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Workplace Communication: Oral Communicative Competence of Engineers in Engineering Workplace of Pakistan

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Abstract

Communicative competence plays important role for engineers to perform workplace jobs efficiently in this wide spread business environment of organizations. The respondents of the study who participated in oral presentations were six engineers from 2 engineering workplace of Pakistan. Purposive sampling method was used for data collection purpose. Oral presentations were video recorded to capture communication strategies employed by engineers to overcome communication deficiencies during oral presentations. The data were analyzed qualitatively using strategic competence framework proposed by Canale and Swain (1980). In addition, Dornyei and Scott's (1995) compiled Inventory of Strategic Language Devices was used to investigate types of communication strategies used by engineers to overcome their communication deficiencies during oral presentations. Open coding (Richards, 2005; Strauss and Corbin, 1998) was used to code the oral presentation data. The results of the study indicated that engineers employed four communication strategies namely message abandonment, code switching, self repetition and use of fillers. The findings of the study can be used as a guideline to add communication strategies in engineering curriculum to prepare productive engineers for modern industry.

Key words: Communicative Competence, Engineers, Engineering Workplace

1. Related Literature

A perception exists in modern industry that newly hired graduates do not possess essential qualitative skills such as soft skills (Professionalism in the Workplace Study, 2012). On the other hand, it has been widely researched and reported that communication skills play significant role to obtain a job and thereby excel in job promotion ladder at workplace (Tuleja et al., 2008, Smith, 2005). Twenty first century engineers require competence beyond technical skills and they need to possess effective communication, oral communication and impersonal skills to communicate with diverse business community in and outside the workplace. Navarro (2008) illustrated that communication has become as important as sound data analysis and rigorous application of analytical management tools. Effective communication skills are vital in obtaining job employment and achieving long term job success in today's competitive work environment (Smith, 2005; Tuleja & Greenhalgh, 2008) of organizations. Additionally, employers have clearly communicated that they value communication skills of new hires (Pittenger, Miller & Mott, 2004; Wardrope, 2002) because engineers with effective communication skills assist organizations to increase its workplace productivity. In this perspective, communication is considered as life blood for any organization.

Communication assists organizations to achieve its organizational goals successfully. Industrialists and employers' agree that effective communication skills improve employee job performance and this increased job performance impacts on health of organizations in terms of increased productivity. Thus, employers demand that with technical skills engineers need to possess effective communication skills to function effectively at workplace in the welfare of organizations. In today's workplace environment communication skills include the ability to communicate with

clients and customers, perform effective oral presentations and to negotiate with multiple stakeholders around the globe. Thus, engineers need to possess certain level of communicative competence to perform these communicative tasks successfully in the better interest of organizations. It is a fact that communicative competence is highly important for engineers who want to advance in their professional career at workplace. Moreover, engineers who desire to work in multinational organizations need to possess effective communication skills because such organizations involve communications with many people and organizations. As communication needs of employees continue to grow organizations look for engineering graduates who possess effective communication skills. Engineers who lack communicative competence usually loose job opportunities in multinational organizations. Despite the importance of communication skills in the workplace many employer surveys indicate that engineers lack in communicative competence.

The authors of Engineer 2020 emphasize that good engineering will require good communication (National Academy of Engineering, 2004). According to Korte et al. (2008) industry recognizes the importance of effective communication skills. It has been best seen that engineers with communicative competence possess competitive advantage over other engineers who lack in this domain. This is because management of organizations usually offers managerial positions to those engineers who are communicatively competent. A survey of 1,400 chief financial officers by Robert Half Management Resources was conducted. The results of this survey revealed that 53% of respondents indicated they would hire a candidate with less technical expertise if that candidate possesses good soft skills (Weinstein, 2008). This indicates that sound soft skills even in technical field can give job aspirants a tangible advantage over job seekers who may possess effective technical skills (Wardrope, 2002). There is a widespread feeling among employers that many graduates are deficient in soft skills particularly in communication skills (Elmuti et al., 2005).

