SENSE OF CLASSROOM COMMUNITY AND TEAM DEVELOPMENT PROCESS IN ONLINE LEARNING

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ABSTRACT

The purpose of this study is to determine whether there is a relationship between Turkish online learners' sense of classroom community, perceptions of success in team development process and their preferences of studying in teams. A survey instrument included the Sense of Classroom Community Scale, Tuckman's Teamwork Questionnaire and some other items were used to collect data. The study has shown that there is a medium level relationship between online learners' sense of community and their perceptions of success in team development process. In other words, the study suggests that sense of classroom community can be used as a predictor of success in teamwork and vice versa. It was also observed that each stage of the team development process has an influence on the following one; thus, when a problem occurred in a stage, it usually continued in the following stages. Analyses, additionally, revealed that the majority of the problems occurred in the forming stage, the first stage of the team development process.

Key Words: Online Learning, Sense of Classroom Community, Team Development Process, Teamwork, Learners Teamwork Preferences

INTRODUCTION

The recent developments in information and communication technologies provided tremendous opportunities for the open and distance learning providers. For instance, for years the interaction among students as well as between students and instructors, and, related to these interactions, the feeling of isolation have been considered as the shortages of this form of learning and teaching (Flood 2002, Forrester 2000; Parker, 1999). Additionally, the shortage of interaction was considered as one of the main reasons of the high dropout rate in open and distance learning (Berge & Huang, 2004). In fact, the experts agree that interaction plays an important role in learning processes in both distance and face-to-face educational environments (Law et all, 2011). Learner engagement or interaction is an essential component for deeper learning and also one of the major predictors of success in online learning (Hrastinski, 2009).

Online communication technologies, on the other hand, have helped the providers overcome this shortage via online learning. They have been able to secure a better degree of interaction in various forms (e.g. synchronous and asynchronous communications) (Shannon, Jason, & Helen, 2008). However, providing opportunities to communicate does not mean that the students and the instructors will not feel the isolation.

According to the experts (Rovai, 2002a, 2002b; Misanchuk & Anderson, 2001), one way of securing a meaningful and beneficial interaction that would diminish the feeling of isolation is to the development of the feeling of belonging a community among learners. Meanwhile, Biasutti (2011), Nam and Zellner (2011) stated that the sense of belonging to

a community and working in a community may also help learners do better in their studies and develop their social and interpersonal skills along with decreasing the sense of isolation. Previous studies on sense of community (Bruffee, 1993; Dede, 1996; Wellman, 1999; Wellman & Gulia, 1999) have revealed that there is a positive relationship between the sense of community and information sharing and flow among learners, creating a common commitment to the achievement of goals, satisfaction due to cooperation and teamwork. It was also expressed that the learners' perceptions of sense of community in online classes directly affected learning outputs and that it has a significant effect on the success or failure of learners (Harasim, 2002; Hiltz & Wellman, 1997; Gunawardena & Zittle, 1997; Palloff & Pratt, 1999). Additionally, learners with lower sense of community tended to dropout their studies more easily due to the fact that learners mostly feel lonely during their studies (Haythornthwaite, 2000; McMillan & Chavis, 1986; Morgan & Tam, 1999). Furthermore, dıe to the physical distance, learners in online environments develop low level of sense of belonging to a community and then they often choose to drop-out their studies (Gökçearslan, 2013). On the other hand, those learners with higher sense of community have shown more persistence in participation and completion of the learning activities than those feeling alienated and lonely (Tinto, 1993). Therefore, in order to increase the quality of learning experience in online learning, how to diminish the feeling of isolation, and create a learning environment that promotes learners active participation and interaction are among the most crucial points that have to be taken into consideration while designing these environments (Kanuka, 2011;Abrami, et all, 2011).

This study focuses on Alfred Rovai's conception of the sense of classroom community construct. According to Rovai (2002a; 2002b; 2001), there must be a feeling of connectedness and common learning expectations among the members in order for a strong sense of community among learners in an online class. For a strong feeling of connectedness, there need to be cohesion, trust, interdependence and team spirit among learners. On the other hand, the members in an online community can achieve their common learning goals and expectations through meaningful interactions.

