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Editorial Board

Editorial Note

The Prime University Journal (PUJ), ISSN: 1995-5332 is a peer reviewed International Journal published twice a year (January to June and July to December). It has a strong Editorial Board consisting of scholars of various disciplines from home and abroad. It is committed to publish innovative research findings in the fields of Law, Education, Business, Social Science, Arts, Science, Engineering and Technology. The main objective of Prime University Journal is to provide an intellectual platform to academic scholars to disseminate their research activities.

Six research papers on different disciplines have been selected for the current issue through double blind peer review process.

The *first* article attempted to examine the impact of individual and managerial ownership on dividend payout policy of the listed companies of Dhaka Stock Exchange in Bangladesh over the period of 10 years from 2008 to 2017.

The *second* one focuses on service professionalism from an Islamic perspective and shows its relevance to contemporary Bangladesh especially in terms of upgrading the quality of public service delivery and various challenges in the public sector

The *third* article aims to explore specific motivation factors pointed out by undergraduate learners in the teaching strategies.

The *fourth* article analyzed teachers' perceptions about the curriculum, textbooks and current practices at grade IV in the context of Bangladesh and Global Studies.

The *fifth* one analyzed, identified and classified Nitrogen (N), Phosphorus (P), and Potassium (K) deficiency of rice leaf images through Convolutional Neural Networks.

The *last* article investigated the challenges and showed the perspective of students and teachers at the tertiary level regarding developing speaking skill through task-based language teaching.

Finally, I express my profound gratitude to the Patrons of the Journal and all the members of the Editorial Board. Furthermore, I congratulate the authors for their contribution in this Journal. I hope that this volume will be of great benefit to the students, researchers, academics and the society.

Prof. Dr. M. Jahangir Alam
Chief Editor

Contents

Individual and Managerial Ownership Impact on Dividend Payout Policy in the Listed Companies of Dhaka Stock Exchange Limited in Bangladesh **08**
Md. Zakir Hosain
K. M. Zahidul Islam

Service Professionalism: A Critical Analysis from an Islamic Perspective **32**
Md. Mostafijur Rahman
Syed Mohammad Rezwanul Islam

Teaching Strategies to Achieve Learners' Motivation in Foreign Language Classroom: the Perceptions of Undergraduates **49**
Pragga Paromita Bose
Mohammad Tanvir Kaisar

Teachers' Perceptions and Practices of the Curriculum and the Textbook of Bangladesh and Global Studies (BGS) at Grade IV in Bangladesh **64**
Mabia Momen

Classification of NPK Deficiency in Rice Leaf Images using Convolutional Neural Networks **82**
Md. Rasel Bishwas
Sabina Yasmin
Nakib Aman Turzo

Developing Speaking Skill through Task-based Language Teaching: A Study on Student Teacher Perspective at the Tertiary Level **101**
Md. Alaul Alam

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Individual and Managerial Ownership Impact on Dividend Payout Policy in the Listed Companies of Dhaka Stock Exchange Limited in Bangladesh

Md. Zakir Hosain[1] and K. M. Zahidul Islam[2]

Abstract: The study attempted to examine the impact of individual and managerial ownership on dividend payout policy of the listed companies of Dhaka Stock Exchange in Bangladesh over the period of 10 year ranging from 2008 to 2017. Apart from individual and managerial ownership, the study considered eight control variables to identify the impact on dividend payout policy. Multiple research techniques were used to process the collected panel data including descriptive analysis, pair wise correlation analysis, relevant diagnostic tests, pooled ordinary least squares, fixed effect method, and random effect method. Robust standard error was calculated to upgrade the efficiency of the models. The results suggest that individual ownership (INDOW) is significantly and negatively associated with dividend payout policy. The study is important to assist the investors, researchers, policy makers, and management of the companies to properly address the issue of dividend payout policy. Some policy guidelines are suggested to the listed companies of DSE in Bangladesh based on the findings of the study.

Keywords: Dividend Payout Policy, individual ownership, managerial ownership, panel data, Dhaka Stock Exchange, Bangladesh.

Introduction

The listed companies of Dhaka stock exchange in Bangladesh is an indicator of the development of the country's economic growth. Many publicly listed companies use dividends to distribute cash to their shareholders. Regular dividend payments to shareholders compel businesses with value-adding investment initiatives to raise money aggressively (Easterbrook 1984). Decisions about distributing the amount of earnings as dividend and retaining an amount of earnings is always challenging. The ownership structure represents the equity contribution with reference to votes and capital. Individual ownership and Managerial ownership may have different interests in many companies. Managerial ownership enjoys the dominating power in most of the cases at the board of directors to make the dividend decision. According to Chen and Young (2010), Firm's wealth is used by controlling shareholders for their own benefit instead of individual shareholders.

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Bangladesh's corporate boards are typically one-tier board or board of directors like a number of continental European nations, including Germany, Finland, and the Netherlands and unlike the UK, France, or Spain. No supervisory board exists in Bangladesh. In one level, all executive and non-executive directors simultaneously carry out their duties (Rashid et al., 2010). In developing countries, firms nominate professional managers who do not own any stock in the company in which they work. However, in most Bangladeshi companies, the top executives are family members who hold a significant portion of the company's stock. Moreover, as in many Anglo-American nations, external shareholders are powerless to challenge the administration of the companies because of their limited voting powers. Obaidat (2018) argues that the board of management of the emerging countries holds a large part of the company's share.

Ownership concentration by managers incorporated by sponsors and/or directors takes dividend decision of the listed companies of the capital market. Individual ownership (general public) makes a negligible contribution to the direct monitoring and control of company management. As a result, they can hardly contribute in taking decision regarding dividend distribution. On the other hand, dominant shareholders expropriate companies' wealth at the expense of ordinary investors. According to Mintzberg, (1984) public limited companies are governed by their owner, either directly or indirectly.

The absence of proper regulatory system and lack of transparency are the two most significant shortcomings of the Bangladeshi stock market. Due to various anomalies, sufficient financial data are not available for stock market analysis as well as for individual firms. The ownership structure of Bangladeshi listed companies varies from one into another. Some companies may have more managerial ownership or some companies may have more individual ownership. The different composition of ownership may influence the dividend payout policy. Given this backdrop, the study attempts to investigate the impact of individual and managerial ownership on dividend payout policy by controlling other variables, namely profitability, earnings volatility, growth opportunity, financial leverage, liquidity, taxation, earned capital and firm's size.

This study extends the literature by investigating the impact of individual ownership and managerial ownership on dividend payout policy. It contributes to theoretical and empirical knowledge by presenting a comprehensive picture regarding this issue, especially in emerging economies. Moreover, this study provides evidence for testing the validity of different theories like agency theory, singling theory, and life cycle theory in explaining the relationship between ownership structure (INDOW and MAOW) and dividend payout policy. The study is important in helping investors, policymakers, and managers of the companies to appropriately address the issue of dividend payout policy.

The remainder of the study is organized as follows: the section two presents the extensive discussion on prior theoretical and empirical evidences. Section three presents the research objective of the study. Section four presents extensive discussion on hypothesis. Section five presents study method. Section six presents the study results and discussion. The final section provides conclusion with some policy implications.

Prior Theoretical and Empirical Evidences

Prior Theoretical and Empirical Evidences in Foreign Context

The major theoretical foundations of dividend policy are the agency theory and signaling theory. Based on agency theory of dividend, Jensen and Meckling (1976) stated that an agent (manager) basically works for the principals (shareholders and other interested parties). But, the problem at this point is ownership and control differentiation which results in organization disputes. The reason for conflict between agent and principal is about making full payment of dividend or holding some proportion as retained earnings. As a result, firms paying higher dividend to its shareholders can minimize agency cost of equity which would lead to lower unrestricted cash flows available for managers to squander away.

Signaling theory is the concept of delivering information to investors about the firm's future earning, growth, and prospects. Miller and Modigliani (1961) developed a theory for the perfect equity market, suggesting that dividend payout policy is independent of the firm's valuation. However, some years later, a more convincing argument was put forward by Ross and Ezra (1977) and John and Williams (1985). The theory was based on information asymmetry which mentioned that management has more knowledge about the distribution of cash dividends than external investors.

Besides these two ideas, life-cycle theory of dividend presented by Mueller (1972) suggests that companies spend minimal funds in pursuing potential products and increasing profits. The company then undergoes a rapid period of risky business growth, expanding its client base and taking advantage of market potential. After this period of expansion, the companies enter the "mature stage" at which the capacity of firms to decrease growth and the cash flows generated from current activities outweigh the potential for sustainable investment.

In the context of the USA, Jain (2007) investigated individual and institutional investors' preferences for dividend by controlling firm size, leverage, and standard deviation of weekly return. The empirical result of the study shows that individual investors are more willing to invest in high dividend yield shares, whereas institutional shareholders prefer investing in lower dividend yield stocks. Moreover, most individual investors choose cash dividends, whereas institutional investors favor towards firms that do not pay a dividend.

A study performed by Mirza and Afza (2010) on the listed 100 firms of major sectors of the Karachi Stock Exchange (KSE) over the three-year period spanning from 2005 to 2007 reveals that the firm in which large percentage of share held by managers lead to pay more dividend as compared to the firm in which lower percentage of share held by individual. Additionally, the research demonstrated that when a company generates greater operational cash flow, it is more likely to provide a substantial dividend to its stockholders.

Renneboog and Trojanowski (2011) conducted a comprehensive analysis on UK companies' dividend payment policies. The researcher claimed that dividend payout decisions are strongly influenced by the liquidity needs of the directors' shareholders. This study did not accept agency theory of dividend and rejected the explanation of tax clientele for dividend payout choices. Wang et al. (2011) found that dividend payout ratio of Chinese firms' changes frequently in terms of adjustments in earning which is in line with developing countries' dividend payout policies. Larger-state Chinese companies appear to bear higher dividends to provide investors an optimistic indication about the success of the companies.

Lam et al. (2012), in their study, showed that both cross-listing and foreign ownership have significant negative influence on the cash dividend policy that is consistent with signaling effect theory and reduced tunneling function to collect capital from the outer part of China. The authors also argue that the companies that have large state ownership pay more cash dividends than stock dividend, whereas the companies that have large individual ownership pay fewer cash dividend relative to high stock dividend.

Lace et al. (2013) considered DY and DPR as the dividend indicators and five dummy variables, namely financial investors, strategic investors, government investors, family investors and free float or distress investors as ownership indicators. By applying non-linear regression and binary logistic regression, the study found that high dividend payout ratio and dividend yield are obtained when strategic investors act as a major owner of a firm. On the other hand, this probability is less when family investors act as a major owner due to their main motive to invest for the future rather than allocating profit.

Sakinc and Gungor (2015) found that foreign ownership has a significant negative impact on DPR whereas managerial ownership has the insignificant negative impact on DPR. The authors argue that foreign shareholders pay more attention to retained earnings for expanding the business rather than allocating the profit as a dividend to their shareholders or foreign investors prefer the firm pay the low amount of dividend to their shareholder. The authors explored that there is a positive linkage between large shareholders owning 45.37 percent of the total share of the elected firms and dividend payout policy in the aspect of ownership concentration variables. Jacob and Jijo (2018) performed a research over the 15-year period from 2001 to 2016 on Indian stock market and concluded that institutional investors support the dividend paying firms over non-dividend paying firms for large firms. Institutional investors, on the other hand, favor the non-dividend paying company for the dividend paying firm for small businesses. The study found no relationship between institutional ownership and payment of dividend for both small and large firms.

Arora and Srivastava (2019) carried out research on the listed companies of the Bombay Stock Exchange (BSE) in India by utilizing univariate and multivariate regression analysis throughout the period of 2010-2017. This research found a favorable association between ownership concentration and the amount of dividends payout. As showed by the findings of the research, large outside shareholders, especially financial institutions play an important role in preventing controlling owners from taking rents at the expenses of minority shareholders, However, financial institutions with large shareholdings outside the promoter group have an impact on dividend decision in India, as opposed to large individual shareholders.

Setiawan et al. (2019) conducted a study on the banking industry in Indonesia using data gathered from 2000 to 2015. This study demonstrated how changes in corporate ownership have an effect on dividend allocation policies. The findings of this research revealed that owner of the share of family members have a favorable effect on the dividend payment policy, whereas a negative relationship has been found between government and foreign ownership with dividend payout.

Moin (2020) examined the impact of dividend allocation policy of a firm in Indonesia on their decision to keep in more cash in hand or excess investment for different sectors. The study also investigated the influence of corporate ownership on cash dividend by incorporating the data from 1995 to 2014. The research revealed that holding excessive cash has a positive effect that creates opportunity for distributing dividends of a firm whereas overinvestment has a negative effect. Furthermore, the ownership pattern of family, foreign, governmental, and institutional owners all showed strong negative relationships with the disbursement of dividends, which imply that large shareholders are attempting to expropriate the wealth of their companies.

Kien and Chen (2020), investigated the relevance of dividend-paying firms in terms of discriminating between two kinds of shareholders such as majority and minority, as well as between private and state-owned firms, in the Vietnamese market. The sample spanning from 2010 to 2014 and included firms which traded on the HNX and HOSE markets. Majority shareholders appeared liable to pay large dividends as a consequence of their disproportionately high returns on investment, which creates difficulties for minority owners, who have minimal control over dividend policy. Apart from that, the empirical evidence supported the existence of a high dividend policy among firms which were controlled by the government.

Bataineh (2021) examined the effect of several ownership characteristics on dividend decision in Jordan by combining data from 66 industrial and service sector organizations throughout the 2014-2017 periods. Tobit tool was utilized to examine the linkage between ownership variables and dividend distribution policies. The findings of the study suggest a positive association between institutional shareholders and dividends whereas ownership held by foreigners has a negative influence on dividend payments. No evidence was found about the effect of the ownership of family members or state has on the allocation of dividends. Thus, the analysis demonstrated that increasing the number of owners of institutional shareholders as a kind of external control has a probable chance of increasing the dividend of a company.

To explore the effect of CEO duality and ownership concentration on dividend distribution policies, El Ammari (2021) carried out research on 24 listed companies on the Tunis Stock Exchange in Tunisia by using multivariate regression analysis over the period of 1996-2019. The study considered the impact of some variables such as ownership concentration and some other control variables like managerial ownership, family ownership, board size, firm size, leverage and return on equity on the dividend distribution policy such as DPR and DY along with CEO duality. The study found that CEO duality and concentrated owners have been a favorable effect on the dividend policy during the crisis. So, the results of different studies regarding ownership structure and dividend decision are inconclusive.

Prior Theoretical and Empirical Evidences of Bangladeshi Context

A good number of researches have been carried out in Bangladesh to analyze the effect of the ownership structure on the firm performance of the DSE listed companies in Bangladesh. Farooque et al. (2007) have pointed out that ownership and firm performances are endogenously determined and found two way causality relationships between ownership structure and firm performance while linear and nonlinear relationships were presented about board ownership and performance. Rashid et al. (2010) used a linear regression model to integrate non-financial firms as a sample classified in the Dhaka Stock Exchange. The study revealed that external directors cannot contribute to any probable value on the company performance of the listed firms. Muttakin and Ullah (2012) made a comprehensive study on dividend policy and firm performance. The study stated that highly concentrated ownership exerts an adverse influence on the company performance. However, Khan and Siddiqua (2015) stated that family control has negative effect on the valuation of financial entities despite the fact that family control has been found to add value to newly formed financial firms.

A review of the worldwide literature, including Bangladesh, shows that no clear conclusion can be reached about the impact of ownership structure on the dividend payout policy. Studies on ownership structure in Bangladesh to date have mainly focused on the relationship between ownership structure and the performance of a firm. No study has been conducted in the impact of individual and managerial ownership on the dividend payout policy. This backdrop creates an opportunity for researchers to continue to investigate on this topic. This paper would contribute to the existing literature on the subject by examining the influence of individual and managerial ownership on the dividend payout policy in DSE-listed companies in Bangladesh.

Research Objective

The objective of this study was to examine the impact of individual and managerial ownership on dividend payout policy in the listed companies of DSE in Bangladesh.

Hypothesis Development

Ownership structure (Individual and Managerial) and dividend payout policy

The ownership structure represents the equity contribution with reference to votes and capital. This study considers two types of ownership such as individual ownership and managerial ownership. Dividend payout policy measures how much of an organization's profit are paid to the investors and how much are held. Cash dividend is used as the proxy variable for dividend payment decisions. This study considers eight control variables such as profitability, earnings volatility, growth opportunity, financial leverage, liquidity, taxation, earned capital and firm's size to avoid the spurious relationship between the dependent and independent variables.

Individual ownership

Individual owner of common stock is represented as public ownership that holds the certain proportion of all outstanding common stock. In general, small investors have less access to monitor and supervise the company management. They are unable to influence directly on dividend allocation decisions. As a result, controlling owners are driven to enrich themselves at the expense of individual stockholders. This condition creates an agency conflict which has an adverse effect on the firm's dividend policy. Khan (2006) found an inverse association with the dividend payment policy and individual ownership in the UK. The finding is consistent with the agency theory under which dividends can often be represented by the existence of dominant principals who can impose their suitable dividend policies on business for insufficient control of individual shareholders. The finding is compatible with Renneboog and Trojanowski (2005). The study showed a clear negative association between dividend and individual investors. In contrast, Mirza and Afza (2010) revealed that due to Pakistan's tax policy, capital gain is excluded from tax but dividends are taxable at source, so individual investors are likely to choose capital gain rather than cash dividends which is conflicting with the findings of Tahir et al. (2014). Hence the following relationship is formulated.

H1: There is a negative relationship between individual ownership and dividend payout policy in the listed companies of DSE in Bangladesh.

Managerial ownership

The part of the equity capital that is held by directors and/or sponsors / managers including local and foreign can be used as a proxy variable of managerial ownership. The linkage between managerial ownership (MAOW) and dividend payment policies is inconclusive and may have both positive and negative influences due to agency issues, asymmetric information, and managers' perspectives. Sakinc and Gungor (2015) stated that management ownership as an ownership concentration variable has significant and negative effect on the dividend payout policy. Lace et al. (2013), on the other hand, suggested that as management ownership enhances, minor conflicts of interest between employees and external partners would emerge, diminishing the agency's costs and the desire for large dividend payments. Subsequently, Al-Qahtani and Ajina (2017) suggested that companies with a large part of equity held by managerial shareholders put pressure on management to increase dividend payments as a result of their opportunistic behavior. This study therefore hypothesized that:

H2: There is a negative relationship between managerial ownership and dividend payout policy in the listed companies of DSE in Bangladesh

Control Variables

A control variable would have remained unchanged or constant in order to minimize its impact on the outcomes of the dependent and independent variables. As stated by Renneboog and Trojanowski (2011), a more profitable company is more likely to be able to pay out more dividends to shareholders. When earning becomes more volatile, the company pays out fewer dividends to its shareholders. Therefore, a company with volatile earnings is not interested in increasing the amount of dividend payments (Apat, 2014). Firms with sufficient growth potential holds cash for long-term investment and therefore offer low or no dividends. High level of debt raises the level of capital market surveillance and reduces the associated cost of the agency. The debt thereby commits companies to disburse cash as dividends to prevent management from exploiting it in pursuit of personal targets stated by Florackis et al. (2015). High liquidity firms are supposed to pay higher dividends without accessing to outside financing. Taxation is a form of financial charge imposed by the government. Amidu and Abor (2010) suggests that enhancement in corporate tax rates will enhance the company's dependence on debt funding to increase its tax shields. Earned capital is measured as a proxy variable in the life cycle theory of the firm. The theory suggests that a company's dividend policy varies through various points of a company's life cycle. Fama and French (2010) found negative relationship between earned capital and DPR. The size of the firms has been applied to the model to remove spurious effect. Larger firms appear to prefer to make more dividends because of their better capacity to increase outside finance at the lowest expense than smaller firms.

Methodology of the Study

Research Design

Quantitative research approach has been followed due to the nature of the study. The study has used unbalanced panel data collected from listed companies of DSE in Bangladesh to investigate the influence of individual and managerial ownership on dividend decision.

Sample Design

The companies listed on the DSE in Bangladesh as of December 31, 2017 are considered as target population in this study. As of this date, 348 companies were listed in DSE excluding government bond which were divided into 22 different categories. However, this study selected the companies into 8 major categories. The selection criteria of companies are (i) available annual report, (ii) paid continuous cash dividend, (iii) negative equity is removed, (iv) available ownership information, (v) minimum ten years of operations in DSE. The above criteria were used by Hashemijoo et al. (2012), Rashid et al. (2010) and Mirza and Afza (2010). Based on these criteria, the researcher collected 64 listed companies in DSE over the period of 10 year ranging from 2008 to 2017 as sample.

Table-1: Industry and Observed Year Wise Classification of the Sample

Industry	Number of firm in the sample	Observed firm year
Banking	15	150
Financial Institution	10	100
Food and Allied	4	40
Engineering	7	70
Fuel and Power	6	60
Ceramic	2	20
Pharmaceuticals & Chemicals	11	110
Textile	9	90
Total	**64**	**640**

Sources and Reporting of the Data

The study mainly focused on secondary data that were collected from the annual reports of selected listed companies from the DSE Library which are related to digitalized soft and hard copies, and other reliable sources like annual report of BSEC and DSE and monthly review of DSE. Data analysis tools like MS Excel and Stata14 were used for detail statistical analysis.

Variables to be Used in the Study

This study used numerous variable as a dependent, independent and control variables based on studies of Mirza and Afza (2014), Al-Qahtani and Ajina (2017), Fama and French (2001), Khan (2006), Nowreen and Pervin (2014), Obaidat (2018), Rashid et al. (2010).

Table-2: Measurements of the Variables

Variables	Symbol	Measurement
Dependent Variable		
Dividend Payout Ratio	DPR	Cash dividend paid to the common stockholders / Net Income
Independent Variables		
Individual Ownership	INDOW	Number of ordinary share kept by Individual / Total number of ordinary share
Managerial Ownership	MAOW	Number of ordinary share kept by directors and/or sponsors / Manager divided by total number of ordinary share
Control Variables		
Profitability	PROF	Return on asset used as proxy of profitability of the firm (Earnings after tax / Total asset
Earnings Volatility	EVOL	Standard deviation over the previous three years of the earnings ratio (operating profit/total assets)
Growth Opportunity	GROW	Total $Asset_t$ – Total $Asset_{t-1}$/ Total $Asset_{t-1}$
Financial Leverage	FLEV	Total liability/ Total assets
Liquidity	LIQ	Cash and cash equivalent / Total asset
Taxation	TAX	The effective tax rate, which is computed by dividing total taxes paid by the pre-tax income
Earned Capital	REE	Earned capital used as a proxy of life cycle of the firm (Net income - cash dividend) / Equity
Firm's Size	FSIZE	Natural logarithm of total asset

Model Specifications

The researchers sought to figure out the existence of any mistake or inaccuracy in the data set at the initial stage. In the second stage, descriptive statistics were used to summaries and describe the variables used in the study. In the third stage, different diagnostic tests like heteroscedasticity, multicollinearity, autocorrelation have been tested.

Finally, based on panel data estimation technique, the study used multiple research techniques like Pooled Ordinary Least Square (POLS), Fixed Effect (FE) and Random Effect (RE) methods.