Communicative competence has been defined very broadly and researchers in this area come from different array of backgrounds (Wilson and Seabee, 2003). Thus, there are as many definitions of this term as researchers in this construct (Jablin and Sias, 2001). Communicative competence refers to the ability of a speaker to achieve certain communicative goals and the concept of communicative competence was coined by Dell Hymes (1972) in opposition to Chomsky's concept of linguistic competence. He expanded its scope by saying that communicators should learn language more than grammar to speak correctly and accurately. Hymes approached communicative competence from linguistic and anthropological perspectives. He remarked that a linguistic theory should never include only linguistic competence but sociocultural aspects of language and speakers need to be aware for the use of language in that particular context. Gee (2008) noted that many speakers possess poor grammar skills but are better communicators. Thus, grammatical competence only is never sufficient for engineers to function effectively in the workplace.

Canale and Swain (1980) proposed model of communicative competence contains three competencies such as grammatical competence, sociolinguistic competence, and strategic competence. Later, Canale (1983) further made some adjustments to original model of 1980 and included fourth dimension as discourse competence. Canale and Swain's (1980, 1983) communicative competence framework is the most influential work among other works in communication studies. Grammatical competence is related with rules of word formation, sentence formation, pronunciation, spelling and vocabulary and it is directly related to the knowledge and skills of understanding and generating language production.

Sociolinguistic competence contains mastery of appropriate language use in different social contexts with emphasis on appropriateness of meaning and forms. Strategic competence refers to the … "verbal and nonverbal communication strategies that may be called into action to compensate for communication breakdowns due to performance variables or due to insufficient competence" (Canale and Swain, 1980:30). On the other hand, discourse competence refers speakers' mastery of combining meanings and forms to achieve unified text of messages during conversation through use of cohesive devices relating to utterance forms and coherence rules to organize meaning. It is worth mentioning here that this study focuses on strategic competence of engineers with a purpose that what kind of communication strategies they employ to overcome communication deficiencies during oral presentations.

Communication strategy is a systematic technique employed by a speaker to express his or her meaning when faced with some difficulty (Corder, 1981). The effective use of communication strategies "is important for communicative competence in all contexts and distinguishes highly effective communicators from those who are less so" (Savignon, 2002:10). Additionally, Cohen (1990: 56) states that "a major trait of successful speakers is that they use strategies to

keep the conversation going. Communication strategy is an individual's effort to fill communication gap from instant resources available (Maleki, 2007). Communication strategies are used to repair communication breakdowns to improve communication efficiency (Gallagher, 2001). Tarone and Yule's (1989:105) describe the relation between communication strategies (CSs) and communicative competence as "…the ability to select an effective means of performing a communicative act …strategic competence is gauged, not by degree of correctness but rather , by degree of success or effectiveness". These definitions show two main implications first, the ability for selection and use of proper communication strategies during communication, and second the skill to use selected communication strategies to convey the message successfully to the listener. This shows that strategic competence allows speakers to select specific communication strategies in achieving a specific communicative goal. The respondents of this study were second language (L2) speakers thus, this study attempted to explore the types of communication strategies employed by engineers to overcome communication deficiencies during oral presentations.

2. Methodology

The research approach used for this study was based on qualitative methods in terms of recording of oral presentations. Recordings provided better opportunity to explore communication strategies employed by engineers during oral presentations to overcome communication deficiencies. Six engineers from 2 engineering organizations of Pakistan participated in this study. Westray Valencia. M. (2008: 35) illustrated that "the important consideration in purposive sampling is sample size and within the naturalistic paradigm, there is no concrete rule for sample size". Purposive sampling method was used for data collection purpose since respondents were drawn on specific criteria of engineers with minimum 5 years work experience. Purposive sampling helps researchers to select suitable respondents for the study (Creswell et al., 2007). Participants were given choice for topic selection because it was prerequisite demand of most of the engineers. In other words, it was assumed that if they select the topic according to their own choice may be they perform better presentations. Thus, there was no restriction from this researcher regarding selection of topic and all engineers selected topic according to their own choice. The main participants for this study were engineers and there was no participation of this researcher except recording of oral presentations. All participants were working as full time engineers in their respective departments.

3. Data Analysis

Data were analyzed qualitatively but results are presented in terms of frequency and percentages for each strategy employed by engineers during oral presentations. Dornyei and Scott's (1995) compiled Inventory of Strategic Language Devices was used to explore the types of communication strategies employed by engineers during oral presentations to overcome communication deficiencies. However, this strategic language device was not used in total in order to explore other strategies from the data. Thus, only eleven communication strategies were used namely message abandonment, message reduction (topic avoidance), message replacement, circumlocution (paraphrase), use of all purpose words, restructuring, code switching (language switch), self repair, self rephrasing, self repetition and use of fillers.