Connectedness: Rovai (2002) considered the feeling of connectedness as a requirement of sense of community. The members in a community must first have a team spirit, harmony and interdependence. The formation of team spirit in learners and their sense of community depend on the interactions among team members, having common expectations, and the trust to be established between them (Gibbs, 1995). Lack of trust between community members may reduce the harmony and the desire for interdependence, thus negatively affecting the desire to interact, as it will render it difficult for them to rely on each other. In contract, the mutual trust, harmony, interdependence and respect among the members of the community will increase the level of interaction, thus positively affecting the individual's sense of community (Preece, 2000).

Learning: Literature has well documented that success in learning in online communities heavily depends on the learners' participation to learning activities and interactions occur among them. In other words, community members can only achieve their learning goals and expectations by interacting with each other and actively participating in learning activities (Berge, 1999; Boettcher & Conrad, 2004; Flottemesch, 2000; Jiang, 1999; Misanchuk & Anderson, 2001; Pallof & Pratt, 1999). Furthermore, according to Jung and Rha (2000), high level of interaction among online learners and the formation of a social connectedness among them are considered as the significant factors that may increase success and motivation. Similarly Dawson et al. (2006) found out a positive relationship between online learners' level of interactions among themselves as well as with their instructors and their sense of community levels in an online learning community. In sum, literature has shown a positive relationship between interaction and sense of community.

Another issue regarding interaction in online learning is about team development process for an effective teamwork. An educational psychologist, Bruce Tuckman developed a five-

stage model for an effective team development, which heavily depends on interaction and is used widely in online learning environments (Gunawardena et al., 2001). According to this model, the stages of team development process are defined as forming, storming, norming, performing, and adjourning. In the *forming* stage, team members get to know each other and get acquainted with what the general aim of the gathering and what their basic responsibilities in the team are. The team leader must clearly state the goals of the teamwork and direct the members towards these goals to building a team spirit. In *storming* stage, the team members collaborate to establish a consensus on how to overcome the problems they encounter. Storming is a stage in which intense conflicts may be encountered and separation may occur if the bonds keeping the team together are not strong enough. If a consensus cannot be established in this stage, the motivation of the team members most probably decline and the team may have hard time to achieve the goals and to move on to the next stage. The duty of the team leader at this stage is to ensure that team members with different opinions and ideas on what to do can settle the issue without any conflict. If the team cannot handle the conflict among members at this stage, the morale and motivation of team members and give the team a hard time to achieve the targeted goals and to move on to the next stage. *Norming* is the stage in which team accepts the team rules necessary to ensure collaboration and arrives at a consensus on how to share information, settle disputes and on the tools and the processes they will use in order to reach targeted goals. At this stage, the goals of the team are of top priority rather than individual goals. The members of the team start to trust, help each other and build a more open communication. In *performing*, the members focus on the goal as a team. They make decisions and solve their problems quickly and effectively. In case they have a disagreement, the members settle the conflicts in a way to produce positive results without disrupting the process. A common vision is formed and individuals reach an agreement with different points of views. At this stage, individual decisions and team decision coincide. The members have an advanced sense of responsibility towards each other. The main task of the team leader is to facilitate the interaction among team members and try to solve problems as they emerge. In the final stage, *adjourning*, the team has already reached the targeted goals and has strong bonds among members. The leader must provide positive feedback on the performance of the team.

In quite a number of online courses and programs that required teamwork faced failure due to shortage of meaningful interactions. For instance, the failure to build trust among team members, to communicate, to use time effectively, to form harmony among members (Kitchen & McDougall, 1999; Lipnack & Stamps, 2000; Robey et al., 2000), as well as reluctance to participate in activities, inability to plan effectively, experiencing personal conflicts (Johnson et al., 2002), and similar ones in teamwork can easily be correlated with the interaction.

