groups behave, how organisations work, and how interactions shape relationships in any natural setting. Researchers in qualitative research scrutinise 'why events occur, what happens, and what those events mean to the participants studied' (Teherani, 2015, p. 669). This type of research methodology consists of 'a set of interpretive' and 'material practices', making the world 'visible' to transform it (Denzin & Lincoln, 2005, Cited in Cresswell, 2007, p. 36)

Those 'questions' to recognise the complexities of real-life issues are meant to be investigated qualitatively without any pre-direction with a specified hypothesis. Perceptions regarding any topic can neither be 'pre-ordained' nor 'hypothesised'. Investigating learners' and teachers' perceptions about learners' roles is supposed to need an 'exploratory approach' because of being 'little known' in an online context. It might be studied in some 'other contexts with different populations' attending face-to-face learning. The setting of investigation is 'unique', and Marshall and Rossman (2011) think a qualitative research setting should be so. And, the focus is on the complexities of the pedagogical issue within a structural group called online learning community. Such complexity and the meaning that the participants make from pedagogy should come through qualitative methods.

Besides, qualitative methodologies are a powerful device (Johnson, 1995, p. 4) for probing any 'deeper understanding' of teaching and learning instead of 'examining the surface'. 'Phenomenological inquiry' utilises a 'naturalistic' and post-positive approach seeking to 'understand phenomena in context-specific settings' as opposed to logical positivism. And, researching perceptions is not intended for 'causal determination, prediction, and generalisation of findings'. Majority's opinion might also be of no use in case there is little new to know. Strauss and Corbin (1990) argue that qualitative methods can also be used to gain more in-depth

knowledge and new perspectives on the already much-known things too. Besides, it has good merit to 'first identify the variables that might later be tested quantitatively', or where the quantitative measures cannot describe or interpret a situation adequately'. Also, researching the perceptions of learners' roles and responsibilities could generate 'theories' (Glaser & Strauss, 1967) or "working hypothesis" (Cronbach, 1975, cited in Hoepfl, 1997) which is the primary goal of qualitative research instead of testing theories.

3. PURPOSE OF THE STUDY

Learners are currently seen as the 'agents' of their own 'educational destiny' (Lier, 2007, p. 47). And accordingly, teachers' roles have been transforming from teaching to 'facilitating, helping, coordinating, counselling, consulting, advising, knowing, resourcing and so on' even in classroom teaching (Okay & Balçıkanlı, 2017, p.1). That is, the term 'learning' has been independent of 'teaching', regarding the teaching contents to be 'already available' to the learners often. For, what they depend on the teacher in are the instructions on how to 'structure the knowledge' and 'use the teaching content'. So, arguments might not be crucial concerning 'transmission of content' in online learning. Rather, online higher education is more teacher independent regarding 'transmission' and dependent on 'knowledge transformation' that is often limited to scopes and opportunities in face-to-face instructions because of time and availability constraints. Koohang (2012) states in his model the following roles and responsibilities of learners' at the stage of 'ownership'; which lead to creating knowledge actively: a.) Setting own goals & objectives; b.) Taking control of learning; c.) Reflecting (being aware of learning); d.) Including own experiences; e.) Self-assessing; f.) Presenting ideas and concepts. And, they have to analyse, evaluate and synthesise multiple perspectives and collaborative assessments in the active learning stage.

Above all, understanding the purpose and objective of learning is required to be a successful online learner (Quek & Wong, 2003, p. 289). Haywood *et al.* (2004) mentioned the necessity of 'coaching', for students to know what their roles are and what the teachers' roles in online learning because the expected roles are often not clarified in such an environment, unlike in face-to-face teaching. Besides, Chang and Fisher (2003) also stress on understanding their roles by both the teachers and students. These concepts are what have framed the author's research problem indicating the necessity of investigating learners' concepts about their accountabilities for ensuring quality learning. Besides, understanding teachers' expectations would be a distinct advantage for the learners to achieve their goals in higher education.