4. Findings

The research results provided valuable insights on communication competence of engineers at workplace. The findings are presented in terms of percentages for each communication strategy employed by engineers during oral presentations.

4.1 Communication Strategies employed by Engineers during Oral Presentations

The results indicated that 13% engineers employed 'message abandonment', 20% 'code switching', 37% 'self repetition' and 24% 'fillers' during oral presentations (Figure 1). In order to get better idea and easy understanding of the audience these communication strategies are presented as under:

4. 1.1 Message Abandonment

Four engineers out of 6 engineers used this communication strategy. There were 5 (13%) instances of "message abandonment" strategies employed by engineers to overcome communication deficiencies. In order to get better idea about 'message abandonment' some examples are produced as:

> Actually I am electrical graduate… *was posted in mechanical section*…(OP2 Engr. 2.13)
>
> My job here to supervise the turbine… *this is my presentation*…(OP3 Engr. 3.8)

So the description of job in my previous job… *the work relatively of civil engineering* (OP4 Engr.4.7)

This indicates that engineers tried to illustrate ideas but they could not maintain the original goal and used "message abandonment" strategy in order to continue communication.

4. 1.2 Code switching (language switch)

Two engineers employed 7 (20%) code switching strategies to overcome communication deficiencies during oral presentations. Thus, to get better idea about 'code switching' some examples are produced as:

(OP6Engr.6.6) Our purpose is that:اسان جو پرپز آهي ته

پوء جيڪو پروسيس ٿيندو آ ان ۾ ڪيميڪل ڊوز ڪري پاڻي ڪي

(OP6Engr.6.23) Later, the process goes chemical is mixed and then water…

توهان ہتو هوندو ته نيگيٽو ۽ پازيٽو چارجز، پر اسان هتي انهن کي سالٹ چوندا آهيون

You would have heard about negative and positive charges but here we call it salt (OP6Engr.6.29)

It is tended that Engineer 6 switched back to first language (L1) due to language barriers to continue his presentation. Moreover, this speaker used 6 out of 7 code switching strategies. This means that this speaker faces language barriers; therefore, he uses first language (L1) to continue message of presentation.

4. 1.3. Self Repetition (time gaining strategies)

Four engineers out of 6 employed 14 (37%) "self repetition" strategies to gain time when they tried to talk about the next issue. In order to get better idea about 'self repetition' (time gaining strategies) some examples are produced as:

I have graduated from M. University in *2003, 2003* my batch was … (OP3Engr)

Engineer 3 employed "self repetition" strategy to gain time when he tried to talk about his education.

So we have…ready *to manage to manage* ourselves… (OP4Engr.4.12)

Engineer 4 employed "self-repetition" strategy to gain time when he tried to show his determination.

I served at *unit one and two unit one and two* are the oldest units (OP5Engr.5.10)

Engineer 5 employed "self-repetition" strategy to gain time when he tried to provide information about different units of his organization.

Our purpose is *how how* to generate electricity, so many types of … (OP6Engr.6.18)

On the other hand, engineer 6 employed "self-repetition" strategy to gain time when he tried to show his job responsibilities. It indicates that this strategy was popular among engineers because it enabled them to think about next word or sentence when a communication gap occurred due to loss of ideas or limited linguistic knowledge. Thus, "self-repetition" saved engineers from being embarrassed and stressed when communication difficulties occurred. Thus, instead of resorting to silence, they had to say something to continue communication process.

4.1.4 Use of fillers

Four engineers employed "fillers", to overcome communication deficiencies during oral presentations. In order to get better idea about 'fillers' employed by engineers some examples are produced as:

Aah basically I belong to… (OP1 Engr.1.2)

Now a day's *umm umm* am doing job as… (OP1 Engr.1.14)

Turbine, pumps *ya ya*… (OP3 Engr.3.5)

Hard particulars *umm umm*… (OP6 Engr.6.21)

This shows that engineer 1 employed fillers to gain time before starting a new sentence or to fill pauses. This indicates that engineer 2 employed "fillers" to fill pauses during presentation. On the other hand, engineer 3 and engineer 6 employed fillers to fill pauses.