Since, the literature, as summarized above, reveals interaction among learners as the common success factor for both sense of community and team development process, one can infer that there is a positive relationship between these two constructs. However, it was interesting to notice that no study has ever been directly focused on investigating this relationship. Moreover, the literature regarding sense of community and teamwork in online learning environments heavily rely on studies conducted in western cultures. Studies regarding impact of culture and context on human behaviors and learning (e.g., Le Boterf, 1994; McIsaac, 2002; Pepitone & Triandis, 1987; Yehuda & Sharon, 1987) may lead the question 'can we apply the results of the studies conducted in a culture (e.g. the States) into another one (e.g. Turkey)?' While culture as the way of doing thing is guided by the set of attitudes, norms, values, beliefs and behaviors of people (Matsumoto, 1996), the answer of the above question is presumably 'NO'.

So, no study investigating the relationship between Turkish online learners' perceptions of sense of community and of success in team development process has been observed in the literature. In fact, literature does not include enough number of studies that examine

whether online learners' perceptions of sense of community can be used as a predictor of success in team development.

RPOSE AND RESEARCH QUESTIONS

This study was intended to investigate the relationships between Turkish online learners' perceptions of sense of community, of success in team development process and their preferences of studying in teams in a completely online program, the Information Management (IM) Associate Degree Program of Anadolu University, Turkey. It mainly concentrated on whether the online learners' sense of community can be used as a predictor of success in team development process. Within the framework of this purpose, the answers of the following research questions were sought:

1. What are the online learners' perceptions of sense of classroom community and of success in the team development process?

2. Is there a relationship between the online learners' perceptions of sense of community and of success in the team development process?

3. What are the preferences and opinions of the online learners on teamwork and their recommendations on how to perform teamwork more effectively?

4. Is there a relationship between the online learners preferences of studying in teams and their perceptions of sense of community, and of success in the team development process?

METHODOLOGY

The present study is a descriptive quantitative (survey) study that intends to examine the relationship between Turkish online learners' perceptions of sense of community and of success in team development process. Although it is mainly a quantitative study, some qualitative data were collected to get a better understanding of the phenomenon via open-ended questions.

Context

The study was conducted in the Information Management (IM) Associate Degree Program of Anadolu University, which is a completely online, two-years long program. The theme of the first year is titled as "Business Experience" while the second year is "teamwork". During the second year, the students have to work in teams to solve the real-life like institutional information management problems by using modern software in each course. Each team creates its own portal where members of teams work collaboratively to complete assignments. At the beginning of the second year, the students are divided into teams of 5-6. The teams are formed according to their grades in the centralized university entrance exam and their GPA in previous year courses. Usually it is intended to form heterogeneous teams rather than homogeneous. Each team has a supervisor who is a graduate assistant in the university. These supervisors serve as a help-desk on teamwork assignments and as the evaluator of the assignments the teams are required to complete. Also a guideline document, entitled as *General Guidelines for the Team Assignments* that explain how to work in teams and the nature of team assignments, is provided to the teams.

The teams also learn their assignments, instructions, and deadlines at the beginning of the semester. They are encouraged to decide the roles and responsibilities for each member in each assignment except the leadership. Each teamwork assignment requires a team leader and each member has to take this role in different assignments. The team leaders are responsible for monitoring the assignment process and ensuring that each member completes the task s/he assigned according to the instructions provided.

The team members are expected to be in an intensive communication with each other during the assignments via the synchronous and asynchronous online communication

tools as well as sections of the team-Web-site. For each team a separate Web site, for interaction and sharing resources and artifacts created during the assignments, is provided. The teams usually complete each assignment in a week, and submit with the team process reports as well as individual self-assessments. The supervisors evaluate the assignments and provide grades for each team as well as each student.

Participants
The study was conducted with the participation of 118 second-year students in IM Program of Anadolu University. The instrument was actually sent to all 249 students but only 118 (47.38% return rate) responded voluntarily. As can be observed in Table 1, the male students (58.5%) responded the instrument more than females. Also the majority of the learners (76.2%) is employed and has quite a number year of experience in the use of Internet (69.5%).

