The Impact of Students Diversity on Group Work in Dehradun Universities : An Empirical Study

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Student community in higher learning institutions encompasses a complex pattern of diversity. It includes important dimensions of human identity such as race,ethnicity, national origin, religion, gender, sexual orientation, class, age, and ability. Ethiopia's higher learning institutions have students of diverse languages,ethnic groups, religions, culture, race and gender. The present study examines the extent to which a substantial work commitment is detrimental to students' engagement in the valuable learning opportunity presented by group work. The study focuses on students' general attitude towards group work, as well as on students' multi-dimensional appraisals of a specific group project as it evolves over a semester. Students' retrospective reflections of their group processes are also examined. Data analysis is carried out from 100 students of different universities of Dehradun city at individual as well as small group level. The results help instructors in giving assistance to students' team activity and how it should be improved.

Keywords:

Introduction:

Student community in higher learning institutions encompasses a complex pattern of Diversity. It includes important dimensions of human identity such as race, ethnicity, national origin, religion, gender, sexual orientation, class, age, and ability. They influence ways of understanding and interpreting of the world. The higher learning institutions have students of diverse languages, ethnic groups, religions, culture, race and gender. The encouragement of learners to participate in the learning tasks can be achieved by means of group work among other factors. To get better result from team work, group tasks must be given for the learners. The formation of groups must take into account the diverse nature of the learners and better learning and knowledge could be realized if diversity is recognized.

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Psychological theories state that discontinuity of students from home environment improves the chances for enhanced cognitive and identity development. But a sustained and coordinated effort is needed to increase the positive effects of diversity on student development and learning. The crucial step development of effective team work skills with all walks of people is to career success. The numerous formal and informal opportunities available at universities enable students to connect experience and theory in the educational setting. Educators across many disciplines choose to incorporate group projects or other forms of collaborative or team-based learning in an effort to create formal group experiences for transferable skill development.

Research bearing on three aspects of small group learning is examined:

1. The relationship between interaction and achievement.
2. Cognitive process and social-emotional mechanisms bridging interaction and achievement.
3. Characteristics of the individual, group, and reward structure that predict interaction in small groups. Methodological and substantive issues are discussed to evaluate and integrate research findings, and as guidelines for further research.

The conclusion is that an individual's role in group interaction has an important influence on learning, and that interaction can best be predicted from multiple characteristics of the individual, group, and setting.

Research Objective

This Study is conducted to primarily find out the impact of students diversity on group work in Dehradun Universities with the following objectives :

1. To create awareness for instructors and university academic managers to incorporate diversity issues in group task of students.
2. To narrow the gap in the perception of students and instructors about diversity and group work.
3. To explore the issue of diversity and its impact on the group work of students.

Research Methodology

The study is a descriptive survey of target respondents. A total of 100 questionnaires were distributed to the different institutes of Dehradun which were given to the students of these institutions. However, all 100 students responded to the survey. Thus, the total number of respondents was100. Data was collected through primary and secondary sources. The primary data was collected through a structured questionnaire. The first five questions were

based on demographic profile of the respondents like gender, age, father's occupation, monthly family income and course related question etc. Further the next 11 questions were designed on the basis of some measures considered. The students were asked to indicate their perception for those measures. The secondary data from different relevant sources such as journals and the web are used to analyze the information.

The data analysis was based on the results of the feedback of the respondents. The data were then tabulated and analyzed using mean, percentages and descriptions and interpretations were made to know about the results of the study.