The pooled ordinary least square method is one of the commonly used methods which assumes that error terms are free from independent variables, mean is zero, variance is constant, and residuals are normally distributed. The model specification of pooled ordinary least square method of the study is as follows:

$$DPR_{it} = a + \beta_1 INDOW_{it} + \beta_2 MAOW_{it} + \beta_3 PROF_{it} + \beta_4 EVOL_{it} + \beta_5 GROW_{it} + \beta_6 FLEV_{it} + \beta_7 LIQ_{it} + \beta_8 TAX_{it} + \beta_9 REE_{it} + \beta_{10} FSIZE_{it} + eit \ldots\ldots\ldots\ldots\ldots (1)$$

Here, e_{it} represent the error term or disturbance term; i = 1, 2, 3, ..., 64; t = 1, 2,3,……………..,10

DPR represent dividend payout policy, INDOW represent individual ownership, MAOW represents managerial ownership, PROF symbolize Profitability, EVOL represent earnings volatility; GROW signifies growth opportunity, FLEV represents financial leverage, LIQ represents liquidity, Tax signifies taxation, REE represents earned capital and FSIZE symbolizes firm size.

The pooled ordinary least square method provides consistent result but fails to produce unbiased result with the least square standard errors because of the violation of homoscedasticity and no autocorrelations assumptions. The fixed effect or random effect method is acceptable compared to POLS when unobserved individual effect is visualized (Baltagi, 2005). The fixed effect model is a panel data estimation technique that controls the time-invariant unobserved individual attributes that can be related to the observed explanatory variables. This model also controls the impact of the omitted variables bias, as the subject of one time would have the same effect later on. Therefore, the modified model is as follows:

$$DPR_{it} = (a+ui) + \beta_1 INDOW_{it} + \beta_2 MAOW_{it} + \beta_3 PROF_{it} + \beta_4 EVOL_{it} + \beta_5 GROWit + \beta_6 FLEV_{it} + \beta_7 LIQ_{it} + \beta_8 TAX_{it} + \beta_9 REEit + \beta_{10} FSIZE_{it} + eit \ldots\ldots\ldots\ldots (2)$$

Here, u_i represents the individual characteristics of specific entities which are omitted from the regression. This model restricts the co-efficients of the explanatory variables to be common across the unit (i) and period (t).

According to Brooks (2014), random effect model produces the idiosyncratic features of the entities by each intercept's random deviation (u_i) from the population intercept. So, the random effect model assumes that entity-specific error terms have zero mean and constant variance. Therefore, the final model is as follows:

$$DPR_{it} = a + \beta_1 INDOW_{it} + \beta_2 MAOW_{it} + \beta_3 PROF_{it} + \beta_4 EVOL_{it} + \beta_5 GROW_{it} + \beta_6 FLEV_{it} + \beta_7 LIQ_{it} + \beta_8 TAX_{it} + \beta_9 REE_{it} + \beta_{10} FSIZE_{it} + (ui + eit) \text{ …….(3)}$$

u_i represents the individual error component of the specific entities and e_{it} is common error term that consists of composite error term $_{it} = (u_i + e_{it})$. If individual error component (a_i) is correlated with explanatory variables that indicate fixed effect model then it provides consistent estimator over Pooled OLS estimators since error term (e_{it}) is correlated with explanatory variable. Conversely, if individual error component (u_i) is not correlated with explanatory variables then Pooled OLS estimators provide consistent result but unbiased since error term (e_{it}) is heteroskedastic and is serially auto correlated. The most appropriate model could be selected based on the results of the various tests for getting the consistent and unbiased estimates. This study applied three tests such as F-test, LM test and Hausman test.

Results and Discussion

Table-3 presents the results of the descriptive statistics of the dependent, independent and control variables used in this study for the 64 listed companies of DSE over the period of 2008 to 2017.

Table-3: Descriptive Analysis

Particulars	Observation	Mean	Standard Deviation	Minimum	Maximum
DPR	519	0.4338	1.2164	-23.779	6.2554
INDOW	640	0.3222	0.1784	0.0127	0.9681
MAOW	637	0.4874	0.1697	0.0343	0.8999
PROF	640	0.0458	0.0561	-0.0638	0.4792
EVOL	640	0.0150	0.0182	0.0007	0.1249
GROW	640	0.1716	0.2984	-0.3096	4.6609
FLEV	640	0.6871	0.2266	0.1060	0.9687
LIQ	640	0.1043	0.1140	-0.2137	0.6790
TAX	586	0.3261	0.2236	-1.1436	2.5317
REE	640	0.1025	0.1049	-0.9367	0.6601
FSIZE	640	22.807	2.3171	17.023	27.526

Table 3 shows that mean value of dividend payout policy is 43.38%, with a standard deviation of 121.64%. The mean values of individual and managerial ownership are 32.22% and 48.74% respectively with the corresponding standard deviations of 17.84% and 16.97% respectively. The average financial leverage of the listed companies in Bangladesh is

68.71% with a standard deviation of 22.66% during the period. It means that Bangladeshi listed companies are highly dependent on external financing compared to equity capital. The same statistics have been presented for the other control variables such as profitability, earnings volatility, growth opportunity, financial leverage, liquidity, taxation, earned capital and firm's size. The pair wise correlation coefficient matrix is shown in Table 4.

Table-4: Pair Wise Correlation Coefficients among the Study Variables

Variables	DPR	INDOW	MAOW	PROF	EVOL	GROW	FLEV	LIQ	TAX	REE	FSIZE
DPR	1.000										
INDOW	-0.017	1.000									
MAOW	-0.024	-0.752*	1.000								
PROF	0.029	-0.241*	0.232*	1.000							
EVOL	0.028	-0.205*	0.238*	0.534*	1.000						
GROW	-0.049	0.031	-0.020	0.007	0.101*	1.000					
FLEV	-0.027	0.113*	0.011	-0.470*	-0.382*	-0.018	1.000				
LIQ	0.035	-0.235*	0.302*	0.242*	0.157*	0.081*	0.176*	1.000			
TAX	0.133*	0.037	0.028	-0.250*	-0.177*	-0.031	0.302*	0.060	1.000		
REE	-0.162*	-0.003	0.074	0.415*	0.116*	0.146*	0.208*	0.238*	-0.159*	1.000	
FSIZE	-0.010*	0.142*	-0.108*	-0.218*	-0.382*	0.108*	0.533*	0.223*	0.143*	0.199*	1.000

From table 4, it is found that the pair wise correlations are quite low for most of the variables. The highest correlation coefficients at 5% level of significance (-0.752 and 0.534) are found between managerial ownership and individual ownership and between earnings volatility and profitability respectively. None of the variables of the pair wise correlation coefficient is 0.80 or larger that means that multicollinearity problem does not exist among the variables (Lewis-Beck, 1980).

Diagnostics Test

The study conducted three diagnostics tests namely multicollinearity test, autocorrelation, and heteroscedasticity Test. The result of the multicollinearity test among the study variables is presented in Table-5. For each of the regresses, variance inflation factors and tolerances (TOL) are measured to validate the presence of multicollinearity.

Table-5: Multicollinearity Test (Correlation between Predicators)

Variables	Variance Inflation Factors (VIF)	1/VIF
INDOW	2.55	0.392901
MAOW	2.74	0.365197
PROF	3.24	0.309028
EVOL	1.93	0.518707
GROW	1.10	0.912632
FLEV	2.36	0.423121
LIQ	1.37	0.729174
TAX	1.16	0.865282
REE	1.76	0.567270
FSIZE	1.53	0.655122
Mean	**1.97**	

The test results of table 5 suggest that the model does not have a serious multicollinearity problem. The general rule is that if VIF is equal to or above 10 and the TOL level is equal to or below 0.10, then severe multicollinearity problem occur (Hair et al., 2010). To detect collinearity, the researchers measured the VIFs. Variables with a VIF greater than 10 were removed in descending order from regression. Only variables with a VIF below 10 were retained to ensure that none of the independent variables is collinear with any of the other independent variables. Thus, in this research, multicollinearity is not a problem.

Serial auto correlation and heteroskedasticity problems have been tested by using Wooldridge test and modified Wald test and the results are presented in Table 6.

Table-6: Autocorrelation and Heteroscedasticity Test

Summary of Wooldridge Test and Modified Wald Test		
Tests Groups		
	Wooldridge Test	**Modified Wald Test**
Null Hypothesis	No first order auto correlation	No group wise heteroscedasticity in the data
Test Statistics	*F*(Prob.>*F*)	Chi^2 (Prob.> $Chi^{2)}$
	6.065 *** (0.0168)	50367.50*** (0.0000)
Note: The numbers in parentheses are the associated *p*-values related to the tests represent the ***, **, * significance level at 1%, 5%, and 10% respectively.		

The Wooldridge test rejects the null hypothesis and indicates the presence of autocorrelation in the model at 5% level of significance. The Modified Wald test has been used to diagnose the problem of heteroskedasticity in the model and based on the test result it is observed that there is heteroskedasticity in the dataset. The outcome of both tests indicates that dataset suffers from abovementioned problems.

The Pooled OLS, FE, and RE methods have been used to examine the influence of individual ownership and managerial ownership on dividend payout policy after controlling eight variables, including, profitability, earnings volatility, growth opportunity, financial leverage, liquidity, taxation, earned capital, and firm size. The standard error for each coefficient is shown in parentheses but is not robust. Models 1 to 3 in the following table 7 illustrate the regression results without using the robust approach.

Table-7: Results of the Pooled OLS, Fixed Effect and Random Effect Model without Robust Standard Error

Variables	Pooled OLS (Model:1)	Fixed Effect (Model:2)	Random Effect (Model:3)
INDOW	-0.2145 (0.1428)	-0.4890* (0.2377)	-0.2681 (0.1644)
MAOW	0.0058 (0.1512)	0.1513 (0.3127)	0.0094 (0.1793)
PROF	5.2855*** (0.4503)	5.3742*** (1.4659)	5.3227*** (0.5199)
EVOL	-2.6769** (1.2179)	-4.3070*** (0.7562)	-3.3974*** (1.2712)
GROW	0.0032 (0.0546)	0.0141 (0.0550)	0.0143 (0.0529)
FLEV	0.9239*** (0.1046)	0.5105** (0.2075)	0.8469*** (0.1246)
LIQ	0.3252** (0.1430)	0.1563 (0.2258)	0.2536 (0.1642)
TAX	0.0442 (0.0726)	0.1780 (0.0859)	0.1072 (0.0754)
REE	-3.6540*** (0.1934)	-3.7422*** (0.2333)	-3.6640*** (0.1998)
FSIZE	-0.0167* (0.0082)	-0.0688* (0.0367)	-0.0156 (0.0105)
Constant	0.3181 (0.2097)	1.8031* (0.9222)	0.3573 (0.2680)
R-Sq	0.4726	0.4570	0.4468
F/Wald Chi2	42.58	33.24	392.55
Prob. > *F/Wald chi2*	0.0000	0.0000	0.0000
Standard errors of estimates are given in parentheses. *, **, and *** indicate the significance level at 10%, 5%, and 1% respectively.			

In the case of panel data, the pooled OLS technique has been badly criticized since the coefficient's reliability and correctness do not effectively account for unobserved effects or individual impact issues that are often encountered in non-experimental research (Baltagi, 2005). As a result, FE and RE techniques have been utilized to account for unobserved heterogeneity. The results of the above table 7 obtained using the pooled OLS, FE, and RE approaches are not robust.

For getting consistent and unbiased estimates, a suitable model could be selected based on the results of various diagnostic tests. For the model selection purpose, the study carried out the F-test, LM test and Hausman test. The following Table 8 represents that both F-test and LM-test are at 1% level of significance, meaning that both fixed effect and random effect are superior over pooled OLS. Moreover, the Hausman test states that the model of RE is better than the model of FE as the p-value is greater than 5%.

Table-8: Model Selection Tests

Tests Groups			
	F-Test	**LM Test**	**Hausman Test**
Null Hypothesis	All dummy parameters except one for the dropped are all zero	Variance across entities is zero	The fixed effect and random effect estimators do not differ significantly
Test Statistics	*F*(Prob. >*F*)	Chi^2 (Prob.> $Chi^{2)}$	Chi^2 (Prob.> $Chi^{2)}$
	2.31*** (0.0000)	28.37*** (0.0000)	15.66 (0.1097)
Note: The numbers in parentheses are the associated *p*-values related to the tests represent the ***, **, * significance level at 1%, 5%, and 10% respectively.			

The RE model remains as an unbiased and consistent estimator. Therefore, the study follows the Random effect outcomes for measuring the influence of individual and managerial ownership on dividend decision. The Wooldridge test and modified Wald test both indicate that first-order autocorrelation and group-wise heteroskedasticity exists in the data set. Therefore, in order to overcome these problems, the study used robust standard error estimator which will particularly improve the effectiveness of random effect model (Model 3). For comparison purposes, the results of other two competing models (Pooled OLS and FE) are also presented in the same Table (Table 9).

Table 9: Results of the Pooled OLS, Fixed Effect and Random Effect Model with Robust Standard Error

Variables	Pooled OLS (Model:1)	Fixed Effect (Model:2)	Random Effect (Model:3)
INDOW	-0.2145* (0.1141)	-0.4890* (0.2827)	**-0.2681**** (0.1224)
MAOW	0.0058 (0.1181)	0.1513 (0.2338)	0.0094 (0.1505)
PROF	5.2855*** (0.6638)	5.3742*** (0.7783)	**5.3227***** (0.7676)
EVOL	-2.6769 (1.7040)	-4.3070** (1.9407)	**-3.3974*** (2.0423)
GROW	0.0032 (0.0506)	0.0141 (0.0530)	0.0143 (0.0566)
FLEV	0.9239*** (0.1407)	0.5105** (0.2089)	**0.8469***** (0.1512)
LIQ	0.3252 (0.2151)	0.1563 (0.2852)	0.2536 (0.1941)
TAX	0.0442 (0.2681)	0.1780 (0.3839)	0.1072 (0.3390)
REE	-3.6540*** (0.3314)	-3.7422*** (0.4101)	**-3.6640***** (0.4449)
FSIZE	-0.0167* (0.0073)	-0.0688** (0.0311)	**-0.0156** * (0.0095)
Constant	0.3181* (0.1901)	1.8031* (0.6538)	0.3573 (0.2592)
R-Sq	0.4840	0.4570	0.4468
F/Wald Chi2	25.30	18.51	155.38
Prob. > *F/Wald chi2*	0.0000	0.0000	0.0000
Standard errors of estimates are given in parentheses. *, **, and *** indicate the significance level at 10%, 5%, and 1% respectively.			

Based on the selected RE model of table 9, it is observed that the individual ownership negatively influences the dividend payout policy at 5% level of significance and the estimated results meet our prior expectations. In case of the random effect model, the R2 value is 44.68% which shows good explanatory power of the estimated model. Moreover, the model demonstrates a very small p-value of F-statistic, therefore indicating the overall significance of the model. Along with individual ownership, profitability, earnings volatility, financial leverage, earned capital and firm size exerts significant impact on dividend payout policy. In accordance with the RE model, hypothesis 1 is supported; it means that 1 unit increase in Individual Ownership (INDOW) is expected to reduce dividend payout ratio by 0.2681 units after controlling eight variables. This finding is compatible with earlier studies of Renneboog and Trojanowski (2005) and Khan (2006).

The negative relationship between individual ownership and dividend payout implies that a higher level of individual ownership leads to the lower level of dividend payout ratio. Individual shareholders who are usually small investors in the capital market have less access to monitor or supervise the corporate management. They cannot directly contribute to take decision regarding dividend distribution. Consequently, controlling shareholders are motivated to divert the wealth of their companies to their own return at the expense of individual shareholders. As a result, an agency problem arises which has an inverse impact on the firm's dividend allocation policy. Thus, the empirical finding of the research supports the agency theory developed by Jensen and Meckling (1976).

Profitability as a control variable has a significant positive association with the dividend payout policy, which conforms to the studies of Renneboog and Trojanowski (2011). The result of the study suggests that a more profitable company is more likely to be able to pay out more dividends to the shareholders. Dividends as a signaling mechanism provides an alternate explanation for the positive linkage between profitability and dividends decision. By increasing their dividends, managers are signaling their capacity to make more money and their financial soundness to the shareholders, which is consistent with the signaling theory's predictions. In contrast, the volatility of earnings has a significant and negative impact on the dividend payment policy. The finding of this research is consistent with the result of Apat (2014).When earnings become more volatile, the company pays out fewer dividends to its shareholders. Therefore, a company with volatile earnings is not interested in increasing the amount of dividends payment. Typically, a company would boost its dividend if it is certain that earnings will continue to grow at a steady rate.

Financial leverage has significant positive influence on dividend payout policy which is congruent with the studies of Florackis et al. (2015). It implies that high debt level increases capital market monitoring while lowering agency costs. The debt thereby commits the companies to disburse cash as dividends to prevent management from exploiting it in pursuit of personal targets. Earned capital, as a proxy for the firm's life cycle theory, has a significant adverse influence on dividend payment policy. This finding is consistent with the study of Fama and French (2001). The several stages of the life cycle theory of dividends indicate that a firm's payout policy fluctuates depending on the investment opportunities that are available to it. The majority of DSE's listed companies in Bangladesh are very new, and these firms pay lower dividends through their internally generated funds to make available investment opportunities. With regards to the control variable, the size of the firm has a negative influence on dividend selection, dividend decision-making, which is consistent with Farinha's finding (2003). The most plausible reason is that large firms are highly leveraged, hence limiting their ability to pay dividends owing to debt constraints.

Conclusion, Policy Implications, and Limitations

The aim of this paper was to explore the influence of individual and managerial ownership on dividend payment decisions by focusing on the selected listed firms' of the DSE in Bangladesh. The study incorporates sixty four listed companies of DSE over a ten-year time span from 2008 to 2017. The unbalanced panel data were collected mainly from annual report of selected companies and other reliable sources of Bangladesh. The study finds that individual ownership negatively influences dividend payout policy while controlling other variables based on random effect model. It reveals that individual investors have less access to monitor and supervise the corporate management and cannot directly contribute to take decision regarding dividend distribution. Consequently, controlling shareholders are motivated to take away the firms' wealth for their own benefit, at the cost of individual shareholders. This condition creates an agency conflict, which has an adverse effect on the firm's dividend policy.

The results of this study have profound implications for the policymakers and investors in the listed companies of DSE in Bangladesh. Policymakers should give special attention by making legislative guidelines on allocating equity shares to different shareholders to ensure proper balance among the shareholders in terms of ownership. Greater information transparency and availability in the market is required and more regulations should be ensured. The authorities are required to include a significant portion of individual shareholders on the corporate board to minimize agency problem. The findings of this study provide clear picture on the impact of individual and managerial ownership on dividend payout policy. This research can facilitate the investors in determining the right stock combination during the portfolio selection process.

This study has some limitations. In Bangladesh, the companies do not disclose their all asset information properly due to the tendency to maintain secrecy. The annual report does not always reflect the position of the company. So, the researcher confronted difficulties to collect all the pertinent information. Furthermore, there is no uniform rule concerning the date of data preparation and presentation of financial statements of non-financial listed companies of Dhaka Stock Exchange. Non-financial companies prepare their financial statements for their own suitable period. According to the guidelines of Bangladesh Securities and Exchange Commission (BSEC) in 2014, each company needs to prepare its financial statement by accumulating all financial information from July 01 to June 30. In this typical case, the researcher has used the un-audited quarterly and semi-annually financial statements to adjust the financial data of few companies for the last two years within the sampling period of the study. Given some limitations of the study a further analysis may be carried out by including the institutional ownership to further examine the dividend payout behavior of the listed companies in Bangladesh.

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Service Professionalism: A Critical Analysis from an Islamic Perspective

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Abstract: In the recent years Bangladesh has comprehended a growth in corruption in the public service; most of the sufferers have been ordinary and general people. Bangladesh is ranked one of the most corrupt countries in the world and for this very reason, people's confidence is gradually decreasing in many levels of the government or non-government sectors. Islam always promotes quality public service delivery in an efficient, equitable and transparent manner with a view to safeguarding the interests of common people. On the other hand, Islam prohibits all sorts of unethical behavior, like corruption in the services. Islamic elementary norms for the ordinary people are affection, love, compassion and empathy, which are exceptionally accomplished by the Prophet (PUBH). This paper focuses on service professionalism from an Islamic perspective and shows its relevance to contemporary Bangladesh especially in terms of upgrading the quality of public service delivery and addressing the challenges like corruption in the public sector. This paper is descriptive in nature based on both primary and secondary data and content analysis method.

Keywords: Islam, professionalism, professional ethics, corruption, Bangladesh.

Introduction

Islam always encourages people to be proactive and dutiful for mankind. In the Holy Quran, Allah says "Ye are the best of peoples, evolved for mankind" (Quran Al Imran, 2:110). Since professionalism is the core of Islam, Muslims need to follow Islamic guidelines in their profession and should give due attention to it. This is because the Holy Quran states: "And remember when your Lord said to the angels, 'Verily, I am going to place on earth a khalifah (representative) (Quran, Al Bakara, 2:30). The Holy Quran further says: "I did not create the jinn and the humans except to worship Me" (Quran, Adh-Dhariyat, 51: 56). These verses of the Holy Quran indicate the basic purpose of human existence on the earth and that is to become the representative and only the worshiper of Allah. In a Hadith, the Prophet (PUBH) says: "Verily Allah loves anyone of you who, when he undertakes a job, carries it out professionally." This Hadith

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directs men to become true professional and excellent in performance of their jobs. But it is assumed that Islamic professionalism is not highly regarded in the public service sectors of Bangladesh. Service Professionalism gives due importance to ensure fair and equitable transactions, prevent injustice, establish interests and benefits of people, promote equity, justice and fairness and suppress evil or discrimination and tyranny. (Abdullah, 2004). But concern is, Bangladesh's rank among the corrupt countries in the world is almost all the time high (Ahmed, n.d). Many scholars and literature examine that government's success is co-related with the level of corruption. Islam and Ananya (2016) cited that, corrupt regimes are to face immense difficulties in public services delivery, in law enforcement, and in the public interest representation. There are many forms of corruption in the service sectors of Bangladesh and the root cause of increasing such corruptions is the absence of true professionalism. Islam always promotes true professionals and prohibits all sorts of unethical behavior in the services. Therefore, this paper aims to focus on service professionalism from an Islamic perspective.

Rationale of the Study

The religion of Islam is a complete way of life because it provides a man not only the guidelines for spiritual well-being but also the guidelines regarding different aspects of everyday life for everyday communication with common people of the society where he lives. So a Muslim professional is obliged to follow the instructions as prescribed in Islam in his profession. Bangladesh is a Muslim majority country in the world and has become recently a middle-income country with 7% plus growth in GDP and outstanding achievements in various sectors. But corruption is a major hindrance in the service sector lies in bureaucratic, business and political institutions. Because of such corruption prevalent at all levels of the country, the backward section is at the risk because they are not able to pay for food and put their kids in school, underprivileged of medical services, losing their business as IDPAA (2007) observed. Such a situation has stimulated the researcher to study on an issue of service professionalism from an Islamic perspective due to the fact that service professionalism is often tested in the Western perspective overlooking the significance of professionalism accorded in Islam. It is based on the understanding that the principles of Islam may affect different service sectors and that there is an impact of corruption on professionalism. This is why; this study also examines one significant phenomenon- corruption as a major hindrance in country's service sector to its progress. The findings of this research may hopefully contribute to the knowledge of researchers, policy makers and practitioners to examine the need of service professionalism from the Islamic perspective which ultimately can enhance the scope to reduce corruption in Bangladesh.

