Self-Assessment of Teachers’ Communication Style and Its Impact on Their Communication Effectiveness: A Study of Indian Higher Educational Institutions

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Abstract
The excellence of educational institutions can be developed and improved by the teachers’ consistent and effective communication in classrooms. This study embarks to investigate the effect of teachers’ communication style (CS) on their communication effectiveness (CE), based on self-assessment, during classroom teaching. The results indicate that CS has significant influence on CE, with “Expressiveness” and “Preciseness” emerging as best styles of communication, whereas “Verbal Aggressiveness” has negative impact on faculties’ CE. It also investigates the differences in CE of the faculty based on their gender and subject specialization. Findings indicate gender differences on the basis of two CE variables—“Listening” and “Ability to get the Message Across.” But there is no difference in instructors’ CE when compared on basis of subject specialization. The findings of the study have implications for the faculty members to enhance their CE, by understanding their CS, which will further have an impact on students’ satisfaction and learning.

Keywords
communication effectiveness, communication styles, classroom teaching, gender, subject specialization, self-assessment

Introduction
Educational institutions play an important role in determining social awareness, cultures, interpersonal relationships, and good quality human resources for the well-being of mankind (Gonda, 2014; Habaci et al., 2013; Srivastava, 2016). The impact of teachers’ effective communication on the enthusiasm of young students is highly significant for learning and understanding, as well as making students result-oriented (Asrar et al., 2018; Khan et al., 2017). While teaching, the focus of teachers is not only to make their students think but also to create a structure of thought that will shape their thinking, impact their engagement, and make them self-directed (Agustiani, 2019; Hipkins, 2012; Palmerton, 1992; Sng, 2012). The way educators interact with their students and how they use techniques of communication identify their communication style. There are a number of deep-rooted factors that played a crucial role in defining the faculty’s interest, style, and effectiveness. The classroom teaching style is how one teaches by nature, habitual tendency, and skills (Heimlich & Norland, 2002; Peacock, 2001).

To improve the teaching–learning process and to ensure educational quality, it is vital for the teachers to self-assess and select the most suitable style for classroom teaching effectiveness. Self-reflection is an essential prerequisite to enhance teacher’s performance. The main objective of teacher evaluation is to enhance professional functioning of teachers and to improve student achievement; it is a spectrum that has answerability and responsibility of the teachers at one end and their professional development at the other end (Hašková et al., 2019; McNamara & O’Hara, 2008; Reddy et al., 2015). The self-assessment by the teachers is a constructive strategy to improve effectiveness along with other growth strategies such as peer coaching, focused input on teaching, observed external change agent, and taking remedial actions (Akram & Zepeda, 2016; Ross & Bruce, 2007).

This study seeks to take an insight as to how the self-evaluation of communication style by the faculty can impact their communication effectiveness during their classroom
interaction with the students. The best source to check the classroom effectiveness is the teacher herself or himself (MacBeath, 2003). Specifically, it is an attempt to explore, according to faculty, what are the best predictors among distinct components of communication style leading to their enhanced communication effectiveness. The study also tries to examine the effect of gender and specialization (technical or technical) on the communication effectiveness of the faculty.

**Communication Effectiveness**

Communication effectiveness captures the fundamental interaction of language and medium (verbal and nonverbal), and is the “lifeblood” of organizations (Bucata & Rizescu, 2017; Lovlyn, 2017). Teachers and their instructional quality played a critical role in students’ learning, academic success, and their lifetime outcomes (Chetty et al., 2014; Sidelinger et al., 2016). The key variables of communication effectiveness in the classrooms, as shown in Figure 1, could be content, vocal cues (paralinguistic), visual cues (kinesics and artifacts), audio visual aids, and eye contact (oculesics).

Youngsters are exposed to external stimuli every now and then and relationship with peers, family, and society go through distinct changes in youth. A teacher should not only reflect on theory and practice; rather, he or she should focus on what is to be done in the classrooms to bring about effectiveness (Heck, 2009; Gurney, 2007; Stronge et al., 2004). Teachers’ communication effectiveness has a psychological control on students, which strongly influences their achievements and academic performance. Students’ attitude toward teachers is positively influenced if teachers are able to create a friendly relationship. Teachers’ effective classroom communication promotes these skills to facilitate students’ future communication (Celep, 2004; Pânișoară et al., 2015; Weber et al., 2001). Therefore, the impact of the effective communication on young students becomes highly significant, and this study endeavors to identify teachers’ communication style that can enhance their teaching effectiveness during classroom teaching.