Review of literature

Groups can be classified into three types (informal learning groups, formal learning groups, and base groups) that can enhance collaborative learning **(Sherpa, 2000).** There can also be groups such as lab groups, homework groups, problem solving groups, and study groups.There are no hard and fast rules about how to set up groups but two factors are worth mentioning, group size and group type (Ibid). There are a number of options for determining group membership, including letting students choose their group ('friendship groups') and staff assigning students to groups by matching groups or mixing them up randomly. The appropriate size of the group really depends on the context - How big is the class? What are the learningoutcomes desired? How much work is involved in the associated task? What are your resources? What meeting facilities are available? and so on. According to **Phil Race** and **Sally Brown** cited in Sherpa 2000,group size can consist of pairs, threes, fours, fives, sixes and sevens.One way to reduce the likelihood of such assumptions manifesting in group work would be to inform the class that each individual brings a different combination of strengths and weaknesses into the group work context and that students should not make assumptions about what these might be **(Sherpa, 2000).**

Much is written on group development processes, and there is substantial evidence of how this applies to work-based groups **(Belbin,1981; Adair, 1986; West, 1994)**. Groupwork is used for many reasons: to manage a large cohort; to develop appropriate skills in collaboration; to simulate a real work environment; etc, and is considered by some to "lead to greater efficiency and effectiveness" **(West, 1994)** whilst others believe that "teams are inherently inferior to individuals, in terms of efficiency" **(Robbinsand Finley, 2000)**. Robbins and Finley (2000) write about some of the common myths surrounding groupwork and challenge the assumptions many make with the view that "teams are here to stay" so we should find ways of ensuri**Brown (1988)** identifies several

case studies of group performance versus individual performance in his book on Group Processes.**(Bruner, 1985, Johnson & Johnson,1989, Slavin, 1995).Waite and Davis (2006)** write: "Previous research with student teachers had indicated that they actively sought out group situations to aid their learning (Waite & Gatrell, 2004), perhaps demonstrating a 'natural' motivation to collaborate (Sotto, 1994)" (ibid: p406) indicating that the positive gains of groupwork were felt not only by teachers, psychologists and theorists, but also by students. Waite and Davis (2006) developed a collaborative approach for students to learn research skills, believing that the collaboration would motivate the students better than an individual approach.

Lizzio & Wilson (2006) refer to this as "transition-in activities", though they question that this has a major impact on group effectiveness due to the lack of evidence based studies around team-building Similarly, **Cartney** and **Rouse (2006)** supported the benefits of monitoring the emotional impact on the student: "we would argue, however, that an awareness and understanding of the emotional aspects of learning, whilst maintaining a focus on the academic task, can help to foster an environment where students can develop their potential" (ibid p81). Livingstone and **Lynch (2000)** point out that groups selected using names or student numbers may ultimately lead to the same groups being allocated every time, and they advocate the use of random selection to avoid this. Tuckman's 1965 model of group development is often used to describe the stages groups progress through: forming, storming, norming and performing **(Tuckman, 1975).** A final stage was added later, to reflect theending of a group: adjourning. Tuckman developed his theory based on a 1960's study of as many small groups as possible, with a greater number of therapies and training groups in the sample. Although some groups were underrepresented, Tuckman believed his model would work for any small group **(Hartley, 1997).** A similar model is based on seasons **(Heron, 1999),** where there is defensiveness and a lack of trust in the initial (winter) phase; trust building and the development of a group culture in the spring phase; authentic behaviour and growth encouraged by open relationships in the summer phase; closure of the group and a review of progress before the group separates in the autumn. Gerick's model of 'punctuated equilibrium' is a notable model based on research of student groups **(Gersick, 1990).** She found "no universal sequence of activities in the groups studied – nor was progress steady and gradual Gerick's model differs significantly from the earlier Tuckman model, and the implications for teaching lie in when an intervention from the tutor should be made. **Hartley (1997)** argues that a tutor may make an intervention too early if the tutor uses the Tuckman approach when the group is following a 'punctuated equilibrium' model.Diversity is a characteristic of groups of two or more people and typically refers to demographic differences of one

sort or another among group members (**McGrath, Berdahl, andArrow, 1995**). **Pelled (1996)** made one set of predictions about the impact of racial diversity among group members and another about the impact of functional background diversity, based on the visibility of race and the job-relatedness of functional background. Others have distinguished among the effects of diversity depending on whether differences are cultural **(Cox, 1993; Larkey, 1996)**, physical **(Strangor et al., 1992)**, inherent and immutable **(Maznevski, 1994)**, or role-related **(Maznevski, 1994; Pelled, 1996)**.