Objectives

The main objective of the study is to focus on service professionalism from an Islamic perspective and show its relevance to contemporary Bangladesh, especially in terms of upgrading the quality of public service delivery and addressing the challenges like corruption in the public sector in the context of some verses from the Holy Quran and Hadith because these two sources of Islam guide to be truly professional. The paper covers the following aspects:

- To evaluate Islamic professionalism;
- To study the guiding principles of Islam about corruptions;
- To find out corruption as the factor affecting professionalism and its impact; and
- To suggest the probable measures to promote the practice of Islamic professionalism.

Literature Review

Bhuiyan, Imran, and Fatema (2015) investigated professional ethics in the perspective of Islamic banking system in Bangladesh and they examined that Islamic professional ethics is higher in the top level management of Islamic banking system in Bangladesh but in the branch level management it is medium or low. Haque, et al., (2013) explored medical professionalism among different medical institutes and revealed that professionalism makes a link between doctors and society. Rice (1999) discussed the business related ethics in accordance with Islam and Islamic philosophy which help to carry out business. Abbott (1983) established five aspects of professional ethics such as: individualism, distribution, infra-professional status, visibility, and obligations. Cowton (2002) examined professional ethics through three things-accountability, empathy and integrity which play a pivotal role on banking sector. Bhattacharya, Rezbana, and Fuad (n.d) focused on interaction between corruption and governance in three sectors, viz. financial management, primary education and social safety net services and revealed that corruption is a major hindrance in development programs at the local level in Bangladesh. Islam and Ananya (2016) identified the practices of corruption in civil service of Bangladesh. They found that bribing, swindling, dishonesty; absence of transparency and responsibility; prevalence of favoritism, and nepotism destroy the public morale and are responsible for corruption. Similarly, Zafarullah and Siddiquee (2001) found that the Bangladesh public service sector is ridden with corruption of various dimensions such as bribery, misappropriation, lobbying, pilfering, carelessness, bureaucracy, patronage, clientelism and so on.

Research Methodology

While preparing this paper, both the primary and secondary data were used. The primary sources of data included the Holy Quran and Hadith, and the secondary data included the various books, journals, periodicals, websites and published research papers related to the topic of the study. In many places of the article direct quotations have been used from The Quran, Translated into English by Talal Itani, (Itani, 2012). The process of qualitative data analysis has been emphasized because it is descriptive and analytical in nature.

Concept of Professionalism

The word professionalism was used by Plato as the practical skills, knowledge and moral excellence of a professional (Reid, 1998 cited in Beaton, 2010). According to the Merriam-Webster dictionary professionalism is "the conduct, aims, or qualities that characterize or mark a profession or a professional person" (Merriam-Webster's dictionary (n.d.). Emanuel (2004) defines professionalism as "a philosophy, a behavioral disposition, and a skill set that result from one of the fundamental relationships in human interaction." Vivanco and Delgado-Bolton (2015) refers professionalism as "the set of skills and values that characterize the essence of humanism in professional work". Advancing the concept, Beaton (2010) mentions that professionalism includes skills, knowledge, expertise, the virtues of trustworthiness and altruism. Evetts, (2018) denotes professionalism as an occupational value that is important for the constancy of society. According to Newton (1983) professionalism refers promises to the welfare and interests of common people. After analyzing the above- mentioned definitions, it is clear that professionalism encompasses fundamental knowledge, skill, qualification, standards, ethics, accountability, responsibility, fairness, and integrity in profession and continual development of these elements simultaneously.

Islam and Professionalism

Islam teaches what is right and what is the wrong in individual as well as in social life. Islam guides everybody to be a professional and teaches the methods to deal with professionalism accordingly. Professionalism in Islam shows one not only the ways to be responsible to oneself, but also the ways to be the responsible to other in the society. Hence to be professional to oneself indicates individual responsibility and to be professional to others indicates collective responsibility (Abdullah, 2004) and thus professionalism means both obligations in profession. In Islam, professionalism is founded on the two fundamental sources viz, the Quran and the Hadith. So this paper discusses service professionalism from an Islamic perspective, i.e., in view of the Quran and the Hadith, which requires men to be professional to themselves and at the same time to others.

Accountability and Responsibility in Islam: According to the Quran, Allah offered the trust-responsibility to the earth and mountains before human; and human has accepted it with all the responsibilities that it requires. Allah says: *"Had We sent this Quran down on a mountain, you would have seen it trembling, crumbling in awe of Allah. These parables We cite for the people, so that they may reflect"* (Quran, Al Hashr 59:21). This responsibility indicates human accountability to Allah for all actions. So, it is important for human beings to follow all the Islamic guidance and teachings that reflect the taqwa (righteousness) and promote ethics. These Islamic teachings are regarded as the yardstick to measure the attitude of accountability to Allah due to the fact that these can influence human behavior. Allah-fearing is the foundation of responsibility and accountability in all actions done by a human. The foremost responsibility of a professional is to do the best in profession so that the stakeholders are pleased and thus to seek the pleasure of Allah and attain His Mercy. Allah says; *"We created man in the best of form. Then reduced him to the lowest of the low. Except those who believe and do righteous deeds; for them is a reward without end'* (Quran, At- Teen 95:4-6).So, a man should try to achieve the best in his service so that he can hold the best for which Allah created him.

Truthfulness and Trustworthiness in Islam: Truthfulness is the most important in professionalism. A professional must always speak the truth in his/her work places or in every transaction. Allah said: *"O you who believe! Be conscious of God, and be with the sincere."* (Qur'an, At-Tawbah, 9:119). An Islamic professional always thinks that Allah is always watching him, and he is accountable to Allah. From this viewpoint, he tries to be truthful. The Prophet (PUBH) said, "Verily, truthfulness leads to righteousness and righteousness leads to paradise. A man may speak the truth until he is recorded with Allah as truthful. Verily, falsehood leads to wickedness and wickedness leads to the Hellfire. A man may tell lies until he is recorded with Allah as a liar" (Sahih Muslim). In another hadith the Prophet (PUBH) said: "A truthful and trustworthy businessman will stay with the prophets, truthful people and martyrs (on the Day of Judgment)" (Bukhari and Muslim). Likewise, telling a lie is considered to be a sign of hypocrisy. The Prophet (PUBH) said: *"Signs of a hypocrite are three: if he talks, tells a lie; if he promises, he violates; and if he is entrusted, he betrays"* (Al-Tirmidhi]). So, a professional should be truthful, reliable and trustworthy in performing his duty. They should be "ethical towards the individuals they serve and altruistic towards society as a whole. This tacit expectation of ethics and altruism leads to trust" (Beaton, 2010). Allah said: *"God instructs you to give back things entrusted to you to their owners"* (Qur'an An-Nisa', 4:58). The Prophet (PUBH) said: "The one who does not have trustworthiness does not have perfect faith." Indeed, the Prophet (PUBH) himself was known as *al-amin* (trustworthy) from his childhood. As a result; the residents of Makkah eagerly deposited their valuables with the Prophet (PUBH) for protection, when there was no system like modern banking.

Competence and Perfectness in Islam: Generally, professionalism is based on job skills and competences. A professional must address any lacks in skills through additional training (Kokemuller, n.d). So, a Muslim professional shall have professionalism in the best way and in the best possible manner. Allah says in the Quran *"You are the best community that has ever been raised for mankind: you advocate what is moral, and forbid what is immoral, and believe in Allah....* (Quran, Al-Imran 3:110). The Prophet (PUBH) says: Allah has prescribed the practice of *al-ihsan* in everything; if you need to take life lawfully, do it in the best manner; if you need to slaughter animal, do it in the best manner, sharpen your knife and let the animal have rest before slaughtering (Muslim). Here the word 'al-Ishan' has come from the word *'Hasan'* which indicates 'best practice' in performing duties by men and the core meaning of which is professionalism. In the Hadith *"So every one of you should sharpen his knife ..."* refers that a professional need to prepare very well in order to be a true professional and *"do it in the best way"* refers that a professional need to acquire needful skill for his job. Moreover, in the Hadith *"and let the slaughtered animal die comfortably"* refers that a professional need to try to become a true skilled one in the best way. A professional shall have perfectness in his service. Therefore, a professional should have up-to-date knowledge related to his arena of profession. For example: as the Prophet Yusuf had perfect knowledge of overseeing the assets, he was appointed by Pharaoh to supervise those. The Quran states: *"He (Yusuf) said, "Put me in charge of the storehouses of the land; I am honest and knowledgeable"* (Qur'an, Yusuf, 12: 55). This verse indicates that a professional should have perfect up-to-date knowledge; otherwise he will not able to do perfect job for human beings. The Prophet said: "Surely Allah loves one from among you who, when he accomplishes any work, accomplishes it perfectly."

Excellence in Islam: Islam always emphasizes to do good deeds and to be excellent in good deeds. The Quran states: *"And that the human being attains only what he strives for. And that his efforts will be witnessed. Then he will be rewarded for it the fullest reward* (Quran, An-Najm 53:39-41). The Quran further states: ".... *So try to excel in good deeds. To Him you will all return in the end, when He will inform you concerning that* *over which you used to differ.* (Quran, Al-Ma'idah). The Hadith says: *"Do good deeds properly, sincerely and moderately. . . Always adopt a middle, moderate, regular course, whereby you will reach your target (of paradise)"* (Al-Bukhari). Thus the Quran and Hadith highlight excellence in work and hints on professionalism. The Quran says: *"Say, "Shall We inform you of the greatest losers in their works?" "Those whose efforts in this world are misguided, while they assume that they are doing well."* (Quran, Al-Kahf 18:103-104). The Quran further says: *"The human being is in loss. Except those who believe, and do good works, and encourage truth, and recommend patience"* (Quran, Al-Asr 103).

Public Welfare in Islam: A professional should give the greatest importance to the public interest and welfare. This is because Allah said: *"....and whoever saves a person, it is as if he saved the whole of mankind."* (Qur'an, Al-Ma'idah, 5:32). The Prophet (PUBH) said: "Harm neither should be inflicted (to any one) nor should be reciprocated." A professional should have the target to offer aids to the people needing it. The Prophet (PUBH) said: "The one who helps his brother for his need Allah will also help him [this helper] in his need…." (Bukhari and Muslim). The Prophet (PUBH) further said: "The one who releases a believer from an anxiety of this world Allah will release him from an anxiety of the Day of Resurrection. And the one who helps a poor by making his life easy Allah will help him by making his life easy in this world and life hereafter…." (Muslim). Honesty, transparency and integrity are the foundation of professionalism (Kokemuller (n.d). So, a professional should uphold the integrity in his profession. He/she must not cheat anybody. Allah said: *"O people! Give full measure and full weight, in all fairness, and do not cheat the people out of their rights, and do not spread corruption in the land"* (Qur'an, Hud, 11: 85). The Prophet said: "The one who cheats is not one of us."

Justice and Corruption in the Light of Islam: Islam encourages social justice for the benefit of mankind, promotes ethics, social soundness, peace, security and ecological balance. On the other hand, Islam condemns corruption and that is why it prohibits people from participating in any sort of corruption due to the fact that by indulging in corruption people do unjust and harm to the public and society. So, a professional must not involve himself in any kind of corruption for personal benefits because corruption destroys all of his good deeds and creates disorder on earth. The Holy Quran states that *"Corruption (fasaad) has appeared on land and sea, because of what people's hands have earned……."* (Quran, Ar-Rum 30:41). The Quran says: *"Or are We to treat those who believe and do righteous deeds like those who make trouble on earth? ..."* (Quran, Saad 38:28). The Holy Quran further states *"O people! Give full measure* *and full weight, in all fairness, and do not cheat the people out of their rights, and do not spread corruption in the land"* (Quran, Hud 11:85). The holy Quran prohibits earning from any kind of illegal sources. Allah said: *"O you who believe! Eat of the good things We have provided for you, and give thanks to God, if it is Him that you serve* (Qur'an, Al-Baqarah, 2:172). The Prophet said: "Seeking lawful sustenance is obligatory for every Muslim." The Prophet further said: "Allah curses the one who offers bribe (to others), or receives it from others" (Sunan- ibn- Majah). Moreover, the Holy Quran says, *"And do not consume one another's wealth by unjust means, nor offer it as bribes to the officials in order to consume part of other people's wealth illicitly, while you know."* (Quran, Al Baqarah, 2:88). *"Allah instructs you to give back things entrusted to you to their owners. And when you judge between people, judge with justice. Allah's instructions to you are excellent. Allah is All-Hearing, All-Seeing.* (Quran, An-Nisa 4:58). *"O you who believe! Be upright to Allah, witnessing with justice, and let not the hatred of a certain people prevent you from acting justly. Adhere to justice, for that is nearer to piety, and fear Allah. Allah is informed of what you do"* (Quran, Al-Mayiedah 5:8). Indeed, *"Those who consume the wealth of orphans illicitly consume only fire into their bellies; and they will roast in a Blaze."* (Quran An-Nisa 4:10). *"And the sky, He raised; and He set up the balance. So do not transgress in the balance. But maintain the weights with justice, and do not violate the balance. 10. And the earth, he set up for the creatures* (Quran, Ar-Rahman 55:7-10) *"And We made them leaders, guiding by Our command; and We inspired them to do good works, and to observe the prayer, and to give out charity. They were devoted servants to Us* (Quran Al-Ambia 21:73,). From these Islamic viewpoints, any act that violates social justice is meant 'corruption'. The word 'corruption' is treated in Islam as *fasaad* which means disturbance that demoralizes human behavior and moral values, troubles justice and ethics, hampers rule of law, economic growth, sustainable development, weakens institutional foundation, persecutes the poor, causes inefficiency in the Government and carries inadequacies.

Corruption as a Factor Affecting Professionalism in Bangladesh: The term 'corruption' has several meanings. According to Jain (2001) corruption is an act done by public official contravening the ethics of professionalism in a way to gain personal benefit. Jain (ibid) also classified corruption as grand, bureaucratic, and legislative. By grand corruption, he meant an act of political elite, who change the national policies and their implementation procedures for the greatest interest of their own. By bureaucratic corruption, he meant an act of bureaucrats who deals with their superiors or with the public for their own benefit, and lastly by legislative corruption, he meant such conduct of the legislators which influence the voting behavior (cited in Chowdhury, Khan, and Akter, 2013). However, the concept of corruption in the Holy Quran means the misuse of entrusted power by which ethical values and justice are threatened, economic and social developments are hampered, human rights, rule of law and institutional foundation of a country are weakened and the poor become sufferer giving undue extra payment. Bangladesh has been ranked as the most corrupt country in the world. According to the 2018 Corruption Perceptions Index (CPI) reported by Transparency International, Bangladesh is the 149th corrupt country out of 180 countries in the world (Iftekharuzaman, 2019). There are various reasons behind corruption in Bangladesh. The most common forms of such corruption are bribes, abuse of power, nepotism, favoritism, fraud, patronage, theft and deceit. However, Islam and Ananya (2016) identified some reasons of corruption in Bangladesh and these are: greediness, lack of awareness, insufficient salary, and pressure of high officials, fear of transfer, influence of politicians, strong kinship, inequalities, rapid social and economic change, and political softness. The following discussion explains the current scenario of the extent of corruption that affects professionalism in Bangladesh.

Corruption in Public Administration: According to Bertelsmann Foundation (2012) public administration of Bangladesh is failing due to widespread corruption, lack of adequate resources, politicization of the bureaucracy and dominant patronage networks. Transparency International, (2011) reports that the public services of the country are influenced by extortion and bribery and this is why the poor are at the risk particularly in education and health sectors for their dependencies. Seventy-four percent of respondents opine through a study done by the Transparency International's Global Corruption Barometer in 2011 that the public administration of Bangladesh is corrupted. Another report says, political considerations are common at all levels of the Bangladeshi public administration (Global Integrity, 2010 as cited in Rahman and Jenkins (2019).

Corruption in Judiciary: Transparency International (2011) reports that, judiciary is corrupt to the half of the citizens in Bangladesh. According to this report clerks and lawyers play a dominant role in the bribery scheme in Bangladesh judiciary (Transparency International, 2007). BTI (2012) mentioned that in practice political interference on the Bangladesh judiciary is common although the independence of judiciary is seen in law passed in 2009. This report further mentioned that, the judiciary is influenced by the executive power at all levels particularly in recruitment and appointments, administration and decision-making. According to Global Integrity (2010) prevalent corruption, backlog of cases, and delay in the justice system interrupt right of access to justice for the people of Bangladesh.

Corruption in Police Sector: Transparency International's Global Corruption Barometer, 2011 reports that 82% of the citizens think police is the most corrupt institution in the country (Transparency International, 2011). Political influence and nepotism pervade the recruitment process of police. Bribery in recruiting, transferring and promoting police officers leads police to corruption and extortion (Freedom House, 2011). Moreover, havingbeen recruited under political consideration extrajudicial killing, arbitrary detention, harassment, murder and torture of targeted persons are rampant in the police (Freedom House, 2011).

Corruption in Education Sector: NORAD (2011) reports that education sector of the country is enclosed with corruption and bribery in many ways. Transparency International Bangladesh in 2010 also reported that one-fourth of Bangladeshi citizens believe the education sector as a corrupt sector and one-third report that they have paid a bribe to the education administration. Nepotism and bribery dictate the selection process of the stipends distribution among the students at local level of the country. Students are sometimes asked for operational fees and teachers are asked for bribes in their recruitment and training or in their basic administrative assistance by the local education officers (Transparency International Bangladesh, 2008).

Corruption in Health Sector: Many researchers revealed that the health sector of the country is widely corrupted. Corruption is common in medical colleges, clinics, public hospitals, and the offices of the civil surgeon. Transparency International Bangladesh in a survey found that corruption, bribery and patronage networks are widely extant in hospitals in Dhaka city (Transparency International Bangladesh, 2006 as cited in Rahman and Jenkins (2019).

Corruption in Water Sector: The Bangladeshi water sector is overwhelmed with corruption, abuse of power and bribery (Transparency International, 2008). A study conducted by Transparency International Bangladesh in 2012 reports that a large number of members of parliament engage in various criminal activities and corruption, including the offense of "taking illegal possession of government lands and water bodies".

Corruption in Social Safety Net Programs: BTI (2012) highlights that social protection in Bangladesh is limited. The Bangladesh government supports a number of social safety net programs to alleviate poverty, but corruption undermines the programs critically. Asian Development Bank, 2012 (cited in Rahman and Jenkins, 2019). reports that safety net programs as well as the old age allowance program are negatively affected by malpractices, inefficiencies, leakages of resources, inappropriate targeting, abuse of power, and corruption.

Corruption in Climate Finance: Though the Bangladesh Climate Change Trust Fund (BCCTF), the Bangladesh Climate Change Resilience Fund (BCCRF) and the Pilot Project for Climate Resilience (PPCR) lack transparency and democratic process in fund allocation as revealed by the World Bank in 2011. Moreover, according to Transparency International Bangladesh (2010) inadequate policies, weak monitoring and enforcement, weak project selection processes, lack of assessment and local participation, conflicts of interest in the enforcement of policies, lack of access to information, political influence are common in climate finance in Bangladesh.

Corruption in Public Procurement: Public procurement is also a deeply corrupt sector in Bangladesh. As per a report of Transparency International (2007) the construction sector of the country is also corrupted which obstructs development plan of the country. For example, the capital city of Bangladesh has become an overloaded, unplanned, and unhygienic jumbo city in the world. (Transparency International Bangladesh, 2007 cited in Rahman and Jenkins, 2019).

Impacts of Corruption

The World Bank shows that corruption deteriorates service delivery, misuses country's resources, obstructs country's economy to reduce poverty, destabilizes country's reform process, turns away foreign investors, lessens government revenue, weakens people's trust, and declines credibility (Zafarullah and Siddiquee, 2001). Similarly, Islam and Ananya (2016) revealed that, due to widespread corruption rule of law, good governance, economic progress and poverty reduction programs of a country are seriously hampered. Corruption negatively influences country's economy, per capita growth rate and income distribution as observed by Bhattacharya, Rezbana, and Fuad (n.d). Corruption impacts per capita GDP (Pulok, 2010), slows economic growth (Transparency, 2009), obstructs country's efforts to reduce poverty, hampers economic growth, destroys citizens' faith in the government, discourages the foreign and domestic investment, undermine the country's development capacity (Mahmood, n.d), holds back economic development, misleads country's politics and administration and dwindles welfare of the community, impedes development, leads to the forfeiture of public trust, thwarts constructive initiatives toward political and economic movement in the public sector (Zafarullah and Siddiquee (2001), weakens the institution, thwarts country's economy and development (Bertelsmann Foundation, 2012), swipes government resources, cuts the efficacy of the public administration, impedes the government policies and lessens public confidence (Pulok, 2010 cited in Overview of corruption and anti-corruption in Bangladesh). Above all corruption greatly affects the marginalized people of the society. IDPAA (2007) reports that, due to corruption they are not able to pay for food and send their children in school, they are deprived of medical facilities and business. The United Nations (UN, 1990) reported that extension of corruption affects economic growth, destroys government resources, affects public confidence in the service sector, threatens administrative reform and accountability measures, and extends inequalities in the society.

Relevance of Professionalism in Contemporary Bangladesh

The relevance of professionalism is increasing in the modern professionalized society. Noting this, Harold Perkin (Perkin, 1989, p. 2 cited in Beaton, 2010) articulates that the twentieth century is the century of professional experts. Taking Perkin's observation into account, Beaton (2010) states that the relevance of professionalism is increasing from the time when the Industrial Revolution occurred and it is continuing to get preference due to the specialization and proliferation of new knowledge and the emergence of numerous Neo-professions in the modern professionalized world. Because of the expansion of knowledge, information and technology, many new professions are growing at all levels of the society in the modern age and need particular knowledge, training and professionalism. Other reasons behind the importance of professionalism are to build public satisfaction, improve mutual relationships, trust, and efficiency between the professionals and common people. Professionalism is a factor which affects every aspect of profession. A lack of professionalism can affect individual or can even affect the common people. While Bangladesh has the fastest rising economy with a GDP growth rate of 7.1 percent (2016)(Kallol, 2017), demonstrated remarkable success in reducing poverty since 2000, (Ahmed, 2016), made noteworthy progress in various socioeconomic sectors over the last few years and her performance in Millennium Development Goals (MDGs) is high among the LDCs (Bhattacharya, Khan, Salma and Uddin), Bangladesh could have achieved much more if professionalism could be uphold.

