

UNDERSTANDING DYNAMICS OF SOCIAL RELATIONSHIPS AMONG COLLEGE STUDENTS: A SOCIOMETRIC APPROACH

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ABSTRACT

Social relations of students are active and effective relating to social factors. This study explores what factors determine dynamics of student relationships. This study focused on quantitative and qualitative approaches, especially sociometry as the main method of analysis, which emphasis observation, interview, and questionnaire. The study performed in the College of Art – University of Slemani with 37 students who were at their second, third and fourth years in the Department of Drawing. A sociomatrix and sociometric indexes were used to analyze the data, and the results showed that effect of students on each other in class, social interactions, and strength of social relations significantly affected the dynamics of relationship. Students have effects power for others within class. For social interaction, relationships are active in which students mostly interact with each other. For strength of students, there are positive, reaction and social adjustment in students' relationships. Therefore, results concluded that relationship of students has dynamics. The implication of this study is that dean and academic staff of Art college should try to keep and continue dynamic of students' relationship through opening art gallery participating all students, organizing art activities, supporting students to do teamwork.

Keywords: Social relationship, Sociometry, Dynamic social relationship, Sociomatrix, College students

INTRODUCTION

Social relationships are a crucial necessity of social life. They are a necessary social phenomenon and are a primary need for sustaining a group's and society's survival. A social relationship is defined as a relation among two or more individuals or groups, or a relation between an individual and a group (Al-Nurjy, 1990, p. 183). From the communication and social interaction among individuals and groups, a mutual relationship is formed, called a social relationship (Salim, 1981, p. 901). As Ginsberg points out, social relationships are any communication or interaction among two or more individuals to fulfill the essential and secondary needs of the individuals (Al-Hasan, 2005, p. 160).

On the one hand, social relationships are helpful in the development of the individuals' personalities; they are also great for explaining and understanding directions and forms of behavior, providing many social and psychological needs. On the other hand, social relationships have a role in group and society cohesion, considering that a social group consists of individuals who are already connected to each other by their social relationships, in turn, the society is the largest group encompassing all the social groups. Thus, when a relationship is formed upon the basis of collaboration and cohesion, the relationship would have a role in building group and society cohesion.



Social relationships help individuals enter groups and adopt the groups' systems, ideas and opinions (Jabr, 2004, p. 124). Individuals cannot be unsocial and live without groups; in various life stages, individuals join different social groups that fulfill the individuals' needs (Hashm & Sulayman, n.d., p. 53). Aristotle believes that a human being "is a social animal" (Abdulfatah, 2006, p. 139). Therefore, social groups are interacting memberships and structuring social relationships (Umar, 2000, p. 247). Thus, social groups recognize in their dynamics: interaction among memberships in which each member interacts with others is being affected by the others (Uways & Al-Hilaly, 2005, p. 231). A social group responds to individuals' needs for being a member and their needs (Uthman, 2006, p. 123) due to the connection of individuals within groups provides a stable and comfortable feeling, taking and practicing cooperation that can be difficult to do without a group, and increasing individuals' information; this information could be a source for providing objectivity standers, and the individual would decide on the values, objective opinion and trend; then, they perform a social completion process (Atwm, 2009, p. 69-72). When a member feels connected to others within a group, he/she has a well-known social statue, and has reactions for her/his opinion, the social interaction with other members may be more active, and the group could be an active unit that always has balance among members (Husayn, 1985, p. 55). The aim of this research is to understand the role of being a member in groups in the dynamics of social relationships.

However, in the study of social relationships, relatively less is known about the dynamics of social relationships in a *sociometric approach*; mostly the studies were performed in different contexts. For example, Al-Najar (2004) clarified the dynamics of relationships among employees at a spinning and textile factory in Mosul, Iraq. Because this phenomenon yields different outcomes in different contexts, in the current study, researcher explores factors of dynamics of social relationships among college students at the University of Slemani, because students are members of a small group (classroom) who play a substantial role in the dynamics.