Table 1
The participants some characteristics

Characteristics		N	%
Gender	Female	49	41.5
	Male	69	58.5
Employment	Employed	90	76.2
	Unemployed	28	23.8
Internet Experience	1-5 years	36	3.5
	6-10 years	82	69.5

Instrument
A survey instrument was used to collect data in this study. The survey was composed of three main sections. The first section included the two scales: Clark's Teamwork Questionnaire and Rovai's Classroom Community Scale. Clark (1997) developed the *Teamwork Questionnaire* based on the Tuckman's team development process. Later Gunawardena and her colleagues (2001) have revised this questionnaire (α=.91). The revised version included 27 items among which four items was intended to determine the learner attitudes in forming stage (=.52), five in storming stage (α=.45), seven items in norming stage (α=.60), the remaining seven items in performing (α=.84), and four items in adjourning stage (α= .47). On the other hand, Rovai's *Classroom Community Scale* was used to determine the students' perceptions of the sense of community (α=.93). The first ten items of this scale is related to the sense of connectedness (α=.92) covering integrity, liveliness, mutual interdependence and trust in the team. The other ten items reflect the sub-dimension of learning (α=.87) where the interaction within the community and, in connection to it, learning goals and expectations are evaluated.

The second section of the instrument consisted of four items concerning the participants' satisfaction from the teamwork. In this section, also, four open-ended questions were also provided to collect data about the participants' preferences of learning (individually or in teams), and their opinions and recommendations regarding to the IM Program.

The final section covered several questions regarding the participants some characteristics, such as gender, employment and the Internet experience.

Procedure

After the translations of the scales, they were shared with a panel of five experts in the fields of scientific research methodology, online learning, educational technology and communications. The items on the scales were revised according to the recommendations of the experts and then a small group of students (eight students) who share the same characteristics as the participants of the study were asked to examine the scales. After the all the reviews the instrument was finalized as an online survey including total 51 close-ended items allowed the participants chose their agreement level with the statements in the items with a range of 0 to 4 (0= strongly disagree, 4=strongly agree). It was published on the IM Program Web site during 30 days and the students allowed completing it in multiple logins. After the data collection, t-tests and correlations as well as descriptive statistics were used to analyze the data.

RESULTS

Reporting of the results was organized into 4 sections according to the research questions indicated above.

Online Learnerse' Sense of Classroom Community and Success in Team Development

As mentioned above, Rovai's the Sense of Classroom Community scale was used to identify the perceptions of the online learners' sense of community levels. As can be observed in Table 2, the online learners' level of sense of classroom community is lower (X=1.98) than the average. Especially, the online learners averaged less in the learning sub-dimension (X=1,93) than the connectedness (X=2,03). It seems that the program did fail to build a good sense of classroom community among the learners.

Table 2

Statistics for the Sense of Classroom Community Scale

Sub-Dimensions	N	Mean	SD	α
Connectedness	118	2.03	.897	89.5
Learning	118	1.93	.725	76

Table 3 reveals that the online learners level of perceptions of success in the team development process during their project assignments is in general below (X=1.32) than average. This can be interpreted as that the IM Program did not help the learners establish good teamwork. The Alpha scores on the other hand showed that the scale used in this study was a bit problematic in terms of internal consistency in the forming (α=.32) and the storming (α=.55) stages. A similar result was observed in a previous study, conducted by Gunawardena et al. (2001).

Table 3

Statistics for the Team Development Scale

Stages	N	Mean	SD	α
Forming	118	1.82	.719	32
Storming	118	1.63	.744	55
Norming	118	0.88	.709	77
Performing	118	0.96	.802	85
Adjourining	118	1.35	.946	76

Furthermore, although it was not intended, a series of multivariate analyses has additionally been conducted to find the answer for whether or not gender, the Internet experience and employment status of the learners caused and significant difference in the online learners' perceptions of sense of community and of success in the team. The analyses have shown no significant difference at all.

Relationship between the Online Learners' Perceptions of Sense of Classroom Community and of Success in Team Development

The second research question of the study intended to examine the relationship between the online learners' perceptions of sense of classroom community and success in team development. As a result of the Pearson correlation analysis, a positive significant relationship was observed ($p<0.01$ $r=0.27$). However, the strength of this relationship was weak. On the other hand, as can be drawn from the Table 4, significant relationships were observed between the sub-dimensions of the scales. The strongest relationship was identified between in the norming and the performing (0.785) stages of the team development scale. In addition, the interactions between in the storming and the norming (0.636) and between in the performing and the adjourning (0.663) were noticeable stronger than others.