Conclusion and Recommendation

According to the objectives of the study, the main findings clarifies that Islam underlines the importance of professionalism. Islam urges people to be more professional in their professions in order to be successful both in this life and hereafter. Islam teaches that people should be true professionals in their respective professions or activities by practicing honesty, truthfulness, trustworthiness, transparency, responsibility, patience, sincerity, justice, acquiring skill and knowledge and which are the main qualities for a successful professional. The study revealed that the Prophet Muhammad (PUBH) was known as Al-Ameen (trustworthy) and that was one of the main reasons for his later success. Bangladesh is a Muslim majority country and Islam is the state religion. In line with that, a Muslim should think what and how he or she can provide to the advancement of the common people and society. Furthermore, as an agent (Khalifa) of the creator on the earth Muslim should work for the betterment of others and should always remain obedient to Allah. If a Muslim professional upholds professionalism and excels in his profession, he/she can gain the pleasure of Allah and thus he/she may be successful in the next life as well. From this discussion, it is quite clear that the public sector is engrossed in various forms of corruption and these are bribery, favoritism, nepotism or clientelism, fraud and extortion or abuse of power. Professionalism has long been a burning question as many people believe that it is a must in service sectors. Usually, adherence to the rules in service and moral conduct to the people are the basis of professionalism and that is the philosophy of Islam. There is a frequently asked question on how to create the public sector corruption-free and to make it functional in the paramount way and the best possible answer is to acquire professionalism from an Islamic perspective. But how if the public sector disregards and ignores the Islamic ideology? So, the government, the media, GOs, NGOs, CSOs and educated religious section of the country must take the necessary step to teach Islamic philosophy and ideology in services by motivating them to think about their obligations. By drawing attention to the Qur'an and Hadith, they can raise public awareness, Islamic values, and take steps in the public sector to establish effective professionalism. Ultimately, it is true that Islam examines people's attitudes toward all kinds of immoral practices, not just to allow or reject corruption. This study shows that all sectors of the country are involved in corruption without any due regard to the Islamic values knowingly or unknowingly. Therefore, efforts from all levels of society and government need to be taken to strengthen Islamic ideology, ethics, moral values, and virtues to eradicate corruption from its root. Bangladesh should formulate comprehensive Islamic code of ethics besides all other current points of ethics for Muslim professionals mentioning "solemnly promise" by the name of Allah at the beginning of the code and taking the oath to follow the guidelines of Islam.

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Teaching Strategies to Achieve Learners' Motivation in Foreign Language Classroom: the Perceptions of Undergraduates

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Abstract: Motivation is one of the most notable factors for acquiring success in learning a foreign language. Many students fail to completely acquire English in Bangladesh, although they start learning this foreign language from their early childhood. There are several socio-psychological factors that influence students' motivation to learn English as a foreign language. Motivational factors may vary from age to age. Being adult, undergraduates take responsibilities of their own learning. So teachers should consider learners' suggestions in their teaching strategies. Therefore, the present study aims to explore how specific motivation factors pointed by undergraduate learners can be considered in the teaching strategies. Both quantitative and qualitative approaches have been used to collect all the essential information from the randomly selected two hundred fifty undergraduate students from different departments of University of Barishal, Bangladesh. The findings have revealed that classroom facilities, teachers' personalities along with their teaching methods highly influence EFL learning motivation of the students. Considering their perceptions, a number of pedagogical recommendations have been framed as teaching strategies to boost motivation in teaching English as a foreign language to undergraduates.

Keywords: Motivation, foreign language, learning, acquisition, strategies.

Introduction

In English Language Teaching (ELT), motivation is connected to class room teaching and it plays a very significant role in engrossing the students' attention. Currently, communicative approach is the most widely adopted English Language Teaching approach in the world. The academicians of ELT in Bangladesh with the backing of the Government have advocated CLT in the general education. CLT requires interactive classroom activities with the integration of the four language skills of reading, writing, listening and speaking. Before a student acquires all these skills, he or she has to develop interest towards the language by being motivated. Thus, motivation plays a significant role in developing the communicative competence of the students in English as a foreign language. Apart from other requirements, such as the investment of time and effort, and a proper learning environment with qualified teachers, learners need to possess a strong motivational force to ease and expedite

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learning. In a general sense, motivation is an excellent driving force which creates an urge in humans to perform certain tasks (Dörnyei, 2001). English has been regarded as an International language and it has also been evaluated as the commonest foreign language, used for communicating and exchanging ideas among different nations and societies throughout the world. Advancements in technology have helped individuals around the world to draw closer, and it is the Internet, which has aided English to obtain its current status (Barnett, G.A., Bum and Rosen, 2000). Because of this current status, English is being taught and learnt as a second or foreign language more than any other language around the world (Richards and Rodgers, 2001). Accordingly, it has also become a fundamental need for the people all over the globe to learn English so that they can secure their cultural, political and economic requirements. Motivation has widely been accepted by both teachers and researchers as one of the key factors that influence the rate and success of foreign language (L2) learning. It is motivation, which provides the primary impetus to initiate learning the L2 and later the driving force to sustain the long and often tedious learning process (Dörnyei, 1998). Thus, it can be presumed that motivation influences the success of language learning which has relevant and essential value in learning a foreign language, especially English. There are several socio-psychological factors that influence students' motivation to learn English as a foreign language. Hence, the present study is designed to determine how the specific teaching strategies influence the motivation of the students of Barishal University to learn English as a foreign language in Bangladesh.

From the documentation of the previous studies, it is now evident that many students cannot completely acquire English in Bangladesh although they start learning this foreign language in their early childhood. Many students at university fail in acquiring English. Some have the best abilities, yet they hardly succeed in the learning procedure because the learner cannot achieve long term goals without the sufficient amount of motivation. Therefore, the big problem is demotivation; neither appropriate curricula nor good teaching is sufficient. Consequently, poor level of learners in EFL classrooms is due to that they are not sufficiently motivated to achieve a sustainable English learning (Aggouni, 2015).

Objectives

From the above discussion on the background, statement of the specific problem and purpose of the study, this research has focused on attaining the following objectives:

1. To locate learners' motivational area to learn a foreign language from previous literature

2. To know learners' perception on the strategies that may motivate undergraduate learners in acquiring English as a foreign language

3. To frame effective teaching strategies for EFL classroom that may motivate undergraduate learners in learning or acquiring English

4. To set recommendations for the future researchers

Therefore, in the pursuit to settle the above mentioned issues, this research has attempted to find out the answer of the following research question set in this study: What, according to the undergraduates, can be the EFL classroom teaching strategies that can ensure learners' motivation?

Literature Review

Motivation is one of the learning variables that are considered as an affective filter in language acquisition. Previous researchers, psychologists and educationist define motivation in many ways. According to Keller (1983), "Motivation refers to the choices people make as to what experiences or goals they will approach or avoid and the degree of effort they will exert in this respect." Crookes and Schmidt (1991) have confirmed, "Motivation is the learners' orientation with regard to the goal of learning a second language." According to Macintyre et al. (2001), "Motivation is an attribute of the individual describing the psychological qualities underlying behavior with respect to a particular task. This goal-directed behavior shows itself through distinct actions of the motivated individual." Woolfolk (2004) has pointed out, "Motivation is an internal state that arouses, directs, and maintains behavior."

The role of motivation in individual has been depicted in many ways by the previous researchers. Dörnyei (2001) has also described this explicitly in his study: "The motivated individual expends effort, is persistent and attentive to the task at hand, has goals, desires and aspirations, enjoys the activity, experiences reinforcement from success and disappointment from failure, makes attribution concerning success and or failure, is aroused, and makes use of strategies to aid in achieving goals."

The role of motivation in second language learning has also been considered in the previous studies. Crookes and Schmidt (1991) have confirmed, "Motivation is the learners orientation with regard to the goal of learning a second language." Uddin (2017) has stated that motivation is a crucial force which determines whether a learner embarks on a task at all, how much energy she or he devotes to it, and how long she or he preserves. It is a complex phenomenon and includes many components such as: The individual's drive, need for achievements and success, curiosity, desire for stimulation and new experience, and so on. The role of motivation in Bangladesh is different from other countries as students learn English only for instrumental motivation and integrative motivation is almost irrelevant due to the contextual and cultural reasons. For this reason, majority of the students in Bangladesh learn English from the perspective of instrumental motivation with the purpose of easing their education and getting better employment and career opportunities both in home and abroad (Rukanuddin, 2014). Zaman (2015) has studied the role of motivation in second language learning of Private University students in Bangladesh and showed that motivation plays an important role for students' language learning and their performance. It is very necessary to create positive and supportive atmosphere for them. Kabir (2015) has stated that one of the important factors that restrict motivation of students is the prevailing Testing System that does not comprise speaking and listening skills of students. Due to this fact, institutions appear to have no objective of preparing learners for overall linguistic or communication skills. A good number of respondents of this study have confirmed that passing in the examinations is the core reason behind their learning. Ahmad (2007) has presented a study on motivation of the EFL Learners at Higher Secondary Level in Bangladesh and showed that the most important orientation of urban learners at Higher Secondary level in Bangladesh is highly instrumental while the rural subjects showed two types of motivational orientation: resentment and instrumental motivation, which is similar to what Agnihotri and Khanna (1997) termed as 'Instrumental despite resentment'. His research has studied the correlations of different affective factors and claimed that sex difference, location, economic and educational background have positive correlation with motivational intensity whereas classroom anxiety has a very harmful effect on strength of motivation for learning EFL. In Ahmad's study, only one out of eight colleges was found to provide sufficient space in classrooms for comfortable "Class-size" to ensure adequate classroom interaction (Ahmad, 2007). He stated one of the most important facts found in his study that none of the English teachers were trained to teach present course according to prescribed CLTA. Two of them attended daylong workshops only. That is why the teachers found it to be tough to teach EFL following CLTA which demotivated the learners (Ahmad, 2007). Rukanuddin (2014) investigated the reasons why the tertiary level students of Bangladesh learnt English language and found out what motivated or inspired them to learn English. This study has explored the kind of motivational orientation the Bangladeshi students have in learning English from three kinds of motivation: instrumental, integrative and global and determines that Bangladeshi students, specially the tertiary level students of Bangladesh, do not learn English to integrate or, assimilate themselves with the culture of the native speakers of English, rather they learn English for some practical purposes like getting high ranking jobs or undertaking higher studies, achieving success in career etc. Students' parental encouragement is directly related to their education and backgrounds and it is noted that tertiary English teachers can deal with students much effectively in their classrooms. If teachers understand the differences of motivation according to the learners' backgrounds, they will be able to come up with efficient classroom management and teaching strategies (Ahmed, 2018).

Research based on motivation in learning English either as a foreign language or as a second language is inadequate in Bangladesh compared to the studies conducted globally, although students in Bangladesh study English as a compulsory subject from the very elementary level (Rahaman, Nuruzzaman and Chanda, 2016). Therefore, the role of motivation in English for foreign or second language in Bangladesh is different from other countries. For example, Gardner and Lambert (1959) have observed that learners, who are motivated in an integrative way, tend to be more successful than the learners who are otherwise motivated. Contrarily, researchers in Bangladesh in the same field have found that in a situation where English is taught and learnt as a foreign language, integrative motivation has insignificant role to play (Rukanuddin, 2014). Haque (1994) in Rukanuddin (2014) found that the learners of English in Bangladesh were mostly instrumentally motivated, because the students in Bangladesh learnt English for the purpose of easing their higher education and getting better employment opportunities. They did not seem to learn English for the sake of knowing deeply about the culture and people who were native speakers of English. They were not interested in getting integrated with any English speaking group of people either. Their intention in learning English was to use it as an instrument for practical gain, not for expressing solidarity with any group of native speakers of English (Haque, 1994; as cited in Rukanuddin, 2014).

Hence, based on Dörnyei's 'Motivational Self-System model', the present study sheds light on motivation and explains how students' motivation gets influenced by different socio-psychological factors and aims at finding learners' perception to frame classroom strategy that uses specific motivational factors for better achievement in foreign language learning and acquisition. Therefore, methodological sketch has been applied in an appropriate manner to find out the answers of the research questions and attain the objectives of the present study.

Methodology

The present study is based on Dörnyei's Motivational Self-System model, which sheds light on motivation and explains how students' motivation gets influenced by different socio-psychological factors. The questionnaire, individual interviews and focus group discussion have been set by following the specific model proposed by Dörnyei. The research has been carried out among two hundred and fifty (250) students of the

University of Barishal. All of them have participated in the questionnaire survey. Ten students among this population have been selected for the individual interviews while eight students have been chosen to take part in the focus group discussion from the respondents. All of the respondents showed great enthusiasm to contribute for the study through their active as well as sincere participation. Data of this research were collected from 1st September to 24th September, 2019 as a part of MA thesis under the department of English, Barishal University. For the quantitative data collection the questionnaire survey was carried out from 1st September to 15th September, 2019. The qualitative data were collected through individual interviews from September 16th to September 21st, 2019. The duration of the per day interview session was thirty minutes and two interviewees were interviewed on each day of the sessions. The researchers also collected qualitative data through focus group discussion from September 22nd to September 24th, 2019. The questions in the questionnaire, the individual interviewees' statements and the issues considered in the focus group discussion covered the area of the present study. The present study is claimed as reliable since the research methodology is expected to reveal consistent results while being conducted in the same context with the same participants using different research instruments.

Findings and Discussions

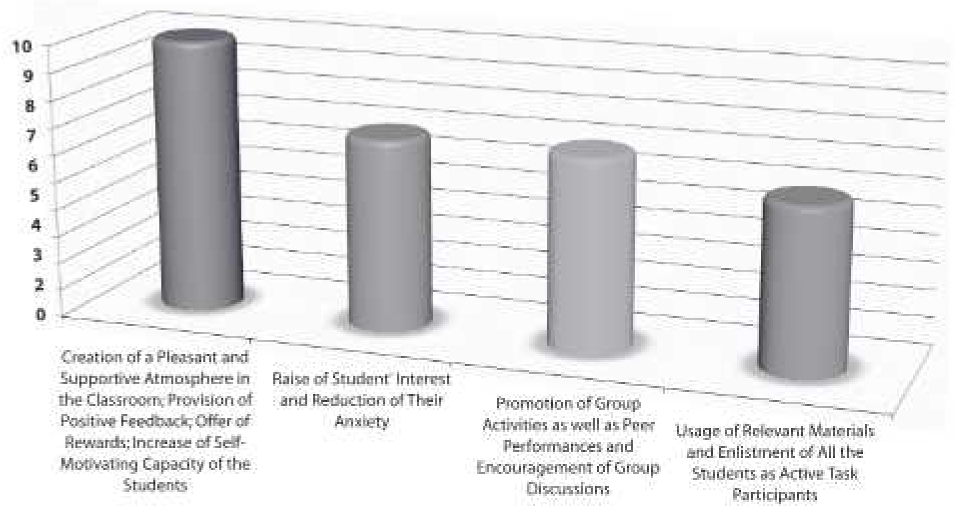
Data has been presented and described in accordance with the instruments used for data collection and then summarized in this section.

Table – 1: The Results of Questionnaire Survey

		Frequency	Percentage	Mean	Standard Deviation
Creation of a Pleasant and Supportive Atmosphere	Agree	210	84.0%		
	Neutral	26	10.4%	1.22	0.531
	Disagree	14	5.6%		
Promotion of Group Activities and Development of Group Cohesiveness	Agree	206	82.4%		
	Neutral	15	6.0%	1.29	0.664
	Disagree	29	11.6%		
Presentation of Peer Role Models through Cooperation of All the Students	Agree	181	72.4%		
	Neutral	11	4.4%	1.51	0.847
	Disagree	58	23.2%		

		Frequency	Percentage	Mean	Standard Deviation
Encouragement for Group Discussions	Agree	180	72.0%		
	Neutral	22	8.8%	1.47	0.797
	Disagree	48	19.2%		
Arrangement of Language Skill-Related Games and Usage of Online Materials	Agree	83	33.2%		
	Neutral	26	10.4%	2.23	0.920
	Disagree	141	56.4%		
Promotion of Learner Autonomy and Enhancement of Confidence among the Students	Agree	106	42.4%		
	Neutral	22	8.8%	2.06	0.955
	Disagree	122	48.8%		
Usage of Relevant Materials and Enlistment of All the Students as Active Participants	Agree	133	53.2%		
	Neutral	20	8.0%	1.86	0.940
	Disagree	97	38.8%		
Provision of Positive Feedback, Offer of Rewards and Increase of Self-Motivating Capacity of the Students	Agree	201	80.4%		
	Neutral	14	5.6%	1.34	0.711
	Disagree	35	14.0%		
Raise of Students' Interest and Reduction of Their Anxiety	Agree	137	54.8%		
	Neutral	27	10.8%	1.80	0.924
	Disagree	86	34.4%		
Promotion of Integrative Values among Students through the Encouragement of Open-Minded Disposition Towards the L2 Community	Agree	186	75.0%		
	Neutral	25	10.1%	1.40	0.740
	Disagree	37	14.9%		

Creation of a pleasant and supportive atmosphere in the classroom: The respondent EFL learners have affirmed that their teachers influence their EFL learning motivation by creating pleasant and supportive classroom environment; *Promotion of group activities and development of group cohesiveness*: These students have confirmed that their EFL learning motivation increases by these specific teaching strategies; *Promotion of peer activities through cooperation of all the students*: This teaching strategy influences the EFL students' motivation as they feel more comfortable to complete their class activities with their peers or classmates; *Encouragement for group discussions and usage of online materials*: These are the most significant motivational teaching strategies followed by the teachers of this University; *Usage of relevant materials and enlistment of all the students as active task participants*: They have asserted that their teachers use relevant teaching materials but most of them have confirmed that they are not enlisted as active participants in the class which is a notable motivational teaching strategy for their English learning; *Provision of positive feedback, offer of rewards and increase of self-motivating capacity of the students*: Almost all of them have assured that their EFL learning motivation is fostered when their teachers provide them with positive feedback, offer them rewards and increase their self-motivating capacity; *Raise of students' interest and reduction of their anxiety*: Most of the teachers of this University raise the students' interest by reducing their anxiety in the class; and *Promotion of integrative values among students through the encouragement of open-minded disposition towards the L2 community*:



Daigram-1: The most preferred significant motivational strategies according to the respondents

As shown in the diagram-1, the respondents *have* mostly preferred *Creation of a pleasant and supportive atmosphere in the classroom, Raise of students' interest and reduction of their anxiety, Promotion of group activities and development of group cohesiveness and Usage of relevant materials and enlistment of all the students as active task participants as teaching strategy to lift learners' motivation in EFL classroom.*

Results from Qualitative Study

The researchers conducted in-depth interview and focus group discussion with the selective respondents from the population of the study who participated in the questionnaire survey.

The results of the study have been cross checked with the results of the individual questions used for questionnaire survey. In most of the cases, same types of responses have been found by the researchers. Yet, there is disagreement in few cases. In some cases, different results were also found. The in-depth interview revealed that most of them preferred learners' autonomy in their language activities and in focus group discussion, almost all of respondents asserted that promotion of learner autonomy and enhancement of confidence among the students worked as the best motivational factors. The respondents of in-depth interview and focus group discussion let the researcher know that they did not understand the term 'Autonomy' while responding to the questionnaire survey. In case of 'Arrangement of Language Skill-Related Games and Usage of Online Materials', respondents of both in-depth interview and focus group rejected arrangement of language skills-related games to motivate them but if online materials were interesting and seemed useful, they might feel motivated. The respondents of the focus group discussion let the researchers of the present study know that they thought that games might motivate child learners, not the adults.

To summarize the main findings using both qualitative and quantitative approach it is found that the following motivational teaching strategies motivate the EFL learners of this University and the above mentioned motivational factors can be considered in these specific teaching strategies to foster their English language learning: The respondent students have inferred that the particular strategies may be adopted in their classrooms to motivate them in learning English language.

Recommendations

This section provides several suggestions in the following three segments after exploring the motivational factors and teaching strategies that influence the students' motivation to learn English as a foreign language in Barishal University, Bangladesh.

Suggestions for the Teachers

This specific segment represents the following suggestions for the teachers of English as a Foreign Language at the university level to encourage the EFL learning motivations of their students.

1. As revealed in the findings of the study, EFL learners have affirmed that their teachers influence their EFL learning motivation by creating pleasant and supportive classroom environment. The finding requires the teachers build a friendlier as well as a healthier relationship with the students and also bridge all sorts of gaps among them. The teacher may also introduce language skill-related games in the EFL classroom to foster their students' motivation in learning English.

2. Providing positive feedback, offering rewards and increasing self-motivating capacity of the students are found to be important teaching strategies. Keeping those in consideration, the teachers as classroom activities should regularly offer rewards to the EFL learners which will highly encourage them to become motivated throughout their EFL learning process. The teachers should enlist all the students in the EFL classrooms as active task participants to foster the students' motivation towards English learning

3. Since the respondents of the study opined that promotion of group activities and development of group cohesiveness and promotion of peer activities through cooperation of all the students motivate them in EFL learning, teachers should consider the fact. They should provide more peer activities in their classes to activate the students' motivation in EFL learning. They should arrange one or two mandatory interactive group based sessions, in every week, other than their class periods. They should divide the students in groups and teach them in those particular groups for having a better understanding about their learners. And if there are more teachers in number at the departments then all the teachers should teach them in the specific groups for certain periods and then shuffle the classes with the other teachers, so that the learners can avail themselves of all the types and variation of learning procedures, receiving and acquiring more learning strategies, tips and techniques from different teachers. Thus, the students will also be monitored under the direct supervision of those particular teachers in the fixed period of their teaching sessions. They should provide more peer activities in their classes to enhance the students' motivation in EFL learning.

4. Raising students' interest and easing of their foreign language anxiety have been recorded as important teaching strategies to enhance EFL learning motivation from the perceptions of the respondents of the present study. Thus The teachers should direct considerable number of sessions at the departments to mold the students as motivated learners by lowering their affective filters (being completely free from fear, anxiety, shyness, stammering, trembling, etc.), so that the students can achieve language skills successfully.

5. Almost all of the respondents of in-depth interview asserted that promotion of Learner Autonomy may boost their learning motivation. Considering the findings, the teachers should introduce leaners' autonomy in their EFL classrooms so that the students can take their own learning responsibilities and initiate their self- motivating capacity to learn English language.

Suggestions for Further Research

Substantial number of researches should be carried out at the tertiary context to find out the motivation of the students towards English language learning in terms of their socio-economic backgrounds, age and gender. Considerable studies should also be conducted to look for newer influential factors motivating the EFL learners towards English language learning.

Conclusion

Since motivational factors vary in accordance with individual differences, age, social factors and situations, the researcher has accomplished an important work in revealing student's perceptions and preferences. It will let the teachers, policy makers and researchers know learners' perceptions and their needs which are central to teaching strategy. The study has limitations too. It has collected sample only from one university and it has not considered gender or other variables separately in accomplishing the study. Yet, the study has revealed important motivational factors that will contribute to enhancing student's motivation to learning English and teachers will get proper inputs to frame strategy that can motivate learners for successful EFL class.

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Appendix- A

Motivational Teaching Strategies

1) My teacher creates a pleasant and supportive atmosphere in the classroom.
Strongly agree ☐ Agree ☐ Neutral ☐ Disagree ☐ Strongly disagree☐

2) My teacher promotes group activities and develops group cohesiveness.
Strongly agree ☐ Agree ☐ Neutral ☐ Disagree ☐ Strongly disagree☐

3) My teacher promotes peer activities through cooperation of all the students.
Strongly agree ☐ Agree ☐ Neutral ☐ Disagree ☐ Strongly disagree☐

4) My teacher encourages group discussions among all the classmates and uses online materials to teach us in the class.
Strongly agree ☐ Agree ☐ Neutral ☐ Disagree ☐ Strongly disagree☐

5) My teacher arranges language skill-related games.
Strongly agree ☐ Agree ☐ Neutral ☐ Disagree ☐ Strongly disagree☐

6) My teacher promotes learner autonomy and thus, enhances our confidence.
Strongly agree ☐ Agree ☐ Neutral ☐ Disagree ☐ Strongly disagree☐

7) My teacher uses relevant teaching materials and enlists all of us as active task participants.
Strongly agree ☐ Agree ☐ Neutral ☐ Disagree ☐ Strongly disagree☐

8) My teacher provides us with positive feedback, offers us rewards and increases our self-motivating capacity.
Strongly agree ☐ Agree ☐ Neutral ☐ Disagree ☐ Strongly disagree☐

9) My teacher raises our interest in learning English and helps us to diminish language anxiety by removing or reducing the anxiety-provoking elements in the learning environment.
Strongly agree ☐ Agree ☐ Neutral ☐ Disagree ☐ Strongly disagree☐

10) My teacher promotes integrative values among us by encouraging a positive and open-minded disposition towards the L2 community.
Strongly agree ☐ Agree ☐ Neutral ☐ Disagree ☐ Strongly disagree☐

Signature of the Respondent
Date:

Appendix- B

Statements for Individual Interviews and Focus Group Discussion

1.Creation of a pleasant and supportive atmosphere in the classroom; provision of positive feedback, offer of rewards and increase of self-motivating capacity of the students.

