

The Practice and Challenges of Implementing Students Networking: A Case Study in Aksum and Adigrat Universities, Ethiopia

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Abstract: *Students' networking is a newly introduced pedagogical practice that promotes academic achievement and socialization, yet many teachers struggle with implementing it in their classes, workshops, demonstrations, presentations and different home take assignments. The present study was aimed at assessing the prospects and challenges of implementing students' networking and examines their effects on higher education students by distributing a structured questionnaire at Adigrat, and Aksum Universities. Data were collected through a structured questionnaire and interview from the instructor's side, students' side, mentors side and department heads side from the two universities. Quantitative data analysis as well as qualitative data was carried out. The results of this study on students networking show that instructors are not continuously collecting information about student progress. Significant number of instructors and students have poor knowledge and negative attitude towards student networking. Based on the results, it was concluded and recommended that instructors and, department heads need to have a strong documentation and reporting systems, and Concerned officials of the university need to closely examine the challenges mentioned and the recommendations forwarded.*

Keywords: Students networking, Implementation

1. Introduction

Students' networking is a pedagogical practice that has attracted much attention over the last few years in Ethiopia because of the change and witness that indicates students gain both academically and socially when they have opportunities to interact with others to accomplish their teaching and learning process.

Nowadays, higher institutions in Ethiopia have introduced students' network which is intended to develop cooperative learning among students. Though its impact on students' academic achievement is very indispensable, students and instructors are facing many challenges in implementing peer learning. Therefore, the students' network may not play its expected role in enhancing students' academic performance.

Through networking students learn to interrogate assignments, class works, workshops, presentations, and construct new understandings. In so doing, they learn to use different techniques to explain new experiences and realities which, in turn, help them to construct new ways of thinking and feeling. Moreover, when students work in a network together, they show increased participation in group discussions, demonstrate a more sophisticated level of discourse, engage in fewer interruptions when others speak, and provide more intellectually valuable contributions. By working in a network, students develop an understanding of the unanimity of purpose of the group and the need to help and support each other's learning which, in turn, motivates them to provide information, prompts, reminders, and encouragement to others' requests for help or perceived need for help.

Many institutions of learning now promote instructional methods involving active learning that present opportunities for students to formulate their own questions, discuss issues, explain their viewpoints, and engage in cooperative learning

by working in teams on problems and projects. 'Peer learning/Networking' is a form of cooperative learning that enhances the value of student-student interaction and results in various advantageous learning outcomes (Blanc, and Martin, 1994).

Educating students through peer learning is expected to help them become competitive in their professional career after graduation. This is because of the fact that networking is gaining growing importance in leadership and professional development fields.

Peer learning/Students Networking is an educational process where peers interact with other peers interested in the same topic (Arendale, 2004.) Other equivalent terms interchangeably used with peer learning are collaborative learning, cooperative learning, and teach communities (Cooper, Robinson, & Ball, 2003). It happens when we learn with and from each other. Therefore, this networking provides an opportunity for students to clarify and refine their understanding of concepts through discussion and rehearsal with their peers.

Members of peer groups have generally similar standing. But this does not mean there are no differences in thoughts and perspectives. Some level of heterogeneity is expected. Student's networking thus has the capacity to produce diversity of judgment. It is this enlargement of perspectives that is the starting point for critical thinking, complex reasoning, and the development of debating skills and for increasing a learner's capacity for self-evaluation.

In students networking, every student is seen as a teacher. Unsurprisingly, to teach is to learn, as networking involves high-order, deep-processing activity. In fact, the teacher may actually gain more than the learner. In any case, the peer's voice is often clearer and better than teacher's voice as they are closer to the mindset of the learner and can often see

what problems they have, as well as solutions to those problems.

Even though, the students' network is widely introduced in country wise, in practice the universities are not implementing the policy very well, so that, the strategy faces difficulties to achieve its intended objective. Therefore, the students' network may not play its expected role to students' academic performance in some universities. Moreover, the researcher has so far observed some challenges with regard to the attitudes of teachers and students in resisting the new system from their home institution. Thus, this research is intended to fill the gap to assure good students' academic performance in relation to students' network implementation.