Online Learners' Preferences about Teamwork

The survey instrument asked the learners indicate their preferences of studying in teams or individually in online learning environments in general. The results uncovered that the online learners in Turkey ($X=2.69$, $SD=1.34$) generally prefer individual study rather than the teamwork. Since the education system including primary, secondary and higher education in Turkey is quite competitive and individualistic due to the centralized test-based structure, this result can be considered as consistent. After having indicated their preferences, the students were also asked to state the reasons concerning their preferences. Table 5 shows the online learners' preferences. Although the reasons are quite disperse (also the standard deviation scores present this disperse structure), a big majority of the learners emphasized the communication problems as a rational for their preference of studying alone. Another frequently identified reason is about each member's individual responsibility of fulfilling the duties assigned. It seems that the learners have not had a compelling teamwork experience in which each member completes their duties on time, learn from each other, and team achieves its goals successfully. On the other hand, 'learning in teams better' has been indicated as a major reason for preferring teamwork to individual study by a number of learners.

Table 4
Relationship between sub-dimensions of the sense of classroom community and the team development process

		Sense of Community (r)		Team development and process (r)				
		Learning	Connectedness	Forming	Storming	Norming	Performing	Adjourning
Sense of Community	Learning		.598**	-.285**	.002	.030	.104	.192*
	Connectedness	.598**		.072	.202*	.389**	.484**	.491**
Team Development Process	Forming	-.285**	.072		.410**	.374**	.290**	.235*
	Storming	.002	.202*	.410**		.636**	.527**	.285**
	Norming	.030	.389**	.374**	.636**		.785**	.533**
	Performing	.104	.484**	.290**	.527**	.785**		.663**
	Adjoring	.192*	.491**	.235*	.285**	.533**	.663**	

** Correlation is significant at the .01 level (2-tailed). * Correlation is significant at the .05 level (2-tailed).

Table 5

Reasons for Teamwork or Individual Study

Preference and the reasons	Frequency
I prefer individual study because	
1 It is hard to communicate with team members	41
2 It is difficult for members to meet together to complete the team assignments	27
3 Team members do not fulfill their obligations in doing assignments	24
4 I learn better individually	17
5 I am only responsible for myself in individual study	9
6 We cannot select team members ourselves	5
7 I think individual evaluation is more accurate	4
8 The assignments are not delivered on time because the team leader does not make the distribution of tasks on time.	4
9 Teamwork are not suitable for online environment	2
I prefer team work because	
1 I learn better with team work	9
2 Team work lets you share the responsibilities	5
3 Business life requires team work	3
4 Teamwork improves our skills of socializing and taking responsibilities, enhances our self-confidence.	2
I prefer both types because	
1 I think both are helpful	10
2 The content of the course requires both	1

Moreover, the survey instrument included another question about the learners' experiences and opinions on the teamwork assignments provided as the course requirement ın IM Program. As can be seen in Table 6 and 7, the results are quite consistent with the answers given the previous question. For instance, it clearly seems that, in some teams, several members failed to complete or were late to complete their duties. They had also some communication problems. Additionally, a big majority complained about the team formation process and indicated that teamwork was not appropriate for all the learners, especially for those who had to deal with job-related tasks while they tried to interact with team members. These were the main negative experiences and opinions of the learners about teamwork required in their courses.

Table 6

Negative Experiences and Opinions of the Learners about Teamwork

Preference and the reasons	Frequency
1 Team members fail to fulfill their obligations	49
2 Choices of team members are wrong	37
3 Team work is not suitable for employed learners	20
4 I prefer individual work	14
5 It is difficult for team members to be online all at the same time	11
6 We cannot receive consultancy assistance in case of a problem	7
7 There is a lack of communication among team members	7
8 I think that team evaluation is not fair	5
9 The team leader cannot lead the team well	5
10 Assignments are not in parallel with real life applications	2
11 Teams cannot be controlled after they are formed	1

On the other hand, Table 7 shows the main positive remarks the participant online learners expressed. Quite a number of them were in favor of the teamwork assignments as means to learn better. A few also emphasized the socialization and interaction functions of the teamwork.