As no two students learn and gather information in the same way, similarly every teacher has a distinct way of teaching. There is uniqueness in every teacher’s teaching style and they can use their style to be as effective an educator as possible (Heimlich & Norland, 2002).

**Communication Style**

People vary in their styles of communicating and they prefer to give and receive information in their own style. It has been a challenge for the professionals to find a particular effective style of communication that leads to receiver’s satisfaction and fosters change (Altman et al., 2013; Bel et al., 2018; Oduaran, 2010). Communication style indicates how a person structures the world of social relations, combining all the suitable styles in context and not reducing to a particular style (Pânișoară & Pânișoară, 2010). A lexical study was undertaken by De Vries et al. (2009) to build up a communication

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**Figure 1.** Variables influencing communication effectiveness in classroom teaching.
style framework, and as a result, a “six-dimensional model” of communication style, the Communication Styles Inventory (CSI), was formulated to measure wide communication-style dimensions. He defined communication style as

the characteristic way a person sends verbal, paraverbal, and nonverbal signals in social interactions denoting (a) who he or she is or wants to (appear to) be, (b) how he or she tends to relate to people with whom he or she interacts, and (c) in what way his or her messages should usually be interpreted (p. 179).

As no two students learn and gather information in the same way, similarly every teacher has a distinct way of teaching and participation methods for students. There is uniqueness in every teacher’s teaching style; the instructor’s decision to use teaching and communicating style depends on factors such as pedagogical outcomes, their own teaching preference and expectations, students’ needs, academic level, and class size (Duţă, 2010, 2012, Clark, 2000; Heimlich & Norland, 2002; Murphy et al., 2017). Students’ interest in the subject is largely dependent on the instructors’ teaching style. A teacher’s communication style while teaching focuses on not only what is being taught but also how it is being taught (Buan & Samad, 2011; Guerrero & Floyd, 2006; Macfadyen & Bailey, 2002). Teachers’ communication style is based on behavior replicated by teacher–student interaction and it varies from situation to situation as teachers employ varied styles in achieving their teaching and evaluation objectives (Hein et al., 2012). Verbal teacher–student interactions and student characteristics are meaningful for students’ learning and motivation (Domenech & Gomez, 2014; Jurik et al., 2014).

Teachers’ acquired competences is predicted by their teaching styles, which further predicts teaching self-efficacy, and self-efficacy predicts professional commitment (González et al., 2017). Teaching styles can be classified as teacher-centric, student-centric, and discipline-centric. In “teacher-centric” approach, students have no active role to play, whereas in “student-centered” model, the focus is on the students, and the instructors’ communication style is completely inclined toward students’ higher order of thinking, learning, and motivation; it also maximizes teachers’ success (Boddy et al., 2003; Keiler, 2018; Moustafa et al., 2013). Therefore, teacher’s communication style plays a key role in this shift from teacher-centric to student-centric pedagogy by creating an educational environment conducive to learning, communication, critical thinking, and creativity in students.

**Literature Review and Hypotheses Development**

Teachers’ effective communication, creating a sense of community, responding timely to the needs of the students, and encouraging student–teacher relationships enhanced the academic performance of the students. Teacher’s attitude toward the students and teaching practices were significant determinants of students’ outcome (Blomeke et al., 2016; De Meyer et al., 2014; Shan et al., 2014; Singh & Sarkar, 2015). The academic performance of the students improved and became stable if the teacher was successful in adapting his or her teaching and communicating style to students’ learning style (Iurea et al., 2011). The most preferred style of teachers was delegator–facilitator–expert style, followed by facilitator–personal model–expert style (Heydarnajad et al., 2017; Şen, 2018); on the contrary, authoritative communication style was negatively related to student engagement with the curriculum and the quality of the student–teacher relationship. Having an expressive communicator style improved teachers’ immediacy to students’ needs (Giles et al., 2012).

