The Effect of Non-Verbal Communication on the Effectiveness of Classroom Teaching: The Case of BTCA Students at the Institute of Accountancy Arusha

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Abstract:

The study on the effect of non-verbal communication on the effectiveness of classroom teaching was conducted at the Institute of Accountancy Arusha main campus. The study used a sample of 100 respondents who were selected randomly from BTCA students in the communication skills module at the Institute of Accountancy Arusha. The study used an explanatory sequential design that allowed the combination of quantitative and qualitative techniques in two phases, Quantitative data were collected through questionnaires, while qualitative data were collected through interviews. Validity and reliability were tested by using Cronbach alpha and content validity index respectively. These tests yielded 0.79 and 0.85 respectively indicating that the tools and their findings were reliable and valid. Data analysis was done by using simple linear regression and content analysis for quantitative and qualitative data respectively. The study found that there is a significant moderate positive relationship between the use of non-verbal communication on the effectiveness of classroom teaching. This study has found that effective use of non-verbal communication in classroom teaching leads to effective classroom teaching. Furthermore, the study has found that some students are not aware of the use of non-verbal communication signs. Also, it was found that some teachers use irrelevant non-verbal communication. The current study recommends that teachers should use non-verbal communication effectively but students must be trained on the usefulness of non-verbal communication in learning. Furthermore, there is a need for teachers to use relevant non-verbal communication signs in teaching as respondents said that there are signs that are considered to be non-verbal communication but when teachers use them students never understand them.

Keywords: Communication, Non-verbal Communication, Classroom teaching, Students’ academic performance.

Introduction

The study of nonverbal communication began in 1872 with the publication of “The Expression of the Emotions in Man and Animals” by Charles Darwin (Darwin, 1872). In the mid-18th century, Charles-Michel, abbé de l’Épée, developed a system for spelling out French words with a manual alphabet and expressing whole concepts with simple signs, which was the first system for educating deaf people (Charles-Michel, abbé de l’Épée, 1776).

In the context of teaching, nonverbal communication can serve a wide range of functions in interaction, such as supplementing, reinforcing, or regulating verbal exchanges, revealing emotional states or personality traits, providing cues for impression formation, indicating liking or disliking for individuals,
situations, or ideas, communicating the relative status of interactants, being persuasive, and influencing the performance of others (Woolfolk & Galloway, 1985). However, until quite recently, educational researchers have neglected the systematic study of this topic. The research that has been carried out consists predominantly of scattered, isolated studies without a common theoretical basis (Woolfolk & Galloway, 1985).

Woolfolk and Galloway (1985) argue that nonverbal communication can be used to expand current paradigms guiding the study of teaching. Students are active participants in the construction of local contexts in classrooms, using nonverbal behaviors such as agitation, overt expression, varying attention, and rhythm shifts. Nonverbal behaviors can make context and classroom relationships move in a new direction or assume a different meaning. Whether spontaneous or contrived, facial expression, gesture, movement, rhythm, and energy are operative in creating and sustaining local contexts in classrooms.

Nonverbal communication is an essential aspect of classroom teaching, and it can have a significant impact on the success of the teaching process. According to a review article published in the Journal of Advances in Medical Education & Professionalism, there is a strong relationship between the quality, amount, and method of using non-verbal communication by teachers while teaching. The article also highlights that the more teachers use verbal and nonverbal communication, the more efficacious their education and the student’s academic progress are.

The effect of non-verbal communication in classroom teaching communication skills classes is an important topic that has been studied by many researchers. Nonverbal communication plays a significant role in the classroom during the teaching and learning process. A review article by Bambaeroo and Shokrpour (2017) found that nonverbal communication skills, also called sign language or silent language, include all behaviors performed in the presence of others or perceived either consciously or unconsciously. The study revealed that there was a strong relationship among the quality, amount, and method of using non-verbal communication by teachers while teaching. Based on the findings of the studies reviewed, it was found that the more the teachers used verbal and nonverbal communication, the more efficacious their education and the student’s academic progress were. Under nonverbal communication, some other patterns were used. For example, emotive, teamwork, supportive, imaginative, purposive, and balanced communication using speech, body, and pictures all have been effective in students’ learning and academic success. The teachers’ attention to the students’ nonverbal reactions and arranging the syllabus considering the students’ mood and readiness have been emphasized in the studies reviewed (Bambaeroo and Shokrpour, 2017).