Table 7
Positive Experiences and Opinions of the Learners about Teamwork

Preference and the reasons	Frequency
1 Content of the course requires teamwork for a common goal	17
2 It prepares us for business life	6
3 A very efficient learning environment with a good team	5
4 It helps us learn about new ideas	4
5 It improves our communication skills	4
6 It helps us socialize	4

The participant online learners were also asked to indicate their recommendations for improving the teamwork in the IM Courses. Table 8 summarized their responses. These recommendations can be classified into three major themes: team formation, leadership and team spirit. As can be drawn from the table, quite a number of the learners preferred choosing their own teams (item #3), working with the team members who residence in closer areas (item #9) and equal opportunity to be the team member (item # 4). Furthermore, the learners also focused on effective leadership. For instance, the learners stated the need for the team leaders' constant or regular guidance and encouragement for each member to fulfill his/her duties on time (item # 2). A shared team spirit was also another major theme drawn from the learners' comments. One of the most common responses was about fulfillment of the duties on time by each member of the team (item #1). Also, sharing a common goal and understanding for team assignments, regular meetings including face-to-face gathering, equal sharing of the team responsibilities were among the other comments often expressed by the participant learners.

Table 8
Online Learners Recommendations for Improving the Teamwork in the IM Program

Comments (Recommendations)	Frequency
1 Team members must fulfill their obligations	27
2 Team leader must check whether the team members are working in harmony in the process	22
3 Each must be able to select his/her team to work with	15
4 The team leader must be elected by the system through a draw in a manner to give equal chance to everyone.	11
5 The system must allow team members to meet instantly	9
6 The team must have a support service accessible to any time	9
7 Tasks of team members must be distributed equally by the team leader	7
8 Team leader, team members and required tasks must be announced to the students beforehand by the system	7
9 It must be given particular attention to have those living in the same city get together	5
10 Team members must have a team spirit	4
11 It must be given particular attention to have individuals with similar interest and knowledge in the same team	4
12 Time given for assignments must be longer	3
13 Assessments must be both for the team and for the individual	3
14 Team members must be brought together face to face	3

Relationship between the Online Learners' Preference of Studying in a Team and their Perceptions of Sense of Classroom Community and Success in Team Development

In the study, the relationship between the online learners' preferences to study in a team, and their perceptions of sense of classroom community and success in team development process was also examined. A correlational analysis was performed for this investigation and Table 9 reveals the results. As can be observed in the table, there is relationship between learners' preferences of studying in a team and the both sub-dimensions (learning and connectedness) of the sense of classroom community. However, the relationship was stronger between teamwork and connectedness. In other words, those online learners who have high level of teamwork preference felt more connectedness in their courses then others.

A similar result was witnessed with the sub-dimensions of the team development process except the forming stage. No significant relationship was observed between the learners' preference of studying in teams and their perceptions of success in forming stage of the team development process. This result can be related to that forming is the first stage and learners usually cannot get enough experience in teamwork. On the other hand, the relationships were especially stronger between teamwork preference and norming as well as adjourning stages of the team development process. So, those online learners who have high teamwork preference felt that they were more successful in norming, performing and adjourning stages of the team development process.

Table 9

Relationship between the Online Learners' Preference of Studying in a Team and their Perceptions of Sense of Classroom Community and Success in Team Development

	Sense of Classroom Community		Team Development Process				
	Learning	Connectedness	Forming	Storming	Norming	Performing	Adjourning
Teamwork Preference	.223*	.544**	.169	.310**	.520**	.463**	.565**

** Correlation is significant at the .01 level (2-tailed). * Correlation is significant at the .05 level (2-tailed).

Along with the positive relationships between these variables, the study uncovered interesting results concerning the team assignments of the IM Program. This section reports these findings focusing on the stages of the team development process, and what happened in each stage concerning the sense of classroom community in the IM Program.