Online education has gradually been recognised as a well-accepted model in higher education and the ever-increasing demand for the courses offered online has reached an unanticipated point. Allen and Seaman (2004) reported rapid growth of popularity of online education in the USA. In addition to that Allen and Seaman (2014) showed that there are 7.1 million learners in higher education and the number has been increasing at 6.1% rate. Besides, more than 400,000 learners are taking minimum one online course, and the rate has been growing incredibly. The positive rating on online education has reached up to 74% (Cited in Koochang, 2014, p. 12; Maor, 2006, p. 133). These statistics seem adequate to justify the necessity of further research responding to the relevant questions on online education. Moreover, more research in this area could contribute to ensure and improve the quality of online education, which is increasing in quantity too. However, no conclusions concerning the 'quality' of contemporary online higher education should be drawn without scrutinising the perceptions that learners hold of their participation in the learning and of their contribution to the pedagogical processes of creating knowledge, managing learning, coping with socialising and combining aspects of the processes. This encourages the author to explore "What do teachers think about learners' involvement?" in such a specialized teaching-learning context. Again, it is obviously difficult for learners to perform up to the mark in a specialized educational program without recognizing and understanding the teachers' beliefs and expectations from them, in order for them to create knowledge and attain the pedagogical goals in higher education. "What are the learners' concepts regarding their participation in the pedagogical processes?" should also be answered as a complementary question. Finally, statistical analyses in the existing literature claim that social constructivism is there in online learning. It is also needed to understand about learners' awareness of this theoretical implementation in OLE by answering the question, "To what extent learners believe that they contribute to peer-learning?"

4. METHODOLOGY

The literature review has been performed as a 'systematic configurative review', which is an approach of using systematic, explicit and accountable methods (Gough, *et al.*, 2012, p. 5) of organising data gathered from research articles to respond to any proposed research questions. This systematic approach has been used to search and organise necessary data in a table intending to writing a synopsis of the findings in the reviewed studies and relevant to the proposed research. Besides, the results have been described using 'critical discourse analytical-inspired strategies' for analysing review data. However, the literature review of this research precisely connects

the methods and findings of the perceptions of online learners and teachers. This review, as a result, matches the objectives of a 'conventional' literature review and encourages a particular debate issue on 'what it excludes from the discussion' in every study. Furthermore, the review focuses on points of potential implications from the opinion of the learners and teachers. It is important to note that the article presents examples taken from different studies, which demonstrate 'a generalised pattern detected across the analysed studies' (Fylkesnes, 2018, p. 27).

A. Database Search and Selection of Literature

The articles which have been reviewed for this study were obtained by searching two databases (Through access of University of Toronto and Science Direct) in October and November of 2015. The term 'learners' perceptions in online education' has been used to target the studies addressing the topic. And, the search terms 'learners' and teachers' perceptions' of roles and responsibilities were initially combined with the term online education, online learning and e-learning. In the first search attempt, researchers focusing on teachers' and learners' perceptions were taken into consideration and, in order to add the missing articles that were not identified by the initial search, another search round was conducted by adding learners' roles and responsibilities. All the key terms were applied in the combinations with higher education and online learning. The studies to be reviewed were selected in two different steps. In the first step, the titles and abstracts were read and examined using the criteria for selection. The 24 studies closely relevant to learners' participation and responsibilities in constructing knowledge in OLE were included after evaluating the abstracts. In the next step, the articles relevant to the first research question of the proposed article were separated and were skimmed through and the full texts of the articles were retrieved for further check. Five more research articles were eliminated from the list of papers to be reviewed, while two articles fitted the criteria. The full texts of these researches were studied and analysed thoroughly with a concentration on the findings and implications. Then, the general overview of the findings on the online teachers' and learners' perceptions of their roles in learning and peer-learning were summarised to provide in-depth information and an overview of the studies' theoretical frameworks, aims, and other main terms used in relation to the learners' participation. The search was applied to publications up to 2017 and articles published before 2000 were combined because relatively few references were published on the topic prior to that year. The literature database was initially further screened manually in order to remove duplicated and non-English papers; in addition, non-peer reviewed articles were also not considered for possibly not being 'trustworthy' or academically valid.



B. Summary of the Studies and Analytical Approaches

Almost half of the selected studies (11 out of 24) were conducted in a western context [USA (4), Canada (1), Spain (1), Netherlands (1), Belgium & Greece (1), the Netherlands (1), and Australia (1)]. Another thirteen types of research were performed in non-western, such as Asian countries [(3) in Japan, (2) in Taiwan, (2) in Malaysia, (2) in Turkey, (1) in Iran, and (1) in South Korea]. Most of the research works (eighteen) were quantitative, and the unavailability of sufficient qualitative research is also a purpose of designing this research. However, a qualitative approach had been applied in four studies, and two others were literature review studies.