METHODOLOGY

In this research, sociometric method was used. This method investigates group structure and social relationships among members of the groups (Al-Ysawy, 2006, p. 316), with a particular focus on informal groups, their dynamics, relationships and communications (Al-Munla, 1990). The nature of this current research issue units (adopts) with this method; thus, it was used it to collect the data as follows:

First: Sociometric Test

Sampling: The current research was performed in the College of Art – University of Slemani (2008-2009). The respondents were (37) students (59% male and 41% female) with a mean age of 25.5 years who were in their second, third, and fourth years in the Department of Drawing. Furthermore, the respondents were selected for their social background categories: 97.3% were from cities, and 2.7% were from towns. There were 10 respondents in their second year, 15 respondents in their third year, and 12 respondents in their fourth year. However, the first year at the college was not chosen because those students were at the beginning of introducing each other and of structuring their groups and relations. The College of Art was chosen because there were fewer students at this college compared to others at the university, and sampling those small groups was most appropriate with this research because the sociometric test is a



way to study small groups (Aihsynat, 2008). Moreover, the small size of the sampling is suitable with the practical work – drawing – in the art hall, as well as each students worked separately with getting cooperation and information from other students. All of the abovementioned factors are conducive to the nature of this sociometric research.

Chosen social criteria: Working students together in the practical lessons – drawing – was the most important social criteria that had been chosen depending on the researcher's observation (after the researcher stayed among the students for twenty-five days in the theoretical and practical lectures and in the rest time).

Instrumentation: Three methods were used in collecting data: observations, interviews, and sociometric questionnaires. Many researchers believe that the basic type of behavior could be determined from the individuals' behaviors in the interactions with others in a specific situation (Qandyliy, 2007, p. 194). Therefore, the social relationship would not be seen directly, but observation is a good instrument for predicting this behavior. Using this instrument in this research was helpful in getting some accurate information, for example, the information in selecting the social criteria after staying (25 days) with the respondents. Likewise, unstructured interviews were used with many respondents. This type of interview was helpful to build relations between the researcher and the respondents, to know the names and numbers of the respondents, and to decrease a formal treatment between both the researcher and the respondents was helpful to collect data easier from the questionnaire. Moreover, the third instrument used in this research was sociometric questionnaires that contained a question or some questions. The research questionnaire included two main questions. It asked the respondents to write the names of their three favorite same-grade classmates who choose (like) to work with them and to write the names of their three favorite same-grade classmates who reject (do not like) working with them.

Sociometric test guide: The researcher explained all necessary test guidelines to the respondents; the aim and reasons for this test; how the test would be applied; information about the questionnaire. Furthermore, the questionnaire asked the respondents to choose the correct answers and to keep the answers private (in particular, about writing their classmates' name on the questionnaire).

Validity and reliability of the test:

Distinct validity: Distinct validity was used by taking the opinion of the sociological and psychological academic staff at University of Slemani and at Salahaddin on the validity and suitability of the questionnaire to measure of the nature of social relationship among subjects. After collecting the academic staffs' opinions with a small change, the questionnaire was prepared for distribution to the subjects.

Reliability: Given the reliability of the test, the questionnaire was randomly given to (15) respondents from the groups; then, the results were recorded. After twenty-five days, the questionnaires were given to the same respondents, and data were recorded. By using the Spearman Correlation Coefficient, the relation between both results was 0.88, which suggested that the test was reliable.

Second: Analyzing the Results of the Sociometric Test

Sociomatrix: a sociomatrix is a table presenting sociometric data (Sarantakos, 1993, p. 439). This table or sheet summarizes as follows (Ahmad, 2009): The matrix organizes the choices



and/or rejections as presented by each respondents'. The matrix has two margins in which the respondents'' names are listed; "to keep the names of the respondents secure, all names are assigned by alphabetic letters:" one at the left margin vertically and the other at the top horizontal margin. In the cells of the matrix sheets, the positive choices utilized as (+) and the negative choices (or rejections) as (-). The choices were rated – the questionnaire included three respondents'' choices and three rejections – for the first object, the first rate choice was numbered with three; the second choice was number two; and the third choice was number one. The sum of these numerical manners summarizes at both the right vertical and bottom horizontal margins. In this research the matrix was used to classify the choices by followed the steps.

Sociometric indexes: a sociometric index is another way to analyze the quantity of choices. In this research, depending on the role and effect of the indexes, some indexes were chosen to analyze the relation dynamic of subjects. The indexes were:

1. Member Effect in the Group Index

This refers to the degree of effects a member has on a group and selects psychological positive relations' power of a member with other members. The value of the effect of each member in a group is from (0-1). If the member does not obtain any choices, her/his effect is (0), but if the member gets all the choices of the others, her/his effect is (1). The equation of this index is: $P_{N-1} = P_{N-1}$, $P_{N-1} = P_{N-1}$, $P_{N-1} = P_{N-1}$

of members minus one because of an object cannot choose her/himself.