Teachers, who used a humorous style while teaching, were rated more effective by the students in terms of motivation, anxiety reduction, and fostering a healthy student–teacher relationship. There was a positive correlation between actor, human, and authoritative style of the instructor with students’ class participation (Makewa et al., 2011; Myers & Rocca, 2007). The teaching style based on logical learning, applied representation, and interpreted cognitive processing led to best school results. A strong association was found between teachers’ communication styles and students’ academic achievement as well as with their cognitive styles (Bota & Tulbure, 2015; Evans, 2004). The literature on teaching style illustrates different styles of teachers’ communication in the classes and its relation with students’ contentment and academic performance. Yet little research has been conducted on the impact of teachers’ communication style on their teaching effectiveness.

According to students, advisors’ effectiveness was predicted by friendly, attentive, impression leaving, relaxed, and contentious attributes and led to communication satisfaction (Fallah, 2014; Myers, 2012). The perception students had about the teacher’s communication skills and the course content was positively related to effectiveness. Teachers’ affirmation led to more functional, relational, and participatory communication of students (Goodboy & Myers, 2008; Parayitam et al., 2007). The Student Communication Satisfaction Scale (SCCSS) was positively associated with instructional outcomes and communication behavior of the students and instructors. Students associated class motivation not only with instructional outcomes such as effective learning and teacher evaluation but also substantially allied it with communication behaviors of the teachers (clarity, nonverbal immediacy, responsiveness, and assertiveness). If the instructors expressed their message of inclusion, appreciation, and willingness to communicate emphatically, it enhanced students’ engagement (Goodboy et al., 2009; McCroskey et al., 2006; Mottet et al., 2004). Barnett and Johnson (2016) explored the mediating role of communication style and it was revealed that “maladaptive perfectionism” lowered perceived
social support through verbal aggressiveness and precise communication styles.

All these studies are based on students’ evaluation and satisfaction of their instructors’ communication, whereas a teacher’s communication effectiveness is a subjective phenomenon and a critical factor that can be measured through self-reporting method. Teachers, who have higher expectations of their skill to teach, produce higher student achievement, whereas students’ evaluation of teachers (SET) ratings maybe unrelated to faculty’s teaching effectiveness and students’ learning (Goddard et al., 2000; Herman et al., 2000; Mascall, 2003; Utlt et al., 2017). Teachers’ self-assessment makes teachers conscious of their strengths and weaknesses, and facilitates collegial interaction with students and teacher development (Peterson, 2000). Thus, this study tries to explore a novel direction where the relationship between communication style and communication effectiveness is analyzed based on self-evaluation by the faculty, and the proposed hypothesis for the same is as follows:

**Hypothesis 1 (H1):** Communication style influences communication effectiveness of the faculty teaching technical and nontechical subjects.

The gender of students and instructors played a significant role in how the students viewed effective teaching. The communication style of men was related to hierarchical advancement, whereas female communication style was associated with nonhierarchical rewards (Young et al., 2009; Weinberg et al., 2019). Female teachers were reported to be more supportive, expressive, nurturing, gave more compliments, involved students in peer collaboration, believed in flexible teaching methods, and asked more referential questions. However, male teachers tended to be dominating, exercised greater control, emphasized more to the group work and structured activities, asked more display questions that made the exchanges between teacher and students shorter but more frequent, and used an authoritarian and task-oriented teaching style (Chavez, 2000; Chen, 2000; Islahi & Nasreen, 2013; Rashidi & Naderi, 2012; Wood, 2012). The communication by women is centered on personal and emotional issues and they talked less and listened more compared with men. Students who were taught by female teachers performed better than those who were taught by male teachers (Feldman, 2007; Zuzovsky, 2003). Gender, time, and workplace seniority had a major influence on communicating styles of teachers. Female teachers performed significantly better than male teachers in English language, mathematics, science, and social studies. Females generally possess the personality traits necessary to become an effective teacher (Hughes et al., 2001; Marchbanks, 2000; Mwamwenda & Mwamwenda, 2002).

