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In Pursuit of Knowledge

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It is a great pleasure for the editorial team to bring out the publication of Volume 7, Number 1 & 2 of the Journal of Hamdard University Bangladesh (JHUB). The previous Volume 6, Number 1&2 was published as Commemorative Issue on the Birth Centenary of the Father of the Nation Bangabandhu Sheikh Mujibur Rahman.

The Journal of Hamdard University Bangladesh is a multidisciplinary pear reviewed biannual journal published by faculties and senior management of the University. The articles are contributed by researchers across Hamdard Laboratories (Waqf) Bangladesh, public and private universities, institutions from home and abroad.

It is needless to say that the cordial patronization of Dr. Hakim Md. Yousuf Harun Bhuiyan, Honourable Founder of Hamdard University Bangladesh makes the smooth running of the publication of this journal. We also express our sincere thanks and gratitude to all contributors of articles, reviewers and proof readers without which it would not have been possible to bring out the publication of the journal. Our debt of gratitude is due to the Vice Chancellor and Chairman of the Editorial Board, Professor Dr Faruque-Uz-Zaman Chowdhury for his encouragement and whole-hearted support to bring out the journal in the present state.

We are indebted to the honorable members of Advisory Board and also to the members of the Editorial Board for their cordial support all the time in our endeavor towards the publication of the Journal of Hamdard University Bangladesh.

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STANDARDIZATION, QUALITY CONTROL AND PHARMACOLOGICAL REVIEW ON *RAUVOLFIA SERPENTINA* (L.) BENTH. *EX* KURZ

Hakim Md Yousuf Harun Bhuiyan[1] and Hakim Kamrun Nahar Harun[2*]

ABSTRACT

Rauvolfia serpentina (L.) Benth. *Ex* Kurz is regarded as an important medicinal plant in the pharmaceutical industries due to its immense therapeutic properties and uses in Unani and Ayurvedic systems of medicine. In view of the medicinal and pharmacological importance of this plant, an attempt has been made to provide comprehensive information on standardization and quality control of the herb based on WHO guidelines. The important parameters studied for standardization and quality control are sensory characteristics, macroscopic and microscopic characteristics, some chemical characteristics, physico-chemical characteristics (moisture content, total ash, acid insoluble ash, alcohol soluble extractive and water soluble extractive value) and TLC finger prints of different extractives. At the same time, chemical constituents, pharmacology, traditional uses, precautions, packaging and storage of dried root of the plant have been discussed.

Keywords: *Rauvolfia serpentina*, Standardization, Quality Control, Chemical Constituents, Pharmacology, Traditional Uses, Precautions and Adverse Effects.

INTRODUCTION

Rauvolfia serpentina (L.) Benth. *ex* Kurz is one of the most prominent medicinal plant in Indian Subcontinent and has been used in indigenous system of medicine for different ailments. The botanical synonyms of *R. serpentina* are *Ophioxylon serpentinum* L., *Ophioxylon trifoliatum* Gaertn. and *Tabernaemontana cylindracea* Wall. It belongs to the family Apocynaceae and commonly referred by common name '*Sarpagandha*' in Bengali and 'Serpentina' in English.

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Similarly in Unani system of medicine it is also referred by the name '*Usrol'* (BNUF, 2011) and in Ayurvedic system of medicine it is referred by the name '*Sarpagandhamul'* (BNAF, 2011). In some areas of Bangladesh, this plant is also known as '*Chandra'*.

R. serpentina is very popular for curing various human disorders because of the presence of alkaloids, carbohydrates, flavonoids, glycosides, phlobatannins, phenols, resins, saponins, sterols, tannins and terpenes. The plant parts- root and rhizome have been used since centuries in Unani, Ayurvedic and Traditional medicines for curing a number of diseases such as high blood pressure, mental agitation, epilepsy, traumas, anxiety, excitement, schizophrenia, as sedative in insomnia and insanity (Kumari et al., 2013).

This plant has been used in Indian Subcontinent as a part of the Ayurvedic and Unani medical system for the treatment of various ailments (Pant and Joshi, 2008). In Ayurvedic medicines, the roots of *R. serpentina* is used as a remedy for curing hypertension, insomnia, mental agitation, gastrointestinal disorders, excitement, epilepsy, traumas, anxiety, excitement, schizophrenia, sedative insomnia and insanity (Poonam et al., 2013; Meena et al., 2009). In Siddha medicine, *R. serpentina* roots are used for curing hypertension-associated headache, dizziness, amenorrhea, oligomenorrhea and dysmenorrhea like abnormalities (Rajendran and Agarwal, 2007). This meditative tree is also enlisted and described as an active ingredient in about three formularies of National Formulary of Ayurvedic Medicine of Bangladesh (BNAF, 2011) and about four formularies of National Formulary of Unani Medicine of Bangladesh (BNUF, 2011). The dried root of this plant is broadly used as an active ingredient for manufacturing Unani and Ayurvedic medicines. Not much reliable experimental research documents are available for standardization and quality control methods of *R. serpentina* in Bangladesh as per published scientific literature review in broader extent. So, there is a scope to meet the gap regarding quality control of *R. serpentina* in Unani, Ayurvedic, Herbal and Homeopathic drug manufacturing industries of Bangladesh.

Thus the main urge behind this research and review work is to establish quality standard methods for standardization and quality control of *R. serpentina* for its safe use through supportive scientific studies based on pharmacology and other medicinal properties.

In this paper, an effort has been made to find out sensory characteristics, macroscopic and microscopic characteristics, chemical characteristics with some chemical reagents, physico-chemical characteristics (moisture content, total ash, acid insoluble ash, alcohol soluble extractive and water soluble extractive value) and TLC finger prints of different extractives of *R. serpentina* based on WHO guidelines by following standard procedures from different pharmacopoeias (BHC, 1992; BHP, 1997; Chinese Herbal Pharmacopoeia, 1997; Hamdard Pharmacopoeia, 1997; WHO, 1993; WHO, 1998; IHP, 1999). At the same time chemical constituents, pharmacology, traditional uses, safety precautions, toxicity, storage and packaging

of *R. serpentina* have been investigated, which are imperative for optimal and safe utilization of dried root of this medicinal plant.

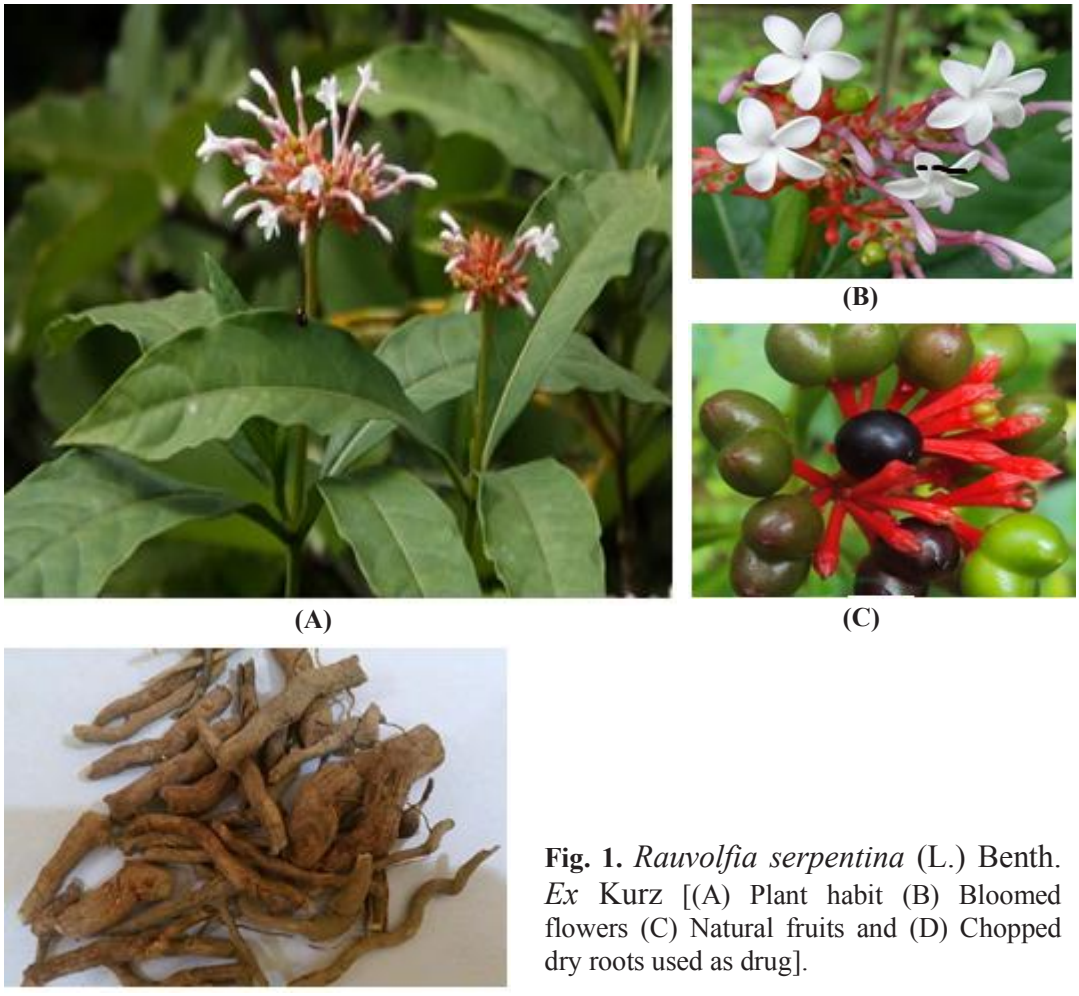


Fig. 1. *Rauvolfia serpentina* (L.) Benth. *Ex* Kurz [(A) Plant habit (B) Bloomed flowers (C) Natural fruits and (D) Chopped dry roots used as drug].