Analysis of Data and Interpretation

The analysis was based on the demographic factors, on the basis of group work and on the basis of "The impact of student's diversity on Group work. The data was based on the results on the basis of the feedback of the respondents, the data were then tabulated and analyzed using mean, percentages and descriptions and interpretations were made to know about the results of the study.

Analysis of demographic characteristic's of the students of selected colleges

Table 1. **Classification of data according to demographic factors**

Demographics	Frequency	Percent
Gender		
Male	56	56
Female	44	44
Age		
15-20	55	55
20-25	45	45
Father's Occupation		
Service	60	60
Business	40	40
Monthly Family Income		
<10000	2	2
10000-20000	28	28
20000-30000	49	49
30000 & above	21	21
Course		
B.tec	57	57
Bba	43	43
Total	**100**	**100**

Interpretation

It is inferred from the above table that out of 100 respondents 56% of the students are Male and 44% of the students are Female. Respondents

that lie between the age group of 15-20 are of 55% and the students that lie between the age group of 20-25 are of 45%. 60% of the students have replied to service and 40% of the students have replied to business. As far as monthly income is concerned 2% students have chosen <10000, 28% of students family income range from 10000-20000, 49% of students family income ranges from 20000-30000 and 21% of students family income is 30000 & above. Out of total of 100 respondents 57% students belong to B.TEC course and 43% of students belong to BBA course.

Analysis of Data on the basis of group work

Table 2. **Classification of Data on the Basis "Group formation"**

What According To You Should Be The Criteria Of Group Formation	**Frequency**	**Percent**
Grouping By Interest	35	35.0
Mixed Ability	34	34.0
Ethnic/Age/Gender	21	21.0
Random	10	10.0
Total 100	100.0	

Interpretation

It is inferred from the above table that out of 100 respondents 35% of the students have chosen grouping by interest, 34% students have chosen mixed ability, 21% group of ethnic/age/gender and 10% have chosen the random group.

Table 3. **Classification of Data on the Basis of Learning**

What Type Of Group Formation Enhances Best Learning Diversity	**Frequency**	**Percent**
Grouping By Interest	28	28.0
Grouping By Ability	27	27.0
Random Grouping	25	25.0
Homogeneous Grouping	19	19.0
None	1	1.0
Total	100	100.0

Interpretation

It is inferred from the above table that out of 100 respondents 28% of students have chosen grouping by interest, 27% by ability, 25% random grouping and 19% homogeneous grouping and rest have chosen none.

Table 4. **Classification of Data on the Basis of "Group tsak"**

In your institute group tasks are applied or not	Frequency	Percent
Yes	51	51
No	49	49
Total	100	100

Interpretation

It is inferred from the above table that out of 100 respondents 51% of student's say yes and 49% say no.

Table 5. **Classification of Data on the Basis of "Assistance"**

Whether Instructor Provides Assistance In Group Activity By Considering Diversity	Frequency	Percent
Yes	52	52
No	48	48
Total	**100**	**100**

Interpretation

It is inferred from the above table that out of total of 100 respondents 53% of the students say yes and 47% say no.

Table 6. **Classification of Data on the Basis of "Frequency of providing Assistance"**

If Yes, What Is The Frequency Of Providing Assistance	Frequency	Percent
Frequently	24	24.0
Occasionally	32	32.0
Seldom	31	31.0
Never	13	13.0
Total	100	100.0

Interpretation

It is inferred from the above table that out of total of 100 respondents 24% of students says frequently, 32% say occasionally, 31% of say seldom and 13% says never.