Teachers, when asked to rate their students’ creativity on the basis of their school subjects, rated female students more creative than male students (Kawrowski et al., 2015). However, while examining students’ evaluation, male teachers were rated higher than female teachers, as being more knowledgeable, and with stronger class leadership skills. They used meaningful voice tones, asserted more authority, and performed better than female teachers (Arbuckle & Williams, 2003; Boring, 2017). Men’s communicative styles were often allied to power and professionalism. Women used courteous gestures when they talked to people and they showed empathy while listening and retained what had been said. They displayed linguistic politeness and conversed agreeably, while men were inclined to organize their conversations competitively (Adler et al., 1993). As language is a base to communication effectiveness, this study explores the difference in communication effectiveness of male and female teachers, and the proposed hypothesis is as follows:

**Hypothesis 2 (H2):** There are gender differences in communication effectiveness of the faculty.

The motivation level of students varies and they have different attitudes toward teaching and learning. They are also different in their responses to instructional styles of the teachers and the classroom environment. This variation leads to instructors adopting a teaching style that suits best to the requirements of the students and a better learning of their subjects. There was a close link between teachers’ expertise and the teaching style employed by them. The majority of teachers taught the way they had learnt (Novotna, 2013; Stitt-Gohdes, 2001). A teacher who has learnt a particular topic with help of a case study method will employ the same methodology when he or she will explain it to his or her students. Calafate et al. (2007), in their study to evaluate the learning styles of students from both technical and nontechnical fields, found that students with a nontechnical career option achieved a greater equilibrium while adapting to different learning styles than the students having a technical career option. Teachers’ teaching style was based on their educational philosophy, their classroom environment, and the subject area (or areas) they taught. Different teaching and learning styles had their exclusivity and each style had its own characteristics and impact (Brown, 2003; Felder & Brent, 2005). Numerous deep-rooted factors had a very important role in defining the faculty’s interest areas, style, and effectiveness. The most important factor was the one that led training in a particular area and professional growth. The learning style of the students varied depending on their age and situational aspects, such as nature of class or subject that is being studied (Ojure & Sherman, 2001; Spoon & Schell, 1998). On the basis of previous research findings, it is presumed that
Participants

The objective of the study is to study the impact of teachers’ communication style on their effectiveness and to compare the faculty of technical and nontechnical institutions on their communication effectiveness, so the population for the study comprised faculty from technical and nontechnical institutions of higher studies from the northern region of India. The stratified sampling technique was employed to reach out to 210 (100 females and 110 males) faculties in the region. They were grouped on the basis of subject specialization, age (25–60 years), gender, and years of experience (ranging from 5 to 30 years). The stratified sampling technique was employed to reach out to 210 (100 females and 110 males) faculties in the region, as stratified sampling gives better representation and improves the accurateness of parameter estimation (Shi, 2015); 48% of respondents had technical specialization, whereas 52% of participants were teaching nontechnical subjects.

Hypothesis 3 (H3): There is a significant difference in communication effectiveness of the faculty teaching technical and nontechnical subjects.

The available research shows that researchers have explored diverse issues related to communication styles and effectiveness of teachers and learning styles of students but that there is a paucity of studies based on self-evaluation of faculty to draw a relationship between their communication style and communication effectiveness. In this era of accountability, evaluating teachers’ effectiveness just on basis of external sources such as students’ feedback or supervisors’ evaluation is not enough. Supervisors can only capture a partial sample of teachers’ effectiveness through observation (Zepeda, 2014). Self-assessment by the teachers of the effectiveness of their knowledge, performance, pedagogical skills, and teaching style leads to self-improvement of teachers. This study is unique in its approach as it attempts to study the relationship between communication style and effectiveness of the teachers through self-reporting inventory based on “Communication Styles Inventory” by De Vries, This research also endeavors to look into the gender differences in communication effectiveness and to investigate differences in communication effectiveness on basis of subject specialization.

Research Method

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Measures and Procedure

To address the central research question, a qualitative assessment of communication style and communication effectiveness was developed and deployed. An adapted version of “Communication Styles Inventory”, which is rooted in a lexical study on communication styles (De Vries et al., 2009), was used to measure communication style. In addition to being a statistically validated measure of communication style (De Vries et al., 2013), the CSI was selected due to its dimensional or trait-based aspects that provides “a focus on the possible sender behaviours in interactions” (De Vries et al., 2013) and also as it was created with foundations in both the Big Five-Factor Model and HEXACO Model of personality which includes Honesty-Humility (H), Emotionality (E), Extraversion (X), Agreeableness (A), Conscientiousness (C), and Openness to Experience (O). The CSI (Table 1) distinguishes six domain-level communicative behavior scales: Expressiveness, Preciseness, Verbal Aggressiveness, Questioningness, Emotionality, and Impression Manipulativeness. Furthermore, within the context of CSI, each of these traits comprises four additional facets. The survey instrument was adapted after a detailed review of the literature that was applicable to the sample and the objective of the research. The scale consisted 48 items (eight items for each component of communication style). All the instrument items were responded using 5-point Likert-type scales, as it was rational to suppose that teachers could have opinions ranging from almost never to most of the time. The proposed responses were almost never, rarely, sometimes, quite often, and most of the time.