2. Issues with implementing Students Networking

Students are often the passive recipients of knowledge rather than being active in its creation. This, in part, may be due to teachers' propensity to talk at students who are required to listen and respond, often just reiterating information provided earlier by the teacher (Galton, Hargreaves, Comber, Wall, & Pell, 1999). More-over, Galton et al. observed that children are rarely asked challenging questions where they are required to think about the issues and provide reasons for their responses. This is a concern because Kuhn, Shaw, and Felton (1997) found that when students engage in thinking about a topic through dyadic interaction, it enhances the quality of reasoning about that topic. In fact, Zuckerman, Chudi-nova, and Khavkin (1998) argued that teachers have the ability to enhance and shape children's questioning by providing responses that encourage ongoing interest in the topic at hand.

Unfortunately, students are often placed in classroom situations where they have little opportunities to reap the benefits from interacting with others. In a study of classroom grouping practices in the UK, Baines, Blatchford, and Kutnick (2003) found that elementary children rarely worked together in cooperative/network groups despite being seated in small groups. Most children worked individually or under the direction of an adult attached to their group. By secondary school, students either worked in dyads or in groups of 11 or more members with little control over group size, the way they were to interact, or the task they were to complete. Grouping practices were aimed at maintaining control and on-task attention and maximizing individual and teacher directed learning. In short, Baines et al. suggested that cooperative learning is not widely used as a practice to facilitate student interaction and learning.

Similarly, Race and Powell (2000), in a study of students' perceptions of classroom methods and activities, reported a decline in the use of student networking in mathematics and science instruction from Grades 3 to 8. Furthermore, the students' perceptions compared well with the attitudes of the teachers; that is, teachers in the higher grades expressed a less favorable attitude towards students networking than their peers in the lower grades and students' performance levels tended to mirror the decline in their perspectives.

In a study that examined the prevalence, conceptualization, and form of cooperative learning used by elementary teachers in the US, Antil, Jenkins, Wayne, and Vadsay (1998) found that few were employing recognized forms of cooperative learning in their classrooms although all had indicated that they had daily cooperative/network lessons in several subjects. Similar observations have been made by Gillies (2003b) about teachers' grouping practices in Australian schools.

2.1 Challenges teachers confront

A reluctance to embrace students networking may be partly due to the challenge it poses to teachers' control of the channels of communication, the demands it places on curriculum organization, and the personal commitment teachers need to make to sustain their. It may also be due to a lack of understanding of how to use this pedagogical practice in their class-rooms. Gillies (2008), in a study of junior high school students' performance on a science-based learning activity, found that students performed better in those schools where teachers had been trained in how to establish cooperative/students network learning activities in their curricula and students had been provided with opportunities to participate in these activities on a regular basis than in those schools where teachers had not been trained. It is important that teachers understand how to embed cooperative learning into the classroom curricula to foster open communication and engagement between teachers and students, promote cooperative investigation, problem-solving and reasoning, and provide students with an environment where they feel supported and emotionally secure (Johnson & Johnson, 2003; Roseth, Johnson, & Johnson, 2008).

Certainly, Blatchford, Kutnick, Baines, and Galton (2003) recognized the difficulties teachers encounter in trying to introduce cooperative/network learning and argued strongly that if it is to be used successfully in classrooms, the context in which it is to be introduced needs to be prepared, students need to be taught the appropriate interactional skills, teachers need to be taught how to work with groups, and the lessons and tasks need to be well organized. Likewise, Hertz-Lazarowitz (2008) emphasizes the importance of preparing the physical space for learning and teaching, ensuring the learning tasks are challenging and engage students in higher-order thinking, helping teachers to understand that they need to accept their role as producers of new classroom curricula and programs, and training students in the social and academic skills they will need to negotiate their new learning environments. In short, both Blatchford et al. and Hertz-Lazarowitz recognize the complexity and multidimensionality of small-group learning and the importance of preparing the environment and individuals if students, in turn, are to reap the benefits widely attributed to this approach to learning.

2.2 Purpose of the Study

Given the well documented research on the social and academic benefits that students derive from working in network and the apparent reluctance of teachers to implement this pedagogy in their classrooms, the purpose of

this study is to report on the implementation of the students networking in two Universities who implemented the students networking in their classrooms in Ethiopia. In particular, we wanted to investigate their attitude/perceptions of how it worked and what were the difficulties they experienced.