All of the twenty-four studies were positioned within a defined ‘conceptual framework’ of constructing knowledge or active learning in online education. Only two studies of the reviewed literature were relevant to teachers’ thoughts and experiences of OLE, while eleven studies drew on the theory of learners’ higher-order thinking, interactions, and learning responsibilities in online learning. Seven other studies concentrated on learners’ collaboration in learning. Four of the researches relevant to teachers’ roles in shaping learning or learners’ participation were read with an attempt to demonstrate the lack of qualitative researches/literature on perceptions about learners’ role in constructing learning. The following tables (Fylkesnes, 2018) present the ‘selection criterion’ and ‘analytical strategies’ used to review the literature.

TABLE I. : SELECTION CRITERION

| Inclusion | Exclusion | Rationale |
|-----------------|--|---|
| Online tutoring | Results on tutors’ responsibility, technology | Learners’ activities and responsibilities ignored |
| Online learning | Beliefs about teaching, students’ satisfaction | One-sided emphasize on learners’ opinion about teachers’ performances |
| Peer learning | Challenges, functions, standards of online education | Focus should be on collaboration |

TABLE II. : READING AND ANALYSIS

| Steps of reading | Aim | Strategy for analysis | Empirical research questions |
|------------------|--|---|---|
| First Step | Get an overview of the methods and findings on teachers’ beliefs | Conversation analysis | What do the teachers think about learners’ involvement? |
| Second Step | Analysing the learners’ understanding of their own activities | Scrutinizing survey results | What are the learners’ concepts regarding their participation in the pedagogical processes? |
| Third Step | Examining their perception about the collaborative | Scanning and synthesizing learners’ opinion | To what extent do the learners believe they contribute to peer-learning? |

5. LITERATURE ANALYSIS

The literature relevant to teachers’ and learners’ perceptions about learners’ roles and responsibilities that ensure successful learning, as well as their contribution to peer learning, has been studied in this attempt. Three key areas to be investigated in the article were reviewed with the aim of substantiating the research proposition. These are: (a) Teachers’ Perceptions of Online Learners’ Roles (b) Learners’ Perceptions of their Roles (c) Perceptions of Peer-learning.

A. Teachers’ Perceptions about Online Learners’ Roles

Teachers’ role has long been changed since constructivist learning was embedded in progressive educational philosophy, and online education is a shift from the teacher-centred and institution-centred learning to a learner-centred paradigm (Chang & Fisher, 2003). However, the teachers have been recognised as e-moderator in e-learning by Salmon (2001) who explains that a teacher creates involvements and responds to the online discussions as an e-moderator. It is, in fact, a part of the teachers’ role in online education. On the other hand, King (1993) characterises the role as “the guide on the side”, which Collison *et al.* (2000) find to be the most appropriate role for leading a virtual learning community. Teachers are ‘aware’ of the posts in the discussion forums, persuade sharing, track the individual contributions, make corrections with incorrect perceptions, keep the discussion focused, and encourage higher-order thinking. Also, interactions with the instructor lead to ‘higher perceptions of learning’ (Swan, 2002).

Journell’s (2010) findings from his investigation of learners’ ‘general perceptions’ of the online learning process and their ability to learn effectively demonstrate that the learners shared similar perceptions, though were divided in different opinion too. Mr. Harding, the participant in Journell’s research, describes his students as ‘uninterested in engaging in social interaction online’; although, the students disagreed with this to some extent. He stated that his objectives of teaching were to ‘help the learners’ both academically and socially. He believed he was able to perform only the first task. Mr. Harding reported having created activities for every unit of the course on the discussion board, to encourage learners’ interactions with peers as well as with the teacher. Though he aimed at achieving ‘acceptable academic standards’ by the learners throughout the course, he believed the social goal had not been ‘well achieved at all’. Also, Mr. Harding found e-learning to be ‘primarily a medium of transmitting content to the students’ which looked ‘colourless’ in comparison with classroom instruction. This is because the ‘emotional and social aspects’ that he thought crucial in ‘an engaging learning experience’ were often absent. What this teacher found about the learners’ attitude was ‘to put in minimum effort possible’, which made him choose strategies involving ‘more rote



memorisation and repetition than in his classes'. He concluded that the learners who had not been interested in 'school' and 'interactions' had chosen online learning.