2.Raise of Students' Interest and Reduction of Their Anxiety.

3.Promotion of group activities as well as peer performances and encouragement of group discussions.

4.Usage of relevant materials and enlistment of all the students as active task participants.

5.Arrangement of language skill-related games and facilitation of learner autonomy.

Teachers' Perceptions and Practices of the Curriculum and the Textbook of Bangladesh and Global Studies (BGS) at Grade IV in Bangladesh

Mabia Momen[1]

Abstract: This study investigated teachers' perception of the Bangladesh and Global Studies (BGS) curriculum and textbook at grade IV and their current practices in the classroom. Specifically, the study sought to gain an understanding of the teachers' knowledge and the use of different methods, techniques and tools in the classroom to support both the teaching and the learning process. The study had two objectives: The first objective was to identify teachers' knowledge of the BGS curriculum and textbook at grade IV and the second objective was to determine teachers' general practice of BGS subject in the classroom of grade IV. To obtain the objectives of the study research tools such as questionnaire, focus group discussion, classroom observation checklist and document analysis were used. It was found that most of the teachers have vague concepts about the curriculum and textbook of BGS at grade IV and their classroom practice is also limited to a few methods and techniques. As they perceived lecture method and textbook-oriented teaching as the main techniques of their practice they also use these techniques in the classroom. On the basis of these types of results, some recommendations are made like ensuring the curriculum and teachers' guide dissemination, learning outcomes should be conjoined at the beginning of the contents and continuous monitoring of teachers professional activities ought to be ensured to overcome the low teacher productivity in the classroom. Apart from this, the study also suggested further study to explore teachers' views on their practice in the classroom.

Keywords: Teachers' perceptions, teachers' guide, Bangladesh & Global Studies (BGS), curriculum, teacher's practices.

Introduction

A curriculum is a plan for learning offered at a school or university. It's a set of courses and their content. Curriculum has become the instrumentality by which schools seek to translate our hopes for education into concrete reality (Krug, 1957). The textbook is a printed part of the curriculum which plays a role of instructional material for teachers and students generally in classroom. The textbook is enriched by different types of illustration and exercises which help the students to get learning outcome. Textbooks are fundamental elements of any curriculum that a child must interact with during his or her learning and development stages (Lockheed & Verspoor, 1991).

Social science is an integrated subject which discusses different areas of knowledge. Social science deals with social, political, economic, religious, cultural, philosophical aspects of life and society. One of the prime interests of

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social science education is to build good citizens. Students learn social norms, values, culture and their responsibility to society and many other things in social studies and teachers are the pioneer of this system. (Afroz, 2014).

The social studies textbooks have a great influence on our curriculum. In 1976, the social studies curriculum was first introduced at primary level in Bangladesh. This curriculum was functioning up to 1995, in the same year it was evaluated. In 1996, a new social studies curriculum was written and till 2012 it has been continued. According to National Education Policy 2010, a new and up-to-date social science curriculum has written for primary level in 2012. The name of the social science textbook was renamed as Bangladesh and Global Studies (BGS).

Rationale of the Study

This study is carried out to explore teachers' knowledge of the Bangladesh and Global Studies curriculum and textbook at grade IV and their practice in the classroom as the social terms and values of the new curriculum of primary education and the content of the book are included in recent years. Therefore, it is necessary to discover the present situation of teachers' perception of Bangladesh and Global Studies curriculum and textbook at grade IV that how they are assuming the terms in curriculum and book. Teachers' elaborate and exact knowledge is essential for their classroom practice and students' learning. Teachers' knowledge affects on their practice in the classroom. However, Feldberg et. al. (2006) explored the fact that primary education in Bangladesh suffers from insufficient classrooms, teachers' absence, low academic performance of students and the economic conditions of families. Learning achievement of functional literacy and numeracy of the students are poor.

The National Curriculum and Textbook Board changed the book's name to Bangladesh and global Studies from Social Science in 2013 on the basis of National Education Policy 2010. The contents of the book are also revised. Since then, the teachers who are teaching this subject in schools are provided training but their perception, their thought, their suggestions are not examined in any research field. Therefore, it is very vital to know about the recent practices of the curriculum and textbook by the teachers of Bangladesh and Global Studies. It is not only important to gather information about this but also know the challenges they face to following the curriculum of Bangladesh and Global Studies at grade IV. It is established that all learning is related to practice. If any learning is not practiced, it might be forgotten and useless. It is also important to identify the students' and Head Teachers' views on how their teachers are practicing activities of the textbook in the classroom. That's why the study is very rational to reveal the practices of Bangladesh and Global Studies curriculum and textbook at grade IV in the classroom.

Objectives of the Study

The overall objective of the study was to analyze teachers' knowledge of BGS curriculum and textbook at grade IV and its practice in the classroom.

The specific objectives of the study are-

I. To identify teachers' perception of the Curriculum and Textbook of Bangladesh and Global Studies at grade IV in Bangladesh

II. To investigate teachers' general practices on Bangladesh and Global Studies subject in the classroom of grade IV.

Significance of the Study

The study would help to understand the present practices of Bangladesh and Global Studies at grade IV in the classroom along with hindrances to better teaching besides, getting guidelines for teachers' improvement in active teaching in Bangladesh and Global Studies. This study can further inform ways and means of better training for the teachers of Bangladesh and Global Studies.

The study could be helpful for the curriculum experts, educationists and teachers. The study can also be helpful for the trainers and educators for designing and developing training and related materials. It may be resourceful for the education managers to think about how the monitoring and other administration can be for the effective implementation of teachers' perception and practice in the classroom. In addition, the study might be resourceful for the government and non-government authorities to develop the learning facilities in school required for the Bangladesh and Global Studies subject.

This study focused on knowledge of the teachers and their practice in the classroom to collect information in order to understand problems and hindrance of the teachers while teaching Bangladesh and Global Studies subject in the classroom. It is hoped that the study will provide some new information on teachers' knowledge and practice in the classroom about the curriculum and textbook of Bangladesh and Global Studies of class IV.

There are 29 terminal competencies fixed for primary level at education in Bangladesh. (NCTB,2012) According to Bloom's taxonomy, it is found that the same number of the competencies come from cognitive, affective and psychomotor domains. There are 15 terminal competencies presented in the BGS curriculum at primary level. There are also 76 learning outcomes presented in the curriculum fixed on the basis of the terminal competencies. According to Bloom's taxonomy, the learning outcomes are divided into cognitive, affective and psychomotor domains.

There are 16 chapters in the textbook of BGS textbook and the contents are divided into society, individual's attitude, geography, history and culture-related topics. Learning outcomes are prepared and fixed for every chapter which is mentioned in the curriculum. The contents of every chapter are prepared on the basis of terminal competencies. Each chapter is divided into two or three parts. Every content is described on two pages, the lesson is presented in the left side and the learning activities are given on the right side of the textbook thus teachers can easily relate the content with the learning activities and students can also find the notified activities given beside the contents.

Methodology

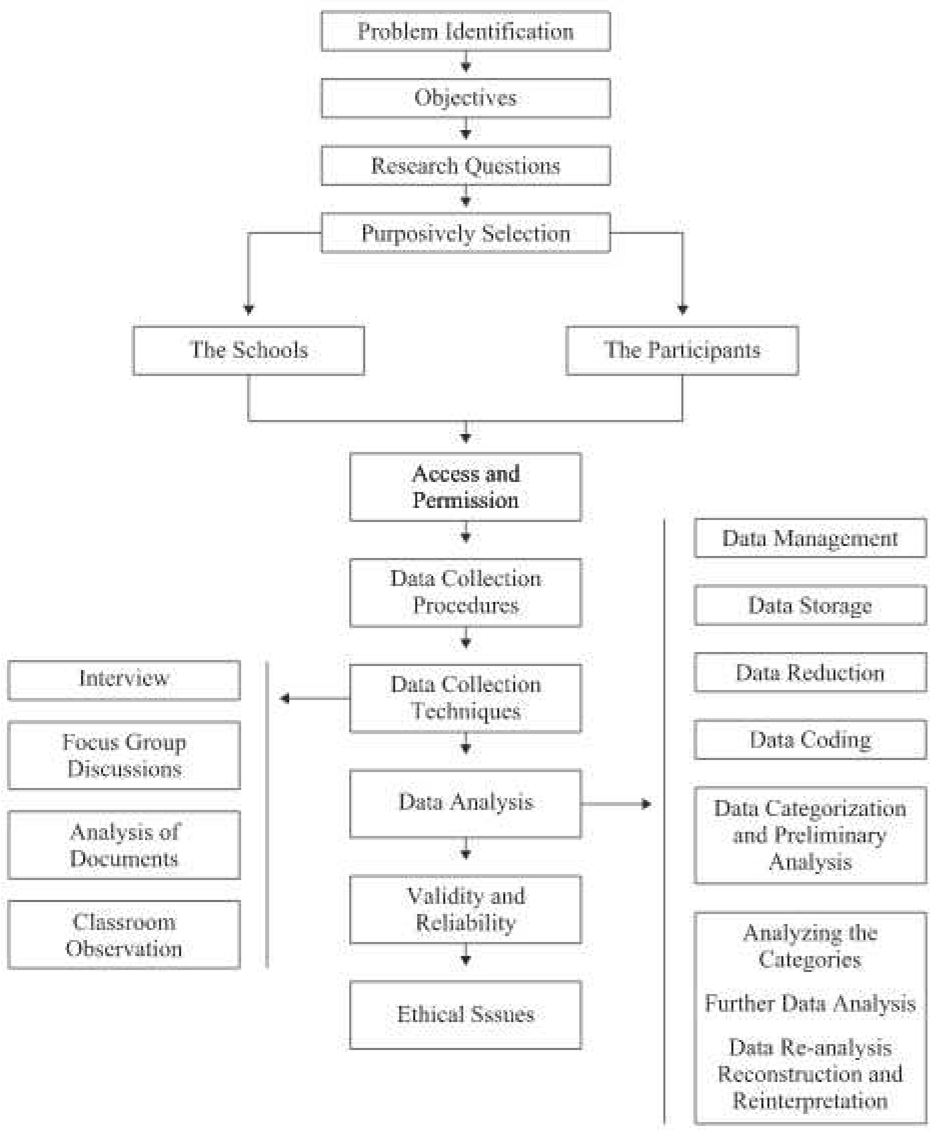
The approach of the study was qualitative in nature. Data were collected from Dhaka and Pabna districts. Primary schools were selected purposively for data collection. A total of 15 teachers' were chosen only from those who would have taught Bangladesh and Global Studies textbook of grade IV in the classroom. Head teachers of those schools were also chosen for interview. From each sampled school 6 students were selected using convenient samplings for conducting the FGD. Therefore, the total participants for FGD were 30 students. After data collection, data were transcribed and coded. For data validation and triangulation, intra-coded and inter-coded reliability were taken into consideration. Finally data were analyzed thematically. The design is given below:

Table 1 : The Selected Sample

Sample	Number of Sample in each School	Data Collection Tools	Total Sample	Type of Sampling	Data Analysis
1.Grade IV 'Bangladesh and Global Studies' Teacher	03	Interview schedule	15	Purposive sampling	Thematic analysis
2. Students of grade IV	06	FGD guidelines	30	Convenience sampling	
3. Head Teacher	01	Interview schedule	05	Purposive sampling	
4. Curriculum Exparts	03	Interview schedule	03	Purposive sampling	
Total Sample	13		53		

Research Process

The following procedure is employed for data analysis collected from multiple sources. The study problem is selected by taking ideas from previous research studies to fill the present gap of knowledge. After collecting data, several steps were followed to analyze the data and to attain the research objectives. The following flow chart in figure shows the research design or research process at a glance:



Result

There are a number of themes coded from the collected qualitative data. These are: teachers' perception of the curriculum and textbook of Bangladesh and Global Studies at grade IV, teacher's content knowledge, teacher's knowledge and practice of classroom teaching, teacher's use of teaching aids in the classroom, teachers' learning activities, teachers' assessment process and practice of giving homework. The whole discussions pursuing the findings are presented below under the respective paragraphs of those themes. These paragraphs also converse and argue many aspects of the findings.

Research Objective 1: To identify teachers' perception of the Curriculum and Textbook of Bangladesh and Global Studies at grade IV in Bangladesh

a. Teachers' perception of the curriculum and textbook of Bangladesh and Global Studies at grade IV

This study discovers by interview that most of the teachers' (11 out of 15 teachers) perception of the curriculum and textbook of BGS at grade IV is not very clear and a few teachers have adequate conception about the curriculum and textbook. . In general, most teachers conduct lessons in the class without having appropriate preparations. Some teachers follow the instructions of the teachers' guide before conducting the class and some teachers have a look of the textbook before entering into the classroom. Most of the teachers' terminal competencies and learning outcomes of the curriculum are similar to a fair extent without having a clear conception about the curriculum and textbook.

Teachers follow the curriculum's instructions on the content, materials, resources and process of assessment for the attainment of educational objectives under the guidance of school (Wheeler, 1967). However, in our context, teachers do not usually follow the curriculum's instructions during classroom practice which is found by Maleque (2006). According to Maleque (2006), due to lack of skilled teachers, the content of textbooks as well as the curriculum are not implemented in an appropriate way. Terminal competencies and learning outcomes are determined on the basis of age, thoughts and ability to learn. What students achieve after a lesson is called learning outcomes and the learning outcomes are determined on the basis of terminal competencies. A total of 29 terminal competencies are prepared for primary students. There are 15 terminal competencies and 76 learning outcomes are in the curriculum of Bangladesh and Global Studies curriculum at grade IV and the teachers should have proper knowledge about them.

Most of the teachers at primary level have inadequate knowledge about terminal competencies and learning outcomes of Bangladesh and Global Studies. They have inappropriate learning about terminal competencies and learning outcomes from the curriculum, but they have some specific and some vague ideas about terminal competencies and learning outcomes in a fair extent. Most teachers do not have exact knowledge, but their ideas about terminal competencies and learning outcomes are similar to the curriculum and in which way they conduct the lessons in the classroom, the students can achieve to a fair extent. Teachers should have to know the content that they are expected to teach. Teachers should have the knowledge of books which they are going to teach and how their knowledge impacts classroom practice and students' understanding (Cess-Newsome, 1999).

b. Teachers' knowledge about textbook contents

This study finds by interview that most of the teachers (9 out of 15 teachers) have inadequate content knowledge of the textbook They demand more information about the content in the textbook. Thus they provide knowledge among the students. However, the teachers should be more knowledgeable about the content of the textbook, as the learners are only grade IV students and they cannot bear the load of content. Teachers' learning is an important concern for students. Smith & Lytle (1999) asserted that teacher learning has become one of the most important concerns of the educational establishment. It has been more or less assumed that teachers, who know more, teach better. This idea has governed multiple efforts to improve education in the arenas of policy, research and practice by focusing on what teachers know and need to know. The pedagogical knowledge of the teachers should be strong and technology should be used abundantly for instructional purposes (Kristal & Todd, 2016).

Research Objective 2: To investigate teachers' general practice of Bangladesh and Global Studies subject in the classroom of grade IV.

c. Teachers' knowledge and practice of classroom teaching

This is found from interviews and observation that most of the teachers (9 out 15 teachers) have inexplicit knowledge of the curriculum and the textbook and their practice of different teaching methods in the classroom are also limited. Most teachers apply lecture methods and textbook-oriented teaching in the classroom and sometimes they apply discussion methods.

Teachers' knowledge is very important for students learning as they are introduced to the content at first by the teachers who found that teachers rarely relate the outside world or local examples with the students (Akhter, 2011).

Teachers have to clear concept on the process of this program. It is related to the teaching-learning method as well as teachers and students about the achievement level of a particular lesson. The most used teaching method is lectures in both rural and urban areas. In urban areas, discussion methods are used to a small extent. Other types of activities like project work, group work, laboratory work and other participatory activities are completely absent (Ahmed, 2011).

Most teachers apply a lecture method, a question-answer method and some of them apply a discussion method while conducting lessons. Many different teaching methods and approaches have been developed over the years. The lecture-based classroom is still a main delivery method teachers utilize to disseminate knowledge (UNESCO, 2014).

Most of the teachers face difficulties using participatory teaching methods in the class. For this reason, their class size is large, so that they cannot handle a full class at a time and the class time is also limited. Thus they cannot apply participatory methods to most of the classes. Teachers face a number of challenges with using participatory teaching methods in the classroom while conducting lessons. The findings show five challenges. They are namely class size, teaching-learning resources, teachers' professional knowledge, limited class hours and the demands for external examinations (Siddique, 2011).

d. Teachers use teaching aids

Most of the teachers show the pictures inside the textbook to the students as teaching materials. Sometimes they use posters and map for conducting class. They generally use models or handmade teaching aids moderately in the classroom. The uses of teaching aids in the classroom motivate students and make the content clearer and understandable to them (Ifedayo, 2015). However, there are insufficient teaching aids in the classroom teaching learning process. Most teachers use board and book as teaching aids in the classroom.

e. Teachers' learning activities and assessment process

All of the teachers follow the learning activities included in the textbooks. They usually skip giving the students to do extra learning activities outside the textbooks. Teachers apply the questions for assessment of the students which are given in the exercises within the textbooks.

Students learn best when they are actively involved in their own learning rather than being passive recipients of knowledge and facts. The newly developed curriculum emphasizes the importance of students learning 'how to learn' rather than simply 'what to learn'. To make learning more interesting, meaningful, stimulating and motivating for the students, the national curriculum also emphasizes that student-centered classroom practices rather than conventional teacher centered classroom practices (Hossain, 2012). In Bangladesh, as most of the teachers do not have a clear concepts of the classroom assessment, they use different strategies of classroom assessment. Teachers' classroom assessment helps the students to get their feedback on progress. Kadyoma (2004) stated that classroom assessment is likely to empower students to monitor and assess their learning; it can guide both teaching and learning and can facilitate good working relationship between the teachers and the students.

The teachers generally use the group work method in the classroom to assess the students as they perceived this as classroom techniques. Sometimes the teachers follow the whole group work method as the technique of classroom assessment. Brooks and Brooks (1999) stated that teachers, who operate without awareness of their students' points of view often, doom students to dull, irrelevant experiences and even failure. It is a matter of great regret that the teachers do not assess all the students in a class. They are generally eager to check the work sheet of the good students. As a result there remains a big gap between the students and teachers. Most teachers apply question-answer method for assessment in the classroom. Good assessment helps the students to improve their learning and their skills also.

Students showed different views about different assessment practices. They prefer oral assessment more because of its validity (Rahman, 2011).

Teachers' Practice of Giving Homework

The study finds that most of the teachers give homework and check them regularly. It is observed that the teachers of rural area give homework regularly and check them, but the teachers of urban area are not able to manage time to give and check homework due to over pressure of classes. Homework is either reading or written. Students prepare it outside of the classroom in non-instructional time which is defined by Cooper (1989).He defined that the tasks given by school teachers that are performed during non-instructional time is called homework.

Teachers and students both believe that homework is very influential for their learning. It also creates scope to prepare and develop their study as teachers give feedback and it is discussed in the classroom which is found by Cooper and Valentine (2001). In their study they showed that completing the homework is practiced for the next day's studies. Therefore homework will help students to prepare their lessons.

It is also found that the teachers follow the textbook's planned task as the homework. The textbook contains planned tasks based on the contents.

Discussion of the Study

As the study was conducted with a qualitative method approach, the researcher analyzed and presented the findings through few themes generated from qualitative data. Firstly, the questions of each interview guide were categorized based on the research questions. Secondly, the qualitative data of each interview guide amalgamated under the particular interview question separately. And thirdly, the themes were shaped as they derived from the qualitative data.

a. Teacher's inadequate notion about terminal competencies The respondent teachers were asked about their preparations about terminal competencies included in Bangladesh and Global Studies textbook at grade IV. Most teachers have insufficient learning about terminal competencies from the curriculum and they also mentioned some reasons for not learning the terminal competencies as they get deficient time for preparation due to extra classes. Though most of the teachers could not describe the terminal competencies exactly, they almost described the terminal competencies right. From the class observations of these terminal competencies related content, the students could almost learn the terminal competencies. Therefore, it is found that, most of the teachers have indefinite knowledge about the terminal competencies of Bangladesh and Global Studies textbook of Grade IV however they can describe them correctly to a fair extent.

b. Teacher's inadequate conception about learning outcomes

Most teachers do not learn the learning outcomes from the curriculum usually but in the way they conduct classes the students can achieve the learning outcomes to a fair extent. The teachers use question -answer method, discussion method, lecture method and textbook oriented teaching for conducting lessons and to achieve learning outcomes. The teachers also use posters, maps and share experiences with the students.These things could help to achieve learning outcomes. So, it is found that the teachers have knowledge about learning outcomes although they usually do not learn them from the curriculum and the students are able to achieve the learning outcomes in a fair extent.

There are 76 learning outcomes in the "Bangladesh and Global Studies" textbook of class IV. It is found that, most of the respondent teachers knew about learning outcomes, but the rest had no idea about it. This was happened because of the learning outcomes were not mentioned in the textbooks and the teachers skipped these look over to the curriculum.

c. Teacher's content knowledge

Most teachers usually exclude preparation for conducting classes as they teach the same subject for long term. Some teachers take preparations from teachers guide before conducting lesson and some only took a look before entering into the class. Therefore, another contradictory opinion comes in front about the amount of the contents. The teachers said they were too small. It would be good for them if the size increases so that they can provide the students with enough information and knowledge. On the other hand, the curriculum experts say opposite words that it's a load for the students to learn all of the contents. The students' opinions also support the curriculum experts.

d. Teacher's knowledge and practice of classroom teaching

Respondent teachers mentioned different teaching-learning process for lesson conduction. Almost all the teachers apply lecture method and textbook-oriented method for conducting the lessons of BGS textbook. Some teachers mentioned that they conduct lessons through demonstrating concepts using teaching aids such as: posters, charts or pictures, maps and textbook reading either by teacher or by students. Some teachers conduct lessons only by reading. Therefore, it is found that teachers generally apply lecture method and question-answer method for conducting lesson in the classroom.

e. Teacher's use of inadequate teaching aids in classroom

According to the teachers' guide, teachers are instructed which type of teaching aids they should use while conducting lesson. At the time of their training period, they have to make different types of teaching aids. But after completing the training, they omit teaching aids in the classroom because of a time shortage to arrange teaching aids. Some teachers use teaching aids in the classroom. It was found that, in the teachers' guide, some instructions have been given for using teaching aids and the teachers can use them during their classes. But most of the teachers exclude the use teaching aids except a few of them.

f. Adequate learning activities effectuated by teacher in classroom

Most teachers do with the students only those activities which are given in the textbook. They do not give the students creative activities which can help to bloom students creativity. They avoid any activities by themselves generally. Therefore, the students enjoy the learning activities of the textbook while they do them in the class, as the teachers mentioned. From the statement of teachers and Head teachers it was cleared that the learning activities given in the textbook of Bangladesh and Global Studies of grade IV are sufficient for evaluating the learning process of a grade IV student.

g. Teacher's adequate assessment practice

Most teachers evaluated students' performance through question method.