BOTANICAL DESCRIPTION

R. serpentina is an erect, glabrous, perennial small shrub, about 30-40 cm tall. Leaves simple, whorled, petioles up to 1.4 cm long, lamina elliptic-lanceolate or ovate-lanceolate, 8-16 × 2-6 cm, widest in the middle, tapering to both ends, tip acute. Cymes dense, axillary or terminal, peduncles up to 12 cm long, pedicels red. Flowers white or pinkish. Calyx lobes up to 2.5 mm long, lanceolate, acute, glabrous, bright red. Corolla tube up to 2 cm long, slender, inflated a little above the middle, lobes much shorter than tube, throat hairy. Follicles up to 0.8 cm long,

more or less connate, minutely apiculate, glabrous, purplish-black when ripe. Flowering and fruiting: April-October (Ahmed et al., 2009).

DISTRIBUTION

The plant is found in Bhutan, Cambodia, China, Laos, Indonesia, Malaysia, Myanmar, Nepal, Pakistan, Sri Lanka and Vietnam. In Bangladesh, it occurs sporadically in Chittagong, Sylhet, Kushtia, Dhaka, Mymensingh and Rajshahi districts, sometimes also cultivated (Ahmed et al., 2009). It is extensively cultivated in Hamdard Gardens, Meghnaghat, Sonargaon, Narayanganj.

Part/parts used as drug: Roots, root extract and leaves (MUM, 2003).

Form and condition when received: Pieces of dried roots [Fig. 1(D)].

Temperament: Cold and dry in third order (MUM, 2003).

MATERIALS AND METHODS

The dried root of *R. serpentina* were collected from the Store Raw Material (SRM) Section of Hamdard Laboratories (Waqf) Bangladesh. The specimen of the materials as Specimen No. HMSS-004 was preserved in the Standard Sample (SS) Room of Hamdard Laboratories (Waqf) Bangladesh for record. The root of the plant were dried in air and processed using standard methods (Trease and Evans, 1996). For microscopic characterization, a microtome (Model: B10575, India) was used for section cutting and a digital microscope (Model: DA1-100M, Boeco, Germany) was used for anatomical study. The powdered materials were used for chemical characterization, physico-chemical characterization and successive extraction. Standard procedures from different pharmacopoeias were followed for physico-chemical studies (BHC, 1992; BHP, 1997; Chinese Herbal Pharmacopoeia, 1997; Hamdard Pharmacopoeia, 1997; WHO, 1993; WHO, 1998; IHP, 1999). All the extractives were evaporated by using a rotary vacuum evaporator (Model: SB-1100, EYELA, Japan). To develop Thin Layer Chromatogram, preparative TLC plates (precoated silica gel 60 F_{254}, Merck KGaA, Germany) were used. All the chemicals used were of analytical grade.

PREPARATION OF SAMPLE FOR SECTION CUTTING

The dried root samples of *R. serpentina* were soaked into Demineralised (DM) Water for six hours to make it soft enough for suitable section cutting.

Preparation of 0.1% safranin O solution for staining section cutting

Transfered 20 mg of Safranin O stain (Cat. #8348a) in one vial into a 100 ml beaker. Added 20 ml of Deionized Water (diH_2O) into the beaker and dissolve the stain by stirring to make 0.1% Safranin O staining solution. Filtered the Safranin O staining solution using a Nalgene PES 75mm filter and this filtrated Safranin O solution was ready to use.

Preparation of sample for TLC

A sample (50g) of powdered root of *R. serpentina* was weighed accurately and poured into a round-bottom flask, approximately 250 ml of 95% (v/v) methanol was added, and the mixture refluxed on water bath for 30 min and then filtered. Another 200 ml of 95% methanol was added to the mark, and the sample was refluxed for a further 30 min and then filtered. The alcoholic extracts were combined and evaporated on a rotary evaporator. To the resulting residue, 2 ml of 50% (v/v) methanol was added and this sample solution was submitted for TLC analysis.

RESULTS AND DISCUSSIONS

Sensory characteristics of the dried root

Sl. No.	Parameter	Observation
i	Colour	Grayish yellow (outer surface).
ii	Odour	Characteristic
iii	Taste	Bitter

Macroscopic characters of the dried stem bark

The supplied root pieces are sub-cylindrical, rarely unbranched, woody and hard. Pieces upto 7.5 - 8.0 cm. long and 0.8-1.0 cm in diameter. Outer surface is grayish-yellow with longitudinal ridges, fractures short [Fig. 1 (D)].

Microscopic characters of the dried stem bark

Transverse Section (TS) of root samples of *R. serpentina* shows the following microscopic characters. All the following microscopic photographs were taken by using a digital microscope (Model: DA1-100M, Boeco, Germany) in Research and Development (R&D) Department of Hamdard Laboratories (Waqf) Bangladesh.

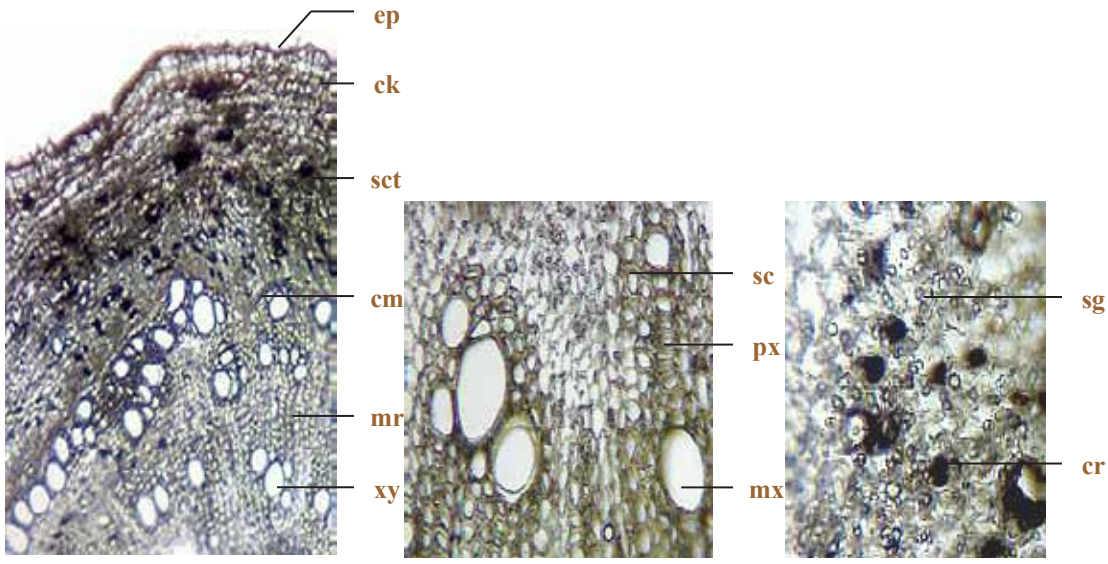


Fig. 2. Microscopy of *Rauvolfia serpentina* (L.) Benth. *ex* Kurz (A) TS of Root [4×] (B) Xylem and (C) Starch grains & crystals of calcium oxalate [10×] [**ep**- epiblema, **ck**-cork, **sct**- secondary cortex, **cm**-cambium, **sc**- sclerenchyma, **px**- protoxylem, **mx**- metaxylem, **cr**- Ca-oxalate crystal, **sg**- starch grain].

Transverse Section (TS) of dried root

i) Transverse Section (TS) of dried root shows epiblema with rough, uneven and non-cuticularized cells.
ii) Cork consists of stratified multiple layers of which some strata with larger cells alternating with strata made up of markedly smaller cells.
iii) The secondary cortex is parenchymatous, some cells packed with starch grains and crystals of calcium oxalate.
iv) Starch grains are mostly simple but compound granules also occur.
v) Stone cells are absent (distinction from many other species such as *R. canescens*, *R. micrantha*, *R. densiflora*, *R. perakensis* and *R. vomitoria*).
vi) Secondary xylem is traversed by well-developed medullary rays but uniseriate rays are more prominent.
vii) Vascular bundles are radial, vessels are single or in pairs.
viii) Pith absent.