An adapted version of the questionnaire on Communication Effectiveness by Kevin Loy (2006) was used to measure communication effectiveness (Table 2). The items of the questionnaire were written in a lucid, easy, short, and precise manner.

All the items on the instrument were measured using 5-point Likert-type scales. The proposed responses were as follows: almost never, rarely, sometimes, quite often, and most of the time.

A total of 250 respondents were reached out to, of which 210 responses to the questionnaires were complete and valid, whereas the other responses were incomplete. A detailed analysis of the responses collected through
questionnaires was done. The underlying principle for adopting this approach is that it helps researchers to get back personalized statements from respondents after posing a series of questions and statements to them (Hawton et al., 2002). Consequently, the approach facilitates the researcher to quantify the responses, the postulation behind the study (Driessnack et al., 2007).

To check the reliability of this study’s survey instruments, Cronbach’s coefficient alpha was computed for 48 items of communication style and 26 items of communication effectiveness, keeping up with prior studies, where these scales had consistently shown strong reliabilities, ranging from .65 to .88 (Ahmed & Naqvi, 2015; De Vries et al., 2013; Loy, 2006); the internal consistency of communication style and communication effectiveness in this study is robust as alpha values are .814 and .821, respectively.

### Design

Descriptive research design was adopted for the study; precisely, a self-reported survey was conducted to elucidate the impact of communication style on communication effectiveness of the faculty teaching technical and nontechnical subjects during their classroom interactions. The instrument was delivered to the teachers with a letter, informing them of the instrument and soliciting their support in completing and returning the instrument. Teachers were asked to read the instructions carefully and provide their responses on each and every item and not leave any item unanswered. There was no time restriction. The tests were conducted after teachers’ classroom interaction with the students, in their relaxed office and in a noise-free environment. At the end, they were duly thanked for their cooperation. They were also ensured that their information would be kept confidential and will be used only for research purpose. After collecting the data, responses on all items were scored, coded, and entered in statistical analysis software (Statistical Package for the Social Sciences [SPSS]) for further analysis.

### Results and Discussion

The data were collected and responses on all items were scored, coded, and entered into SPSS to perform statistical analysis of the data into percentages, means, and standard deviations. Regression analysis was carried out to investigate the effect of communication style as independent variable on communication effectiveness as dependent variable and to find out the best predictor among the subscales. Descriptive statistics were calculated for males and females, and faculty teaching technical and nontechnical subjects. Two-way analysis of variance (ANOVA) was run to analyze gender differences in communication effectiveness and differences on the basis of subject being taught by the faculty (technical or nontechnical).

The descriptive analysis for communication style consisting of expressiveness, preciseness, verbal aggressiveness, questioningness, emotionality, and impression manipulativeness for faculty both males and females teaching technical and nontechnical subjects was done. The results in Table 3 indicate that the mean value of communication style for male faculty is 149.72 (SD = 13.81) and, for female faculty, it is 150.27 (SD = 13.89). Furthermore, the communication styles were studied individually and it is found that the mean for expressiveness of males is 29.11 (SD = 3.81) and, for females, 30.04 (SD = 3.78). The mean value of preciseness for female faculty is 33.72 (SD = 4.05), whereas for male faculty it is 31.61 (SD
Table 4. Descriptive Statistics of Communication Style for Technical and Nonteaching Faculty and Its Components.

| Variables                    | Technical | Nonteaching |
|------------------------------|-----------|-------------|
|                              | M        | SD          | M        | SD          |
| Expressiveness               | 29.90    | 4.07        | 29.20    | 3.54        |
| Preciseness                  | 33.08    | 4.20        | 32.11    | 3.99        |
| Verbal aggression            | 17.50    | 3.27        | 18.10    | 3.27        |
| Questioningness              | 26.79    | 4.22        | 25.07    | 4.27        |
| Emotionality                 | 20.75    | 4.03        | 19.86    | 4.80        |
| Impression manipulativeness  | 24.24    | 4.53        | 23.44    | 4.98        |
| Communication style          | 152.29   | 14.07       | 147.79   | 13.27       |

Source. Authors’ calculation.