They ask students questions verbally and students also answered verbally. Some teachers write down questions in the board and asked students to write answers in their notebook. Teachers use question-answer method in verbal or written way and the students also support it. Teachers argued that they have few other ideas to evaluate students' performance. But they cannot get enough time to arrange such evaluation. Teachers also mentioned that their class size is large. That's why they are unable to design participatory evaluation. After evaluating students' performance, most of the teachers provided feedbacks but feedbacks were not constructive in many cases. It was found that the teachers usually evaluate the students by reviewing the lesson and making them understand.

h. Teachers' practice of giving homework

All of the respondent teachers notified that they give the students homework after conducting and evaluating lessons. Teachers give homework to the students from the textbook usually and the students also support these. It was found that teachers always give homework to the students from the activities of the textbook and they think that there is no need to create new homework for them.

Implication of the Study

a. Implication for curriculum and teachers guide dissemination

This study finds that the teachers of Bangladesh and Global Studies follow the textbook mainly while conducting lessons. However, it is found that the teacher's content knowledge is inadequate. The teachers do not regularly practice the instructions given in the curriculum and teachers' guide, although some of the trained teachers' apply their experience to the classroom for their own interest. The new teachers do not conduct their classes properly due to lack of curriculum and teachers guide. Therefore, the National Curriculum and Textbook Board (NCTB) may make efforts to dissimilate the curriculum and teachers guide as soon as possible.

b. Implication for teachers' training and education

From this study it is found that the teachers of BGS who recently joined lack adequate ideas on classroom practice as they are not trained. Therefore, initial teacher education e. g. Bachelor of Education (B. Ed) and other teacher training programs emphasize the needs. The classroom monitoring and evaluation may be taken into consideration as it is found that some trained teachers are not motivated to apply their experience in the classroom while conducting lessons

Implication for Further Study

This study guides to sketch some recommendations, which are deprived from the findings. The recommendations may help policy makers, educationists, teachers, students, trainers and education administrators to think about the situation of the present teaching-learning process conducted by teachers in the class and improve the situation. To improve the teachers' knowledge and practice in the classroom, the following suggestions might be considered:

- The dissemination of the curriculum and teachers' guide should be ensured so that teachers may always be concerned about getting help from the curriculum and teachers' guide.
- Teachers should follow the curriculum instructions regularly that would be helpful to get clear perception of the curriculum.
- Learning outcomes ought to be conjoined at the beginning of the contents.
- Pre and in-service training programs are to be arranged for teachers' skill development.
- Continuous monitoring of teachers' professional activities should be ensured.

It is necessary to identify teachers' views of the BGS curriculum and textbook at grade IV and their limitations on practicing in the classroom in detail. This will help students' teaching-learning process. Thus, further research can be done on this topic.

Limitation of the Study

This study was conducted with only five selected primary schools in Bangladesh because of the time limitation of conducting the study. The result of the study might not be generalized to all the primary schools of Bangladesh. This study recommends further study in this regard with a large number of schools in Bangladesh in order to obtain a clear and specific scenario of teachers' perception and practice of Curriculum and BGS textbook.

Conclusion

Teachers' adequate knowledge of curriculum and textbook is an essential agenda for the students' learning enhancement. The more teachers learn, the more they can provide knowledge to the students and it will be helpful for the students learning and they will be able to achieve the learning outcomes. Teachers' teaching learning process should be improved and they should use participatory methods in the classrooms. Besides this, teachers should use different pictures, handmade aids, models, colorful posters, maps, globes and projectors to make the class interesting that will help teachers with successful practice in the classroom. Teachers should be concerned about their knowledge of the curriculum and textbooks and they should give more importance to their practice in the classroom. The curriculum should be implemented in the classroom; only then will the teachers be successful.

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Classification of NPK Deficiency in Rice Leaf Images using Convolutional Neural Networks

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Abstract: Rice being a prevalent food crop of Bangladesh, accounts for about 75 percent of the total land. Proper management of stresses and early control of malnutrition in the rice plants at the growth stage is possible to confine the huge loss of producing crops. The growth stages of the rice plants are affected by the primary nutrient deficiency: Nitrogen (N), Phosphorus (P), and Potassium (K). The primitive method of recognizing and classifying a rice leaf nutrient deficiency was a visual indication that an expert farmer performed. The proposed work is to identify and classify NPK deficiency of rice leaf images through Convolutional Neural Networks. Firstly, the leaf characteristics are indicated by manually discriminant analysis. Also, the rice leaves are carried out by image pre-processing. The Convolutional Neural Network has been employed to distinguish among NPK shortage types. As a result, of classification accuracies 81%, 77%, and 75% have been obtained from the three-layer CNN model, four-layer CNN model, and five-layer CNN model, respectively. Before training the data, the feature extraction and selection method are carried out to feed other classification algorithms. In contrast, the feature extraction has pre-built into the CNN model increasing its efficiency and performance. Overall, this work is precisely the diagnosis of nutrient deficiency of rice leaf images, which contributes welfare of the farmer and agricultural stability.

Keywords: NPK deficiency, Convolutional Neural Networks, rice leaf images, image pre-processing, primary nutrient deficiency.

Introduction

In an agricultural country, rice is a crucial crop for people over the country. Bangladesh is a major agricultural country. In this country, many farmers depend on agriculture. Each year, a farmer has to produce large quantities of rice. They face many problems is producing the rice. One of the main problems is primary nutrient deficiency like Nitrogen (N) deficiency, Phosphorus (P) deficiency and Potassium (K) deficiency. Proper identification and appropriate fertilizer discriminants are affecting good crop production. In Bangladesh, maximum farmers are illiterate. There is a lack of prior knowledge about primary nutrients. Nutrition

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deficiency causes much damage to crop production. Farmers mainly use their traditional method to find a primary nutrient deficiency. There are some leaf characteristics to find nutrient shortage. Those characteristics are shown outside rice leaves and stems in different growth stages. It is challenging to find an actual primary nutrient deficiency (S. Geeta Brahmini et al. 2017). Nowadays, technology is developing quickly and many problems are solved easily with the help of technologies. Image processing techniques are widely used for solving many real-life problems. This research aims to identify primary nutrient deficiencies using image processing and deep learning-based method. These methods are to find the NPK nutrient deficiencies through rice leaf images easily.

Objectives of the Study

The motive of this paper is to detect primary nutrient deficiency in rice leaves through an image processing and deep learning methods. The farmers of this country will get appreciable benefits from the work. This method reduces the farmer's work to find out NPK deficiencies.

- To recognize the NPK deficiency assures the optimal use of nutrient elements for improved productivity.
- To ensure the optimal fertilizer use that will reduce farmers costs and extra work.

The results of this research can benefit this country's farmers and increase economic status.

Literature Review

Nowadays, in rice production, a primary nutrient deficiency is a common issue for a farmer. The leading cause of this problem is that they are not properly using smart technologies. In the present day, many researchers are working to overcome NPK nutrient deficiency in rice leaves and stems.

Yuan Yuan Sun, Cheng Tong, Shan He, Ke Wang et al., (2018) have proposed identifying NPK deficiencies through the leaf characteristics under the plant nutrition mechanism. The leaf characteristics are extracted by a mean value and region-props functions in MATLAB. Mean value and region-props functions were used to calculate the characteristics of leaf color and morphology. Also, the Stepwise Discriminant Analysis (SDA) with Leave One Out Cross-Validation (LOOCV) had taken to identify NPK deficiencies and used IBM SPSS Statistics 22 to establish a discriminant model. Two datasets, such as a single dataset and a combined dataset are used to identify a deficiency. The two growth levels of leaf, incomplete leaf and full extended leaf are used in the training period. As a result, the first incomplete leaf had a comparative advantage in early diagnosis (training accuracy 73.7%, validation accuracy 71.4% on the 26th day after transplantation), and the third fully expanded leaf generated higher accuracy later.

Latte, M. V. et al., (2016) have focused on identifying multiple nutrients (NP, NK, and KP) deficiencies and Normal leaf from paddy leaf images. The four different nutrient deficiencies image datasets were used in this research. Two different methods were used to identify the defective leaves. These are RGB color features and Pattern analysis (Algorithms such as multiple color comparison, multiple pattern comparison, and combination of color and patterns comparison). These two algorithms were used for feature extraction. Features were extracted into the database, and test images were checked with the database. As a result, they found the combined classification results, indicating an average accuracy of 90%.

Chen, L., Lin, L. et al., (2014) have attempted to identify NPK deficiencies and Normal leaf from rice leaf images. Rice leaf images of four different growth stages were used for this research. Some methods were used to identify NPK deficiencies. The RGB mean value function and Region-props function in MATLAB were used for extracting characteristics. Also, the SVFS (Support Vector Features Selection) and Fisher Discriminant Analysis were used for Hierarchical identification. As a result, the overall identification accuracies of NPK deficiencies were 86.15%, 87.69%, 90.00%, and 89.23% for the four growth stages. Data from multiple years were used for validation, and the identification accuracies were 83.08%, 83.08%, 89.23%, and 90.77%.

To identify NPK deficiencies, Latte, Shidnal, and Anami (2017) used a normal leaf from paddy leaf images. In the methodology term, they extracted features by the HSV method. The experiment was on two different levels. The leaves were identified as either healthy or unhealthy in the first level. In the second level, the unhealthy leaves were used for NPK deficiencies. Moreover, the main method was to find out every Hue value of healthy and unhealthy leaves. The test image hue value was generated and compared with the pre-generated database hue values to classify the paddy leaf images. The healthy leaf classification accuracy up to 100%, rate of Nitrogen (N), Phosphorus (P) and Potassium (K) deficiency identification was 90.32%, 97.22%, and 94% respectively, with an overall identification accuracy of 95.39%.

S. Geeta Brahmini and K. Jhansi Rani. (2017) have risen to identify multiple nutrients (like N, P, K, NP, NK, PK, and NPK) deficiencies and

Normal leaf from paddy leaf images. The color feature (RGB and HSV) and the pattern analysis algorithm were used in the classification technique. The methods were two levels of classification. Firstly, they detect either healthy or unhealthy. After, they detect multiple deficiencies from unhealthy leaves. As a result, their identifying accuracy in the different deficient leaf is nitrogen, phosphorus and potassium, nitrogen phosphorus, phosphorous potassium, nitrogen potassium, and nitrogen phosphorous potassium deficiency identification was 90.32%, 97.22%, 94%, 91%, 93%, 91.11%, and 92% respectively with an overall identification accuracy of 95.39%. After that these features are combined and fed to the SVM classifier. 85% accuracy is achieved for four different diseases.

Basavaraj, S. A. et al., (2020) have proposed the classification of eleven different types of stresses (two biotic and nine abiotic stresses) in paddy crops; namely, bacterial blight, fungal blast, drought, submerged, nitrogen deficiency, phosphorus deficiency, potassium deficiency, boron deficiency, zinc deficiency, iron deficiency, and chemical injury. The different stress levels of paddy field images had used as a dataset. The different types of stresses were identified using different levels of systematic processes such as Feature Extraction, Feature Selection, and Stress Recognition and Classification. Color moment features, Dominant color features, and Color layout feature methods were used in feature extraction. Also, the Sequential Forward Floating Section (SFFS) algorithm had used for feature selection. The three algorithms, namely the Back Propagation Neural Network (BPNN), Support Vector Machine (SVM), and k-Nearest Neighbor (k-NN) had used in stress recognition and classification. As a result, the average stress classification accuracies of 89.12%, 84.44%, and 76.34% have been achieved using the BPNN, SVM, and k-NN classifiers, respectively.

Proposed Methodology

A paddy leaf image is the best way to identify and classify the nutrient deficiency in paddy leaves to deal with the nutrient deficiency challenge. In this research, the two approaches are used to recognize nutrient deficiency. These are manual discriminate analysis and the convolutional neural networks. After the manual discriminate analysis, convolutional neural network was implied. The proposed methodology is conducted with different stages namely, filtering the image with labeling and dividing the image dataset for training and testing, image pre-processing, and convolutional neural network.

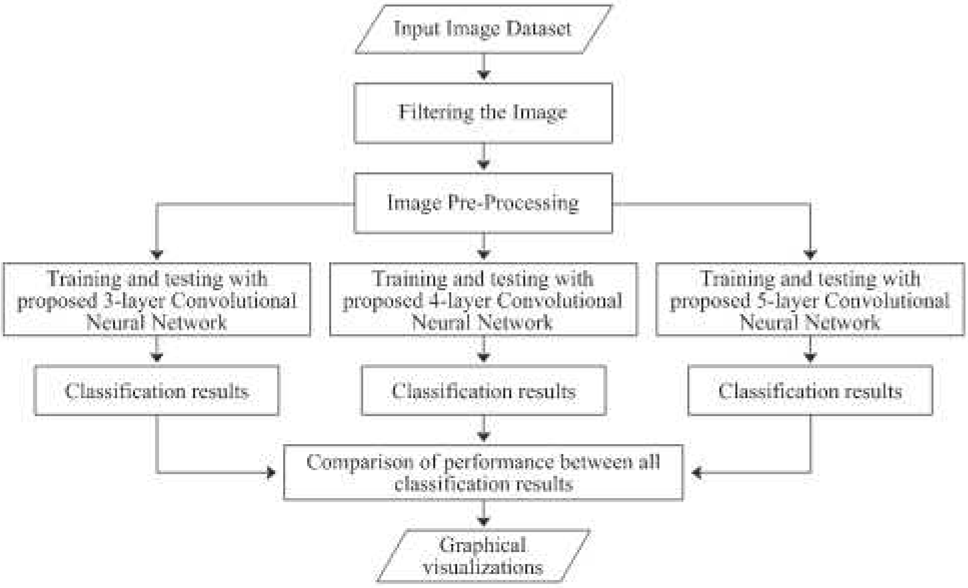


Figure-1: Proposed Methodology Diagram

A) Input Image Dataset

Datasets in different nutrient deficiencies of paddy leaf images were collected from secondary sources which were tested from the laboratory. A total of 114 RGB images were taken from the source. Note that, the images were taken in four different growth stages of the paddy leaves. In the images, two or more paddy leaves were together in a single photo (Sun, Y. et al. 2018). The images are split into a single leaf image using Adobe Photoshop 2020. A total of 240 RGB images are picked from the 114 RGB images. A total of 192 RGB images are used for the training part and 48 RGB images for the testing part.

B) Filtering the Image

The filtering process is used for manually discriminatory analysis to detect nutrient deficiency. All the images are divided into single paddy leaf photos (See below in Figures 2 and 3). Every single image was used for manually discriminatory analysis. Note that the NPK deficiency images were tested in a laboratory. In the filtering process, some characteristics of the leaf are observed for the recognition of nutrient deficiency. The primary nutrient is included: Nitrogen (N), Phosphorus (P), and Potassium (K). Every primary nutrient deficiency has some symptoms or leaf characteristics seen at different growth stages of paddy leaves. In Nitrogen (N) deficiency, the tips of the paddy leaves become light green and chloric. And also, paddy leaves become narrow, short, erect, lemon yellowish, and die. In Phosphorus (P) deficiency, the stem of the paddy leaves becomes thin and spindly, and plant growth is abated. And also, paddy leaves become narrow, weak, very steep, and dirty green. In Potassium (K) deficiency, paddy leaves become yellowish-brown, dark-brown spots, lenis, droopy, and messy dark green. Each image is filtered by the symptoms or leaf characteristics (Achim, D. et al. 2000), (Nayak, A. K. et al. 2013), (Sun, Y. et al. 2018).

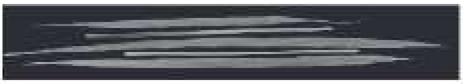
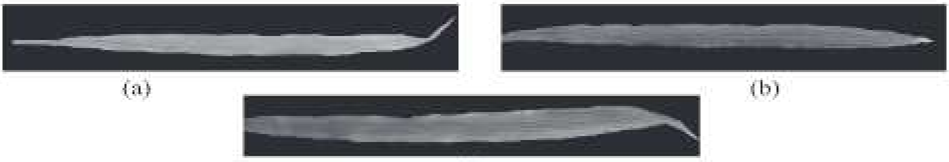


Figure-2: Source image

Figure-3: Single split image



(a) (b)

(c)

Figure-4: NPK deficiency images (a) N deficiency (b) P deficiency (c) K deficiency

C) Image Pre-processing

Image preprocessing is the best method to suppress undesired components and improvement of image features. After filtering the images, all single images had some redundant components that produced a good result. Adobe Photoshop tools are used to eliminate redundant components or objects and enhance image quality. Image data augmentation technique is used to resize, horizontal flip, and shear the train images. All the images are used for labeling and dividing different nutrient deficiencies. The labeled images are separated training and a test dataset (Sun, Y. et al., 2018).

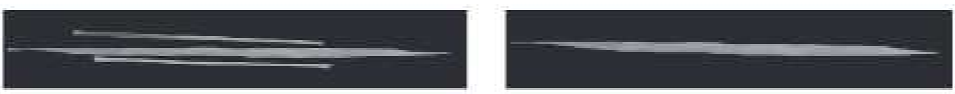


Figure-5: Pre-processed Images

D) Convolutional Neural Network Model

Multilayer convolutional neural network has been used to recognize (NPK) deficiencies from paddy leaves images. The labeled images are used as input to train a convolutional neural network. The convolutional neural network has two-part such as feature extraction and classification. A convolutional layer and max-polling layer are used for feature extractions. Also, a flattened layer and a fully connected layers are used for the classification. The proposed CNN model is built by the keras library. A sequential model is used to build a convolutional neural network model. The sequential model is developed by a sequential function, 2d convolutional layers, max-pooling 2d layers, flatten layer, and dense layers. The three different convolutional neural network models are implemented by the same procedures.

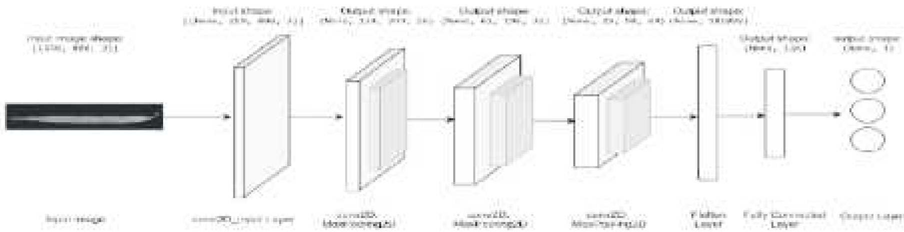


Figure-6: Architecture of 3-layer proposed CNN model

The proposed convolutional neural network model is built by the 3-layers, as shown in Figure 6 and Table I. The three 2d convolutional neural network layers, three 2d max-pooling layers and two dense layers have been used to implement the model. The ReLU (Rectifier Linear Unit) activation function has been used in all 2d convolutional neural network layers. Also, the SoftMax activation function has been used in the output classification layer (Watchareeruetai et al., 2018).

Table-I: Summary of Proposed 3-Layer CNN Model

Layer (type)	Output Shape	Parameters
conv2d (Conv2D)	(None, 248, 798, 16)	448
activation (Activation)	(None, 248, 798, 16)	0
max_pooling2d (MaxPooling2D)	(None, 124, 399, 16)	0
conv2d_1 (Conv2D)	(None, 122, 397, 32)	4640
activation_1 (Activation)	(None, 122, 397, 32)	0
max_pooling2d_1 (MaxPooling2D)	(None, 61, 198, 32)	0
conv2d_2 (Conv2D)	(None, 59, 194, 64)	18496
activation_2 (Activation)	(None, 59, 194, 64)	0
max_pooling2d_2 (MaxPooling2D)	(None, 29, 98, 64)	0
flatten (Flatten)	(None, 181888)	0
dense (Dense)	(None, 128)	23281792
activation_3 (Activation)	(None, 128)	0
dense_1 (Dense)	(None, 3)	387
activation_4 (Activation)	(None, 3)	0
Total parameters:		**23,305,763**

The end of the layer is a dense layer (output layer) that produces three output classes for the categorical classification.

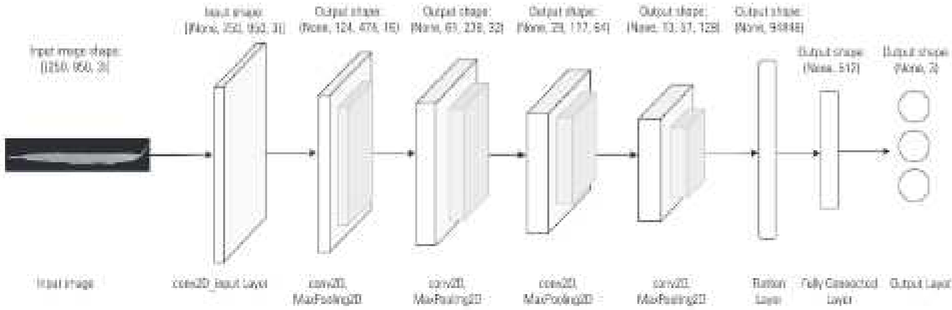


Figure-7: Architecture of 4-layer proposed CNN model

Figure 7 and Table II demonstrate the 4-layers that make up the proposed convolutional neural network model. The model was built using four 2d convolutional neural network layers, four 2d max-pooling layers, and two dense layers. All 2d convolutional neural network layers use the ReLU (Rectifier Linear Unit) activation function. In the output classification layer, the SoftMax activation function was also applied. A dense layer (output layer) finishes the layer, producing three output classes for categorical categorization (Watchareeruetai et al., 2018).

Table-II: Summary of Proposed 4-Layer CNN model

Layer (type)	Output Shape	Parameters
conv2d (Conv2D)	(None, 248, 948, 16)	448
activation (Activation)	(None, 248, 948, 16)	0
max_pooling2d (MaxPooling2D)	(None, 124, 474, 16)	0
conv2d_1 (Conv2D)	(None, 122, 472, 32)	4640
activation_1 (Activation)	(None, 122, 472, 32)	0
max_pooling2d_1 (MaxPooling2D)	(None, 61, 236, 32)	0
conv2d_2 (Conv2D)	(None, 59, 234, 64)	18496
activation_2 (Activation)	(None, 59, 234, 64)	0
max_pooling2d_2 (MaxPooling2D)	(None, 29, 117, 64)	0
conv2d_3 (Conv2D)	(None, 27, 115, 128)	73856
activation_3 (Activation)	(None, 27, 115, 128)	0
max_pooling2d_3 (MaxPooling2D)	(None, 13, 57, 128)	0
flatten (Flatten)	(None, 94848)	0
dense (Dense)	(None, 512)	48562688
activation_4 (Activation)	(None, 512)	0
dense_1 (Dense)	(None, 3)	1539
activation_5 (Activation)	(None, 3)	0
Total parameters:		**48,661,667**

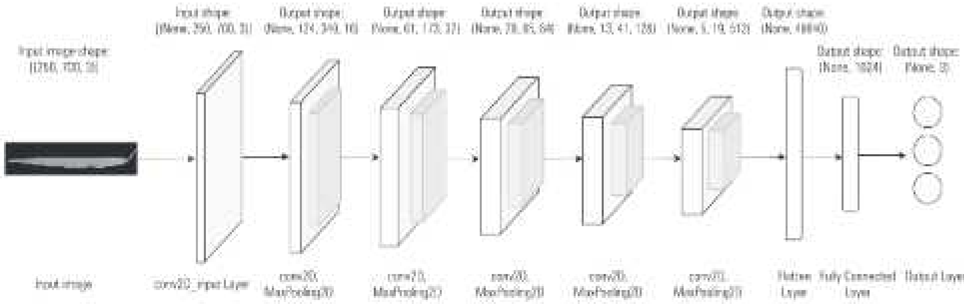


Figure-8: Architecture of 5-layer proposed CNN model

The suggested convolutional neural network model has five layers, as shown in Figure 8 and Table III. Five 2d convolutional neural network layers, five 2d max-pooling layers, and two dense layers were used to construct the model. The ReLU (Rectifier Linear Unit) activation function is used in all 2d convolutional neural network layers. The SoftMax activation function was also used in the output classification layer. The layer is finished by a dense layer (output layer), producing three output classes for categorical categorization (Watchareeruetai et al., 2018).