Jiménez *et al.* (2017) established tutor typologies according to their roles and functions (tutor functions, functions by phases, and functions as task), the resources used in tutoring, and the features that characterise students participating in e-learning. These researchers also illustrated that student characteristics have an influence on the resources used by tutors, the functions, and the tasks they perform. Simultaneously, there is an interaction between the tutor's tasks or functions and the resources employed. This interaction must conform to the intended training to be offered and the students' characteristics. Thus, Jiménez *et al.* (2017) recognized the students of Mr. Harding to be a counterpart in successful teaching, though they did not look into the learners' roles in addition to the tutors' functions in online teaching and learning.

According to Borup (2016), 'unprecedented levels of learner-learner interaction' in online learning is believed to have a potential to transform the ways students learn online (p. 231). The author seems to agree with Mr. Harding (Journell, 2010) that online teaching and learning often focus on learners' independence or teachers' flexibility rather than on interaction and collaboration. The decisions about pedagogical activities are usually taken by the teachers only. On the other hand, little research has studied 'how online teachers perceive, value, and facilitate learner-learner interactions'. Borup (2016) surveyed and interviewed teachers working full-time at an 'online charter high school' in the U.S.A. and examined their perceptions of 'learner-learner interactions' in a case study. The research demonstrated that four types of student behaviours like befriending, motivating, instructing, and collaborating impact student engagement and learning positively. Teachers also identified several drawbacks to learner-learner interactions such as bullying and cheating. In spite of the teachers being in a position to overcome such barriers, there is inadequate research on 'teachers' perceptions of and experiences with peer engagement' in online education. So, Borup (2016) aimed at examining instructors' perceptions of the roles students are supposed to play in their peers' online learning, the obstacles preventing students from positively impacting their peers' engagement, and the ways instructors overcome these obstacles. However, the author asked neither about the students' concepts of their roles or the problems they face in peer engagement, nor about the teachers' expectations from the learners.

On the other hand, Huh and Reigeluth (2017) assumed that students' skills and aptitude to be engaged in self-regulated learning (SRL) had been recognised as noticeably significant along with the growing demand of online learning. Although SRL has been considered to be 'important and teachable' in OLE, insufficient research had been conducted on teachers' practices and perceptions of self-regulating learning. That is what had motivated the

authors to survey 112 teachers working at K-12 online schools in the United States and show that the 'practices for supporting SRL had a narrow focus' as opposed to a strong concentration as in 'conventional teaching', which potentially prevents students from 'developing the full range of SRL abilities'. Again, no query has been made about learners' perceptions of their roles in active learning through self-regulation strategies.

B. Online Learners' Perceptions about their Roles

Perceptions about learners' roles and functions in online higher education have been revolving around a few ideas, such as: learners taking an active approach; being involved in discussions; developing solutions; working with minimal guidelines (Palloff & Pratt, 1998); working collaboratively; generating deeper understanding (Chang & Fisher, 2003); being reflective (Zariski & Styles, 2000); self-assessing (Armarego & Roy, 2000); identifying and prioritizing own personal skills' gaps; managing learning experiences; setting clear goals; establishing specific plans; and securing needed resources (Birch, 2002).

Most of the participants in Journell's (2010) research viewed online learning to be 'quick' and 'easy' as a learning approach and to them, it made possible the learning of much more content and faster than the usual because it was flexible. Some of the participants also mentioned the lack of 'group work' and 'informal discussion' on a topic. The overall beliefs of the learners about an online history course they took were that it is 'best used for learning information transmission and rote memorisation rather than active or social learning' (p. 69). They also reported that the absence of the course instructor was a great barrier to build any relationship with him, and that was the reason for social interactions not taking place. Besides, the teacher became unimportant in learning except for a few procedural formalities. However, Journell (2010) investigated only learners' views about the learning, without investigating their responsibilities as learners. Although the researcher warns that it would be unwise to generalise the findings of his study to adolescent learners, he suggests that teachers having pre-service training of online teaching can improve the situation.

On the contrary, Brian and Scott's (2001) research participants appreciated their virtual school course for the overall autonomy, freedom, and flexibility they experienced; though, there were mixed thoughts on several other issues. Many of them did not like to take on the responsibility for their own learning; while, others enjoyed self-learning through working out 'what to do' without the teacher's help. Few of them found it challenging to experiment 'how well one could do without teachers'. The authors state that learners experienced to be empowered with the control of their own learning, decision-making, and time management. Many of them, however, felt the necessity of group work. Very few also expressed frustration for having 'communication



distances' with the instructor as well as for working extra hard on their own. A great number of them found the Cyber School to be more interesting and engaging than the conventional schools and felt more mature to experience such high school learning on their own. While, a few learners liked the community they developed through meeting new people on the LMS (Learning Management System).