Despite the importance of non-verbal communication in classroom teaching communication skills classes, there is a lack of research on the specific effects of non-verbal communication on student learning outcomes. This study aimed to investigate the effect of non-verbal communication on student learning outcomes in communication skills classes, with a focus on identifying the most effective non-verbal communication technique for teachers. This problem statement highlights the gap in the existing literature and the need for further research on the topic. By investigating the relationship between non-verbal communication and effectiveness of classroom teaching, this study could provide valuable insights into how teachers can use non-verbal communication to improve student learning and engagement in communication skills classes at the Institute of Accountancy Arusha.

**Literature Review**

This study was guided by Attachment Theory. Attachment theory was first proposed by British psychologist John Bowlby (Bowlby, 1969). Bowlby was interested in understanding the anxiety and distress that children experience when separated from their primary caregivers. He described attachment as a “lasting
psychological connectedness between human beings.” Attachment theory is a psychological model that describes the dynamics of long-term interpersonal relationships between humans. It suggests that early interactions with caregivers can create a lasting impact on an individual's social and emotional development. The theory proposes that the quality of the attachment bond between a child and caregiver is a key factor in the child’s development of social and emotional competence (Bowlby, 1969).

In the context of nonverbal communication in classroom teaching effectiveness, attachment theory can provide a framework for understanding how nonverbal behaviors can influence the quality of the attachment bond between teachers and students. This can help teachers identify specific nonverbal behaviors that promote positive attachment bonds and improve teaching effectiveness.

A study by Paranduk (2021) found that nonverbal communication used by teachers in teaching English has benefits, advantages, disadvantages, and effects. The study also found that nonverbal communication can contribute to education and can be applied by teachers today. Another study by Saputra (2018) analyzed the importance of teacher body language and gestures in virtual meetings during online physical education learning in elementary school. The study found that nonverbal communication, including facial expressions and gestures, provided clear information from the speaker and helped the speaker express messages. A study by Afzal (2019) found that nonverbal communication is an important aspect of teaching and learning. The study found that nonverbal communication can help teachers to create a positive learning environment, improve student engagement, and enhance student learning outcomes.

A study by Puspita (2019) investigated the relationship between teacher nonverbal communication and student motivation in English as a foreign language (EFL) classrooms. The study found that teacher nonverbal communication is positively related to student motivation and that teacher nonverbal immediacy is a predictor of teaching effectiveness.

A study by Kurniawan et al. (2019) examined the relationship between teacher-nonverbal communication and student engagement in EFL classrooms. The study found that teacher nonverbal communication is positively related to student engagement and that teacher nonverbal immediacy is a predictor of teaching effectiveness.

Another study by Wang et al. (2019) found that teacher immediacy, which is a type of nonverbal behavior, is a predictor of teaching effectiveness. The study found that teachers who displayed more immediacy behaviors were rated higher in teaching effectiveness by their students.

Another study by Liu et al. (2020) found that teacher nonverbal immediacy positively affects student engagement and learning outcomes. The study found that teacher nonverbal immediacy is positively related to student engagement and that the relationship between teacher nonverbal immediacy and student engagement is mediated by student motivation.

Another study by Kong et al. (2021) found that teacher nonverbal immediacy positively affects student engagement and learning outcomes. The study found that teacher nonverbal immediacy is positively related to student engagement and learning outcomes and that the relationship between teacher nonverbal immediacy and student engagement is mediated by student motivation.