= 3.93). The mean score of males in verbal aggressiveness and questioningness is 17.21 (SD = 3.64) and 25.78 (SD = 4.30), respectively, whereas for females it was 18.32 (SD = 2.85) and 26.01 (SD = 4.35), respectively. The mean value of females for emotionality is 21.10 (SD = 4.34) and males 19.35 (SD = 4.43). Finally, Impression manipulativeness values indicate that females (M = 24.16, SD = 4.52) score a little higher than males (M = 23.54, SD = 4.99).

The M and SD of communication style for faculty teaching technical subjects is 152.29 and 14.07, respectively, whereas for teachers teaching nonteaching subjects it is 147.79 and 13.27, respectively, as reported in Table 4. The mean values for expressiveness of technical and nonteaching faculty is almost same at 29.90 (SD = 4.07) and 29.20 (SD = 3.54), respectively. The mean value of preciseness for technical faculty is 33.08 (SD = 4.20), whereas for nonteaching faculty it is 32.11 (SD = 3.99). The mean score of faculty teaching technical subjects for verbal aggressiveness and questioningness is 17.50 (SD = 3.27) and 26.79 (SD = 4.22), respectively, while for nonteaching faculty the mean scores are 18.10 (SD = 3.27) and 25.07 (SD = 4.27), respectively. The mean values for emotionality and impression manipulativeness are 20.75 (SD = 4.03) and 24.24 (4.53) for technical faculty, and 19.86 (SD = 4.80) and 23.44 (SD = 4.98) for faculty teaching nonteaching subjects.

A linear regression was applied to analyze the cause and effect relationship between communication style and communication effectiveness. The results in Table 4 depict that the regression coefficient is significant (F = 32.05, p = .000) with R² = .467, which depicts that change in independent variable will lead to 48.7% variance in dependent variable. In this study, the Durbin–Watson statistic was d = 1.794, which is acceptable as the critical value is between 1.5 < d < 2.5, signifying that there is no autocorrelation in the data.

The regression equation is as follows:

\[ y = 43.440 + 1.051x_1 + .791x_2 - 1.166x_3 - .240x_4 - .291x_5 + .127x_6, \]

where \(x_1\) is expressiveness, \(x_2\) is preciseness, \(x_3\) is verbal aggressiveness, \(x_4\) is questioningness, \(x_5\) is emotionality, and \(x_6\) is impression manipulativeness.

The regression equation and Table 5 indicate that out of six independent variables, three variables \((x_1, x_2, \text{ and } x_3)\) are significant and contribute 48% of variation in the communication effectiveness. The impact of expressiveness and preciseness are in line with Bakker-Pieper and De Vries (2013). It was found that expressive and precise communication styles had incremental validity, while predicting leaders’ criteria, and highlighted the significance of communicative behavior for leaders.