2. Social Interaction Index

This index helps to understand the interaction among members by applying this equation:

Social interaction index = $\frac{\sum \overline{P}}{N(N-1)}$ where $\sum \overline{P}$ = real relations among members,

N= number of members, N(N-1) = the total (the sum) of social relationships in a group, for example, if a group includes (4) persons, the sum of relations by that equation: 4(4-1) = 12

3. Appreciation Strength of Social Relations

This index relates to some data sourcing from mean strength relations within the group, the degree of member reactions to the group, and social adjustment of members.

a. Mean strength relations within the group:

$$\frac{\sum \overline{P}}{N (N-1)}$$

This equation is different from the equation of member effects in the group index. The value of $\Sigma^{\overline{P}}$ in this equation is the sum of relations obtained from an algebraic count of the positive and negative relations (from the matrix of positive and negative relations).



b. The degree of member reactions to the group:

This index refers to covenant members with other members and to how the choices from the members are different. The equation of this index is:

Member reaction to group = $\frac{\sum R(Ni \rightarrow Nj)}{N-1}$, R=reaction; $Ni \rightarrow Nj$ choices of each

member to other members

c. The degree of group reaction to members.

This is about the choices and rejections of a members' group to any member within the group. This index selects social statue of each member. For this purpose, this equation uses:

Group reaction to member = $\frac{\sum R(Nj \rightarrow Ni)}{N-1}$

d. Member Social Adjustment

Social adjustment degree of members increases when the relation between the member and the group and between the group and the members is positive.

Member social adjustment = $\frac{\sum \text{Mutual choices}}{2(N-1)}$

RESULT

Depending on the data of the sociomatrix, the results of social relationships among students at each classroom is explained by following sociometric indexes. Following sociometric approach, the respondents represent as members in small groups (classrooms); second grade as first group, third grade as second group, and fourth grade as third group. Further, names of students were keep and were got English alphabet as an ethical issue of the research.

First Group

The data dump is shown in the sociomatrix (Table 1). By using the data in the matrix and through applying the index's equation, the results of relations among members of group one were:

Member effect in the group: The member (D) had the most effect within the group (0.77), and the sociometric degree was (19); the (J) member's effect was (0.66) with a sociometric degree of (10); the effect of member (H) was (0.55), and (10) was the sociometric degree; the effect of member (G) was (0.44), and (8) was the sociometric degree. For the three members (F, E, and C), the effect was (0.22) for each, with a sociometric degree of (3, 2, and 4), respectively. However, the effect of member (A) with (0.11) was weak compared to the member effects mean index (0.31) (Table 2), and the sociometric degree was (1). Lastly, both (B and I) did not make any effect because their effects degrees were (zero). This means their social status was



weak, they had no agreement with other members, and they had negative effects on the relations of their group. Comparing the "mean of member effects in the group index (0.31) to the highest mean index's value (0.33)" - the highest mean index's value for the three groups was obtained by this equation: $\sum_{\overline{N}}$ (Al-Najar, 2004).

N(N-1)

For the first group, the mean was (0.33); for the second group, the mean was (0.21); and for the third group, the mean was (0.27) - this index was accepted, meaning the members' effects in the group were at good level.

| Chooser | | | | | Ch | osei | n | | | | Total choices received |
|--|---|---|---|----|----|------|---|----|---|----|------------------------|
| | А | В | С | D | Е | F | G | Η | Ι | J | |
| Α | | | | 3 | | | | 2 | | 1 | 3 |
| В | 3 | | | | | | | | | 2 | 2 |
| С | | | | 1 | 3 | 2 | | | | | 3 |
| D | | | | | | | 1 | 2 | | 3 | 3 |
| E | | | 2 | 1 | | 3 | | | | | 3 |
| F | | | 2 | 1 | 3 | | | | | | 3 |
| G | | | | 1 | | | | 3 | | 2 | 3 |
| Н | | | | 1 | | | 2 | | | 3 | 3 |
| Ι | | | | | | | 2 | 1 | | 3 | 3 |
| J | | | | 1 | | | 3 | 2 | | | 3 |
| Total choices received | 1 | 0 | 2 | 7 | 2 | 2 | 4 | 5 | 0 | 6 | 29 |
| First choice 1x3 | 0 | 0 | 0 | 6 | 0 | 0 | 1 | 1 | 0 | 1 | 9 |
| Second choice 2x2 | 0 | 0 | 2 | 0 | 0 | 1 | 2 | 3 | 0 | 2 | 10 |
| Third choice 3x1 | 1 | 0 | 0 | 1 | 2 | 1 | 1 | 1 | 0 | 3 | 10 |
| Total first, second, and third choices | 1 | 0 | 2 | 7 | 2 | 2 | 4 | 5 | 0 | 6 | 29 |
| Total sociometric degree | 1 | 0 | 4 | 19 | 2 | 3 | 8 | 19 | 0 | 10 | 57 |