5. Discussion

The results of the study indicated that the first communication strategy that engineers employed was 'message abandonment'. This indicates that engineers tried to illustrate ideas but they could not maintain the original goal and used "message abandonment" strategy in order to continue the communication. The second communication strategy was code switching that engineers employed during oral presentations. It seems that Engineer 6 switched back to first language (L1) due to language barriers in order to continue his presentation. The third communication strategy that engineers used was 'fillers'. This shows that engineers employed fillers to gain time before starting a new sentence or to fill pauses during oral presentations. On the other hand, the fourth communication strategy that engineers employed was self repetition strategies. Engineer 3 employed "self repetition" strategy to gain time when he tried to talk about his education. Engineer 4 employed "self-repetition" strategy to gain time when he tried to show his determination. Engineer 5 employed "self-repetition" strategy to gain time when he tried to provide information about different units of his organization. It seems that this strategy was popular among engineers because it enabled them to think about next word or sentence when a communication gap occurred due to loss of ideas or limited linguistic knowledge. 'Self repetition' saved engineers from being embarrassed and stressed when communication difficulties occurred. Thus, instead of resorting to silence engineers continued the communication process.

6. Conclusion

Engineers employed four communication strategies namely 'message abandonment', code switching', 'use of fillers' and 'self repetition' (time gaining strategies). It is quite surprising that although these engineers are second language speakers (L2) but they employed few communication strategies to overcome communication deficiencies during oral presentations. This means that engineers are not well aware about communication strategies that assist them to overcome communication deficiencies in order to perform effective oral presentations. It is envisaged that one possible reason for poor communication strategies employed by engineers is that communication strategies are hardly taught to engineering students during study time. Thus, engineers are unfamiliar with communication strategies and minimally used them to overcome communication problems during oral presentations. In this perspective, it is suggested that communication strategies should be made part of engineering curriculum in order to prepare communicatively competent engineers for the workplace and modern workplace demands modern engineers

equipped with technical and non technical skills.

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Appendix

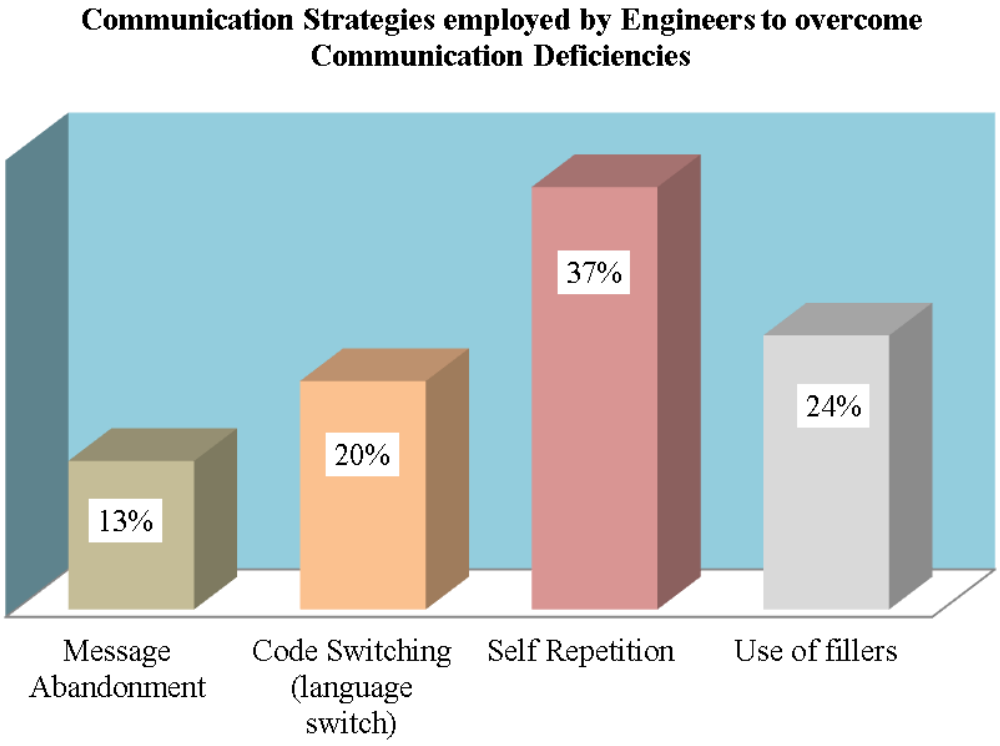

Figure: 1. Communication strategies employed by Engineers to overcome Communication Deficiencies during oral presentations

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