Analysis of data on the basis of "The impact of students diversity on grouop work

Table 7. **Classification of Data on the Basis of "Working with Groups of Diverse Learners"**

Do you prefer working with groups of diverse learners	Frequency	Percent
Yes	82	82
No	13	13
Total	100	100

Interpretation

It is inferred from the above table that out of the total of 100 respondents 24% students have chosen frequently, 32% have chosen occasionally, 31% chose seldom while other students say never.

Table 8. **Classification of Data on the Basis of "If yes is the Reason"**

If Yes, What Is The Reason	Frequency	Percent
Broad Thinking	15	15.0
To Get New Knowledge	43	43.0
To Share Culture Of Values With Others	30	30.0
Others To Learn Difference In Views	12	12.0
Total	100	100.0

Interpretation

It is inferred from the above table that out of total of 100 respondents 15% students have chosen broad thinking, 43% have chosen to get new knowledge, 30% have chosen to share culture of values with others while rest have chosen others to learn difference in view.

Table 9. **Classification of Data on the Basis of "If no is the Reason"**

If no, what is the reason	Frequency	Percent
it could lead to adverse completion	31	31
it is not comfortable to debase with different culture, religion ethnic or gender groups	42	42
more effective performance is achieved with homogeneous grouping	27	27
Total	**100**	**100**

Interpretation

It is inferred from the above table that out of total of 100 respondents 31% of students say it could lead to adverse completion, 42% say that it is not comfortable to debase with different culture, religion ethnic or gender groups and 27% say that more effective performance is achieved with homogeneous grouping.

Table 10. **Classification of Data on the Basis of "Influence of Diversity on Teaching"**

In Your Opinion What Is The Influence Of Diversity On Teaching Learning Process	**Frequency**	**Percent**
It Promotes Multiple & Different Perspectives	17	17
It Has Positive Impact On Learning Outcomes	35	35
It Engages In Active Thinking Process, Growth In Motivation	25	25
To Appreciate Both Similarities & Differences	17	17
Better Equip To Function In An Increasingly Diverse World	6	6
Total	100	100

Interpretation

It is inferred from the above table that out of the total 100 respondents 17% say it promotes multiple & different perspectives, 35% say it has positive impact on learning outcomes, 25% say it engages in active thinking process, growth in motivation. 17% say to appreciate both similarities & differences while 6% say better equip to function in an increasingly diverse world.

Table 11. **Classification of Data on the Basis of "Perception of Diversity on Learning Teaching process"**

what is your perception of diversity in the learning teaching process	**Frequency**	**Percent**
varied counters from high schools and van from junior to senior classes	19	19.0
students in colleges with different diverse setting becomes sucessful in diverse world of work after graduation	43	43.0
companies who employ graduates prefer students expose to diverse learning set diverse	23	23.0
no reply	15	15.0
Total	100	100.0

Interpretation

It is inferred from the above table that out of the total of 100 respondents 19% have replied varied counters from high schools and van from junior to senior classes, 43% have replied that students in colleges with different diverse settings become successful in diverse world of work after graduation, 23% have replied that companies who employee graduates prefer students exposed to diverse learning and 15% have not replied.

Table 12. **Classification of Data on the Basis of "Institutions to encourage contacts from different backgrounds"**

Your Institution Lays Emphasis To Encourage Contacts From Different Backgrounds	**Frequency**	**Percent**
very much	19	19
quit a bit	33	33
some	36	36
very little	12	12
Total	100	100

Interpretation

It is inferred from the above table that out of the total of 100 respondents 19% have replied very much, 33% have replied quit a bit while 36% have replied some and 12% have replied very little

Table 13. **Classification of Data on the Basis of "Institutions prefer assistance for learners to cope with non academic responsibility"**

Do you think that institutions prefer assistance for learners to cope with non academic responsibility	**Frequency**	**Percent**
Very Much	15	15
Quit A Bit	40	40
Some	33	33
Very Little	12	12
Total	100	100

Interpretation

It is inferred from the above that out of the total 100 respondents 15% have replied to very much, 40% have replied to quit a bit while 33% have replied some and 12% have replied to very little.