Characteristics of stem bark powder

Macroscopic: The powder is yellowish brown in colour. Presences of fibrous particles are very large [Fig. 3].

Microscopic: When the powder is observed under microscope, it shows starch grains, calcium oxalate prisms and clusters, vessels, lignified tracheids; xylem fibres and wood parenchyma cells. The phloem fibres are absent.



Fig. 3. Root powder of *R. serpentina*

Reactions with different chemicals on stem bark powder

A lot of 500 mg powder of dried stem bark was treated with 20-25 drops of the different chemical reagents, which resulted the following characters:

Reagent	Reaction/ Observation
i) Conc. H_2SO_4	The original colour of powder changes from yellowish brown to reddish brown or black in colour and produce foam on the top of liquid [Fig. 4 (A)].
ii) Conc. HNO_3	The original colour of powder changes from yellowish brown to cherry red in colour and produce foam on the top of liquid [Fig. 4 (B)].
iii) NaOH (5%) Sol^n	The original colour of powder changes from yellowish brown to yellow in colour and precipitation may also occur [Fig. 4 (C)].
iv) $FeCl_3$ (5%) Sol^n.	The original colour of powder changes from yellowish brown to dark yellow in colour and precipitation may also occur [Fig. 4 (D)].



Fig. 4: **(A)** **(B)** **(C)** **(D)**

Physico-chemical Analysis

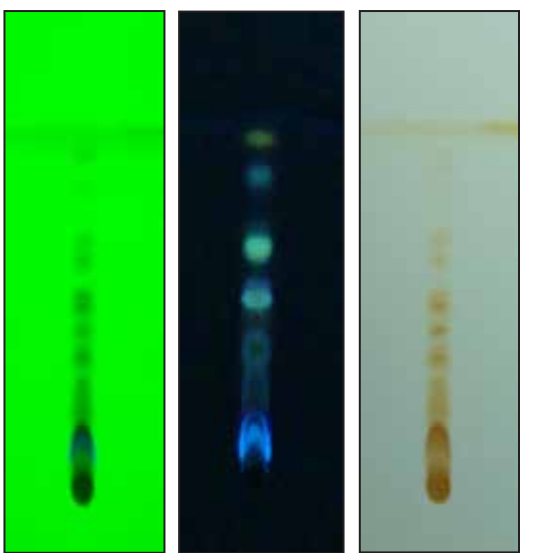
Sl. No.	Test Parameter	Observed Value (w/w)	Standard Value (w/w) (IHSH, 2021)
i	**Moisture content** (By Loss on drying at 105°C)	8.65%	Not more than 10.00% w/w
ii	**Total ash**	7.27%	Not more than 10.00% w/w
iii	**Acid insoluble ash**	0.27%	Not more than 1.00% w/w
iv	**Alcohol soluble extractive**	7.97%	Not less than 5.00% w/w
v	**Water soluble extractive**	13.17%	Not less than 10.00% w/w

Thin-layer Chromatography (TLC) of dried root of *R. serpentina*

Adsorbent: TLC Silica gel 60 F_{254}, Merck KGaA, Germany.

Mobile phase: Dichloromethane: Methanol (10:1).

Detection: At first UV light (at 254nm & at 366nm) and then iodine vapors were used to visualize the spots in the developed TLC plates or chromatograms.



(A) **(B)** **(C)**

Fig. 5. TLC chromatograms of the root sample of *Rauvolfia serpentina* (L.) Benth. *ex* Kurz (A) Under UV light at 254 nm (B) Under UV light at 366 nm and (C) In Iodine vapor.

R_f value as detected by TLC

The TLC examination of sample under UV light at 254 nm showed five major spots with R_f values of 0.2, 0.42, 0.5, 0.57 and 0.62 [Fig. 5(A)] and under 366 nm UV light it also showed five major spots with R_f values of 0.2, 0.57, 0.75, 0.88 and 0.95 respectively [Fig. 5 (B)] with tailing from the base line. The sample in iodine vapors showed four major spots with R_f values of 0.2, 0.42, 0.5 and 0.57 [Fig. 5 (C)]. The R_f value of each spot is calculated by using the following equation:

$$R_f \text{ Value} = \frac{\text{Distance moved by the substance}}{\text{Distance moved by the solvent}}$$

Major Chemical Constituents

R. serpentina had been a prevailing field of research for decades. Several workers have explored this area due to its rich phytochemical properties. The various phytochemical compounds or secondary metabolites present in *R. serpentina* include alkaloids, phenols, tannins and flavonoids. Alkaloids are the major group of organic molecules present in *R. serpentina* (Kumari et al., 2013).

Reserpine is the major alkaloid present in root, stem and leaves of the plant, which varies from 1.7 to 3.0 %. The root contains more than 90% of the total alkaloids present in whole plants (Vakil, 1955). Some other alkaloids like ajmaline, iso-ajmaline, ajmalimine, ajmalicine, deserpidine despiridine, indobine, indobinine, reserpiline, reserpinine, rescinnamine, rescinnamidine, serpentine, serpentinine, alsotonin, chandrine, renoxidine, sarpagine, tetraphyllicine, rauwolfinine, yohimbine etc have also been found in this plant (Schlittler et al., 1954; Klohs et al., 1954; Siddiqui et al., 1985; Kostin et al., 1986; Tyler et al., 1988; Dassonneville et al., 1999; Rolf et al., 2003; Ghani, 2003; Costa-Campos et al., 2004; Srivastava et al., 2006; Goel et al., 2009; Liu et al., 2012; Gawade and Fegade, 2012). Besides these alkaloids substantial amounts of rutin have been found in roots (8.3%), stem bark (2.8%) and leaves (1.5%) of this plant. Oleoresin and a sterol, serpasterol, oleic acid and unsaturated alcohols have also been found in the plant (Ghani, 2003).

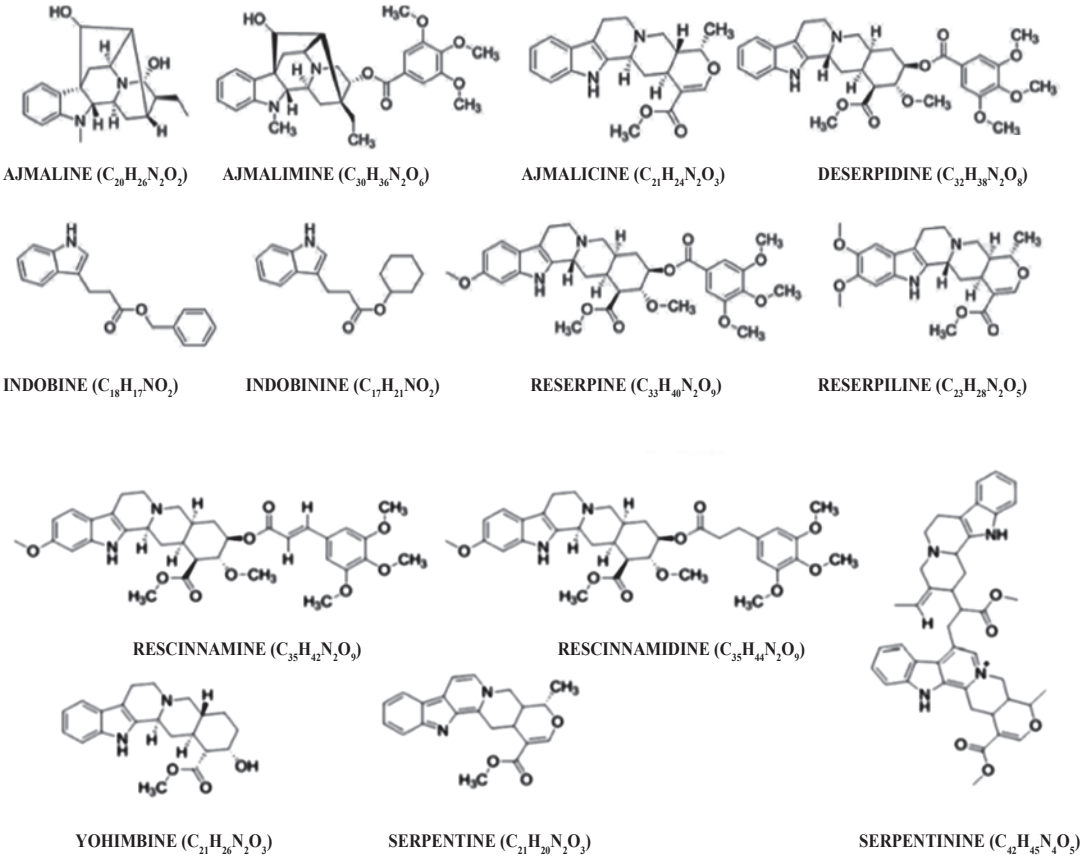
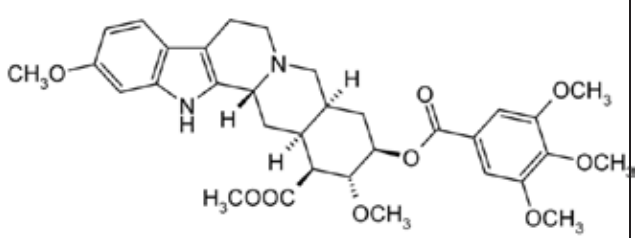