Methodology

The study on the effect of non-verbal communication on the effectiveness of classroom teaching was conducted at the Institute of Accountancy Arusha main campus; Arusha. The study used a sample of 100 respondents that were selected randomly from BTCA students in the Basic Communication Skills module at the Institute of Accountancy Arusha.
The study used an explanatory sequential design that allowed the combination of quantitative and qualitative techniques in two phases. Quantitative data were collected through questionnaires, while qualitative data were collected through interviews. Validity and reliability were tested by using Cronbach Alpha and Content Validity Index respectively. These tests yielded 0.79 and 0.85 respectively indicating that the tools and their findings were reliable and valid. Data analysis was done by using simple linear regression and content analysis for quantitative and qualitative data respectively.

Findings

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>69</td>
<td>69</td>
</tr>
<tr>
<td>Female</td>
<td>31</td>
<td>31</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Survey data (2024)

The findings show that 69(69%) respondents in this study were Male while 31(31%) respondents were female. The findings show that both genders were involved in this study. Therefore, the responses in the questionnaire had diversity as they were provided by both males and females who are always different in thinking. These differences made a great contribution to the current study about the use of non-verbal communication and students' academic performance.

<table>
<thead>
<tr>
<th>Age interval</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-19</td>
<td>61</td>
<td>61</td>
</tr>
<tr>
<td>20 and above</td>
<td>39</td>
<td>39</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Survey Data (2023)

The current study involved respondents of different ages. The findings show that about 61 (61%) respondents were between 15 and 19 years old while 39(39%) respondents had 20 years and above. These age differences allowed the respondents to participate in this study depending on their maturity level which is reflected by their ages.

Effect of non-verbal Communication on the Effectiveness of Classroom Teaching

The effect of non-verbal communication on the effectiveness of classroom teaching was examined by using simple linear regression and content analysis. The dependent variable was the effectiveness of classroom teaching while the independent variable was the use of non-verbal communication. The findings are presented in the following tables with their explanations.

Table 1. Demographic Information

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>69</td>
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</tr>
<tr>
<td>Female</td>
<td>31</td>
<td>31</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Survey data (2024)

The data presented in Table 3 demonstrate that the R-square value of 0.293 signifies that the model accounts for nearly 29.3% of the variance in the effectiveness of classroom teaching. This shows a moderate contribution of the independent variable to the variance in the effectiveness of classroom teaching. Furthermore, the correlation coefficient (r=0.541) reveals a moderate positive linear association between the dependent variable, the effectiveness of classroom teaching, and the predictor, the use of non-verbal communication.

The "Adjusted R Square" (0.285) is a version of R Square that considers the number of predictors in the model. It helps to account for the possibility of overfitting. An Adjusted R Square value of 0.285 indicates that the model provides a weak fit to the data, even when considering the number of predictors.

Table 3. Model Summary

<table>
<thead>
<tr>
<th>Model Summaryb</th>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>.541</td>
<td>.293</td>
<td>.285</td>
<td>1.02211</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), The use of non-verbal communication
b. Dependent Variable: effectiveness of classroom teaching

Source: Survey Data (2023)
The ANOVA table, Table 4, provides critical information about the statistical significance of the regression model that includes the predictor "The use of non-verbal communication" in explaining the variability in the dependent variable "Effectiveness of classroom teaching." In the "Regression" section, the "Sum of Squares" is 42.369, which represents the variation in "Effectiveness of classroom teaching" that can be attributed to the predictor "The use of non-verbal communication." The "Df" (degrees of freedom) for the regression is 1, indicating that there is a single predictor variable. The "Mean Square" is 42.369, obtained by dividing the Sum of Squares by the degrees of freedom. The "F" statistic, with a value of 40.556, is a measure of how well the model fits the data. A high F-value suggests that the predictors have a significant effect on the "effectiveness of classroom teaching." The "Sig." value is 0.000, which is less than the typical significance level of 0.05. This indicates that the regression model is highly significant, confirming that "the use of non-verbal communication" is a significant predictor of "effectiveness of classroom teaching."

