The Effect of a soft skill training programme on the group discussion skills of engineering students in Odisha.

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Abstract:
Purpose – Soft skill as an essential attribute of an employee has been highlighted by employers and researchers. This study aims to seek evidence on the effect of a soft skill training programme on the performance in group discussion of engineering students in Odisha.

Design- An experimental study with random allocation to an experimental group that underwent a four-week soft skill training programme is compared against a controlled group who received a delayed treatment of the same programme. The sample is drawn from the third semester students in an engineering institute situated in Bhubaneswar, Odisha.

Findings - The findings examine the relation between soft skill training and performance in group discussion. A survey of students’ attitude towards soft skill explores the relation between students’ attitudes towards soft skill such as leadership and teamsmanship and their communication skills such as turn taking and turn giving.

Practical Implications - The findings of the study will provide evidence on the effect of soft skill on communication. The implications of the study will be for employers as well as for trainers who are in charge of preparing students for employment. The findings of the study will help students to understand the importance of soft skill for their employability.

Originality/value – This study is probably one of the few experimental studies that examine the effect of soft skill on communication skill. It aims to benefit trainers, employers and perspective employees to understand the contribution of soft skill to effective communication.

Key words: Soft skill training, communication skill, employability

Introduction
The new focus of research for engineering education is the role of soft skills in developing the employability of fresh graduates (The Research Agenda for the New Discipline of Engineering Education. 2006). Industries, professional organizations such as the Accreditation Board for Engineering and Technology, as well as researchers have focused on the importance of soft skills in the work context (Nabi & Bagley, 1999; Passow, 2012).

Soft skills are a person's ability to relate with others as well as to organise with one’s own self. While the former are interpersonal skills the later skills are referred to as interpersonal skills pertaining to the individual needs to manage one’s own internal state such as emotions and feelings (Bustami, 2008). Soft skills are often studied in the light of hard skills which are skills that include the knowledge and ability of an individual to solve a technical problem or deal with an intellectual challenge. On the contrary soft skills give an individual the capability to deal with any problem behaviourally.
The challenges of working in any industry require individuals to have both hard skills and soft skills to increase their employability opportunities. With globalisation and the growing influence of multinationals in the Indian economy it has become a necessity for Indian labour force to equip them with both hard skills and soft skills. In engineering professional contexts the need for soft skills along with hard skills has been emphasised by researchers (King, 2012) and organisations such as the European Commission.

In line with this, the current study attempts to examine the effect of soft skill training on group discussion skills of engineering students. Group discussion is one of tests used by industrial organisations in the selection of engineering graduates to jobs. Hence the focus of this study is on group discussion and its relation to soft skills. The study follows an experimental design with students randomly distributed to an experimental group participating in a soft skill training programme and a control group that receives the same treatment after a delay of four weeks. The pre-post treatment scores on group discussion are compared to find evidence on the effect of soft skills and their role in group discussion also provides insights into the role that soft skills can play in improving the group discussion skills.

**Methodology**

**Sample**

A single section from second year BTech students from the Computer Studies branch of an engineering college in Bhubaneswar participated in this study. A total number of 28 students comprising of 13 girls and 15 boys participated in the study. Their educational background in terms of their plus two examinations varied with some of them having attended public schools in metropolitans to some who had passed from schools in Bhubaneswar, Patna and towns like Rourkela. This resulted in almost no unanimity in the spoken English competency of the students who participated in the study.

**Procedure**

Students were randomly distributed in equal numbers to the two groups by a lottery system. The 14 students in the experimental group included 6 girls and 8 boys and the control group comprised of 7 girls and 7 boys. The whole group watched a group discussion video before being pre-tested on group discussion. The video had tips on the do’s and don’ts of group discussion.

After the pre-test the experimental group underwent a training programme consisting of 6 sessions on soft skills. Each session lasted about thirty minutes and the training consisted of instruction on what are the skills needed for group discussion. The first three sessions focused on opening a discussion, closing a discussion, agreeing and disagreeing and concluding with the role of asking questions to further the discussion so that the discussion does not come to a standstill position as well as dealing with any other abnormal situations that may arise during a group discussion. The rest of the programme focused on specific soft skills such as leadership, teamsmanship and emotional intelligence which were handled separately in three individual sessions.