Fig. 6. Chemical structures of some alkaloids present in *R. serpentina*

Marker Compound

Name of Marker Compound	Structure of Marker Compound
Reserpine ($C_{33}H_{40}N_2O_9$)	

PHARMACOLOGICAL STUDIES

R. serpentina holds an important position in the pharmaceutical industry due to the presence of various alkaloids, which have a great medicinal importance to treat cardiovascular diseases (Anitha & Kumari, 2006), high blood pressure (Vakil, 1955), hypertension (Von-Poser et al., 1990), arrhythmia (Kirillova et al., 2001), various psychiatric diseases (Bhatara et al., 1997), mental disorders (Noce et al., 1954), breast cancer (Stanford et al., 1986), human promyelocytic leukemia (Dey & De, 2010) like diseases. Reserpine is the main alkaloid that shows highly complex pattern of activity mainly due to variation of amine concentration in brain. It is responsible for influencing the concentration of glycogen, acetyl choline, gama-amino butyric acid, nucleic acids and anti-diuretic hormone. The effects of reserpine include respiratory inhibition, stimulation of peristalsis, myosis, relaxation of nictating membranes and also influences temperature regulating centre. It increases the volume and free acidity of gastric secretion (Mittal et al., 2012). Its various pharmacological activities include anticholinergic, hypotensive, anticontractile, sedative, relaxant, hyperthermic, antidiuretic, sympathomimetic, hypnotic, vasodialater, antiemetic, anti-fibrillar activity tranquilizing agent, anti-arrhythmic, antifungal and nematocidal (Dey & De, 2010; Macphillamy, 1963).

On the basis of experimental and clinical studies, the root of *R. serpentina* is said to have the following pharmacologic attributes (Vakil, 1949).

(1) By action on the vasomotor center, it leads to generalized vasodilatation, with a lowering of blood pressure.
(2) By depressant action on the cerebral centers, it soothes the general nervous system (Werner, 1953).
(3) It exerts a sedative action on the gastric mucosa and a stimulating action on the plain musculature of the intestinal tract.
(4) It stimulates the bronchial musculature.

Usage of *R. serpentina* as a Therapeutic Agent

R. serpentina has an extensive spectrum of valuable therapeutic actions, mainly effective in the treatment of hypertension and psychotic disorders like schizophrenia, anxiety, epilepsy, insomnia, insanity, and also used as a sedative, a hypnotic drug (Poonam et al., 2013; Kirtikar and Basu, 1993).

A study has emphasized the various ethnobotanical uses to cure various circulatory disorders. Extracts of the roots are valued for the treatment of intestinal disorders, particularly diarrhoea and dysentery and also as anathematic. Mixed with other plant extracts, they have been used in the treatment of cholera, colic and fever. The root was believed to stimulate uterine contraction and recommended for the use in childbirth (Fabricant & Farnsworth, 2001).

Another study (Azmi & Qureshi, 2013) showed therapeutic effects of *Rauvolfia* with incomplete hypoglycemic action in diabetic hypertensive patients. The juice of the leaves has been used as a remedy for the opacity of the cornea (Raj & Sukumaran, 2008).

Rauvolfia's juice and extract obtained from the root can be used for treating gastrointestinal and circulatory diseases. The Juice of tender leaves and root extract is used to treat liver pain, stomach pain, dysentery and to expel intestinal worms (Anisuzzaman et al., 2007).

The extract is also utilized to treat prostate cancer which is one of the leading causes of death in men. Extracts from the root bark of this plant are enriched with compounds of ß-carboline alkaloid family of which the main constituent is alstonine. This compound has been previously reported to reduce tumour cell growth in mice inoculated with YC8 lymphoma cells or *Ehrlich ascitic* cells (Beljanski and Beljanski, 1986). The plant extract has anti-prostate cancer activity in both *in vitro* and *in vivo* model systems which, based upon analyses of gene expression patterns of treated prostate cancer cells, may be modulated by its effects on DNA damage and cell cycle control signalling pathways (Ghani, 2003).

The root of the plant is used in high blood pressure, mental agitation, insomnia and sedative (Meena et al., 2009; Singh et al., 2010). The root extract obtained is considered to be the best medicine for high blood pressure and has been adapted by the medical fraternity in most countries. The derived alkaloids have a direct effect on hypertension and are widely used in preparation of medicine (Lobay, 2015).

Extracts of *R. serpentina* is also helpful in curing other diseases such as fever (Nayak et al., 2004), malaria (Anisuzzaman et al., 2007), eye diseases (Anisuzzaman et al., 2007), pneumonia (Rai, 2004), asthma (Britto and Mahesh, 2007), AIDS (Rahmatullah et al., 2010), headache (Rahmatullah et al., 2010), skin disease (Behera et al., 2006) and spleen disorder (Mia et al., 2009).

FOLK REMEDIES AND TRADITIONAL USES

The root of *R. serpentina* is used in insanity, hysteria, hypertension, epilepsy, insomnia, painful affections of the bowels, dysentery, hypochondria and irritetive conditions of the central nervous system. Bruised root applied on the site of poisonous insect bite instantly gives relief. Decoction of the root has been given to increase uterinecontractions and to promote expulsion of the foetus. With *Andrographis paniculata*, Ginger and Black Salt, it is used in fevers. With *Aristolochia indica*, it is given in cholera and colic. The juice of the leaves is instilled into the eyes as a remedy for the removal of opacities of the cornea (MUM, 2003).

NAME AND INDICATIONS OF HAMDARD MEDICINES BASED ON *R. SERPENTINA*

Unani medicine of Hamdard Bangladesh based on *R. serpentina* (Bhuiyan, 2015).

Sl. No.	Name of Hamdard Medicines	Generic Name (Formulary Name)	Indications and Uses
01	NORMATENSIN®	Habbe-e Fisher	An effective natural medication to normalize hypertension and anxiety. The root of *R. serpentina* is the key ingredient of NORMATENSIN®, which acts as a strong natural hypotensive, tranquilizer, anti-psychotic & spasmolytic. This medication is indicated for the treatment of hypertension, insomnia and anxiety.
02	MASTURIN®	Sharbat Niswan	MASTURIN® is a natural uterotonic, specifically used for uterine disorders and other female diseases which acts solely on female reproductive system, It tones up the nerves, regulates menstrual cycle & cures inflammatory pelvic disorders. This natural medication is indicated for the treatment of irregular menstruation, dysmenorrhoea, amenorrhoea, leucorrhoea, weakness of uterus, metritis & anaemia.

PRECAUTIONS AND ADVERSE EFFECTS

No health hazards are known in conjunction with the proper administration of designated therapeutic dosages. In large dosages it may produce deep sleep where the reflexes and sensation of pain are diminished and death may result from asphyxia due to paralysis of respiratory centers. Excessive use may cause irritation in the alimentary canal and vomiting (MUM, 2003).

PACKAGING AND STORAGE

Received dried root of *R. serpentina* should be packaged in clean, dry boxes, sacks, bags or other containers in accordance with Standard Operating Procedure (SOP) and be stored in clean, well-ventilated area protected from light, moisture and against attack by insects and rodents (Hamdard, 2006; Rafiqul Islam, 2005, 2017).

CONCLUSION

With the tremendous increase in the global use of medicinal plants, concerns regarding the efficacy and safety of the herbal medicines have also been raised. Hence, it has become necessary to standardize the efficacy and safety parameters so as to ensure supply of quality medicinal plant materials. The botanical characteristics including morphological description of the plant part, and it's macroscopic and microscopic characters should be considered to ensure correct identification of a plant. The chemical and physico-chemical analysis of the plant part should also be provided to ensure the quality of the plant materials. Similarly, the chromatographic fingerprint like Thin-layer Chromatography (TLC) of medicinal herbs should be given importance to ensure qualitative measurement of marker/active constituents of herbal materials. The active and marker constituents should be specified and, if possible, content limits should be defined by different chromatographic techniques. Control of quality of herbal materials ensures that the plant material is correct one and it contains standard limit of active principle. At the same time, information based on modern pharmacological studies of the herb may ensure its optimal and safe utilization and finally the quality of the end product which should be consistently of high standard.