In this study, expressiveness (\(\beta = .31\)) has emerged as a significant predictor. The results are consistent with that of Awamleh and Gardner (1999) who found that expressive (enthusiastic) style of delivery had a much stronger effect on the outcome than the content of the message. Giles et al. (2012) concluded that expressive style of communication improved teachers’ immediacy to students’ needs. Thus, it can be assumed that the expressive communication style led to effective communication and enhanced student–teacher relationship. Furthermore, the results point out that preciseness (\(\beta = .24\)) is also a key factor in communication effectiveness of the faculty in classroom teaching. As Bayko (2013) noted that preciseness was the most important predictor in the ability of a rig manager to communicate safety procedures. De Vries et al. (2010) found that preciseness of a leader explained task-oriented leadership and leader’s performance. The results of this study, keeping up with the previous studies, highlight that preciseness of the teachers, just like mangers and leaders, is strongly associated with the pedagogical effectiveness while teaching their students in the classrooms. Hence, it can be concluded that preciseness while interacting with people leads to a better control and improved effectiveness in performance.
Another prominent variable that impacts communication effectiveness is verbal aggressiveness. This variable has an inverse influence ($\beta = -0.29$) on communication effectiveness of the faculty in classroom interaction. The results were in consonance with earlier studies where students rated aggressive expressions of their teachers as highly inappropriate. Aggressiveness was negatively associated with students’ affect, whereas assertive expressions were positively linked to students’ affect (McPherson et al., 2003). De Vries et al. (2010) highlighted that leader’s verbal aggressiveness had negative association with human-oriented leadership. Rovai (2003) opined that people felt connected to each other when they had friendly and open communicator styles. Controlling or dominant style of communication was associated with less intrinsic motivation (Noels et al., 1999). An authoritarian and verbally aggressive style of communication is highly detrimental to communication effectiveness. The results indicate that $x_1$, $x_2$, and $x_3$ have a significant influence on communication effectiveness, and therefore H1 is accepted.

While introspecting communication effectiveness in detail, the results as shown in Table 6 indicate that deviation within the average is less in females teaching technical subjects than males teaching technical subjects, whereas it is higher in females teaching nontechnical subjects than males teaching nontechnical subjects. The mean scores are higher for technical females (90.85) than technical males (80.08). There is not much difference in the mean scores of nontechnical males (84.34) and nontechnical females (85.17).

To compare the communication effectiveness of males and females teaching technical and nontechnical subjects, two-way ANOVA was applied. The results as in Table 7 signify that the there is a significant difference in communication effectiveness of males and females ($F = 14.99, p = .000, \eta_p^2 = .068$). The results also provide evidence that the interaction effect (Gender and Subject) is also significant ($F = 18.90, p = .000, \eta_p^2 = .084$). Further ANOVA for the sub-variables of communication effectiveness, “listening,” “ability to get the message across,” “emotional management in the communication process,” “insight to the communication process,” and “assertive communication” was also conducted to see the influence of gender and subject specialization of the faculty. The results as reported in Tables 8 and 9 show that gender has a significant influence on two components of communication effectiveness—“listening” ($F = 12.29, p = .001, \eta_p^2 = .056$) and “ability to get the message across” ($F = 27.30, p = .000, \eta_p^2 = .117$), respectively.

The results are consistent with past studies, which indicated that there is a difference in communication styles and effectiveness of males and females; furthermore, these differences impact educational setting. Females had a broader range of teaching method preferences than males and they spent more time on teaching related activities and student advising (Netshtangani, 2008; O’Meara, 2017; Slater et al., 2007). Female faculty performed significantly better than male teachers in English language, mathematics, science, and social studies (Mwamwenda & Mwamwenda, 2002). Compared with males, females used a more polite, soothing, emotional, and supportive tone, whereas males used a direct, goal-oriented, and abrupt style (Kramarae, 1980; Leaper & Smith, 2004). Even among students, female students assigned great importance to all types of dimensions of good teaching than did the male students (Alhija, 2017).

Gender differences in communication style needs to be identified in the teaching–learning process so as to achieve its purposes. This study provides evidence that there are differences in communication effectiveness of male and female faculty while interacting with students and that feminine communication style tends to have a more positive effect influencing pedagogical outcomes as it has on career outcomes where feminine influence tactics are more effective than masculine tactics (Smith et al., 2013; Weinberg et al., 2019). Thus, H2 is accepted.

However, the results indicate that there is no significant difference in the communication effectiveness of faculty teaching technical and nontechnical subjects as $F$-value (2.025) is insignificant. Teachers not only model their teaching after previous instructors, but they also draw upon a varied range of knowledge and prior experiences (Oleson & Hora, 2014), which may be similar for both technical and nontechnical faculty. There is also a major shift in teaching criteria; it has become student-centric and the classroom teaching has become highly objective-oriented, irrespective of the field and the subject being taught. In the current educational scenario, teaching has become highly adaptive based on the increased emphasis given to student response surveys. The teachers require a more humanistic approach to education in which they function as facilitators of learning (Nuckles, 2000). There are continuous orientation and refresher courses held to upgrade the knowledge and teaching skills of the faculty from every subject area. The faculty, teaching both technical and nontechnical subjects, are proactive in their classroom interactions with their students and there is no difference in their communication effectiveness. Thus, H3 is rejected.