In contrast, the "Residual" section represents the unexplained variance or error in the model. The "Sum of Squares" for the residual is 102.381, indicating the amount of variation in "effectiveness of classroom teaching" that is not accounted for by the predictor. The "Df" for the residual is 98, and the "Mean Square" is 1.045. The "Total" row represents the total variation in the dependent variable, which is 144.750. This is the sum of the variation explained by the model (Regression) and the unexplained variation (Residual).

Based on the ANOVA presented in Table 4., the results reveal that the overall model achieved statistical significance at the level of (0.000), with an F-value of 40.556. This signifies that in this model, the use of non-verbal communication explains the variance in the effectiveness of classroom teaching.

Table 4. ANOVA Results

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>42.369</td>
<td>1</td>
<td>42.369</td>
<td>40.556</td>
<td>.000p</td>
</tr>
<tr>
<td>Residual</td>
<td>102.381</td>
<td>98</td>
<td>1.045</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>144.750</td>
<td>99</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The dependent variable "Effectiveness of Classroom teaching" and the independent variable "the use of non-verbal communication". Each row in the table represents a different model or component of the model.

Table 5. Coefficients

<table>
<thead>
<tr>
<th>Coefficients</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>.427</td>
<td>.532</td>
<td>.802</td>
<td>.424</td>
</tr>
<tr>
<td>The use of non-verbal communication</td>
<td>.848</td>
<td>.133</td>
<td>.541</td>
<td>6.368</td>
</tr>
</tbody>
</table>

Table 5 presents the coefficients resulting from a simple regression analysis. This analysis examines the relationship between the dependent variable "Effectiveness of Classroom teaching" and the independent variable "the use of non-verbal communication".
table corresponds to a predictor variable and provides valuable information about the strength and significance of their influence on the dependent variable.

**Constant**

The first row, labeled "Constant," represents the y-intercept of the regression equation. It shows that when all predictor variables are zero, the estimated value of "effectiveness of classroom teaching" is 0.427. The T-statistic of 0.802 and a high p-value (0.424) indicate that this constant is not statistically significant in predicting the "effectiveness of classroom teaching."

**The Use of Non-Verbal Communication**

This row displays the coefficients for "The use of non-verbal communication" itself. The unstandardized coefficient (B) is 0.848, which implies that for a unit change in "the use of non-verbal communication in the class," there is an estimated 0.848-unit change in "effectiveness of classroom teaching." The standardized coefficient (Beta) of 0.541 suggests that "the use of non-verbal communication" has a moderate positive effect on the "effectiveness of classroom teaching." The T-statistic of 6.368 and a very low p-value (0.000) indicate that "the use of non-verbal communication" is highly statistically significant in predicting the "effectiveness of classroom teaching in communication skills class."

Generally, the quantitative findings have shown that the use of non-verbal communication in teaching especially in the communication skills module has a moderate positive effect on the effectiveness of classroom teaching. These findings informed the researcher to come up with a question for an interview to know why the use of non-verbal communication has a moderate positive effect on the effectiveness of classroom teaching in communication skills lectures. Below are the main themes on the question that was directed to the respondents about the reasons to why non-verbal communication has a moderate positive effect on the effectiveness of teaching.

### Table 6. Main Themes from the Respondents on the Reasons to why the Use of Non-Verbal Communication in Communication has a Moderate Positive Effect

<table>
<thead>
<tr>
<th>Codes</th>
<th>Themes</th>
</tr>
</thead>
<tbody>
<tr>
<td>MT001</td>
<td>Irreverent non-verbal communication signs</td>
</tr>
<tr>
<td>MT002</td>
<td>Students not aware of the non-verbal communication use</td>
</tr>
<tr>
<td>MT003</td>
<td>The frequency use of non-verbal communication is harmful</td>
</tr>
</tbody>
</table>