Delivering instructional content, learning activities, and social communication was emphasised by Liaw *et al.* (2007) in their survey of students' attitude factors toward e-learning systems. After a factor analysis, they grouped learners' attitudes into four different factors, which they called: e-learning as a learner autonomy environment (2A); teachers as assisting tutors, whom can be viewed as the variables of learning models (2B); a problem-solving environment, which can be viewed as a variable of learning meta-cognition (2C); and a multimedia learning environment, which can be regarded as a variable of instructional structure. Findings confirm that Hypotheses 2A, 2B, and 2C are all highly accepted and the authors infer that learners' active learning, multimedia instruction, and teachers as assisting tutors, are all positive factors for enhancing learners' problem-solving skills (p. 1917). But no qualitative approaches were applied to investigate how those factors work or what the teachers and learners think about those activities to be performed.

The learners in Fedynich *et al.*'s (2015) study were highly satisfied with the interactions among students and with the instructor as well as with their roles in clarifying and organising instructions using sufficient resources. Nevertheless, the lack of peers' support, varying instructional design, delivery, and campus resources were challenging to the participants. They recognised the 'positive components' leading to 'their satisfaction' and perceived challenges that 'inhibited it' (p. 1). Though the researchers did not call for any further research, they presented some recommendations on 'how to improve teachers' instructions' to ensure learners' satisfaction. Those recommendations included incorporating multimedia, embedding tutorials, designing structured collaborations, embedding conversation between partners, and encouraging students to dialogue about course assignments (exchange e-greeting cards) etc. No directions for the learners' role in improving learning or active participation and ensuring peer-support in pedagogy was provided; although, instructors' roles were prioritised.

However, Craig *et al.* (2008) chose self-motivation, submitting work on time, awareness of the subject-requirements, allocating sufficient time for study, asking for help when faced with confusion, exploring ideas instead of remembering facts, preparing for classes, finding out necessary knowledge, expressing opinion, being aware of university legislation, and memorizing answers, etc. as the criterion of investigating learners' perceptions. They concluded that students' expectations

differ with individual differences of the learners in any group.

That was the only research examining learners' perceptions; though, the survey questions were decided from the researchers' perspectives with an answer readiness feature through the Likert Scale rating system. Additionally, the learners' perceptions, thoughts or expectations about learning were not investigated and the research focused on learners' roles and responsibilities about learning. Also, with respect to their expectations of online instructors, they either agreed or disagreed as respondents, without having any opportunities to reflect on their expectations. The researchers aimed at minimising any discrepancies prevailing between individual learner's expectations and teachers' practice. The purpose was to convince the students about the benefits of online learning before they decide on such pedagogy, which prepares the students for lifelong learning.

Online teaching is undoubtedly different in many ways as a 'practice' from classroom teaching. Consequently, higher education institutions should provide the necessary training or experience for tutors who are expected to offer any course online. However, the author disagrees with the way of scrutinising learners' perceptions by investigating their levels of satisfaction. Because teachers vary in their teaching styles, in the same way learners' learning strategies do too. It is not the teachers' duty to keep up with the majority of learners' 'satisfaction'. Instead, teachers have to ensure the quality of instruction and assessment, so that learners achieve the intended learning outcomes in the end. Craig *et al.* (2008) indicated the necessity of knowing the expectations that teachers may have of their learners; however, this was not specified as the further direction of research.

In addition to this, a few other types of research demonstrate the association between learners' participation in learning and their attitude, motivation, as well as higher-order thinking, which reflects their perceptions indirectly. Harandi (2015) investigated the 'strength' of the correlation between e-learning and students' motivation at a university in Iran. He conducted a survey and used Pearson's correlation coefficient to confirm the relationship, although a warning was issued to be cautious while generalising the findings for other learning contexts. A 'significant relationship' was yielded in the study, and e-learning was found to be a constituent affecting students' motivation for learning. The researcher stated that learners' increased motivation to learn is expected to make them more active in the learning process. For Kim and Frick (2011) emphasized, 'successfully' engaged learners are 'more likely' to perceive the 'learning objectives', which could positively speed up e-learning, as a 'standard device' of instructional modes for higher education learners. Despite this, Harandi (2015) expressed concern with the course content, ICT facilities, training of personnel, learners' ICT literacy and



access, as well as financial aspects to be ensured for effective teaching and learning.