3. Method

3.1. Context of the Study

3.1.1. Participants

The target population for the study consists of students at Adigrat and Axum universities. Each college was selected purposively for the study in order to have a representation of all college students'. The 200 students, 60 instructors, 6 mentors, and 6 department heads, who agreed to participate in the study were from two different Universities (all students included in the study were from all batches of the three colleges) in Adigrat and Aksum, Universities. All the Instructors teach in all batches. Fifteen of the instructors were female and 45 were male which is broadly representative of the ratio of male to female Instructors in Ethiopian Universities. All the Instructors were highly regarded by their student networking as being focused professionals, competent managers of their classes, and willing to implement strategies and ideas that enhance their teaching and students' learning.

The data for the analysis were collected from the University communities' instructors, mentors, students themselves and department heads, i.e., information on student proficiency and to sample students' academic performance, educational background and collect information on parental social background. Two-stage random sampling procedure was used for data collection. In the first stage, colleges and departments were selected purposively and in the second stage cohorts of students defined from the year attended were selected randomly.

The research instruments that were employed under this study were primary and secondary data. Primary data were collected through administering a structured questionnaire to students and instructors, mentors and department heads in Adigrat University and Aksum University. The questionnaire was designed to gather qualitative and quantitative data pertaining to student's networking, the costs and benefits of the program and others. Following the compilation of the data collection, the sample students', instructors' mentors, and department head responses were coded and entered in SPSS version 20 software for statistical analysis. Qualitative data were analyzed through systematically organizing the information and were analyzed qualitatively by verbal in-depth interpretations. Quantitative data analyses were carried out using simple and relevant statistical methods such as average, percentage and frequency distributions.

3.1.2 Interviews

The participating mentors and department heads were interviewed individually by the researcher. The interviews were semistructured (Freeboby, 2003) to enable each mentor and department head to elaborate on the eight open

questions that were posed. The questions were informed by previous studies undertaken by Baines, Blatch-ford, and Kutnick (2008) and Gillies (2008) and Gillies and Boyle(2006) that indicated that teachers did experience difficulties implementing cooperative learning. The researcher was particularly interested in how the mentors and department heads dealt with these issues because the researcher believe that this information is relevant to mentors' and department heads' decisions to either implement or not implement this pedagogical approach in their classrooms.

Each interview was audio taped and fully transcribed by a research assistant and checked for accuracy by the researcher. The transcribed interviews allowed the researcher to identify recurring regularities in the data that he could use to identify meaningful categories (Guba, 1978). Coding and recoding took place where the researcher reviewed and revised the data to ensure that the themes or categories that were identified were representative of the interview data.

4. Result and Discussion

4.1 Demographic characteristics of the respondents

4.1.1 Data collected from students, instructors, mentors and department heads

Table 1: Questionnaire collected from each university

Sample respondents	Students	Instru.	Mento	D.Head
Adigrat University	100	35	3	3
Aksum University	100	25	3	3
Total	200	60	6	6

As can be depicted in table 1, the researcher have distributed and collected data from Adigrat University 100 students and 35 instructors, 3 mentors and department heads, Aksum University 100 students and 25 instructors, 3 mentors and department heads for analysis purpose.

Table 2: Questionnaire collected from each college

S. No	College	Respondents	Analyzed questionnaire
1	Engineering & Technology	Students	70
		Instructors	25
		Mentors	2
		Department Heads	2
2	Natural and Computational Sciences	Students	70
		Instructors	20
		Mentors	2
		Department Heads	2
3	Business and Economics	Students	60
		Instructors	15
		Mentors	2
		Department Heads	2
Total		Students	200
		Instructors	60
		Mentors	6
		Department Heads	6

As can be seen from Table 2, 200 questionnaires were collected from student respondents and also questionnaires from 60 instructors, 6 mentors and 6 department heads from

the three colleges were collected. And all the collected copies of the questionnaire were analyzed, i.e. no questionnaire was rejected.

4.2 Instructors' practice of students networking

In the questionnaire prepared for both instructors and students, an item was included and asked them to indicate the practice of student networking used by instructor. Their reply is summarized as follows.