Table III: Summary of Proposed 5-Layer CNN model

Layer (type)	Output Shape	Parameters
conv2d (Conv2D)	(None, 248, 698, 16)	448
activation (Activation)	(None, 248, 698, 16)	0
max_pooling2d (MaxPooling2D)	(None, 124, 349, 16)	0
conv2d_1 (Conv2D)	(None, 122, 347, 32)	4640
activation_1 (Activation)	(None, 122, 347, 32)	0
max_pooling2d_1 (MaxPooling2D)	(None, 61, 173, 32)	0
conv2d_2 (Conv2D)	(None, 59, 171, 64)	18496
activation_2 (Activation)	(None, 59, 171, 64)	0
max_pooling2d_2 (MaxPooling2D)	(None, 29, 85, 64)	0
conv2d_3 (Conv2D)	(None, 27, 83, 128)	73856
activation_3 (Activation)	(None, 27, 83, 128)	0
max_pooling2d_3 (MaxPooling2D)	(None, 13, 41, 128)	0
conv2d_4 (Conv2D)	(None, 11, 39, 512)	590336
activation_4 (Activation)	(None, 11, 39, 512)	0
max_pooling2d_4 (MaxPooling2D)	(None, 5, 19, 512)	0

flatten (Flatten)	(None, 48640)	0
dense (Dense)	(None, 1024)	49808384
activation_5 (Activation)	(None, 1024)	0
dense_1 (Dense)	(None, 3)	3075
activation_6 (Activation)	(None, 3)	0
Total parameters:		**50,499,235**

Experimental Results and Performance Analysis

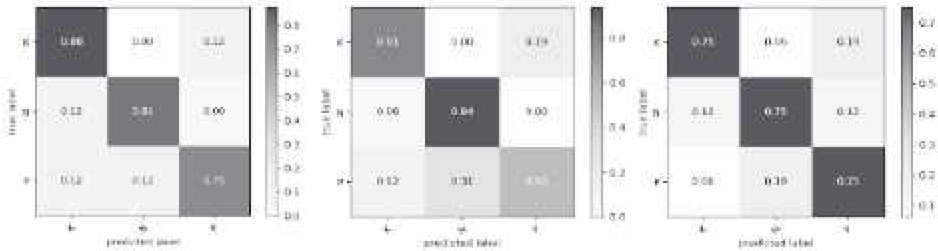
Evaluating the model performance is defined that the building model's prediction is how accurate. The constructing models in the field of Machine Learning or Deep Learning are measured in various ways. Confusion Matrix, Accuracy, Precision, Recall, and F1 score are some other methods. In most cases, the projected model performance is visualized using a tabular form known as the Confusion Matrix. Confusion Matrix identifies multiclass correctly or wrongly with ease. The confusion matrix is a metric used in deep learning to assess the predictability of a model. The confusion matrix also evaluates precision, recall, and F1 score. Figures 9, 10, and 11 demonstrate the predicted and true labels for various convolutional neural network models in a tabular format. For a better understanding of the multiple convolutional neural network models, the precision, recall, and F1 score are determined from Figures 9, 10, and 11.

$$\text{Precesion} = \frac{TP}{TP+FP} \quad (1)$$

$$\text{Recall} = \frac{TP}{TP+FN} \quad (2)$$

Where, TP is True Positive, FP is False Positive and FN is False Negative.

The convolutional neural networks were trained by batch size 6 and validation dataset batch size 3. The categorical cross-entropy was used for loss function and the Adam optimizer was used for stochastic gradient descent for the training CNN model. In the training period, 15 epochs were used for performing the prediction on the test dataset.



(a) (b) (c)

Figure-9: Confusion matrix of (a) 3-layer CNN model (b) 4-layer CNN model and (c) 5-layer CNN model

Table IV: Output of the 3-layer CNN Model

Epoch No	Loss	Accuracy	Val_loss	Val_accuracy
1	0.4627	0.7969	0.8788	0.7083
2	0.3119	0.8698	1.1809	0.6875
3	0.2337	0.8958	1.0676	0.7292
4	0.1304	0.9583	1.2137	0.7708
5	0.0502	0.9896	1.4262	0.7708
6	0.0164	1.0000	1.5017	0.7708
7	0.0132	1.0000	1.5412	0.7917
8	0.0257	0.9896	1.4443	0.7500
9	0.0135	1.0000	1.6698	0.7917
10	0.0023	1.0000	1.7712	0.8125

The training accuracy and loss, as well as the validation accuracy and loss, of the 3-layer convolutional neural network model are shown in Table IV for 10 epochs. Figure 10 shows the accuracy values of a 3-layer CNN model with train accuracy and test accuracy. Both train and test accuracies are improved during each epoch's performance.

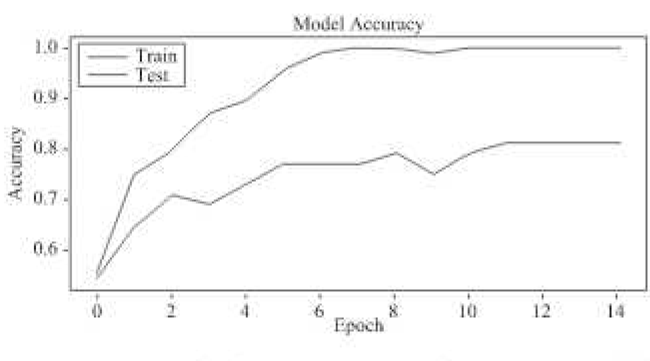


Figure-10: Epoch-wise accuracy on 3-layer CNN model

In Figure 11, 3-layer CNN model loss values are shown with train and test loss. During the performance of each epoch, the training loss decreases, and test loss is increases.

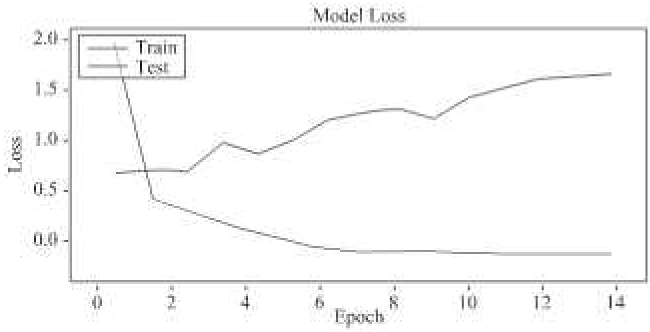


Figure-11: Epoch-wise loss on 3-layer CNN model

The results of a 3-layer convolutional neural network are shown with different input size rice leaf images in Table V. In Table V, the input image size is increasing and the output accuracy and loss value are relatively changed.

Table V: Results of 3-layer CNN Model

Sl No	Image Size	CNN Layers	Accuracy	Loss
01	150*350	(16,32,64,128)	0.6875	2.7164
02	200*350	(16,32,64,128)	0.7083	2.3358
03	250*350	(16,32,64,128)	0.625	2.1229
04	200*400	(16,32,64,128)	0.75	1.9113
05	250*450	(16,32,64,128)	0.6041	1.8345
06	200*450	(16,32,64,128)	0.7083	1.8911
07	200*500	(16,32,64,128)	0.75	2.1045
08	250*550	(16,32,64,128)	0.6875	2.2878
09	250*650	(16,32,64,128)	0.7083	2.0120
10	250*700	(16,32,64,128)	0.7291	2.4926
11	250*750	(16,32,64,128)	0.7083	2.8992
12	250*800	(16,32,64,128)	0.8125	1.9240
13	250*950	(16,32,64,128)	0.6875	2.5324
14	250*1050	(16,32,64,128)	0.75	2.3290
15	250*1150	(16,32,64,128)	0.75	2.2672

In Table VI, 10 epochs are shown the training accuracy and loss, and validation accuracy and loss of the 4-layer convolutional neural network model.

Table VI: Output of the 4-layer CNN Model

Epoch No	Loss	Accuracy	Val_loss	Val_accuracy
1	0.4109	0.8229	1.4223	0.6042
2	0.3078	0.8594	1.1422	0.6875
3	0.3016	0.8542	1.2413	0.6458
4	0.2191	0.9219	1.4294	0.6250
5	0.0974	0.9688	1.6396	0.6667
6	0.0251	1.0000	2.3313	0.6667
7	0.0080	1.0000	2.4447	0.6667
8	0.0210	0.9948	2.4305	0.6875
9	0.1019	0.9583	1.5994	0.6875
10	0.0589	0.9740	2.4996	0.7708

In Figure 12, 4-layer CNN model accuracy values are shown with train accuracy and test accuracy. During the performance of each epoch, both train, and test accuracy are increased.

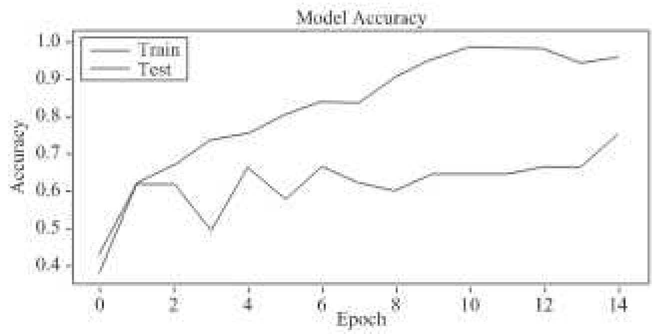


Figure-12: Epoch-wise accuracy on 4-layer CNN model

Figure 13 shows the train and test loss values for a 4-layer CNN model. The training loss decreases while the test loss increases as each epoch is completed.

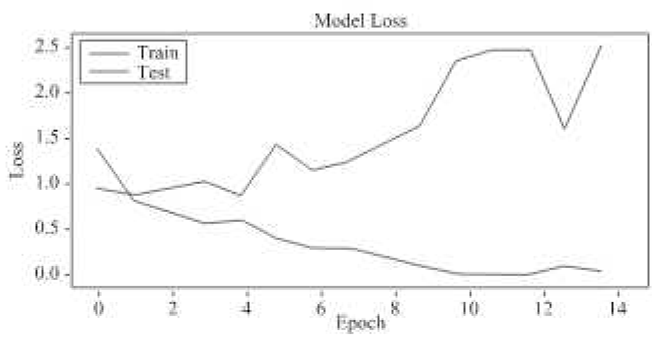


Figure-13: Epoch-wise loss on 4-layer CNN model

In Table VII, 10 epochs show the training accuracy and loss, and validation accuracy and loss of the 5-layer convolutional neural network model.

Table VII: Output of the 5-layer CNN Model

Epoch No	Loss	Accuracy	Val_loss	Val_accuracy
1	0.5613	0.7552	0.9910	0.6042
2	0.5067	0.7656	0.9862	0.6250
3	0.4328	0.7917	1.2727	0.7083
4	0.4639	0.8333	0.9462	0.6667
5	0.3399	0.8698	1.5923	0.6458
6	0.3264	0.8385	1.0588	0.7083
7	0.2060	0.9219	1.4042	0.7083
8	0.3638	0.8490	1.4763	0.6250
9	0.1835	0.9271	2.1201	0.7292
10	0.1069	0.9635	1.4914	0.7500

Table VIII shows the results of a 4-layer convolutional neural network with various input sizes of rice leaf photos. The input picture size is increasing in Table X, whereas the output accuracy and loss value are changing. When comparing the results of the 3-layer CNN model to the 4-layer CNN model, there are noticeable differences.

Table VIII: Results of 4-layer CNN Model

Sl No	Image Size	CNN Layers	Accuracy	Loss
01	150*350	(16,32,64,128,512)	0.7083	1.3138
02	200*350	(16,32,64,128,512)	0.6041	3.2424
03	250*350	(16,32,64,128,512)	0.5416	2.4996
04	200*400	(16,32,64,128,512)	0.5625	2.4490
05	250*450	(16,32,64,128,512)	0.7291	3.4062
06	200*450	(16,32,64,128,512)	0.6458	2.777
07	200*500	(16,32,64,128,512)	0.5833	3.3106
08	250*550	(16,32,64,128,512)	0.7291	1.5370
09	250*650	(16,32,64,128,512)	0.7083	2.5915
10	250*700	(16,32,64,128,512)	0.6667	1.7253
11	250*750	(16,32,64,128,512)	0.6667	2.7472
12	250*800	(16,32,64,128,512)	0.6875	1.5945
13	250*950	(16,32,64,128,512)	0.7708	2.4996
14	250*1050	(16,32,64,128,512)	0.7291	2.6856
15	250*1150	(16,32,64,128,512)	0.7083	3.2484

In Figure 14, 5-layer CNN model accuracy values are shown with train and test accuracy history. During the performance of each epoch, both train accuracy and test accuracies are increased.

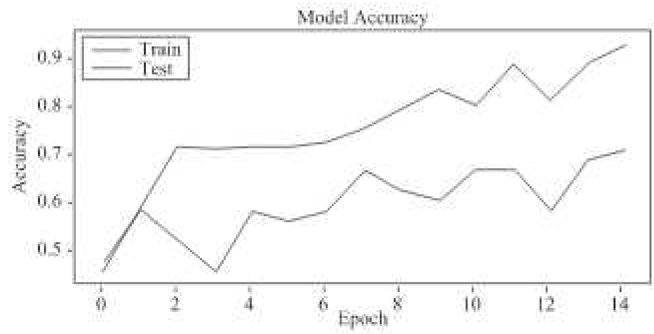


Figure-14: Epoch-wise accuracy on 5-layer CNN model

Figure 15 shows the loss values of a 5-layer CNN model, as well as the train and test loss history. The training loss decreases while the test loss increases as each epoch is completed.

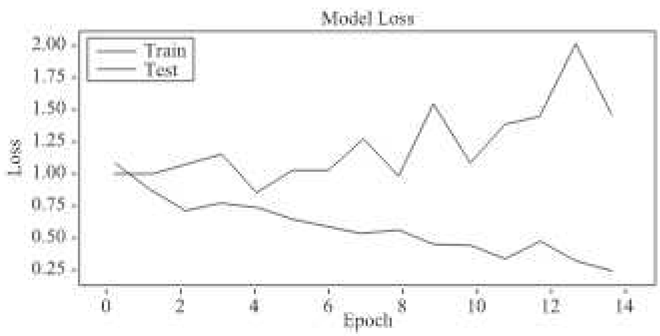


Figure-15: Epoch-wise loss on 5-layer CNN model

Table IX shows the results of a 5-layer convolutional neural network with various input sizes of rice leaf photos. The input picture size is increasing in Table XI, whereas the output accuracy and loss value are changing. When comparing the results of the 3-layer CNN model to the 4-layer CNN model, the 5-layer CNN model shows significant differences.

Table IX: Output of the 5-layer CNN Model

Sl No	Image Size	CNN Layers	Accuracy	Loss
01	150*350	(16,32,64,128,512,1024)	0.6458	1.5352
02	200*350	(16,32,64,128,512,1024)	0.625	1.5842
03	250*350	(16,32,64,128,512,1024)	0.75	1.5350
04	200*400	(16,32,64,128,512,1024)	0.6667	1.0315
05	250*450	(16,32,64,128,512,1024)	0.6041	1.7056
06	200*450	(16,32,64,128,512,1024)	0.6875	0.9639

Sl No	Image Size	CNN Layers	Accuracy	Loss
07	200*500	(16,32,64,128,512,1024)	0.6458	1.0899
08				

So, the above all results and performance analysis between the three proposed convolutional neural network models is shown in Table X.

Table X: Comparison between Different CNN Models

Model	Accuracy	Deficiency Classes	Precision	Recall	F1-score
3 Layer CNN **(Proposed)**	0.81	K	0.78	0.88	0.82
		N	0.87	0.81	0.84
		P	0.80	0.75	0.77
4 Layer CNN	0.77	K	0.81	0.81	0.81
		N	0.75	0.94	0.83
		P	0.75	0.56	0.64
5 Layer CNN	0.75	K	0.80	0.75	0.77
		N	0.75	0.75	0.75
		P	0.71	0.75	0.73
Stepwise Discriminant Analysis **(Existing)**	0.71	N/A	N/A	N/A	N/A

Conclusion

In this paper, rice leaf images were taken from the three foremost leaves of the rice plants under different NPK nutrient shortages. The first method of recognizing NPK nutrient deficiency from the rice leaf images uses the traditional method of human interpretable visual perception. The conventional method was mainly dependent on the characteristics of rice leaf images. The main method of identifying the NPK deficiencies through rice leaf images is named Convolutional Neural Network which is foremost in this sector. The convolutional neural layers are used to build the three different convolutional neural network models. In the Machine Learning models, their input dataset is pre-processed, mainly used for feature extraction, which is extra work. In Deep Learning models, their input dataset is not pre-processed for feature extraction. During the input, the dataset is first trained for feature extraction. These are the advantages of the convolutional neural network model. As a result of three different convolutional neural network models, 3-layer CNN model accuracy is 81%, 4-layer CNN model accuracy is 77%, and 5-layer CNN model accuracy is 75%. In the confusion matrix, precision, recall, and F1 score are better in the 3-layer convolutional neural network model. The first convolutional neural network model is comparatively good from the other two models. The output result of the different input image sizes is shown in three different model tables. In the results table, differences in accuracy and loss are observed as the convolution neural layers increase.

The research works give evidence to recognize the NPK nutrient shortage of rice leaf images. The proposed models accurately identify the rice nutrient shortage. Therefore, this method provides a new concept of primary nutrition diagnosis shortage to help achieve malnutrition deficiency, enhance farmer's profit, and economic growth of agricultural sustainability.

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Developing Speaking Skill through Task- based Language Teaching: A Study on Student Teacher Perspective at the Tertiary Level

Md. Alaul Alam[1]

Abstract: The study shows the perspective of students and teachers at the tertiary level regarding developing speaking skill through task-based language teaching. Besides, it investigates the challenges in respect of developing speaking skill. The study was a mixed-method in approach and was followed by the convergent parallel design which required quantitative study for the first research question and qualitative study for the rest two research questions. Data were collected following proportionate stratified sampling from 80 students who were studying in the first and second semesters in a private university in Dhaka city and they all had to take a eight- month compulsory English foundation course including two semesters and also from 16 teachers teaching at the university level. Data from the students and teachers were collected using both semi- structured open- ended and closed -ended types of questionnaires. Besides, 5 classes were attended and observed following a sample of observation schedule. Major findings of the study indicate that task -based language teaching enhances students' self-confidence in public speaking and emphasizes their needs and interest. Similarly, students and teachers are more optimistic towards task- based language teaching and learning in enhancing their speaking skill if the classroom activities are properly ensured but a number of challenges like lecture-based materials and traditional teaching approach, lack of motivation, lack of proper feedback, examination oriented syllabus, lack of logistic support and intention to get instant incentives stand against fulfilling the desired outcomes from TBLT approach. Finally, a list of recommendations has been given to make students skilled in English speaking effectively through TBLT based on the findings revealed in the study.

Keywords: Task-based language teaching, speaking skill, perspective, challenges, EFL class at tertiary level

Introduction

Task- based language teaching is relatively a new approach in the field of teaching and learning for the EFL learners in Bangladeshi context, which provides an alternative way not only to the language teaching practitioners but also to the students interested to participate in activity- based learning. Basically, it gives more focus on the meaning rather than the form that ultimately leads to contextual language practice giving a little importance to structural organization of sentence. It is believed that fluency in speaking ultimately leads to accuracy but some ELT researchers do not opine the same, rather they think that proper formation of sentences can be affected if students are not provided with task- based learning with an extensive feedback.

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Language is the key component for transforming information and the most important tool for communication. It is regarded that of all the skills speaking seems the most striking as conversation is the central focus of a language (Zaremba, 2006). At present, task-based language teaching has been one of the most popular approaches to enhancing language skill as the communicative approach is easily perceived through task- based language teaching and learning. It is believed that TBLT plays a central role in bringing a maximum outcome of learning a language. In this regard, Rodgers (2001) considers TBLT as a key theory of learning as it provides not only input but also output helpful for language acquisition. Besides, task activity and achievement motivate students to learn resulting in developing learning outcome and finally, remove learning difficulties and help to establish fine tuning for particular pedagogical purposes.

In fact, EFL learners have hardly any scopes to practice English outside the class and this gap can easily be filled up by ensuring a classroom furnished with task-based activities (Samaranayake, 2016). Rocha (2005); Humanez & Arias (2009) found in their studies that TBLT was an appropriate method to improve learners' oral interaction. Murad (2009) stated that stress and anxiety of the students were reduced and their level of confidence and participation of speaking were increased which shifted the learners from their dislike mode to learn English to like mode of learning. However, Tang, Chiou and Jarsaillon (2015) found that though TBLT is effective in enhancing fluency, it is ineffective in case of accuracy. As there exists a controversy among the previous studies regarding TBLT, this study focuses the perspective of students and teachers on task-based language teaching and learning at the tertiary level. Besides, it investigates the challenges of developing speaking skills which are standing in the way to teaching and learning through task- based approach. A list of recommendations are provided in order to make task-based teaching and learning more effective in developing speaking skills.

Literature Review

Learners, teachers and instructional materials are very important elements of any approach to teaching and learning a foreign language. The previous studies regarding EFL teaching and learning reported that today's approach to language learning is no more confined to traditional practice, rather involvement of teachers in the classroom pedagogy directs them to find out more smooth strategies in terms of getting maximum outcome in this regard. Richards &Rodgers (2001) stated that task-based language teaching engages students as the central stake holders who accomplish the task and teachers play the role as facilitators in accomplishing students' task in the class; while students perform a number of tasks e.g. group participating, monitoring, risk-taking and doing innovatory activities, using different strategies in setting their goals and reaching self-evaluation.