Dahalan (2012) attempted to understand the influence of learners' attitude toward e-mentoring on their 'engagement' in online education. The results obtained validated the 'positive impact' of learners' attitude toward 'e-monitoring' on the learning context and their 'engagement' in the process. Besides, it was shown that learners who take on the responsibilities of learning and utilise different 'assisted functions' are more interactive than others. Interacting with a positive attitude with the mentors and with other learners made them inclined to contribute rigorously in the discussion forum (Yang & Lin, 2010; Chang, 2005). The author also stated that learners' positive beliefs added to their 'value' of discussions and actions. For example, their beliefs about tutors' knowledge, experiences, and assessment criteria, impacted their motivation to participate, and active learners often had positive evaluations of their teachers. Teachers' feedback and attention also reassured the learners, where this relationship building had a motivational impact on the students' participation. Lee and Choi (2017) studied the ways learners' factors 'interactively' influence their higher-order thinking in technology-enhanced learning. They also indicated those learners' 'higher-order thinking' is noticeably affected by 'deep learning' approaches, instead of 'epistemological' views or thoughts for using technology. Also, the learners' factors had an indirect impact on their motivation.

C. Perceptions of Peer-learning

The principles of active learning have always assigned the greater responsibility of constructing knowledge or creating learning on the learners. As mentioned in the Constructivist theory of learning, teachers are supposed to introduce learning activities and content that learners should think critically upon, as well as solve related problems provided. While, in online higher education, the learners usually read, reflect, think critically, ask questions, solve problems with the help of tutors. The objectives of introducing such active learning include enhancing higher-order thinking analysis, increasing the ability to apply course concepts, linking between course materials and practical context, supporting students in constructing their meaning, encouraging exploration of own attitude and values, and increasing feedback and decreasing student dropout rate. According to Jonassen *et al.* (1995), constructivist learning implies the principles of creating knowledge through collaboration and individual activities where learners learn the knowledge and skills through reflections as well as through interactions with content and peers.

The theoretical underpinning of active learning refers to question and inquiry for solving problems or doing projects. In online higher education, there are repeated questions, exchange, and sharing of knowledge among the

learners. They can view their learning and experiences from different perspectives, and thus have multiple explanations of their understanding on a topic through sharing others' experiences. The active and cooperative learning environment is there in allowing the learners to interact with the teachers and discuss with the peers in an online community. That is, two-way interactions are available without any time or presence restrictions in OLE. Besides, learners benefit from the maximum opportunities of creating own learning by interacting with the learning materials too. Online learning is self-constructed with the scope of such interactions, even without teachers' prior introductions. Moreover, the continuous reflections and engagement in reading and peer-discussions keep the learners occupied in varied types of cognitive activities. Moreover, social relationships are also enhanced through the interactions (Berge, 2002). However, one downside is the lack of peer-assistance in problem-solving or assessment and another relates to teachers' online availability, which allows learners to address any problem directly to them, without any prior self-attempts at solutions or investigations.

Being aware of constructing meaning of the learning is supposed to be the unique feature of online higher education. Higher education learners are noticeably self-conscious of the personal meaning of inquiry to be carried out to solve a problem or dilemma with the best possible individual or collaborative efforts and discussions. In such discussions, there are educative dialogues with higher-order thinking, flexibility, and respect through varied views and constructive arguments. What is worthy of appreciation is that learners become more independent of teachers and acquire the necessary knowledge from peers as well through such patterned discussions. All these processes ensure 'knowledge' to be transferred among the learners.

Northrup (2001) assumed that learners are usually set in isolation when learning online and that group activities and team work are more significant to build interpersonal relationships. However, Vygotsky's (1978) learning through social interactions frequently occurs in the online discussion forums with the tutor guidance. Similarly, Fullford and Zhang (1993) also believed in the 'independent learner' who cognitively processes the course content independently. When learners get the opportunity to interact with other learners or peers, however, they analyse, synthesise, and evaluate content using new learning to construct shared meaning. As Bloom (1956) states, properly-structured interactions can raise the lower level of cognitive processes of recognising, comprehending, and interpreting to the higher levels of thinking, synthesising, and evaluation. Powers and Rossman (1985) concluded that graduate students' satisfaction is related to teacher-student interaction, peer-interaction, and a sense of intellectual stimulation, which can all take place in the online environment.