**Source:** Survey Data (2023)

Table 6 presents the main themes that were extracted during an interview with 5 respondents at the Institute of Accountancy Arusha (the study area). The respondents were required to answer in oral the reasons to why the use of non-verbal communication in classroom teaching may cause a moderate positive effect and not a high positive effect. The main themes are discussed below;

**MT001: Irreverent Non-Verbal Communication Signs**

This was the first theme to be extracted from the interview transcripts. The respondents said that the effect of the use of non-verbal communication during teaching in the class is caused by the lecturers themselves using irrelevant non-verbal communication signs that finally mislead students. One respondent had this to say;

"I think teachers themselves need to understand that not every non-verbal communication sign can be used during teaching. They should not use non-verbal communication signs that are not relevant to the particular lesson. There are irrelevant signs that Lecturers use as part of non-verbal communication but these signs cannot bring high positive effect to the effectiveness of classroom teaching" – P1, Dec 2023.

**MT002: Students not Aware of the Non-Verbal Communication Use**

One of the respondents said that there are students who are not aware of the signs used by the lecturers during lectures. Students don't
know some of the signs used as part of non-verbal communication in classroom teaching. A respondent said that;

“Non-verbal communication may have a highly positive effect on classroom teaching if lecturers and students are aware of the use of right non-verbal communication signs. Many students don’t know what signs can be used during the class to mean something important in learning.” – P2, Dec 2023

MT003: Frequency Use of Non-Verbal Communication is Harmful

This also was found to be one of the reasons why non-verbal communication can result in a moderately positive effect on the effectiveness of classroom teaching. The respondents said that, although non-verbal communication is useful, it should not be used frequently because it can lead to negative effects on the effectiveness of teaching. The respondent said that;

"Non-verbal communication may have a moderate effect on classroom teaching if it can be used all the time in the classroom. It is boring to see the teacher using non-verbal communication signs without explaining effectively what is teaching” – P3, Dec 2023.

These main themes have tried to explain the quantitative findings, particularly the reasons why the use of non-verbal communication may result in a moderate effect on classroom teaching.

Discussion

This study has shown that there is a moderate positive relationship between the use of non-verbal communication and the effectiveness of classroom teaching. These findings are in line with what is insisted by Paranduk (2021) that; nonverbal communication used by teachers or lecturers in teaching English has benefits, advantages, disadvantages, and effects. The study also found that nonverbal communication can contribute to education and can be applied by teachers today. Furthermore, the current findings are supported by Saputra (2018) who analyzed the importance of teacher body language and gestures in virtual meetings during online physical education learning in elementary school. The study found that nonverbal communication, including facial expressions and gestures, provide clear information from the speaker and help the speaker express messages. Another study by Afzal (2019) also concurs with the current findings that nonverbal communication is an important aspect of teaching and learning and nonverbal communication can help teachers to create a positive learning environment, improve student engagement, and enhance student learning outcomes.

The only difference between the previous findings by Paranduk (2021) Saputra (2018) Afzal (2019) and the current study is that the current study has found a moderate positive effect of using non-verbal communication as shown by the value of R-square. Furthermore, the study has used mixed methods because, after the quantitative analysis of the findings, the researcher used interviews to get insights about the reasons for the moderate effect of the use of non-verbal communication in classroom teaching.

Conclusion

Based on the study findings, this study concludes that the use of non-verbal communication is very important in learning and once used effectively in communication skills lectures by respective teachers, it can strengthen the learning and teaching process.

Recommendations

This study has found that effective use of non-verbal communication in classroom teaching leads to effective classroom teaching. Furthermore, the study has found that some students are not aware of the use of non-verbal communication signs. Also, it was found that some teachers use irrelevant non-verbal communication. The current study recommends that teachers should use non-verbal
communication effectively and students must be trained on the usefulness of these non-verbal communication signs in learning. Furthermore, there is a need for teachers or lecturers to use relevant non-verbal communication signs in teaching as respondents said that there are signs that are considered to be non-verbal communication but when teachers use them students never understand them.

References