First of all, it seems that all the reasons the participant online learners indicated about why they did not prefer to study in teams as well as the recommendations they stated to improve the team assignments in the IM Program are related to forming stage of the team development process. In the forming stage, roles and responsibilities of team members must be identified and the foundation rules must be set for building a sense of community in a team. The learners in the study stated that the majority of the times the team leaders failed to distribute the roles and responsibilities on time. One of the learners clearly indicated that "… when the team leader does not make the distribution tasks on time, other team members have little time to deliver their assignments". The learners indicated that, in order to overcome the problems that emerge at this stage, roles and responsibilities of members must be announced to the students in advance through the program coordinators rather than the team leaders.

In storming stage, the second in team development process where the first signs of team spirit emerge, the online learners expressed on the communication problems. A male learner mentioned, "I have had so many problems with my team. We weren't able to communicate in a healthy way. I couldn't explain them that our main duty was to complete our assignments. I'm tired of listening personal problems. ...There are members who constantly quarrel". Another one said, "Teamwork is okay but constant hassling of some of our friends caused us to get very low marks in the assignments". Ineffective operation of this stage usually reduces the morale and the motivation of team members. It may cause problems for the team both in reaching the targeted goals and in moving on the next stage.

In norming stage, interactions among members are expected to increase. Experience of an effective communication process based on cooperation among team members towards the achievement of common goals is the most important output of this process. The literature indicates that those frequently interact with the instructor and with other learners usually develop more positive attitudes toward teamwork (Dougherty ve Funke, 1998). Also, interaction within a team plays a central role in the learners' voluntary participation to teamwork (Romiszowski & Mason, 2004; Rovai 2002a; Rovai & Ponton 2006). The current study, on the other hand, showed that the some online learners continue to experience communication problems that caused ineffective collaboration during the completion of the team assignments.

In the performing stage, the participants are expected to complete their tasks. The literature again clearly documents that shared responsibilities helps the formation of the sense of connectedness among team members and the achievement of thorough learning (Biggs, 1985; Hammond, 2005; Rovai & Barnum, 2003; Saba, 2000). The study uncover that the team members have failed to fulfill their responsibilities in this stage. One of the participant learners emphasized the failure of the team members fulfilling their duties. She noted, "some of them often neglected their assignment-related duties and that was one of the reasons I did not feel like I am in a class". It seems that this problem became a barrier to build a sense of connectedness among the members.

In the last stage, or the adjourning stage, team members tend to maintain their communication after the assignment done. But, this study documented that the majority of the learners have a low tendency to contact with their team members after the assignments completed. This result can be considered as a reflection of problems that have emerged during the other stages.

CONCLUSIONS

This study was intended to investigate the relationship between sense of community and team development process in online programs. Specifically, it examined the Turkish online learners' perceptions of sense of classroom community, of success in team development process and their preferences of studying in teams. The study has shown that the majority of the online learners in the Information Management Associate Degree Program of Anadolu University, Turkey could not feel a strong sense of classroom community. Especially they did not think that they learnt a lot during the teamwork assignments.

Similarly, a big number of them did not perceive success in all stages of the team development process. Correlational analyses have shown a moderate statistical relation in general between the learners' perceptions of sense of classroom community and their perceptions of success in team development processes. The analyses have also suggested that there were moderate and weak correlations between all the sub-dimensions of the classroom community scale and all the stages of the team development process. In the light of this finding, this study suggests that sense of presence can be used as predictor of success in team development processes in online learning or vice versa. However, since

the correlation coefficients were observed either moderate or low, it might be possible to find different results in similar studies with different participants and in various contexts.

Furthermore, this study has revealed that the online learners in Turkey generally prefer individual study rather than the teamwork. Since the education system including primary, secondary and higher education in Turkey is quite competitive and individualistic, this result can be considered as consistent. Increasing importance of the education has been among the major global trends since the last three decades. Not only individuals but also parents, public and private institutions, and even governments pay more attention on quality education mainly because of fighting with poverty, having better life standards, moving to upper social classes, having better economies, and so forth. This big a big demand for education has also been a major issue for almost all countries regardless of being developed, under developed or emerging. Therefore, access to education today became a race in many countries. Turkey is one of these countries in which the access to education is quite competitive. Having an undergraduate degree is considered as a means for getting a decent job. So, every year millions of people take the centralized university entrance exam to be able to get in a program. However, due to shortage of enough number of seats, a few of them can get in traditional four or more years long undergraduate degree programs, a bit more can get in two year associate degree or vocational programs, almost the same number can register increasing number of open and distance learning programs, and some have to wait for the next year to retake the exam. Similarly, middle school students compete to be able to get in a better high school in another centralized exam. In short, as indicated many reports and studies, the education system in Turkey is quite individualistic and competitive (TED, 2010). This study was also supported this situation. Since the learners had been in such a competitive and individualistic system, it should be expected that these learners prefer studying in teams to studying alone.