Table 14. **Classification of Data on the Basis of "Conversation with religious beliefs, political opinions or personal values very different from yours**

How often have you had serious conversation with religious beliefs, political opinions or personal values very different from yours	Frequency	Percent
Very Often	16	16
Often	39	39
Some Times	33	33
Never	10	10
None	2	2
Total	100	100

Interpretation

It is inferred from the above table that out of the total of 100 respondents 16% have replied very often, 39% have replied often, 33% have replied some times while 10% have replied never and 2% have replied to none.

Table 15. **Analysis of Data on the Basis of "Group formation favoured by learners of Diversity"**

No.	Group formation favored by Learners of Diversity	Frequency	Percent
1	Interest of learners in group formation is based on		
	a. grouping by interest	35	35
	b. mixed ability	34	34
	c. ethnic/age/gender	21	21
	d. random	10	10
	Total	100	100
2	Type of group formation enhances best learning diversity		
	a. grouping by interest	28	28
	b. grouping by ability	27	27
	c. random grouping	25	25
	d. homogeneous grouping	19	19
	e. none	1	1
	Total	100	100

Interpretation

The responses of learners indicate that majority of learners (35%) i.e.35 prefer grouping based on interest. Similarly, many students (28%) i.e. 28 said interest grouping enhances best learning in diversity.

Table 16. **Analysis of Data on the Basis of "Impact of Diversity on Grouping Task**

No.	Impact of Diversity on Grouping Tasks	Frequency	Percent
1	whether students prefer groups of diverse learners		
	a. yes	82	82
	b. no	13	13
	Total	100	100
2	if yes, is the reason		
	a. broad thinking	15	15
	b. to get new knowledge	43	43
	c. to share culture of values with others	30	30
	d. others to learn difference in views	12	12
	Total	100	100
3	if no, is the reason		
	a. it could lead to adverse completion	31	31
	b. it is not comfortable to debase with different culture, religion	42	42
	c. more effective performance is achieved with homogeneous group	27	27
	Total	100	100
4	in your opinion is the influence of diversity on teaching learning process		
	a. it promotes multiple & different perspectives	17	17
	b. it has positive impact on learning outcomes	35	35
	c. it engages in active thinking process, growth in motivation	25	25
	d. to appreciate both similarities & differences	17	17
	e. better equip to function in an increasingly diverse world	6	6
5	Total	100	100
	what is your perception of diversity in the learning teaching process		
	a. varied counters from high schools and van from junior to senior class	19	19
	b. students in colleges with different diverse setting becomes	43	43
	c. companies who employees graduates prefer students expose to	23	23
	d. no reply	15	15
	Total	100	100

Interpretation

Student's responses show that most of (82%) i.e. 82 of them prefer groups of diverse learners. Their reason for preference of groups of diverse learners is to get new knowledge (43%) i.e. 43, to share cultural values with others (30%) i.e. 24 and to broaden thinking (15%) i.e. 15. Hence their main reason is to get new knowledge. But those who do not prefer diverse learners forward the rationale that it is not comfortable to debase with different culture, religion ethnic or gender.

Table 17. **Analysis of Data on the Basis of "Campus climate, Diversity & Group work"**

No.	Campus climate, Diversity & Group work	Freq	%
1	your institution lays emphasis to encourage contacts from different backgrounds		
	a. very much	19	19
	b. quit a bit	33	33
	c. some	36	36
	d. very little	12	12
	Total	100	100
2	Level of institutions assistance for learners to cope with non academic responsibility		
	a. very much	15	15
	b. quit a bit	40	40
	c. some	33	33
	d. very little	11	11
	Total	**100**	**100**

Interpretation

40% indicate that the level of institutional assistance for learners to cope up with non academic responsibilities is quite a bit.