## Conclusion and Implications

Self-evaluation of communication effectiveness gives an opportunity to the teachers to reflect carefully and honestly...
about the key elements of controlling the interactions in the course of teaching and learning:

Pedagogical communication is a specific form of communication with its peculiar features and, at the same time, obeying general psychological interrelations, specific to communication as a form of interaction between humans, including communicative, interactive and perceptive components. (Zhamilya et al., 2013 p. 1300).

The study highlights that communication style of the faculty, during their classroom teaching, has a great impact on their communication effectiveness. The instructors, in their self-assessment found “Expressiveness” and “Preciseness” as the two main variables of communication style, which are strongly associated with the pedagogical effectiveness while communicating with their students in the classrooms; instructors’ expressive and precise styles enhance the knowledge sharing outlook of the teacher and knowledge accumulating behavior of the students. On the contrary, verbal aggressiveness of the faculty has an inverse relationship with their effectiveness in their classroom teaching.

The study also identifies a significant difference between communication effectiveness of males and females while communicating with the students. The gender differences are significant on the basis of mainly two variables, “Listening” and “Ability to get the message across,” although, when the faculty is compared on the basis of subject specialization, there is no difference in their communication effectiveness.

Teacher self-assessment is imperative as it makes teachers more conscientious for demonstrating their own competence, extends assistance to new teachers, and adds to career opportunities for veterans (Akram & Zepeda, 2016). This study will facilitate the faculty members to self-assess and enhance their communication effectiveness by understanding their communication style. The communicative competence is essential to expand interpersonal relationship with students and the society at large (Codina, 2004). The outcome of the research will enable the teachers and institutions to identify the most appropriate teaching styles which brings about teaching effectiveness, which will further lead to their better performance and satisfaction of the students. It is highly important to promote interpersonal relationships and effective communicative interactions between instructors and students as this will lead to excellence in higher education.

Table 7. Two-Way ANOVA for Communication Effectiveness of Males and Females Teaching Technical and Nontechnical Subjects.

| Dependent variable | Source          | MSS     | df | F     | Sig.  | \( \eta^2 \) |
|--------------------|----------------|---------|----|-------|-------|-------------|
| Communication effectiveness | Gender        | 2169.965| 1  | 14.99 | .000* | .068       |
|                     | Tech/Nontech.  | 248.191 | 1  | 1.715 | .192  | .008       |
|                     | Gender \( \times \) Subject | 2735.862| 1  | 19.903| .000* | .084       |

Source. Authors’ calculation. *p < .01.
Note. ANOVA = analysis of variance; MSS = mean sum of squares.

Table 8. Two-Way ANOVA for Communication Effectiveness Component, “Listening” of Males and Females Teaching Technical and Nontechnical Subjects.

| Dependent variable | Source          | MS     | df | F | Sig. | \( \eta^2 \) |
|--------------------|----------------|--------|----|---|------|-------------|
| Listening          | Gender         | 12.29  | 1  | 0.000* | .056 |
|                    | Tech/Nontech.  | 0.627  | 1  | 0.059 | 0.809 | 0 |
|                    | Gender \( \times \) Subject | 0.627 | 1  | 5.789 | 0.017 | .027 |

Source. Authors’ calculation. *p < .01.
Note. ANOVA = analysis of variance; MS = mean square.

Table 9. Two-Way ANOVA for Communication Effectiveness Component, “Ability to Get the Message Across” of Males and Females Teaching Technical and Nontechnical Subjects.

| Dependent variable | Source          | df | MS     | df | F     | Sig.  | \( \eta^2 \) |
|--------------------|----------------|----|--------|----|-------|-------|-------------|
| Ability to get the message across | Gender        | 1  | 469.29 | 1  | 27.3  | 0.000* | .117       |
|                    | Subject Tech/Nontech. | 1  | 0.049  | 1  | 0.003 | 0.957 | 0          |
|                    | Gender \( \times \) Subject | 1  | 652.24 | 1  | 37.95 | 0.000* | .156       |

Source. Authors’ calculation. *p < .01.
Note. ANOVA = analysis of variance; MS = mean square.
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