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KNOWLEDGE, ATTITUDE AND PRACTICE REGARDING THE USE OF NATURAL MEDICINE AMONG THE UNDERGRADUATE PRIVATE UNIVERSITY STUDENTS OF BANGLADESH

Hakim Kamrun Nahar Harun*

Abstract

Natural medicines include herbs, shrubs and trees—the products that contain parts of single plant or multiple plant materials as active ingredients. The objective of the study is to determine the knowledge, attitude, and practice towards natural medicine use among undergraduate private university students of Bangladesh. The study was conducted at Hamdard University Bangladesh, Gazaria Munshiganj, Bangladesh. In this study, simple random sampling technique was used to select the study participants. The quantitative data for the study was collected by face-to-face interview with structured questionnaire. The qualitative data was also collected from case studies discussing the information in an interpretive approach. The study revealed that majority (51.90%) of respondents are aged between 20 to 22 years. 53.3% are male, 56.6% of the students are non-residential students, 73.84% are unmarried. 82.9% knew about natural medicine. Among the respondents 73.84% used natural medicine personally, 66.92% expressed that natural medicine come from natural sources, and 72.30% reported that syrup types of natural medicine were more effective for the treatment of their health problem. In addition, 71.53% of the participant consulted with their doctor before taking natural medicine, and 36.15% reported that neutral medicine interacts with other drugs. It was found, 34.61% agreed that natural medicine is relatively risk free, 73.07% reported that they buy natural medicine from pharmacy or medicine shop; 37.69% agreed that combined use of natural medicine and conventional therapy is more effective. The respondents reported that natural medicines are very useful for treating various diseases that enhance general health and wellbeing.

Keywords: Natural medicine, health problem, and university students.

Introduction

Natural medicine is mostly based on medicinal plants, which are called traditional medicine. There is limited scientific evidence for the safety and efficacy of plants used in 21st century.

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The increasing usage of natural medicines trends to increase the probability of co-administration of natural and allopathic medicines. It may lead to serious safety concerns, including herb-drug interactions (HDIs). Many HDIs cases are overlooked due to poor doctor-patient communication and lack of knowledge HDIs among physicians. The study reflected the knowledge and awareness of university students regarding the use of natural medicines which include zoo-herbo-mineral based products those contain such active ingredients (Karlberg, 2001). According to World Health Organization (WHO), 80% of the world population are dependent on traditional medicines (mainly natural medicines) for their primary health care needs. In European Union, it is used by around 90% of the population (Robinson & Zhang, 2011). In India, natural drugs are used by around 70% of the population (Vaidya & Devasagayam, 2007). It is believed that natural drugs are safe and cost effective (Heinrich & Booker, 2012). Natural drugs are also accessible, affordable and feasible (Izzo & Ernst, 2009). Majority of natural drugs are free from side effects but some of might be toxic as well (Déciga-Campos et al., 2007).

All these may lead to serious safety concerns with usage of natural medicines including herb-drug interactions (HDIs), the increasing evidence of which are being documented now a days (Fugh-Berman, 2000). Gohil & Patel (2007) stated that commonly known as St. Johns wort plant *(Hybericum Perforatum)* was among the commonest herb which showed HDIs, followed by ginkgo biloba, kava-kava, ginger and ginseng (Patel & Gohil, 2007). Posadzki et al. (2013) observed that the most common HDIs of herbal drug were with anti-platelet agents and anticoagulants. Use of ginger, garlic, ginkgo, and ginseng with anti-platelets may cause bleeding. St. Johns wort may decrease the effectiveness of digoxin. Oral contraceptives, warfarin, clopidogrel, and ginkgo may interact with a number of drugs including benzodiazepines, atorvastatin, anticonvulsant drugs. The HDIs may cause cardiovascular collapse, renal toxicity, liver toxicity, cardiotoxicity, organ fibrosis and death (Posadzki et al., 2013). Various studies have shown that most patients do not consider it necessary to disclose about the HDIs of herbal drug (Howell et al., 2010). The two different survey-based studies showed that nearly 70% of patients, who took a natural medicine with allopathic medicines, did not inform their physician about side effects or adverse effects of drug taken (Gardiner et al., 2006). Modern allopathic medicine practitioners have little or no training of the effects of natural medicines on humans and their potential to cause HDIs (Klepser et al., 2000). It is very important to provide training among the healthcare providers regarding herb-drug interactions for safe and rational use drug therapy (Clement et al., 2005). Neustadt (2006) reported that the interaction between herbs and modern medicines led to undesirable pharmacokinetic and pharmacodynamic effects (Neustadt, 2006). Therefore, patients' health will depend on the physicians' knowledge about medicinal plants and their products regarding potential adverse effects. Nowadays, standardization, efficacy, quality of Complementary and Alternate Medicine and their interactions with drugs are needed to give importance and attention for usual usage (Chikezie & Ojiako, 2015).

Materials & Methods

Study Area: The study area was conveniently selected at Hamdard University Bangladesh, Gazaria, Munshiganj, Bangladesh.

Study Population: The study was conducted among the undergraduate students of Hamdard University Bangladesh, Gazaria, Munshiganj, Bangladesh.

Study Design: A mix method study design was used to conduct the study.

Sample size: The sample size for this study was determined by the following equations:

$$n = \frac{Z^2 pq}{d^2}$$

Where,

n = sample size

Z = 1.96 (value of 95% CI)

p = 0.6, according to a recent study the prevalence of natural medicine use in Bangladesh was 67% in 2018 (Ahmed et al. 2018).

$q = 1 - p$

d = standard error (5%)

So, total sample was 368. However, due to time constraint & COVID-19 pandemic situation the sample size was finally determined in 130. For the qualitative research, 03 cases (for both male and female) were selected purposively irrespective of age, race, color and culture. Data was collected by in-depth interview following the guidelines.

Sampling technique: Simple random sampling technique was used to select the study participant.

Data processing: All questionnaires were pre-tested before the actual study. These questionnaires were checked for completeness and correctness. Computer technology SPSS software was used to perform data analysis. Frequency, percentage, tabular and graphical presentation was showed to analysis of data.

Results

The study was conducted among 130 university students at Hamdard University Bangladesh, Gazaria, Munshiganj. In this study, majority (51.9%) of the respondents fall between 20-22 years, among them 53.6% was male, 96.1% was Muslim, and 73.84% of the respondent was unmarried respectively (Table 1).

Table 1. Demographic information of the respondents (130)

Variables	Frequency (f)	Percentage (%)
Age Group		
17-19 years	52	40.30%
20-22 years	67	51.90%
23-25 years	11	7.80%
Gender		
Male	70	53.6%
Female	60	46.4%
Religion		
Islam	124	96.10%
Hindu	6	3.90%
Marital status		
Unmarried	96	73.84%
Married	34	26.15%

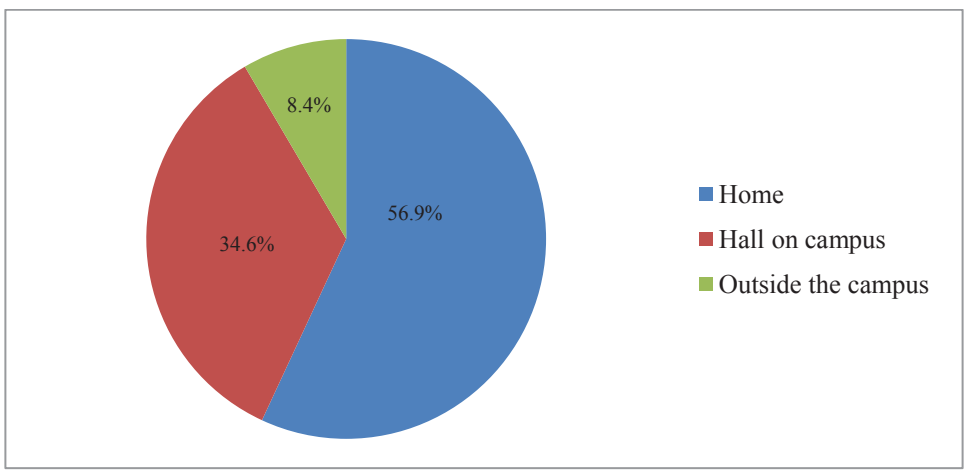


Fig 1. Distribution of the respondents according to living arrangement ($n = 130$):

Figure 1 shows the distribution of the respondents according to living arrangement. It was found that nature of living majority (56.6%) of the respondents was home, followed by 35.1% was residential student of the campus on campus and 9.3% was outside the campus respectively.

Table 2. Distribution of the respondents according to source of information on natural medicine ($n = 130$).