Table 3: Student's attitude regarding the practice of students networking used by instructors

S/N	Use CA	Respondents in %
1	All	97.58
2	Some	2.42
3	None	-
Total		100

From the above table, it could be said that many of the student respondents (95.19%) believed that all instructors used student networking as part of their teaching. Similarly, from the instructor respondents 95.19% of the instructors said that they used student networking as part of their teaching. Therefore, it could safely be concluded that most of the instructors use student networking as part of their teaching. This finding is in line with MoE's idea of involving students in networking as part of each course in the teaching learning process (MoE, 2013).

4.3 Students and instructors' knowledge on and attitudes about student networking

4.3.1 Students' knowledge on and attitudes about student networking

Student respondents were asked to state whether student networking was helpful for students in higher education institutions. Out of the 200 respondents, (86.31%) replied 'Yes' it is helpful and (13.69%) 'No' it is not helpful for university students.

Students believed that Student networking:

- Increases students' performance from time-to-time
- Creates close relationship between students and instructors
- Help students develop their confidence
- Helps students remember the course better
- Increases students reading habit
- Helps share knowledge and skill from their classmates, not merely form the instructor
- Creates active teaching and learning environment
- Makes students actively search for books (use library)
- Makes students use their time effectively and focus on their learning thereby protecting students from bad habits
- Increases interaction and discussion between students and students can help each other

From the above analysis, it can be said that the majority of the students have good knowledge on the advantage of student networking which is consistent with the advantages mentioned by different scholars (Alausa, 1999; Ellington and Earl, 1997; and others). However some of the advantages mentioned by students could be a disadvantage particularly in cases where instructors improperly implement student networking.

With regard to the acceptance of the application of student networking in HEIs, out of the 200 students respondents, (71.08%) replied 'Yes' (22.89%) 'No' and the remaining respondents (6.02%) didn't reply for the item, 'Do you favor the implementation of student networking in HEIs?'

Furthermore, out of those students who think student networking is helpful, 79.71% favor the application of student networking, 15.94% didn't favor the application of student networking and the remaining 4.35% didn't respond to the item. Again out of the students' respondents who replied student networking is not helpful for students, (54.14%) didn't favor the implementation of student networking, (28, 57%) favor the implementation of student networking and (14.29%) didn't respond to the item neither in favor nor against application of student networking.

4.3.2 Instructors' knowledge and attitudes about student networking

In the questionnaire prepared for instructors, an item was developed to ask instructors to state whether student networking was helpful for students in HEIs. Out of the 60 respondents, (94.64%) replied 'Yes' and (5.26%) 'No'. With regard to the acceptance of application of student networking, of the instructors (87%) replied 'Yes', (13%) 'No'. In addition, all of the instructors who didn't think student networking was helpful for students didn't favor the implementation of student networking and those who though student networking was helpful for students favored the implementation of student networking.

With regard to knowledge and attitudes of students and instructors about students networking the following could be concluded.

- Majority of the students and instructors favored the application of student networking in Higher Education institutions.
- Almost all of the instructors who think student networking was helpful for students favored its application.
- Majority of the students who thought student networking was helpful for students favor its application and small number of students who thought student networking was helpful for students didn't favor its application.
- Significant number of students and instructors didn't favor the application of student networking in institutions of higher learning. This shows that there was lack of understanding of student networking.
- Majority of the students and instructors believed that implementation of student networking was helpful for students. Thus, it could safely be said that both students and instructors had good knowing could be concluded.
- Significant number of students and instructors didn't believe student networking was helpful for Higher Education institution students. This indicates that there was lack of understanding about the advantages of student networking among university instructors and students.

All in all it could be argued that most instructors and students had good knowledge of and positive attitude towards student networking implementation in institution of Higher education. It could also be argued that a significant number of students and instructors had knowledge of and

negative attitude towards student networking implementation in institutions of Higher education. Particularly instructors' poor knowledge and attitude about student networking is of a great concern. Alausa (1999) emphasized that instructors are the main implementers of cooperative learning/student networking programs; thus, they need to have enough knowledge and positive attitude about student networking.