Mr. Harding in Journell's (2010) study was found to be discouraged by the 'delay' of learners' response that was also mentioned by the participants of Song *et al.*'s study (2004). The learners stated, they used to think about a topic with greater depth while responding in writing, though they would not do that in the instant verbal responses. They also liked being able to constantly reflect upon each other's thoughts "because of the public and permanent display of discussion postings on the Web" (p. 61). The findings regarding the perceptions about the necessity of interactions are also consistent with that of Journell (2010), Larson (2003), Powers and Rossman (1985). 'Interactions' were found vital because 'participation was less intimidating for the more reticent students' (Ni, 2013 in Fedynich *et al.*, 2015, p.2).

On the other hand, Herring (2007) had reported that interactions had little impact on learners' achievement. Also, the participants viewed peer-interactions as 'less vital to learning' while interactions with teachers were viewed as 'very important'. After analysing the survey questions, Herring addressed learners' needs and concentrated on their likings and preferences about the issues in online learning and teaching. What the author did not address was the responsibility of the participants in improving the educational value of class-discussions which could in turn benefit them from the peer-interactions. If the learners considered peer-interactions as being not beneficial, this would refer also to their performances.

The high school learners in Larson's (2003) study reported that participating in online discussion was difficult and added on them the burden of extra reading and writing. They spoke positively about the opportunities of discussing multiple topics at the same time. Besides, they found the discussion forum as organised and an opportunity for the shy learners who usually do not talk in the classrooms to participate in the learning process. And, reading other learners' responses helped to get different ideas. The researcher used multiple instruments to collect data including discussions and observations throughout a course on socio-political studies. What Larson aimed at was to get learners' feedback on their overall impressions of two different types of discussions through review sessions. Though, the learners were not asked about their possible contributions or responsibilities to learn most from this strategy.

Vighnarajah *et al.* (2009) emphasized providing their learners with better learning opportunities in the Malaysian educational context and aimed at addressing qualitative findings on self-regulated learning strategies that were conveyed through the proposed interactive e-learning community. The authors utilised semi-structured interviews to collect data from small groups and one-to-one perceptions of fifty students in an eight-week period. The results of the study indicated that self-regulated strategies, such as intrinsic goal orientation, extrinsic goal orientation, control of learning beliefs, self-efficacy for

learning and performance, elaboration, organization, critical thinking, meta-cognitive self-regulation, time and study environment, effort regulation, peer learning, help-seeking are key for the learners to succeed academically online, even after the years of schooling. These findings were directed toward the overall development of strategies and their transmission to pedagogy. The results show that self-regulating learning allows learners 'active engagement in the learning process', which has 'strong implications' on both them and the learning. However, the research study did not include the teachers' opinions about learners' roles and responsibilities in regulating their learning successfully.

Besides the studies inclining to the perceptions of teachers and learners, there are few other contemporary researches investigating aspects such as: teaching staff's new skills and competences that are vital for multicultural online education (Damary *et al.*, 2017); e-learning platforms and their main functionalities (Llamas-Nistal, 2011); design choices for online collaborative filtering service (Manouselis *et al.*, 2007); collaborative learning through the use of social media by using Structural Equation Modelling (Mugahed *et al.*, 2017); Turkish EFL learners' attitude towards e-Learning by using Tam (Cakir & Solak, 2014) ; the role of e-learning readiness on student satisfaction and motivation in flipped classroom (Yilmaz, 2017); learners' preparedness for mobile learning (Stockwell, 2008); learners' satisfaction on quality of education (Markova *et al.*, 2017); the critical factors affecting learners' perceived satisfaction in e-Learning by conducting survey (Sun *et al.*, 2008) etc.

None of these researchers addressed learners' perceived roles and responsibilities in constructing their knowledge and learning in online higher education. A summary reveals that the greater part of the literature deals with 'learners' attitudes; a considerable number of them deals with peer-learning; while, a few ask the teachers about their perceptions of the learners or about their activities. However, a considerable number of researches identify factors explaining teachers' use of e-learning platforms in higher education (Mahdzadeh *et al.*, 2008); roles of teachers in engaging students and getting free e-learning (Yengin *et al.*, 2010); testing the longitudinal effects of teachers' support and other issues on students' motivation (Fryer, 2016); examining the effect of teachers' self-disclosure to enhance teacher-student relationships which, in turn, increases perceived knowledge and satisfaction (Song *et al.*, 2016).