Table 1: Sociomatrix of the First Group

Table 2: Relations Analysis of the First Group Depending on Sociomatrix

| Member | Member effect | Social interaction | Ap | preciation streng | gth of social relation | n |
|--------|---------------|--------------------|------------------------|---|--|----------------------|
| | | | Mean strength relation | degree of member reaction to the group | degree of group reaction to member | Social adjustment |
| А | 0.11 | 0.32 | 0.2 | 0.33 | 0 | 0.16 |
| В | 0 | | | 0.22 | - 0.22 | 0 |
| С | 0.22 | | | 0.11 | 0 | 0.05 |
| D | 0.77 | | | 0.33 | -0.77 | 0.55 |
| Е | 0.22 | | | 0.11 | -0.22 | -0.05 |
| F | 0.22 | | | 0.22 | 0.22 | 0.22 |
| G | 0.44 | | | 0.11 | 0.44 | 0.27 |
| Н | 0.55 | | | 0.11 | 0.55 | 0.33 |
| Ι | 0 | | | 0.22 | -0.11 | 0.05 |



0.19

0.19

0.19

| | <i>vol.</i> 17. 10.0 (2020), 55-46. 1 | 35 11. 1025-004x | | |
|------|---------------------------------------|-------------------------|------|------|
| 0.66 | | 0.22 | 0.55 | 0.38 |

J

Mean

0.31

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Social Interaction: In the group, there were dynamic and active social relationships. The ratio of this index of the group was 0.32, which was a high value compared to the highest mean index's value (0.33).

Appreciation Strength of Social Relations: Forgetting the result of this index, we need a specific matrix of positive and negative relations (see Table 3).

| Chooser | | | | | Ch | osen | | | | | Total |
|---------|----|----|----|----|----|------|----|----|----|----|-------|
| | А | В | С | D | Е | F | G | Н | Ι | J | - |
| A | | | | +1 | | | | +1 | | +1 | 3 |
| В | +1 | | | | | | | | | +1 | 2 |
| С | -1 | -1 | | +1 | +1 | +1 | | | | | 1 |
| D | | | | | | | +1 | +1 | | +1 | 3 |
| Ε | | -1 | +1 | +1 | +1 | +1 | | | | -1 | 1 |
| F | | | +1 | +1 | -1 | | | | -1 | | 2 |
| G | | | -1 | +1 | -1 | | | +1 | | +1 | 1 |
| Н | | | -1 | +1 | -1 | | +1 | | | +1 | 1 |
| Ι | | | | | -1 | | +1 | +1 | | +1 | 2 |
| J | | | | +1 | -1 | | +1 | +1 | | | 2 |
| Total | 0 | -2 | 0 | 7 | -2 | 2 | 4 | 5 | -1 | 5 | 18 |

Table 3: Matrix of Positive and Negative Relations of the First Group

Here, based on the index, and understanding the strength of relations, we explained the results: The *mean strength relation* of the group was 0.2. The mean of the *degree member* reaction to the group was 0.19 (Table 2). This degree is acceptable because of the members' reaction degrees were high. For example, members (D and A) had a reaction degree of (0.33), members (J, I, F, and B) had (0.22), and members (H, G, E, and C) had (0.11). In addition, the mentioned degree (0.19) is acceptable depending on the highest degree (0.33). Thus, the reaction among members is active and has effects on their relation dynamics. Furthermore, the group had reacted to the following members with the following degrees (degree of group reaction to members): member (D) had (0.77), members' J and H had (0.55), member G had (0.44), and the reaction to (F) member was (0.22). However, the values of reactions to (A and C) were zero, to (E and B) was (-0.22), and to member (I) was (-0.11). Those negative values were very weak when compared to the mean reaction of the group to the members (0.19). The rejection statue to the member (I, E, and B) had negative effects on their dynamic of relations. Despite the negative effects, this index's value (0.19) was generally accepted (compared to 0.33). This means the group reacts to its members. Moreover, the mean of social adjustment of the group members was (0.19), which was accepted (compared to 0.33). Therefore, there is some adjustment among members that is helping in members' relation dynamics. In particular, the value to member (D) was (0.55), the adjustment value of member (J) was (0.38), and of (H, G, F, and A) were (0.33, 0.27, 0.22, and 0.16), respectively. Furthermore, the (I and C) members' adjustment values in their groups were (0.05), zero to member (B) and (-0.5) to



member (E). Those getting values to (E, B, I, and C) were quite weak, which negatively affects the members' relation dynamics.