The control group attended regular classes without any extra training on soft skills. This group will receive the programme (treatment) after a delay of four weeks. (At the time of writing the paper the delayed treatment and the delayed post-test had not been conducted)
Data analysis
The pre-post scores in group discussion were analysed to find evidence on the effect of the training programme on developing group discussion skills. The analysis of the participants views on the role of specific soft skills for group discussion were done from their response to open-ended questions on each of the soft skills including emotional intelligence, teamsmanship and leadership skills. The participants’ attitude towards the training programme and the relation between soft skill training and group discussion ability was also explored.

Findings
and control groups were significantly different after controlling for their pre-test scores A one-way analysis of covariance (ANCOVA) was conducted to compare the pre-post performance of participants in the experimental and control groups. The independent variable was the groups and the dependent variable was the students’ scores in group discussion after participation in the training programme and the covariate was the students’ score on group discussion before the training programme. A preliminary analysis evaluating the homogeneity-of-regression (slopes) assumption indicated that the relationship between the covariate and the dependent variable did not differ significantly as a function of the independent variable. The ANCOVA was significant, F(2, 25) = 6.06, p < .001 indicating that the scores of the participants in the experimental.

The qualitative analysis of the survey revealed that almost all students felt that emotional intelligence as a soft skill was needed for group discussion. There was no difference between the response of students in the experimental and control groups. Participants from both the groups agreed that controlling one’s emotions is important during group discussion. This could be a result of the video they watched in which emotional intelligence was clearly mentioned as necessary to group discussion However, those who participated in the training programme could delineate exactly the areas in which this intelligence can be used such as one should take care not to hurt others. Some of the remarks were – ‘we should not show our temper or excitement during any discussion’.

With respect to leadership skills also the participants in the experimental group showed better insight in understanding the role of a leader for effective group discussion. One of the interesting remark was - ‘leadership skill of listening to others is important in a group discussion’. All the participants who had attended the training programme realised that everyone has to act both as a leader as well as a follower and no one can dominate or interrupt the discussion.

For teamsmanship there was a lot of variation and detailed discussion by the participants from the experimental group suggesting that this group was able to think and implement the teamsmanship skill in the most effective way to successfully participate in group discussion. Some of them elaborated on the fact that the group as a whole worked towards a common goal sharing the achievement as a team. On the other hand they realised that they also have an individual role which is to compete with each other. As a team they have to cooperate in carrying the discussion forward but as an individual member of the team they have to compete against each other to get good scores in group discussion. Some of the remarks included- ‘Whether you agree or disagree with a team mate you have to carry on the
discussion in the most polite manner giving an opportunity to everyone to express their views’; ‘one’s own presentation skill takes over the teamsmanship’.

The survey on attitudes of the participants revealed that they found the training sessions useful. They became aware of some of the strategies that they could use during group discussion.

Conclusions

The main conclusion drawn from this study is that soft skill training can have positive effect on the scores in group discussion of engineering students. This study also provides evidence that detailed instruction on the role of soft skills such as teamsmanship, leadership skills and emotional intelligence can help engineering students to be aware of the role of soft skills in group discussion leading to the effective use of these skills during group discussion. Training in leadership skills could help in adapting the roles of both a leader and a follower during group discussions. Training in teamsmanship may contribute to the development of the discriminatory ability enabling the participants in a group discussion to cooperate as a team member while competing against each other.

This study is perhaps the first experimental study which has found evidence on the positive effect of soft skill training on the performance in group discussion of engineering students in India. However, the study is not devoid of limitations. One of these is the small sample size. Nevertheless, the experimental design with participants randomly assigned to experimental and control groups add to the robustness of the study. The evidence on the effectiveness of the training on soft skills in improving the group discussion ability of engineering students would require further replication to enhance its validity and reliability. It can be claimed that the study serves the purpose of providing evidence to teachers, practitioners and personnel from industry that training in soft skill can improve the group discussion ability of engineering students and in turn contribute to their employability and productivity.

References