Hitutozi (2008) cited in Elmohdi (2016) conducted a study on Liberal Arts TEFL undergraduates from the Federal University of Amazonas and found that the learners were kept engaged in the meaningful interactions in the classroom for an extended period of time that gave an assumption that the longer learners use the target language to communicate in the classroom the more their inter language is enhanced. Besides, Buriro and Hayat (2010) found in their study conducted in Pakistan that students being instructed with role play tasks by the teachers made a significant progress with their speech fluency. Similarly Birjandi and Ahangari (2008) in their conducted study found a significant difference in students' oral performance in terms of fluency, accuracy and complexity when students were given the tasks repeatedly in the class. Again Lochana and Deb (2006) carried on a study in which non-task-based textbook activities were converted into task-based ones by assuming in this way that task- based teaching not only enhances the language proficiency of the learners but also encourages them to participate more in the learning process. However, Joen and Jung (2006) stated EFL teachers' perceptions of TBLT in Korean secondary school context. The findings of their study reveal that many Korean EFL teachers stay fearful of adopting TBLT as an instructional method lest there should arise disciplinary problems related to classroom practice. Moreover, Nunan (1989) and Willis (1996) in their study revealed the findings emphasizing the teacher making the learners instruct towards features and form of the target language and in this case he/she may be regarded as a facilitator as it is his/ her responsibility to select tasks and prepare lessons for these proposed tasks and finally support and conduct conscious raising activities. Despite many advantages of task- based language learning, it cannot be regarded as the best approach to language learning. In this regard, Tang, Chiou and Jarsaillon (2015) found that though TBLL is effective in enhancing fluency, it is ineffective in case of accuracy. So this study has the scope to reinvestigate and show the perspectives students and teachers hold regarding TBLT to develop speaking skill that will no doubt be considered as a unique contribution to the field of teaching and learning in the Bangladeshi context.

Objective of the Study

The main purpose of the study is to show the perspective of students and teachers in developing speaking skill through TBLT in the Bangladeshi context and to explore the challenges faced by students and teachers while teaching and learning at the tertiary level EFL class. Besides, it will give a list of recommendations based on the findings of the study which will be helpful for teachers, students, material developers and policy makers to experiment their knowledge.

Research Questions

1. What attitude do students and teachers have regarding task- based language teaching in enhancing English speaking proficiency?
2. How does task- based language teaching develop speaking skill?
3. What challenges do students and teachers face in developing speaking skill through task- based language teaching?

Rationale of the Study

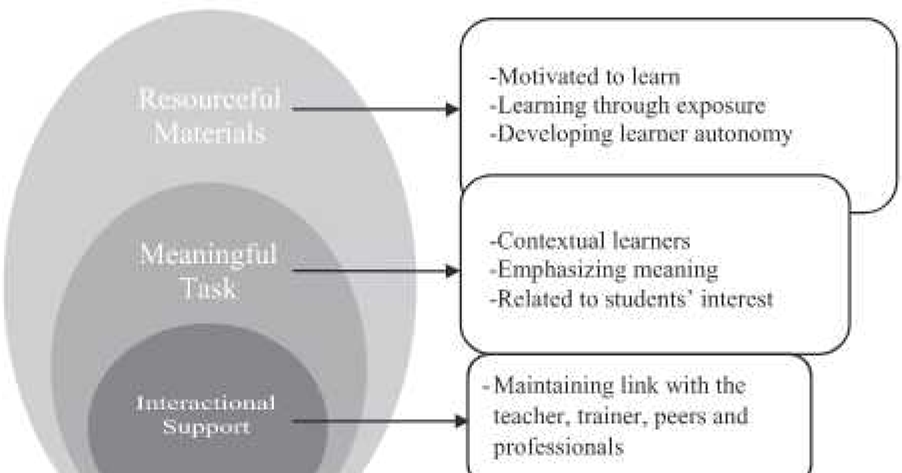
The previous studies reveal that task-based language teaching has a positive impact on developing English speaking skill and most of the studies highlight the importance of communicative tasks in the language classroom that ensures maximum learning outcomes especially on oral performance (Humanez and Arias, 2009). However, task- based language teaching mainly focuses on a task or activity that Nunan (1989) exactly defines as a piece of class work involving learners in comprehending, manipulating, producing or interacting in the target language while their attention is principally focused on meaning rather than form. Besides, Tang, Chiou and Jarsaillon (2015) found that though TBLL is effective in enhancing fluency, it is ineffective in case of accuracy. The controversy in the findings of the previous researchers revealed in their studies motivates the researcher of the present study to instigate the perspective of students and teachers regarding TBLT to develop speaking proficiency and certainly this study will add a new dimension to the existing ones because there is hardly any studies found in Bangladeshi context that investigates the perspective of students and teachers in case of developing speaking skills through TBLT.

Methodology of the Study

The study was a mixed-method in approach (Bryman, 2006) and was followed by the convergent parallel design which required quantitative study for the first research question and qualitative study for the rest two research questions. Data were collected from the students and teachers of a private university in Dhaka city along with classroom observation. 80 students were taken for quantitative data and out of them 16 students were also taken for qualitative data from 5 departments i.e. Law, English, EEE, CSE and Business who were studying in the first and second semesters in the university and they all had to take an eight -month compulsory English foundation course covering two semesters. Besides, 16 EFL teachers were interviewed, who were teaching at the university level. The number of students was 16 for each department including boys and girls whose age range was 20 to 22 years following proportionate stratified sampling technique. Data from the students and teachers were collected using both open-ended and closed-ended of questions. The three dimensional question frame e.g. Yes, No and Sometimes was selected for the students whereas the four dimensional question frame like Yes, No , Sometimes and No comments was used for the teachers . For the qualitative purpose three coded issues like perspective, challenges and correlations among the variables were presented using purposive sampling. Besides, five EFL classes were attended and observed by the researcher following a sample of classroom observation schedule. Collected qualitative data were presented in the thematic style whereas for quantitative data descriptive and inferential statistics were used. Triangulation was carried out by comparing the participants' responses and observations, to identify what was common and to recognize the gaps that might be there in the collected data.

Theoretical Framework

Task-based language teaching is an instructional framework for the theory of teaching a foreign or second language which aims at enabling learners to use the target language for social functional action and situational communication (Branden, Bygate & Norris, 2009). Rodgers (2001) state, "tasks are believed to foster processes of negotiation of second language learning". It is an approach to teaching that makes it different from the form-based teaching approach centered in the class, rather it enables students to communicate in a meaningful way and the tasks employed in the lessons may be based on real life circumstances. Besides, it provides the learners with full autonomy to take part in lively activities that accelerate learners' speaking skills (Wills, 1996).



Along with these, this three-stage model includes pre-task, task and review. Pre-task stage allows learners to get engaged in developing plan and in the task stage learners participate in the presentation. However in the review stage fluency and accuracy go simultaneously as fluency leads the learners to the state of accuracy when a language is used consciously.

Data Analysis

Table -1: Quantitative Data Analysis (students' part):

SN	Statement	Yes	No	Sometimes
01	Class is more collaborative and interactive.	37.5 % (30)	18.75% (15)	43.75% (35)
02	Class is student friendly.	31.25% (25)	31.25% (25)	37.5% (30)
03	Teachers follow task-based teaching approach.	20% (16)	48.75 % (39)	31.25 % (25)
04	I take part in classroom activities.	18.75% (15)	37.5% (30)	43.75% (35)
05	I am motivated to learn from task-based teaching.	31.25% (25)	31.25% (25)	37.5% (30)
06	It enhances my self-confidence in public speaking.	62.5% (50)	12.5% (10)	25 % (20)
07	I get effective feedback from my teacher.	15% (12)	47.5% (38)	37.5% (30)
08	Task-based learning provides a relaxed atmosphere to practice English.	18.75% (15)	43.75% (35)	37.5% (30)
09	Task-based learning materials are meaningful and purposeful based on the real-world context.	50% (40)	25 % (20)	25 % (20)
10	Students and teachers are found spontaneous in the class.	42.5% (34)	27.5% (22)	30% (24)
11	The content of the class suits my level.	16.25% (13)	28.75% (23)	55% (44)
12	Task-based learning activates learners' needs and interests	46.25% (37)	28.75% (23)	25 % (20)

In response to Statement No. 1, 37.5% students stated that class was more collaborative and interactive and 43.75% chose 'sometimes'. However 18.75% students did not support the statement. In Statement No.2, 31.25% students claimed that class was student friendly and 37.5% stated that it was 'sometimes' whereas 31.25% replied negatively. In regard to Statement No. 3, 20% students said that teachers followed task-based teaching approach and 31.5% chose 'sometimes' while 48.75% opined that teachers did not follow task- based teaching approach. In Statement No. 4, 18.75% students stated that they took part in classroom activities and 43.75% sometimes did it. However, 37.5% did not take part. The Statement No. 5 revealed that 31.25% students were motivated to learn from task-based teaching and another 37.5% were sometimes motivated while 31.25% replied negatively in their statement. In response to Statement No. 6, 62.5% students opined that it enhanced their self-confidence and 25% thought it did sometimes while 12.5% chose 'no' option. With regard to Statement No.7, 15% students claimed that they got feedback from their teachers and another 37.5% supported the statement 'sometimes' whereas 47.5% opined negatively. In Statement No. 8, 18.75% students opined that task-based learning provides a relaxed atmosphere to practice English and 37.5% stated 'sometimes' while 43.75% did not opine the same. Statement No. 9 was asked to investigate whether task-based learning materials were purposeful or not, and as per the reply 50% chose the option 'yes' and another 25% chose 'sometimes' but the rest 25% did reply negatively. In Statement No. 10, 42.5% students stated that teachers and students were spontaneous in the class and 30% chose 'sometimes'. However 27.5% did not think so. With regard to Statement No. 11, 16.25% claimed that the content of the class suited their level and 55% chose 'sometimes' whereas 28.75% replied negatively. In the last statement, 46.25% students stated that task-based learning activates learners' needs and interests and 25% chose ' sometimes' while 28.75% did not think so.

Table-2: Teachers' Data Analysis

S.L No	Statement	Yes	No	Sometimes	No comment
01	I follow task-based language teaching approach in my class.	37.5% (6)	0	62.5% (10)	0
02	I think that task-based language teaching is more appropriate than traditional language teaching in developing speaking skill.	50% (8)	25% (4)	25% (4)	0
03	I think that students are motivated to develop their speaking skill through task- based learning activities.	31.25% (5)	0	50% (8)	12.5% (2)

S.L No	Statement	Yes	No	Sometimes	No comment
04	I encourage my students to speak in a group.	75% (12)	00	25% (4)	00
05	I think that students are proactive in speaking class.	25% (4)	43.75% (7)	18.75% (3)	12.5% (2)
06	I think that teachers' role are undeniable in this teaching approach.	50% (8)	0	25% (4)	25% (4)
07	I can provide feedback for every student within the class time frame.	18.75% (3)	50% (8)	25% (4)	6.25% (1)
08	I facilitate students with task-based learning resources.	31.25% (5)	0	56.25% (9)	12.5% (2)
09	I think that learner autonomy is important to get success in this approach.	87.5% (14)	0	12.5% (2)	0
10	I think that teachers and students are enthusiastic in the class.	31.25% (5)	0	50% (8)	18.75% (3)
11	I think that a task has a clearly defined outcome	81.25% (13)	0	18.75% (3)	0
12	I think that it can make students fluent if all the classroom activities are followed properly but there is a doubt of accuracy in their speaking.	81.25% (13)	0	0	18.75% (3)

In regard to the Statement No. 1, 37.5% teachers claimed that they followed task-based language teaching approach in the class and 62.5% sometimes followed. In the Statement No. 2, 50% teachers stated that task-based language teaching was more appropriate than traditional teaching in developing speaking skills and 25% chose 'sometimes'. In response to the Statement No.3, 31.5% teachers said that students were motivated to develop speaking skills through TBLT and 50% stated as ' sometimes'. With reference to the Statement No.4, 75% teachers said that they encouraged students to speak in a group and the rest 25% sometimes did it. In the Statement No. 5, 25% teachers claimed that students were proactive in the class and 18.75% chose 'sometimes 'whereas 43.75% replied negatively. In response to the Statement No. 6, 50% teachers claimed that teachers' roles are undeniable in this teaching approach and 25% chose 'sometimes'. However, the rest 25% made 'no comments' in this regard. In regard to the Statement No. 7, 18.75% teachers said that they provided feedback for the students individually and 25% sometimes gave feedback whereas 50% did not give any feedback and 6.25% had 'no comments'. With reference to the Statement No. 8, 31.25% teachers said that they helped the students with task-based materials and 56.25% sometimes helped them. In the Statement No. 9, 87.5% teachers revealed that learner autonomy was very important for developing speaking skills and 12.5% stated as 'sometimes'. With a reply to the Statement No.10, 31.25% teachers claimed that teachers and students were enthusiastic in the class and 50% chose 'sometimes' while 18.75% chose 'no' option. In response to the Statement No.11, 81.25% teachers said that every task has a clearly defined outcome and the rest 18.75% chose the option 'sometimes'. In the last statement, 81.25% teachers claimed that task-based learning developed fluency but lacked accuracy while 18.75% did not make any comment in this regard.

Thematic Part of Students' Data

a) Lecture- based materials

Majority of the students (12 out of 16) claimed that teachers in the class followed lecture- based materials and encouraged them to memorize the information considered to be important for the examination. Besides, they opined that the curriculum updated for them to enhance their speaking skills concentrated on a mixed approach that hardly fulfilled the goals expected from task-based language teaching approach. One of the students opined:

We were told by an English lecturer to make preparation on how to write a CV and a Cover letter and he gave us a lecture sheet informing us that in the next class there would be a written examination. So it would be a wise act to memorize the sheet to ensure good grade.

However, the majority showed their positive attitudes towards practice-oriented activities in the class.

b) Lack of motivation

The interview data revealed that fifty percent (8 out of 16) students had a little or no motivation to develop their speaking skills through task-based language teaching as the classroom environment did not support them to be motivated. Moreover, they stated that they felt embarrassed to take part in peer activities as they faced difficulties in speaking English and the other thing was that they were afraid of whether their English was correct or incorrect when they spoke, this made them demotivated to get involved in speaking activities. One of the students responded:

I learn English only to achieve good grades in the examination. Besides, there are a few marks allocated for judging our speaking skills in the examination. The examination- based syllabus is somehow responsible as more than eighty percent marks are allocated for written exam.

However, the motivated students enjoyed the class with full confidence and made themselves skilled in speaking.

c) Traditional teaching approach

Majority of the students (12 out of 16) claimed that teachers used traditional teaching approach in the class. Besides, the syllabus of the foundation course was embedded on grammar translation approach that hardly inspired students to take part in speaking activities. However, traditional teaching approach was dead against CLT as well as TBLT approaches.

d) Lack of proper feedback

Majority of the students stated that they were not given proper feedback in the class and for this, they could not judge their English speaking skills whether they could speak with accuracy or not. Besides, they opined that it was a very challenging job for the teacher to give individual feedback on their speaking difficulties.

Thematic Part of Teachers' Data:

a) Traditional examination- based syllabus

It was found that majority (12 out of 16) teachers taught the students following the traditional examination-based syllabus that had little scope to get the learners involved in speaking activities in the class, rather the priority was given to written examination and teachers did not take necessary preparation for implementing task-based language teaching approach. However, 60% teachers claimed that traditional examination-based syllabus was an obstacle to the way of enhancing speaking skills through TBLT. They further said that students were more interested in achieving grades than in accomplishing class activities to boost up their speaking skills.

b) Lack of logistic supports

Majority of the teachers (12 out of 16) argued that the task-based language teaching was still a challenge due to lack of logistic supports in the class.

In Bangladeshi context classroom does not provide all the facilities needed to introduce task-based language teaching. They opined that in most cases, they lack skills in selecting appropriate teaching materials. Besides, they have lack of resource and shortage of time to practice speaking task. All teachers argued that large class size is a problem as teachers cannot ensure individual feedback on students' speaking activities performed in the class.

c) Intention of getting instant incentives

One third of the teachers claimed that students did not willingly speak in the class though they were given individual tasks to accomplish. They wanted to get good marks from the teachers by maintaining a good term with them and they lacked motivation to participate in speaking activities. Besides, they felt afraid to speak publicly. 50% of the teachers opined that students were assigned important topics to memorize and with these topics they could achieve good grades. However, a few teachers noticed that students were keen to accept the challenges of speaking through task - based language learning.

Observation Checklist:

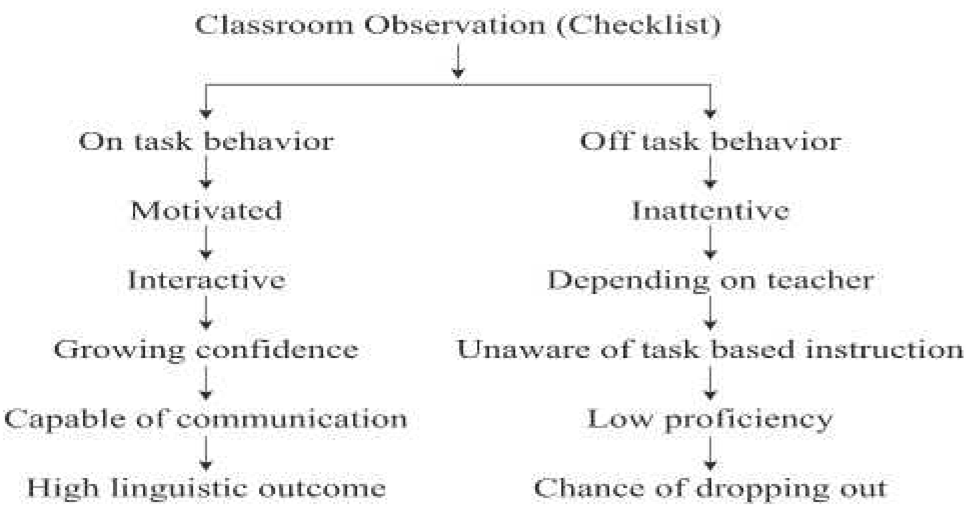


Figure 2: Classroom Observation (Checklist)

Major Findings and Discussion

Major findings of the study reveal that 62.5% students claim that the task-based language teaching enhances their self-confidence in public speaking and another 46.25% always think that task-based learning encourages learners. However, majority (50%) teachers think that to have greater outcomes from this approach, teachers' roles are undeniable. The findings mentioned here are supported by Nunan (2004) and Wills (1996).

But a contradiction is found in the data received from students and teachers that according to 48.75% students, teachers do not follow the task-based teaching approach while 62.5% teachers state that they sometimes follow it.

However, the majority (81.25%) teachers opine that every task has a clearly defined outcome if it is followed through proper classroom activities. This finding has a little similarity in the study of Bygate (1987) where he found that learners use language communicatively to achieve an outcome with the overall purpose of learning a language.

The findings show that teachers have given importance to learner autonomy and motivation. 87.5% teachers think that learner autonomy plays a very important role while implementing this approach in the class as students with little or no motivation are interested in getting grades than in acquiring language. Gass and Selinker (2001) had the similar findings.

The findings from the thematic analysis reveal that the speaking performance of the motivated students were higher than that of the students who were not motivated or a little motivated and they participated in the class activities with full confidence. The similar findings were also found from the study conducted by Khadidja (2010) that the students who are active to participate in classroom interactions have more possibilities to be skilled in speaking performance than the students keeping silent in the class.

However, majority of students and teachers also report that teachers follow lecture-based materials as the existing examination systems force them to follow the traditional approach. Ellis (2003) had the same findings that teachers are forced to take class following traditional approach. Apart from linguistic challenges of the students, 81.25% teachers think that task- based activities work more on fluency than on accuracy. These findings were also echoed in the study conducted by Tang, Chiou and Jarsaillon (2015).

Recommendations

Based on the findings from students and teachers in this study, the researcher gives a number of recommendations contributing to developing speaking skill more effectively through task- based language teaching and learning in the classroom which are as follows:

1. Teachers should not teach students with merely lecture- based materials but they should encourage to get them involved in classroom activities.

2. Teachers should motivate students to practice speaking in the class and similarly, students should be given learner autonomy to have better outcomes.

3. Traditional teaching approach and examination systems should be replaced by activity based approach where teachers will be the facilitators or the moderators.

4. Students should be given proper individual feedback emphasizing form and content in the same manner.

5. Standard class size should be ensured for the students to teach through TBLT activities.

6. Teachers should make students understand that there is no shortcut way of learning a language.

7. For selecting a task or topic students' experience and knowledge should be taken into consideration.

8. Classroom should be collaborative and interactive.

9. Teachers should provide students with a relaxed environment that inspires them to act wisely in the classroom.

10. Peer interactions should be compulsory in the class.

Conclusion

The study focuses on developing speaking skill through task-based language teaching and learning. In this study the perspective of students and teachers has been presented regarding task-based language teaching to develop speaking skills of students at the tertiary level. Besides, it investigates the challenges that stand on the way to develop speaking skill through TBLT. Major findings of the study show that task-based language teaching enhances students' self-confidence in public speaking and emphasizes their needs and interest. Similarly, students and teachers are more optimistic towards task-based language teaching and learning in enhancing speaking skill if the classroom activities are properly ensured but a number of challenges like lecture-based materials and traditional teaching approach, lack of motivation, lack of proper feedback, examination oriented syllabus, lack of logistic support and intention to get instant incentives stand against fulfilling the desired outcomes from TBLT approach. Finally, a list of recommendations have been given to make students skilled in English speaking effectively through TBLT based on the findings revealed in the study.

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Appendix 1

Developing speaking skill through task -based language teaching: A study on student teacher perspective at the tertiary level

Students' Questionnaires

SN	Statement	Yes	No	Sometimes
01	Class is more collaborative and interactive.			
02	Class is student friendly.			
03	Teachers follow task -based teaching approach.			
04	I take part in classroom activities.			
05	I am motivated to learn from task-based teaching.			
06	It enhances my self-confidence in public speaking.			
07	I get effective feedback from my teacher.			
08	Task-based learning provides a relaxed atmosphere to practice English.			
09	Task-based learning materials are meaningful and purposeful based on the real-world context.			
10	Students and teachers are found spontaneous in the class.			
11	The content of the class suits my level.			
12	Task-based learning activates learners' needs and interests			

Appendix 2

Developing speaking skill through task -based language teaching: A study on student teacher perspective at the tertiary level

Teachers' Questionnaires

SN	Statement	Yes	No	Sometimes	No comment
01	I follow the task -based language teaching approach in my class.				
02	I think that task- based language teaching is more appropriate than traditional language teaching in developing speaking skill.				
03	I think that students are motivated to develop their speaking skill through task- based learning activities.				
04	I encourage my students to speak in a group.				
05	I think that students are proactive in speaking class.				
06	I think that teachers' roles are undeniable to this teaching approach.				
07	I can provide feedback for every student within the class time frame.				
08	I facilitate students with task-based learning resources.				
09	I think that learner autonomy is important to get success using this approach.				
10	I think that teachers and students are enthusiastic in the class.				
11	I think that a task has a clearly defined outcome				
12	I think that it can make students fluent if all the classroom activities are followed properly but there is a doubt of accuracy in their speaking.				

Appendix 3

Developing speaking skill through task- based language teaching: A study on student teacher perspective at the tertiary level

Semi-structured interview questionnaires for the students:

1. What is your opinion regarding task -based language learning in developing speaking skills?
2. What approaches do the teachers apply to teach you English in the class?
3. What are the challenges you face in the EFL class conducted through task- based activities?
4. How does task -based learning develop speaking skill?

Semi-structured interview questionnaires for the teachers:

1. What is your opinion regarding task- based language teaching in developing speaking skill?
2. What approaches do you apply to teach the students in your EFL class?
3. What are the challenges you face while teaching students using task -based activities?
4. How do task- based activities develop speaking skill?

Classroom Observation Schedule (Open Ended)

Theme	On task-behavior	Off task-behavior
Start of the Lesson		
Middle of the Lesson		
End of the Lesson		

Invitation to Contributors

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