Second Group

The index's values of this group are accepted (same as group one) depending on the results from the receiving (getting) ratio. Here, the data (after dumping them in Table 4) are interpreted as follows:

Member effect in the group: (F) member's effect was (0.57), which was the highest value within the group, and the sociometric degree of that member was (16). The members (I and A) have an effect in the group by the value (0.35) for each with (12) as the sociometric degree for (A) and (9) for (I). Furthermore, the value of the effect of member (C) was (0.28) with (6) as the sociometric degree; the value of the effects of members (L and E) was (0.21) for each with (7 and 4) as the sociometric degrees, respectively. For (K, G and D), the value of the effects was (0.14) (for each), and their sociometric degrees were (3, 2, and 4), respectively. However, the effects of members (M and B) were weak (0.07) compared to the mean effects of members to the group index (0.16) (see Table 5) with a sociometric degree of (2) for each. Different from the above members, the members (O, N, J, and H) did not have effects in the group (the value was zero for all). Generally, the mean effects of members in a group index (0.16) (compared with 0.21) point to accept this index, which means that the effects of members within the group are at acceptable, as are the dynamics of relations among them.

| Chooser | | | | С | hos | sen | | | | | | | | | | Total choices received |
|------------------------|---|---|---|---|-----|-----|---|---|---|---|---|---|---|---|---|------------------------|
| | А | В | С | D | E | F | G | Η | Ι | J | K | L | Μ | N | 0 | |
| A | | | | 3 | | 2 | | | 1 | | | | | | | 3 |
| В | | | | | | | | | | | | | | | | 0 |
| C | | | | | 2 | 1 | | | | | | 3 | | | | 3 |
| D | 3 | | | | | 2 | | | | | | | | | | 2 |
| E | | | 2 | | | 3 | | | | | | | | | | 2 |
| F | 2 | | | 1 | | | | | 3 | | | | | | | 3 |
| G | | | | | | | | | | | 3 | | | | | 1 |
| Н | 1 | | | | 3 | | | | 2 | | | | | | | 3 |
| Ι | | | 2 | | | 3 | | | | | | 1 | | | | 3 |
| J | | 2 | | | 3 | | | | | | | | | | | 2 |
| Κ | | | | | | | 3 | | | | | | 2 | | | 2 |
| L | | | 3 | | | 1 | | | 2 | | | | | | | 3 |
| М | 1 | | | | | | 3 | | | | 2 | | | | | 3 |
| Ν | 1 | | 3 | | | 2 | | | 3 | | | | | | | 3 |
| 0 | | | | | | 2 | | | | | | 1 | | | | 3 |
| Total choices received | 5 | 1 | 4 | 2 | 3 | 8 | 2 | 0 | 5 | 0 | 2 | 3 | 1 | 0 | 0 | 36 |
| First choice 1x3 | 3 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 9 |
| Second choice 2x2 | 1 | 1 | 2 | 0 | 1 | 4 | 0 | 0 | 2 | 0 | 1 | 0 | 1 | 0 | 0 | 13 |

Table 4: Sociomatrix of the Second Group



| Third choice 3x1 | 1 | 0 | 2 | 1 | 2 | 2 | 2 | 0 | 2 | 0 | 1 | 1 | 0 | 0 | 0 | 14 |
|--|----|---|---|---|---|----|---|---|---|---|---|---|---|---|---|----|
| Total first, second, and third choices | 5 | 1 | 4 | 2 | 3 | 8 | 2 | 0 | 5 | 0 | 2 | 3 | 1 | 0 | 0 | 36 |
| Total sociometric degree | 12 | 2 | 6 | 4 | 4 | 16 | 2 | 0 | 9 | 0 | 3 | 7 | 2 | 0 | 0 | 67 |