In terms of relationship between the learners' preference to study in teams and their perceptions of sense of classroom community and of success in the team development, positive relationships were observed. In other words, those who preferred to study in teams (although the number was not high) perceived more sense of classroom community and more success in the team development compare to those who did not prefer teamwork. These learners were the ones that had better communication with the team members, performed or experienced better leadership in their teams, and fulfilled their responsibilities on time. Therefore, the characteristics described above can be considered as the major factors for an effective teamwork, perception of high level of sense of community and of success in team development. On the other hand, research studies (e.g. Kim, Know, & Cho, 2011; Zhan & Mei, 2013) have uncover the strong positive relationship between sense of community and achievement, satisfaction and course performance. Students clearly reveal that students' attitudes toward learning will be higher in learning environments where students feel higher sense of community and less isolation. In the light of these studies, one can easily infer that it is crucial to identify the students' level of feelings of sense of community (Gökçearslan, 2013).

In terms of the scales, the analyses have revealed that both scales are reliable instruments to collect data on learners' perceptions of sense of classroom community and of success in team development. Correlational analyses have also uncovered positive relationships between in the sub-dimensions of the both scales. However, these relationships were observed as moderate correlation coefficient. Especially in the team development process, lack of any significant relationship between certain dimensions (forming) decrease the strength of the relations among other dimensions. This finding supports the results of previous studies, such as Gunaverdana et al., (2001).

RECOMENDATIONS

Followings are some recommendations for the instructors and program/course designers, and for researchers to improve the effectiveness of teamwork, the perception of a sense of community and of success in team development in online learning environments.

Recomendations for Designers and/or Instructors

As it is well documented in the literature and supported by this study, the designers and/or instructors focus on establishing common goals, certain roles and responsibilities, clear directions fulfilling the tasks, and formative assessment of the teamwork. The following recommendations may help them focus on these major factors:

1. Effectiveness, efficiency and appeal of teamwork are closely related to each member's fulfillment of roles and responsibilities on time. The team members might start the team assignments with an orientation session before the actual assignments to be able to get accustomed with team learning and teamwork processes.

2. Common goals bringing the team members together must clearly be defined. In line with these defined common goals, the team members must identify who is in charge of what before the assignments. The roles must change in every assignment to allow equal experience to all members of the team.

3. All stages of team development process must be monitored through a control chart. Works of team members must be assessed based on the criteria specified for both their individual and team contributions. This way, it can be identified on which stages of the process the problems concentrate and solutions can be offered accordingly.

4. Allowing the learners form their own teams may work in some instances. However, for those who may have difficulty to form teams, the designers/instructors should find appropriate team members.

5. Scaffolding strategy can be thought of for the team leaders to perform better leadership.

### Recomendations For Future Research

1. This study was conducted with the participation of the second year learners of the Information Management Associate Degree Program in Anadolu University, Turkey. In order to examine the relationship between the sense of community and the team development process more thoroughly and reach more generalizable conclusions, variables affecting these processes must be investigated on different programs and with various learner groups.

2. In addition to quantitative data, qualitative data can be collected to have an in-depth insight about the relationship between sense of community and team development process.

3. Online environment eliminates the restrictions of time and space and brings learners from different cultures together. Therefore, implications of cultural differences on the sense of community and team development process must be investigated.

4. The study evaluated the relationship between the sense of community and the team development process from the learners' point of view. Investigation of the instructors or facilitators may also be helpful.

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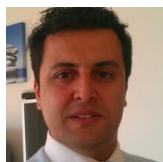
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