Identifying Interaction Patterns and Teacher-Learner Roles in Connectivist Massive Open Online Courses

Aras Bozkurt, Anadolu University
Abstract

IDENTIFYING INTERACTION PATTERNS AND TEACHER-LEARNER ROLES IN CONNECTIVIST MASSIVE OPEN ONLINE COURSES

Aras BOZKURT

Department of Distance Education

Anadolu University, Graduate School of Social Sciences, June 2016

Advisor: Prof. Dr. Müjgan YAZICI

The purpose of this doctoral dissertation is to identify interaction patterns and teacher-learner roles in connectivist massive open online courses (MOOCs). To accomplish this purpose, mixed method and the explanatory sequential design was used. For data collection and analysis, social network analysis, interview, observation and document analysis was used. Research findings were interpreted with the perspectives of connectivism, rhizomatic learning and social network theory.

According to the demographic findings of the research, learners in connectivist massive open online networks are distributed globally in time and place, many participate from English spoken countries, and 89% of the learners comes from low-context cultures while 11% comes from high context cultures. Participants are individuals that are somehow connected to education field; or students or instructors in higher education. Demographic findings reveal that diversity in MOOCs exist in multiple dimensions and these findings further confirm that MOOCs are “global mega classes”.

When examined in terms of interaction patterns, unified-tight crowd community pattern was observed in connectivist massive open online course networks. The nodes in this kind of networks have strong connections to one another and significant connections that bridge sub-groups. Learners of this type of networks tend to communicate with each other frequently and share a common interest. These networks are composed of a few dense and/or densely interconnected groups where conversations usually swirl around and increase its density towards the center, involving different people at different times.
Research findings additionally demonstrated that connectivist learning environments require relatively few hops to communicate and interact with the learning community, and confirmed the theses proposed in the Small World Phenomenon and the Global Village. Inversely proportional to decreasing learning number, it is observed that the network density is increased and a dense interaction occurred in the learning network. When the degree centrality distribution is examined, it is seen that emerged distribution fits in the Long tail and Power Law distributions which further means that connectivist learning networks are scale-free. In terms of production and consumption of the knowledge, there is a similarity as explained in 80/20 rule, 90-9-1 rule and Pareto Law.

Throughout the analysis and decoding of the findings to identify teacher and learners’ roles, a total of 25 roles are identified and among the roles emerged, 12 roles are defined for teachers, 11 roles are defined for learners and 2 roles are defined as intersecting roles for teacher and learners. Upon examining the emerging roles, it is seen that the borders between teachers and learners’ roles are blurred and responsibility in the learning process is shared both by teachers and learners. Teacher roles have a focus on facilitating the learning process while learner roles have a focus on using self-skills.

**Keywords:** Massive open online course, MOOC, teacher’s roles, learner’s roles, interaction patterns, connectivism, rhizomatic learning, social network Theory, social network analysis, mixed method, explanatory sequential mixed design, open and distance learning, distance education, open education.

**Suggested citation:**

Bozkurt, A. (2016). Identifying Interaction Patterns and Teacher-Learner Roles in Connectivist Massive Open Online Courses. Doctoral dissertation. Anadolu University, Graduate School of Social Sciences, Distance Education Department, Eskişehir, Turkey.