Table 5: Relations Analysis of the Second Group Depending on the Sociomatrix

| Member | Member effect | Social interaction | Ap | opreciation streng | gth of social relation | n |
|--------|---------------|--------------------|---------------|--------------------|------------------------|------------|
| | | | Mean strength | degree of | degree of group | Social |
| | | | relation | member | reaction to | adjustment |
| | | | | reaction to the | member | |
| Δ | 0.35 | 0.17 | 0.10 | group 0.21 | 0.35 | 0.28 |
| D | 0.55 | 0.17 | 0.10 | 0.21 | 0.55 | 0.20 |
| В | 0.07 | | | 0 | 0.07 | 0.03 |
| С | 0.28 | | | 0.07 | 0.28 | 0.17 |
| D | 0.14 | | | 0 | 0.14 | 0.07 |
| E | 0.21 | | | 0.07 | 0.21 | 0.14 |
| F | 0.57 | | | 0.07 | 0.57 | 0.32 |
| G | 0.14 | | | 0.07 | -0.21 | -0.07 |
| Н | 0 | | | 0.14 | 0 | 0.07 |
| Ι | 0.35 | | | 0.14 | 0.35 | 0.25 |
| J | 0 | | | 0.14 | -0.07 | 0.03 |
| Κ | 0.14 | | | 0.14 | -0.35 | -0.10 |
| L | 0.21 | | | 0.21 | 0.21 | 0.21 |
| М | 0.07 | | | 0.21 | 0.07 | 0.14 |
| Ν | 0 | | | 0 | -0.07 | -0.03 |
| 0 | 0 | | | 0.07 | 0 | 0.03 |
| Mean | 0.16 | | | 0.10 | 0.10 | 0.10 |

Social Interaction: According to the value of the social interaction index (0.17) compared to (0.21), the interaction among members was active. This result further indicates the relationship dynamics.

Appreciation Strength of Social Relation: The strength of social relationships in this group was positive. On the one side, the *mean strength relation* was (0.10), and the *degree member reaction to the group* was (0.10) (see Table 6 for the means of this index).

If we look at the degree at the member level (Table 6), we can see the members (M, L, and A) had reactions in the group of (0.21) in the first place because other members such as (K, J, I, and H) had reactions with values of (0.14). On the other hand, (O, G, F, E, and C)'s values of their reactions were (0.07), which was a weak value when compared to (0.10). In addition, (N, D, and B) did not have any reaction with other members, which means the value was (zero). Comparing both means (0.10 and 0.21) we decided to accept this index and the reactions of the group. Likewise, the result of the *degree of group reaction to members* was accepted (comparing the mean degree of this index (0.10) to (0.21)). From the achievement value, the reaction of the group for (F) was (0.57), for the members (I and A) was (0.35) for each, for member (C) was (0.28), (0.21) for each of (L) and (E) members, and for (D) was (0.14). However, for (M and B) the value was (0.07) for each and zero for each of members



(O) and (H). The negative values (-0.21 and -0.35) for members (G) and (K), and (-0.07) for each of members (J) and (N).

| Chooser | | | | | Ch | osen | | | | | | | | | | Total |
|---------|----|----|----|----|----|------|----|---|----|----|----|----|----|----|---|-------|
| | А | В | С | D | Е | F | G | Η | Ι | J | Κ | L | М | Ν | 0 | - |
| A | | | | +1 | | +1 | | | +1 | | | | | | | 3 |
| В | | | | | | | | | | | | | | | | 0 |
| С | | | | | +1 | +1 | -1 | | | | -1 | +1 | | | | 1 |
| D | +1 | | | | | +1 | -1 | | | | -1 | | | | | 0 |
| E | | | +1 | | | +1 | | | | | | | | -1 | | 1 |
| F | +1 | | | +1 | | | -1 | | +1 | | -1 | | | | | 1 |
| G | | | | | | | | | | | +1 | | | | | 1 |
| Н | +1 | | | | +1 | | | | +1 | | -1 | | | | | 2 |
| Ι | | | +1 | | | +1 | | | | | -1 | +1 | | | | 2 |
| J | | +1 | | | +1 | | | | | | | | | | | 2 |
| К | | | | | | | +1 | | | | | | +1 | | | 2 |
| L | | | +1 | | | +1 | | | +1 | | | | | | | 3 |
| М | +1 | | | | | | +1 | | | | +1 | | | | | 3 |
| Ν | +1 | | | | | +1 | -1 | | +1 | -1 | -1 | | | | | 0 |
| 0 | | | +1 | | | +1 | -1 | | | | -1 | +1 | | | | 1 |
| Total | 5 | 1 | 4 | 2 | 3 | 8 | -3 | 0 | 5 | -1 | -5 | 3 | 1 | -1 | 0 | 22 |

Table 6: Matrix of Positive and Negative Relations of the Second Group

Moreover, the mean of social adjustment's results are as follows: members (F) and (A) adjusted with the group by the degrees of (0.32) for (F) and (0.28) for (A), and the degrees (0.25, 0.21, and 0.17) for adjustment of the members (I, L, and C), respectively. In addition, (M) and (E) members adjusted with the group at a degree of (0.14). However, for all of these members (K, G, N, O, J, B, D, and H) no adjustment in the level was required with degrees of (-0.10, -0.07, -0.03) for (K, G, N), (0.03) for (O, J, B), and (0.07) for both (D) and (H). This index was accepted (0.10 mean of social adjustment compared to 0.21). This means there are adjustments among members that affect the dynamics of the social relationships of the members.