Source of information	Frequency* (f)	Percentage (%)
Media	71	55.03%
Physicians / health professional	87	67.44%
Friends/ family	89	68.99%
Store displays	30	23.25%
Elders	18	13.95%

*Multiple responses were possible.

Table 2 shows the distribution of the respondents according to source of information obtained on natural medicines. Majority (68.99%) of the respondents source were friends or family followed by 67.44% from physicians or health professional; 55.03% was from media, 23.25% was stored displays and 13.95% was elderly persons respectively.

Table 3. Distribution of the respondents according to their knowledge about natural medicine ($n = 130$).

Knowledge about Natural medicine	Frequency* (f)	Percentage (%)
Come from natural sources	87	66.92%
Relatively cheaper	31	23.84%
Very less side effect	72	55.38%
Tasty	61	46.92%
Not tasty	65	50.00%

*Multiple responses were possible.

Table 3 shows the distribution of the respondents according to their knowledge about natural medicine. Predominantly according to 66.92% of the respondents opined that the natural medicine come from natural sources followed by 55.38% who thought very less side effect, 50.00% not tasty, 46.92% reported tasty; and 23.84% reported that the natural medicine are relatively cheaper respectively.

Table 4. Distribution of the respondents according to places from where they obtained natural medicine ($n = 130$).

Places from where from obtained natural medicine	Frequency* (f)	Percentage (%)
Friends	47	36.15%
Supermarket	34	26.15%
Traditional bazaar	26	20.00%
Collecting from nature	45	34.61%
Neighbors	25	19.23%
Medicine shop	95	73.07%
Herb dealers	68	52.30%
Internet	9	6.92%

* Multiple responses were possible.

Table 4 shows the distribution of the respondents according to places from where they obtained natural medicine. Majority of the respondents (73.07%) reported that they obtained natural medicine from medicine shop followed by 52.30% from herb dealers, 36.15% through friends, on the other hand 34.61% collected from nature, while 26.15% from supermarket, 20.00% from traditional bazaar, 19.23% from neighbors and 6.92% through online market respectively.

Table 5. Distribution of the respondents according to perception on use of natural medicine and conventional therapy ($n = 130$).

Perception of Natural Medicine	Frequency (f)	Percentage (%)
Strongly disagree	14	10.76%
Disagree	7	5.38%
Neutral	42	32.30%
Agree	49	37.69%
Strongly agree	18	13.84%
Total	130	100%

Table-05 reveals the distribution of the respondents according to their perception on use of natural medicine and conventional therapy. It was found that, 36.69% of the respondents were in an agreement followed by 32.30% who were neutral, whereas, 13.84% was strongly agreed, 10.76% strongly disagreed and 5.38% strong disagreed on the use of natural medicine along with conventional therapy.

Table 6. Distribution of the respondents according to perception of interaction between natural medicine with other drugs ($n = 130$):

Natural medicine can interact with other drugs	Frequency (f)	Percentage (%)
Strongly agree	22	16.92%
Agree	46	35.38%
Neutral	47	36.15%
Disagree	9	6.90%
Strongly disagree	6	4.60%
Total	**130**	**100%**

Table 6 shows that the distribution of the respondents according to perception of interaction between natural medicine with other drugs**.** It was found that, majorities 36.15% of the respondents were neutral about natural medicine and other drugs interact with other drugs, followed by 35.38% who agreed. Whereas, 16.92% was strongly agreed, 6.9% disagreed and 4.6% was strongly disagreed to the perception of interaction between natural medicine with any other drugs.

Table 7: Distribution of the respondents according to choice of pattern of natural medicine more effective on health problem ($n = 130$)

Pattern chose of natural medicine use	Frequency* (f)	Percentage (%)
Syrup	94	72.30%
Tablet	71	54.61%
Capsule	59	45.38%
Semi-solid	21	16.15%
Powder	18	13.84%
Ointment	20	15.38%
Oil	29	22.30%

*Multiple responses were possible

Table 7 shows that the distribution of the respondents by choice of pattern of natural medicine with the perspective of those which are more effective on health issues. Majority 72.30% of the respondents reported that syrup of natural medicine was more effective on various health problems, followed by tablet 54.61%, while 45.38% responds reported capsule, 22.30% reported oil, 16.15% reported semi-solid, 15.38% reported ointment and 13.84% reported powder respectively.

Case Studies

Case-01: Mr. X is 22 years old. He is well known about natural medicine. Mr. X is delighted in using natural medicine. By taking natural medicine, his bowel habit is becoming regular and average. He prefers syrup (liquid) and tablet types of natural medicine because these natural medicines show the same effect on his physical problems. Mr. X also believes that natural medicine is a natural form of treatment. This medicine work rapidly, he said. He also noted that natural medicine is cost-effective. He suggests that natural medicine's availability should be more generalized, and the government should patronize for development of natural medicine.

Case-02: Mr. Y is about 23 years old. He knew very little about natural medicine. He does not experience any new health problems during taking natural medicine. He expressed that natural medicine is relatively cheaper than other medical treatment systems, which gives him mental satisfaction. He still feels comfortable to use natural medicine. He likes to take tablet and capsule types of natural medicine. Because there are some eating hazards of syrup, semi-solid, and powder patterns of natural medicine. He expressed that tablet and capsule types of natural medicine are more convenient to use for his health issues. His believes that natural medicine is a natural form of treatment, and some medicine works rapidly and some medications work slowly. He suggested that natural medicine's cost should be decreased and should be made available in a particular corner in every government and private hospital where they can quickly get treatment facility with minimum price.

Case-03: Mrs. Z is about 21 years old. She expressed that natural medicine has fewer side effects, which give him mental satisfaction when using it. She is satisfied with natural medication. She feels better than before, so she thinks that he will be completely cured of her physical problems by taking this natural medicine. She said that natural medicine is less expensive and decreased her stress condition. Her experience was excellent during the use of natural medicine. She expects that natural medicine can cure diseases. She always resorted to the feeling of acceptability of Natural medicine. She prefers tablet and capsule types of natural medicine. She has used syrup types of natural medicine so far. Tablet and syrup types of natural medicine were found more effective in her health problems. But she could not take syrup types of natural medicine for his diabetes mellitus problem because syrup types of natural medicine contain sugar elements that may increase the blood sugar level. At this time, she can take all kinds of natural medicine. She strongly agrees that natural medicine is a natural form of medical treatment system. Natural medicine is fully effective in her physical ailments. She expressed that natural medicine resounds rapidly to her health condition. She strongly agrees that this natural medicine also prevents her stress condition. She also strongly believes that natural medicine is safer than allopathic medicine. She suggests that research should be conserved on natural medicine in specific diseases with a specific medicine.

Discussion

Majority (51.90%) of the respondents were 20-22 years old. It means the students of the age group of 20-22 are more users of natural medicine. In this study, it also found that majority of the respondents age were 22 years. It was also found that; majority (53.6%) of them was male. Present study revealed that 96.10% was Muslim by religion. Most of the students at Hamdard University are Muslims, so the number of Muslims in these studies was higher. It was also found that majority (73.84%) of the respondents was unmarried. (Table 1). In this study, it was found that, Majority (56.6%) of the respondent's living arrangement was their own home (Figure 1). It indicates that majority of the students live at home with their parents and family. These findings are mostly similar with the findings of Jaspreet K. Boparai et al. (2017). who found the respondent's aged 21-22 years were more aware about natural Medicine, 62.59% of the respondents was male and 95.45% of the respondents were aware of the fact that herbs can be used as medicines, 54% of the respondents reported that they have found information regarding natural medicine from various media (Boparai et al., 2017).

In the present study friends and family (68.99%) was the most common source of information regarding natural medicine followed by 67.44% from physicians / health professional, 55.03% was media, 23.25% was store displays and 13.95 was elders respectively (Table-02). Since Hamdard University Bangladesh has a Unani and Ayurvedic medicine faculty, most of the students have learned about herbal medicine from teachers, friends and family. In this study, it was also found that majority (66.92%) of the respondents expressed that natural medicine come from natural sources (Table-03). Natural medicine comes from three natural sources namely plants, minerals and animals. So most of the respondents said that natural medicine come from natural sources. Medicine shop (73.07%) and herb dealers (52.3%) were determined to be the main places where the students could buy natural medicine but the herbs were also obtained from the traditional markets or by means of collecting from nature by themselves. It was found that majority (36.69%) of the respondents agreed that the use of natural medicine and traditional therapy is more effective. These study findings are mostly similar with the study findings of Guven et al. (2019), who found that 48% of the respondents, reported that combined use of natural medicine and conventional therapy is more effective, 60% of the respondents reported that they have collected natural medicine from nature (Guven et al., 2019). Majority (36.15%) of the respondents opined that natural medicine interacts with other drugs. Most people think that these medicines are safe to use as there are no side effects after taking natural medicine. According to the findings liquid formation of natural medicine is more effective. Majority (72.30%) of the respondents reported that liquid types of natural medicine to be more effective on their health issues. Everyone feels comfortable taking the liquid formulation, so most of the students also use the types of liquid natural medicine.