6. DISCUSSION AND CONCLUSION

A review of the relevant literature demonstrates that most of the research on OLE (Online Education) concentrates on the learners' attitudes to learning or technology, their satisfaction as learners, teachers' roles and responsibilities etc. Such limited concentration topics encourage the idea of 'vertical teaching', 'content transmission' and 'teacher-tailored learning' in online



pedagogy, through contributing a significant part of the pedagogical tasks to the teachers. Besides, asking about learners' satisfaction often might change the true meaning of education itself. Haywood *et al.* (2004) reported about the limited research publications related to students' roles in online higher education and the necessity of more 'insights into the changing role' of teachers and learners, in order to attain the best benefits of a flexible learning context. That might be a reason for the repetitive investigations about teachers' roles although neither the teachers' perceptions of the learners' roles, nor those of the learners have been explored yet. Although, asking learners about their perceptions of roles or responsibilities in 'knowledge constructions' and 'learning through interactions' would make them aware of their responsibilities or the specific aspects of teaching and learning. Consequently, they may become better learners overall. Wever *et al.* (2009) put importance on 'assigning specific roles' to the learners in participatory tasks in asynchronous discussions, thus leading to complex thinking. Additionally, providing 'ownership' of accountability to the learners generates 'complex thinking' because of the 'responsibility' of learning being 'transferred' to them (Lucas & Moreira, 2010). That combines with 'autonomous learning', 'context-situated problem-based learning' and 'intra-group and inter-group collaborative works'. Besides, learners have to go through few functions or 'dynamics of knowledge activities' (Nonaka & Takeuchi, 1995) of socialization, externalization, combination, and internalization, to demonstrate critical thinking and logical reasoning.

However, constructivism is often discussed in association with online learning structures because interactions play an immense role here (Koohang, 2014; Berge, 2002). How much the learners benefit from peer-interactions is also to be explored since the researches on secondary learners often demonstrate frustrating results (Journell, 2010; Herring, 2007). Moreover, investigating learners' perceptions and their contributions to peer-learning, instead of relying on statistical data about 'activity based learning', could be significantly beneficial for learners to understand and reflect on their do's and undo's in peer-interactions. Also, investigating teachers' perceptions about learners' roles and tasks in every step of constructing knowledge and assessment could minimise the gaps between the learners' beliefs and teachers' expectations reciprocally. That might promote the desired learning in online higher education even in the 'absence of teacher'.

It is not only the teachers whose roles in online education have been thought to be specialised and different than that in the classrooms, but learners' roles are also considered to be so. As teachers are not supposed to 'teach' only in online learning, learners too are not expected to only be 'taught'. They are rather 'learners' in a true sense and negotiate their learning in collaboration and through tutor's moderation. In such a changing

context, investigating learners' perceptions about their tasks to construct a higher level understanding of them selves as well as of their peers is more than crucial. Also, exploring teachers' thoughts and expectations about their roles in this regard, with the aim of minimising the discrepancies prevailing between the different sides and maximising the desired learning, would be beneficial for the learners' community too.

Qualitative analysis engages an 'interpretive' or 'naturalistic' approach to the research problems and it studies objects with an effort to make sense of the phenomena concerning the meanings participants bring to them. Utilizing an 'approach to inquiry' (Grounded Theory), streaming from the 'philosophical assumptions to the worldviews through the theoretical lens' (Creswell, 2007, p. 37) of constructing knowledge, in order to identify an educational problem of interpreting learners' and teachers' perceptions of learners' roles is strongly recommended. Considering the research problem and the nature of information needed, using multiple sources of data (interviews, observations, documents and field notes) as the techniques of investigation to understand the meaning that the participants hold regarding the problem, instead of bringing the researchers' perspectives into it is also required. Qualitative research uses detailed data collected from the 'natural settings' where the participants are at ease. So, taking field notes and observing the discussion forums where learners are regular and 'at ease' can ensure credibility too. Though there is no hypothesis specified before the study, research design including questionnaires, procedures and note-taking should have a single focus on 'understanding perceptions', which is not feasible through quantitative data analysis. Perceptions are individual and unpredictable. So, they are emergent as variables too. Instead of maintaining a restricted structure to be followed, being 'flexible' to any 'emergent design' while collecting data comes with help to accomplish the maximum depth of thoughts of the participants and, this is what is not supposed to be done with the numbers.

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