Third Group

First, the data were dumped for this group (Table 7). Then, the results for each index were:

Member effect in the group: From the results, the (L) member recorded the highest value effect of 0.81 by a sociometric degree of 13. Then, (I) member's effect was 0.45 with a sociometric degree of 12. Furthermore, the effect of member (J) was 0.36 with a sociometric degree of 7; for each of the members (G, F, and A) the effect was 0.27 with a sociometric degree of 6, 7, and 8, respectively. However, the effect decreased by member (C), which was 0.18 with the sociometric degree of 2, and by the members (D and E) whose effect was quite weak 0.09 when compared to the index mean 0.23. Their sociometric degrees were 2 for (E) and 3 for (D). Lastly, those members who did not have any effect – zero value – in the group were (K, H, and



B). This index is generally accepted, comparing the mean of members' effect index 0.23 to the highest value of the mean index 0.27 (see Table 8) indicates that the relations among members are dynamic.

| Chooser | | | | | Ch | osei | n | | | | | | Total choices received |
|--|---|---|---|---|----|------|---|---|----|---|---|----|------------------------|
| | A | В | С | D | Е | F | G | Н | Ι | J | K | L | |
| А | | | | 1 | | | 2 | | | | | 3 | 3 |
| В | | | | | 2 | | | | 1 | | | 3 | 3 |
| С | | | | | | 2 | 3 | | | | | | 2 |
| D | 2 | | | | | | | | 1 | | | 3 | 3 |
| E | | | | | | | | | 2 | | | 3 | 2 |
| F | | | 3 | | | | | | | 2 | | 1 | 3 |
| G | | | 3 | | | 2 | | | | | | 1 | 3 |
| Н | | | | | | | | | | | | | 0 |
| Ι | 1 | | | | | | | | | 2 | | 3 | 3 |
| J | | | | | | | 1 | | 2 | | | 3 | 3 |
| Κ | 1 | | | | | | | | | 2 | | 3 | 3 |
| L | | | | | | 1 | | | 2 | 3 | | | 3 |
| Total choices received | 3 | 0 | 2 | 1 | 1 | 3 | 3 | 0 | 5 | 4 | 0 | 9 | 31 |
| First choice 1x3 | 2 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 2 | 0 | 0 | 2 | 9 |
| Second choice 2x2 | 1 | 0 | 0 | 0 | 1 | 2 | 1 | 0 | 3 | 3 | 0 | 0 | 11 |
| Third choice 3x1 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 7 | 11 |
| Total first, second, and third choices | 3 | 0 | 2 | 1 | 1 | 3 | 3 | 0 | 5 | 4 | 0 | 9 | 31 |
| Total sociometric degree | 8 | 0 | 2 | 3 | 2 | 7 | 6 | 0 | 12 | 7 | 0 | 13 | 60 |

Table 7: Sociomatrix of the Third Group

Table 8: Relations Analysis of the Third Group Depending on Sociomatrix

| Member | Member effect | Social interaction | Ap | opreciation streng | gth of social relation | on |
|--------|---------------|--------------------|------------------------|--|--|----------------------|
| | | | Mean strength relation | degree of member reaction to the | degree of group reaction to member | Social adjustment |
| А | 0.27 | 0.23 | 0.18 | group 0.27 | 0.27 | 0.27 |
| В | 0 | | | 0.27 | -0.09 | 0.09 |
| С | 0.18 | | | 0.18 | 0.18 | 0.18 |
| D | 0.09 | | | 0.27 | -0.09 | 0.09 |
| Е | 0.09 | | | 0.18 | 0.09 | 0.13 |
| F | 0.27 | | | 0 | 0.18 | 0.09 |
| G | 0.27 | | | 0.27 | 0.27 | 0.27 |
| Н | 0 | | | 0 | -0.09 | -0.04 |
| Ι | 0.45 | | | 0.09 | 0.36 | 0.22 |
| J | 0.36 | | | 0.09 | 0.36 | 0.22 |
| Κ | 0 | | | 0.27 | -0.09 | 0.09 |
| L | 0.81 | | | 0.27 | 0.81 | 0.54 |



| Mean | 0.23 | 0.18 | 0.18 | 0.18 |
|------|------|------|------|------|

Social interaction: When compared to the received value of the social interaction of the group of (0.23) to the highest mean index's value (0.27), the group had interaction among members, which was helpful in relation dynamics.