4.4 Role of Mentors and Department heads in Effectively Executing student networking

4.4.1 Role of Mentors and Department Heads

Interview respondents were asked to mention their roles in the effective implementation of student networking; their replies are summarized and presented as follows;

Mentors' response on their roles

- Prepare and distribute students network activities and record formats for students
- Comparing the student network activities with the syllabus developed
- Check whether students had submitted the student networking activities to the concerned bodies

Department heads' responses on their roles

- Evaluate the implementation of student networking in their perspective department
- Close supervision on whether instructors are using student networking according to their syllabus
- Document every student networking activities
- Check the validity of students complaints (if any) and appropriate measure
- Discuss about student networking with instructors and students
- Evaluate the advantages and disadvantages of student networking
- Collect feedbacks from students particularly from representative students

4.5 Challenges in implementing student networking effectively

Respondents to both the questionnaires and the interview were given a chance to list the challenges they faced in implementing student networking in the universities. In addition exam mentors and department heads were asked to state the measures they used to alleviate or at least minimize the challenges they faced. Their replies are summarized and presented as follows:

4.5.1 Challenges mentioned by students

- Some students are not ready to work instudent networking
- There is no way to control instructors
- Problem of understanding between instructors and students about student networking
- Instructors give short time to complete home –take assignments which inhibit students chance to dig-out different ideas with each other
- Few teachers didn't appropriately apply student networking properly

- Students focus only on passing their assessments, not on deep understanding of the course and networking
- Some instructors believe that they are forced to participate instudent networking without their willingness
- Instructors didn't give immediate feedback to students during networking
- Lack of commitment on the side of both students and instructors
- Some teachers didn't use student networking completely

Challenges mentioned by instructors

- Shortage of time particularly to follow up every individual students progress
- Course over load (Teaching different courses in a semester)
- Uncomfortable classroom like unmovable desks
- Students refuse to participate in networking (students failure to prepare themselves for student networking)
- Lack of teachers pedagogical knowledge on students networking

4.5.2 Challenges mentioned by department heads

- There are no documentation and formal reporting systems
- Different teachers implement different networking techniques for students who take the same course where the syllabus is the same
- Poor awareness about student networking on the side of both students, instructors and exam center staff
- Department heads don't have means of controlling instructors who provide common/basic courses from other departments with regard to students networking
- Large number of students in a class
- Some teachers refuse to use student networking
- There are no documentation and formal reporting systems
- Different teachers implement different networking techniques for students who take the same course where the syllabus is the same

4.5.3 Challenges mentioned by Mentors

- Poor communication between department heads and Instructors
- The large number of students and the very few in the center makes mentors busy and this in turn creates boredom on the side of mentors on the center

5. Conclusion and Recommendation

5.1 Conclusion

Based on the findings the following conclusions are made on students networking

- a) Almost all of the instructors in the universities are using student networking.
- b) Majority of the students and instructors have positive attitude and good knowledge of student networking with a significant number of them have poor knowledge and negative attitude towards student networking.
- c) Challenges in effectively implementing student networking are categorized in to the following areas.
 - Malpractice in implementing student networking

- Disadvantages of student networking mentioned by students and instructors
 - Poor knowledge of student networking by students and instructors
- d) There is good Opportunity for implementing student networking in the Universities.

In general, it can be concluded that the overall implementation of student networking in the universities is good, particularly, as an initial implementation. However, it can also be concluded that the challenges in the effective implementation of student networking call for immediate measures to be taken; particularly it needs a close supervision and follow up for further improvement.

5.2 Recommendations

The findings and conclusions led to the following recommendations

- Instructors need to use the practice of student networking as a means of identifying students' progress and thereby providing support accordingly.
- Department heads need to have a strong documentation and reporting systems.
- Concerned educators need to develop a manual (together with training) on the nature of student networking, its purpose and effective implementation at HEIs.
- Concerned educators need to organize student networking raising trainings not only on the student networking implementation but also on methods of measuring, and evaluating student performance.
- Concerned officials of the universities need to closely examine the challenges mentioned and the recommendations forwarded by participants of the study.
- The universities need to organize networking workshop, seminars, conferences, etc for students, instructors, mentors and department heads on what, Why and how to carry out effective student networking implementation.
- The university needs to provide the necessary materials, equipment's and facilities to students and instructors. This include books, internet services, movable chairs, etc
- The universities need to feel proud of the fact that student networking implementation had begun in a good manner and the support it offers needs to be continued and strengthened for further improvement of the implementation of student networking in particular and quality education in general.
- Researchers in the area need to do drawbacks in the implementation, and the possible best ways for the improvement of student networking implementation in the universities in particular and in Ethiopia in general.

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