Conclusion and Recommendations

To sum up, the number of patients seeking natural medicine is growing fast day by day. Natural medicines are the synthesis of therapeutic experiences of generations of practicing physicians of indigenous systems of medicine for over hundreds of years. The natural medicine plays an important role in various health problems. It should be generalized in every health sector for proper utilization. It is important to apply the specific medicine for the specific diseases in order to cure the diseases of the patient. Therefore, doctors need training to enhance their skills.

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MEASURING TOURISTS' ATTITUDE AND ATTEMPTS TOWARDS GREEN PRACTICES IN TOURISM: A CASE OF COX'S BAZAR

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Abstract

With the diverse positive contributions of the tourism today, its negative impact on the environment is a matter of worry. Especially, pollution of the environment by the tourism activities has made concern to the stakeholders which leads to the green tourism practices. Green tourism practices focus on trying to minimize the negative impact on the environment through applying the various tools and techniques. The basic objective of the study is to examine the attitude of the tourists and their real actions toward green practices. This research is exploratory in nature. The structured questionnaire is used to collect the required data of this study. A mathematical model is used to analyze the collected data. The study reveals that in the context of genuine activities by the tourists, some green practices are found among them and the maximum actions toward green tourism practices are frustrating. Several recommendations for the tourists are proposed that may be followed by them for the betterment of the future environment.

Keywords: Tourism, Green Tourism Practice, Recycling.

Introduction

Tourism is the most important international economic force in the 21st century. It is considered as a growing business all over the world. The UNCTAD (2007) identifies tourism as the largest and fastest rising industry in the world. World Tourism Organization (WTO) (2021) states that tourism has grown to be one of the largest trade sectors in the world, with exports of goods and services to the industry totaling USD 11.7 trillion in 2019, or 28% of all global service trade and 7% of all exports of goods and services. In its annual report, the World Travel and Tourism

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Council (WTTC) (2020) affirms that in 2019, the tourism industry supported 330 million jobs, or 10% of all jobs worldwide, and contributed 10% of global GDP. One in four of all net new jobs created worldwide over the previous five years were in the travel and tourism sector. It is forecasted to rise by 6.5% per annum to 4.7% of GDP by 2024. As stated by Tuhin and Mojumdar (2011), nowadays tourism is the most beneficial and modern business throughout the world. Like other developing countries, tourism has turned out to be a significant sector for economic escalation in Bangladesh (Islam, 2009). Mondal & Haque (2018) found that the country has immense opportunities to create jobs for youths, promote local culture, encourage local entrepreneurship, and above all increase economic benefits through developing sustainable tourism, which can also contribute to achieving the targets of Sustainable Development Goals by 2030. Tourism is one of the most profitable in Bangladesh (Elena et al., 2012). Sultana (2016) stated that tourism is a growing industry in

Bangladesh. The tourism industry of Bangladesh is gaining international attention. Tourism's contribution to poverty alleviation has been recognized by the National Tourism Policy 1992 (Bangladesh Tourism Vision 2020, 2006). But tourism industry is criticized by the environmental- conscious people. It is because that the tourism sector is one of the main sources of environmental damage in the form of atmospheric pollution, soil erosion and the loss of natural habitat (Mikayilov et al., 2019). Therefore, the tourism sector contributes to environmental damage. On the other side, there is a growing awareness of environmental deterioration. The rising awareness of the impact of daily human actions on the environment has led to the recognition that with tourism industry all individuals and businesses should be engaged in reducing environmental pollution. According to Sloan, Legrand, and Chen (2009), stockholders, employees and customers have increasing expectations of the tourism and hospitality industry to be economically, socially, and environmentally responsible. It is important to redecorate the general perspective and actions about environmental matters and tourism. If not, no safety tourism possibility in the future will remain. Tourists are becoming demanding for green tourism. Increase consciousness of the people leads the tourism business to be caring for the environment. As a result, green practices in tourism have evolved. The deepest thoughts are: whether tourists have the positive attitudes toward green practices? Which issues among green practices are important to them? What are their actual practices toward green matters in tourism? To find the answer to these questions attitude of the tourists is evaluated and searched for their real activities of green practices.

Justification of the Study

Bangladesh is to compete with the global rivals with tourism products and services. Lenzen et al. (2018) found that tourism accounts for 8% of greenhouse gas emissions. Now conscious individuals are worried about the negative effect of tourism on the environment. Han & Kim (2010) opine that the green concept is attracting more and more attention from both companies

and consumers and has acquired greater relevance in recent years. Consumers are becoming more and more concerned with the issues caused by climate change (Juvan & Dolnicar, 2017; Rahman et al., 2012). Their views stress the tourism business to rethink of influence of tourism on the environment which gives birth to new concept „Green Tourism Practices". As per Franco, Grewal, Hoang & Lee (2014), it is evident that there is a good effect when accommodations allocate a portion of money to green marketing. It supports the notion that if society has a vested interest in environmental issues, it can lead many businesses, including hotels to change their practices. Green practices minimize the negative environmental impact of tourism. The most important side effect of going green is to create a more sustainable environment (Fyall et al., 2009). In this research, the choice of issue is influenced by practical and scientific concern. This study can provide some recommendations to make and take the opportunity of green tourism practices in Bangladesh. The defining problem of this study is a timely one and widespread from the sense of areas of consequence. Therefore, the study is accurately justified.

Statement of the Research Problem

Air emissions, noise, solid waste and littering, sewage, oil, and chemical discharges, as well as architectural and visual pollution, are all potential effects of tourism (Camarda, D., & Grassini, L., 2003). According to Azam, Alam, & Hafeez (2018); Hassan, Kennell, & Chaperon (2020); Sun, Yesilada, Andlib, & Ajaz.(2021) since tourism growth and environmental sustainability are thought to be interrelated concepts, a rise in tourism development and visitor numbers will directly affect the level of sustainable and green tourism. Azam et al. (2018) and Hoang, Van Rompaey, Meyfroidt et al. (2020) clarify that negative consequences of tourism development result in many problems for the tourists and the indigenous people in the foreseeable future. Prior research revealed that air pollution, energy use, carbon dioxide (CO2) emissions, and arrival of tourists as a result of international tourism and tourism-led growth spurt contribute to climate change (Aslan et al., 20121). From the above discussion it is clear that today green practices by the tourists are immensely important. To compete with the global competitor tourism industry must take the green factors in considerations with importance. For the business people, understanding and analyzing the attitudes of travelers toward green tourism practices is a matter of concentration at this moment. Hence, the pertinent questions of this research are: Do travelers support green practices in tourism? Are they involved in green practices in their real life? Appropriate answers of these questions lie on analyzing the attitudes of tourists and current activities of them toward green practices in tourism.

Objectives of the Study

The prime objectives of this study are to gauge tourist attitudes and investigate their use of environmentally friendly practices. Specific objectives are to -

- Measure the attitudes of the tourists toward green practices in tourism: and
- Assess the actual activities toward green practices in tourism by the tourists.

Hypothesis

Null Hypothesis (H0): There is no relationship between Green Practices and Personal Efforts in the time of tour by the tourists.

Alternative Hypothesis (H1): There is a relationship between Green Practices and Personal Efforts in the time of tour by the tourists.

Literature Review

Amin (2007) identifies tourism as one of the largest industries which is contributing over ten percent (10%) to global GDP. Economically, this industry creates jobs and contributes to a country‟s GDP bringing in capital investment and exports. According to Rahman (2007), tourism industry of Bangladesh has vast potentials from the sense of foreign exchange earner and provider of job opportunities. It has the resulting multiplier effect on the country‟s economy all together. However, it is criticized that this industry now has a significant negative impact on the climate and weather. Therefore, weather and climate have brought significance for tourist decision-making and the travel experience … Both at home and destinations climate is a most important motivator in tourism. Either consciously or by implicitly climate is considered by tourists during tour planning (Daniel Scott, Colin Michael Hall, Stefan Gossling, 2012). Various national and international reports have shown the negative impact of tourism on the weather and climate. Also, several researchers have studied the harmful effects of tourism on the environment. According to UNEP Manuals on Sustainable Tourism (2008), tourism is considered as an extremely climate-sensitive economic segment for its close relations to the environment and climate. In UNEP Manuals on Sustainable Tourism 2008, it is reported that Carbon dioxide (CO2) is the most significant greenhouse gas accounting for an estimated 60% of the warming. A report of UNWTO-UNEP-WMO (2008) expresses that emissions from tourism activities contribute about 5% of worldwide CO2 emissions. Additional greenhouse gases as well create important contributions to worldwide temperature. Tourism's contribution to worldwide warming was estimated for the year of 2005. It was found that its contribution was between 5% and 14% to the overall warming caused by human being emissions of greenhouse gases[4]. Kreag (2001) explores the generation of the different types of waste and contamination by the tourists.