Appreciation Strength of Social Relation: The strength of the social relation appreciation index, like the two previous groups, was accepted with the *mean strength relation* of (0.18). To obtain the total of choices used in this index, see Table 9.

| Chooser | | | | | Che | osen | | | | | | | Total |
|---------|----|----|----|----|-----|------|----|----|----|----|----|----|-------|
| | А | В | С | D | Е | F | G | Η | Ι | J | Κ | L | |
| А | | | | +1 | | | +1 | | | | | +1 | 3 |
| В | | | | | | | | | +1 | | | +1 | 3 |
| С | | | | | +1 | +1 | +1 | | | | | | 2 |
| D | +1 | | | | | | | | +1 | | | +1 | 3 |
| E | | | | | | | | | +1 | | | +1 | 2 |
| F | | -1 | +1 | -1 | | | | | -1 | +1 | | +1 | 0 |
| G | | | +1 | | | +1 | | | | | | +1 | 3 |
| Н | | | | | | | | | | | | | 0 |
| Ι | +1 | | | -1 | | -1 | | | | +1 | | +1 | 1 |
| J | | | | | | | +1 | -1 | +1 | | -1 | +1 | 1 |
| K | +1 | | | | | | | | | +1 | | +1 | 3 |
| L | | | | | | +1 | | | +1 | +1 | -1 | | 3 |
| Total | 3 | -1 | 2 | -2 | 1 | 2 | 3 | -1 | 4 | 4 | -1 | 9 | 24 |

Table 9: Matrix of Positive and Negative Relations of the Third Group

According to the reaction of members to the group, the results pointed to the reactions of members (L, K, G, D, B, and A) to their group of (0.27). In addition, the degree of reaction of the members (E and C) was (0.18). However, members (J and I) had weaker effects (0.09) compared to the mean of the *degree of member reaction to the group* index (0.18), and for members (H) and (F), the effects were zero. In summary, this index was accepted when we compared the mean of this index (0.18) to the highest value of mean index (0.27). Therefore, there are dynamics among members. Likewise, depending on the results of the degree of group reaction to members, member (L) had the highest reaction of the group (0.81), members (J) and (I) had (0.36) each, and members (G) and (A) had (0.27). For members (F) and (C), the reaction was (0.18) each, and for (E) was (0.09). The reaction value for members (K, H, D, and B) was negative (-0.09) for each of them. However, the members' (K, H, D, B, and E) reactions from their group were weak, but overall comparing the means – the mean of this index (0.18)to (0.27) – this group had a reaction to the members and dynamics in relations. In addition, from the results of the mean of social adjustment, member (L) adjusted with the group by (0.54); the members of (G) and (A) adjusted by (0.27) for each; and (0.22) for each of (J) and (I). Furthermore, the member (C)'s adjustment was (0.18); for (E) was (0.13); and for each of (K, F, D, and B) was (0.09). The only member who had a negative value (-0.04) was (H). For this group, the mean of the adjustment (0.18) compared to (0.27) was approved for the index



of social adjustment as an acceptable index. Therefore, there are dynamics among members' relations.

DISCUSSION

Through the applied sociometric approach on (37) students at the College of Art/University of Slemani, the results identified that there are dynamics in the relations of respondents. The indexes of members' effects in the group (in all groups) were accepted. Therefore, the members can have effects within groups. Their effects can increase the strength of positive relations, thereby increasing the level of their dynamic of relations among themselves. Moreover, the social interaction index in the groups was accepted; thus, the social communication among members is easy, and members are active in their interactions. Furthermore, appreciation strength of relations among the members was also acceptable; this finding indicates that there are more choices than rejections. Therefore, the strength leads to more choices, which then leads to more social interaction and more dynamics in the members' relations. Moreover, groups increase the strength among members' relations and lead to more interaction, which means more dynamics in the relations. Overall, the social relations among students are dynamic. Thus, the relations are active, effective, and have reactions.

CONCLUSION

This research explored factors of dynamics in students' relationship. The findings confirmed three main factors relating to dynamics of students' relationships; they are students' effect within class, social interaction, and strength of relationship. Students connected with each other, thus they made effect on another one within class. Students' connections have interaction. They act and interact with each other. Also, reaction of students for each other and having adjustment and positive relations within class help in making strength relationships. To conclude, dynamics of relationships were relating to social factors. They helped students being in active and effective relationships with each other.

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