Table 18. Analysis of Data on the Basis of "Group Discussion/ Task in Diversified opinions & Belief Systems"

No.	Group Discussion/ Task in Diversified opinions & Belief Systems	Freq	%
1	**How often have you had serious conversation with religious beliefs, political opinions or personal values very different from yours**		
	a. very often	16	16
	b. often	39	39
	c. some times	33	33
	d. never	10	10
	d. none	2	2
	Total	100	100

Interpretation

Student's responses show that none (2%) had serious conversation with diversified groups who are different in religion, ethnicity, beliefs and political system from their own.

Findings, conclusion, limitations and recommendations

Findings of the Study

The responses of learners indicate that majority of learners (35%) i.e.35 prefer grouping based on interest. Similarly, many students (28%) i.e. 28 said interest grouping enhances best learning in diversity. Student's responses show that most of (82%) i.e. 82 of them prefer groups of diverse learners. Their reason for preference of groups of diverse learners is to get new knowledge (43%) i.e. 43, to share cultural values with others (30%) i.e. 24 and to broaden thinking (15%) i.e. 15. Hence their main reason is to get new knowledge. But those who do not prefer diverse learners forward the rationale that it is not comfortable to debase with different culture, religion ethnic or gender. 40% of the students indicate that the level of institutional assistance for learners to cope up with non academic responsibilities is quite a bit.

Student's responses show that none (2%) had serious conversation with diversified groups who are different in religion, ethnicity, beliefs and political system.

Conclusion

As the instructor and student replies indicated, group work is practiced in various courses at different levels but the extent of group activity to incorporate Diversity is insignificant. The group formation used by students is based on friendship and self selection but instructors and administrators preferred random grouping. This leads usto the conclusion that the diversity grouping that is most probably created by random growing is not practiced by students unless they are forced to do so.

The findings indicate that the majority of students are male. Most of the students form homogenous groups, but they indicated that the performance result of heterogeneous groups is better than that of homogenous groups. Although students know and prefer the results of heterogeneous groups, they still practice homogenous grouping. Administrators said diversity is yet not given much consideration in the universities.

To realize the benefits of group work, instructors can design realistic goals and assist students to develop the necessary teamwork to share ideas and learn from each other. Nevertheless, students indicated that most of the

instructors do not provide the necessary assistance to encourage team work in diversified groups.

Students have emphasized educational background where as instructor's emphasized ability in the formation of groups to enhance diversity in learning. We thus see deviation on emphasis between students and instructors on diversity issues.

Only limited attention was given by the institutions and instructors on diversity and students' interaction and this has led to un-conducive campus climate in terms of tolerance, repetitiveness, appreciation of one another's views and opinions from different cultural contexts.

Student's responses show that none had serious conversation with diversified groups who are different in religion, ethnicity, beliefs and political system from their own. Thus it can be seen there are less Group Discussions on these issues.

Limitations

The research focuses mainly on undergraduate level students from eight selected departments. Diversity and group work was studied at higher institutions of learning by delimiting to universities of Dehradun for manageability. Because of financial and time constraints the population of the study was restricted.

There was lack of understanding of some questions properly by students and instructors. The other limitations were carelessness and unwillingness of some instructors in filling the questionnaire and unclear handwriting.

Recommendations

Work on changing the students' perception on diversity towards its benefit.

Teach the benefits of doing with diverse groups such as sharing ideas, learning from each other, companies' preference of graduates from diverse settings, better performance result of heterogeneous groups, and easy adaptation to life situations.

Incorporate and promote diversity issues (ethnicity, language, gender, ability, etc) an tolerance in the modules to teach the students.Focus on random grouping and do assessment of projects and assignments accordingly, that is, give more incentive for groups based on diverse settingsRaise the issue of diversity in department meeting so that it will be aired up the ladder of the top management of the university for due attention.

The assistance given by instructors to students' team activity should be improved. Promotion of diversity benefits, follow up group tasks, encouragingmembers to work in the group, elimination of discrimination to

diversified learning sets, focusing on random grouping to create heterogeneous groupsshould be expected to be worked out by instructors and university administrators.

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