Zhang et al. (2016) found from the results of variance decomposition method that the unidirectional causality exists between environmental pollution and tourist arrivals, which is running from tourist arrival to environmental pollution. A study conducted by Sghaier et al. (2019) reveals that tourism activities have enhanced environment pollution in Egypt. Today, both tourism marketers and customers are concerned about environmental degradation and are

[4] UNEP (United Nations Environment Programme) Manuals on Sustainable Tourism (2008), Climate Change Adaptation and Mitigation in the Tourism Sector: Frameworks, Tools and Practices, p. 15

taking steps in a green direction. Being green is not only a slogan and promotional scheme; it has become a lifestyle for individuals and a means to cut cost as well as a viable strategy for operators (Andersson et al., 2013; Hanchar, 2017; Martinho et al., 2018; Tommy, 2013). Through the adoption of green practices by a growing number of hotels the hospitality industry is making changes in the interests of their customers. A few smaller upscale hotels are getting 15-20% of their business coming because of their green attempts (Natz, 2008). Practicing green activities in the field is difficult. According to Manaktola, K., and Jauhari (2007), the difficulty is that consumers are aware of environmental practices and prefer them, but they are not ready to pay more for them. Environmental practices are viewed by some customers as a requirement and essential component of the service provided, as demonstrated by Robinot E. and Giannelloni JL. (2010); as a result, the cost shouldn't be included in hotel rates. Despite this, it is obvious that green tourism can offer different benefits as broad economic, social and environmental benefits for the host countries as well as their communities (Mill & Morrison 2006, World Economic Forum 2009, Klytchnikova & Dorosh 2009). Though not important now, it is probable that decision making related to climate will start to influence tourism markets in the future either for tourists' awareness on their personal carbon foot (Simmons & Becken 2004), or for negative changes at destinations.

One-third to one half of international tourists (weighted toward the USA) surveyed in a CESD and TIES (2005) study said if companies benefit local communities and conservation they were ready to pay more. Study by Schubert et al. (2010) illustrates that there is an unfilled market niche for „green" restaurants, as customers care about restaurants protecting the environment and would be willing to pay more to offset any additional costs associated with "green" practices. According to Bohdanowicz, P. (2003), a large portion of patrons' support is motivating and encouraging some hotels and restaurants to take action toward greater environmental responsibility.

Review of related literatures express that the researches on tourism and green tourism focus on contributions and status of tourism (Amin & Rahman, 2007; Sghaier et al. 2019), influence of climate change in decision making of tourism (Daniel Scott, Colin Michael Hall, and Stefan Gossling,2012), how tourism is affected by climate change (UNEP Manuals on Sustainable Tourism, 2008 and Natz, 2008), the environment is polluted by how and whom from the tourism industry (Glem Kreg, 2001), and benefits of green practices in tourism (Schubert et. Al 2010; Mill and Morrison, 2006; World Economic Forum 2009; Klytchnikova and Dorosh, 2009 and TIES 2005). Literatures provide the evidence that no research was performed emphasizing the various green practices in tourism. By conducting this study this vital research gap is satisfied.

Research Methodology

The research needs the information about the tourists" attitudes and actions toward green practices in tourism. To define the problem precisely the researcher is in the attempts to discuss

with decision makers and interviewing with industry experts. Also, environmental background of the problem is considered by the researcher.

Population, Sampling Technique and Sample Size

In sampling design, the researcher includes defining population, deciding sampling technique and determination of sample size. The population for the study includes tourists visiting Cox"s Bazar. Tourists from the various hotels and restaurants are drawn by using simple random sampling method. A total number of 143 tourists are selected as sample. Following formula (M. Nurul Islam, 2014) is applied to determine the sample size.

$$\text{Sample size } n_0 = \frac{Z^2 pq}{d^2}$$

$$= \frac{(1.64)^2 (0.5)\ (0.5)}{(0.07)^2}$$

$$= 138 \text{ (approximately)}$$

Where, n_0 = desired sample size
z = standard normal deviate
p = assumed proportion in the target population estimated to have a particular characteristic
d = allowable maximum error in estimating population proportion

Data Collection: Tools, Techniques and Quality Check

Data are collected through the field survey. Surveys are completed by pre-set questionnaire which contains structured questions. The questionnaire holds scale, dichotomous and open ended questions. The researcher employs personal interview to obtain primary data. For the study the researcher checks the quality of data by repeating questions and probing.

Data Management and Analysis

To draw the findings of the study the researcher has addressed data preparation and exploring, examining, and rearranging data. After collecting the data to identify errors and omissions, make rectifications whenever possible, and certify that minimum data quality standards are achieved, the researcher takes the step of editing. Editing of data is accomplished by in-house editing. Both pre and post-coding (numerical) is applied in the questionnaire. The researcher starts to enter the coded information into a file directly from the questionnaires. In analyzing the real actions of the respondents toward green tourism practices frequency distribution is used. For calculations and statistical test applications, SPSS 21.0 is used. Data are analyzed by employing both the mathematical and graphical model. Malhotra and Dash (2016) assert that graphical models are visible. They are not intended to produce numerical answers; instead, they are used

to isolate variables and to make suggestions about the directions of relationships. Conversely, mathematical models explicitly explain the relationships between variables, typically in the form of equations.

Data Analysis and Findings

Socioeconomic and Demographic Characteristics

The socioeconomic and demographic information of the respondents has an impact on the study that cannot be ignored. To verify the validity of the study, researchers have gathered the aforementioned data. The following table (Table-1) shows the different socioeconomic and demographic data and also discussed below.

Table 1: The socioeconomic and demographic characteristics of respondents

Variable	Sub-variable	Frequency	Percent (%)
Gender	Male	114	80
	Female	29	20
	Total	**143**	**100**
Age (Years)	18 – 30	49	35
	31 – 40	53	37
	41 - 50	32	22
	51 - 60	6	4
	61 - 70	3	2
	Total	**143**	**100**
Marital Status	Married	104	73
	Single	39	27
	Total	**143**	**100**
Level of Education	Primary	16	11
	SSC	16	11
	HSC	23	16
	Graduate	45	32
	Post Graduate	43	30
	Total	**143**	**100**
Occupation	Students	15	11
	Self-employed	39	27
	Professional (Teaching, Doctor and Engineering)	27	19
	Manager/Executive	25	17
	Government Officer	27	19
	Unemployed	10	7
	Total	**143**	**100**
Monthly Income (taka in tousands)	No income	20	14
	Less than 30	13	9
	30 – 40	31	22
	41 – 50	28	20
	51 - 60	26	18
	More than 60	25	17
	Total	**143**	**100**

Source: Field survey by the researcher, 2018

Table-1 reveals that among the respondents 80% is male and the remaining 20% of them is female. In the question of age among them 37% respondents are in the range of 31 to 40 years old, 35% are under the range of 18 to 30 years old, and 22% have the age under the range of 41 to 50 years old. It is also clear from the table that 73% of the respondents are married and the rest of them are single. In terms of the level of education, 32% respondents are graduates, 30% are post-graduate, 16% are HSC-pass, 11% are SSC-pass and the remaining 11% are from primary education. In the question of occupation, it is seen from the table that 27% of the respondents are self-employed, 19% are professional, 19% are government officer, 17% are managers/executives, 11% are students and the remaining 7% are unemployed. Monthly income (in thousands taka) is presented in the socio- demographic table. The table demonstrates that 14% of the respondents have no income, 18% have income in the range of 51 to 60 thousand, 17% earn more than 60 thousands taka, 22% have the income of 30 to 40 thousands, 20% of respondents‟ income is in the range of 41 to 50 thousand and 9% respondents earn less than 30 thousand taka.

Awareness about Green Practices to the Tourists

The researcher assesses whether tourists have the awareness about green practices in tourism. The following chart (Figure-1) shows the result before the question of "Do you know about green practices in tourism?" It is clear from the illuistraion-1 that among the sample tourists only 26% has the familiarity about green practices in tourism and most of the tourists (74%) have no idea.



Fig. 1.: Displaying the awareness about green practices in tourism

Chance to Exercise Green

The researcher takes the step 74% to know the view of the tourists about if there is any chance to exercise green in the time of tour. The responses are distributed in the following table (Table-2). Table-2 expresses that among the tourists 17% thinks that a tourist can get the option to exercise green and 12% thought is negative on such an issue. Most of the tourists (71%) are confused about whether there is any possibility to exercise green in the time of tour.

Table 2: Distribution of responses regarding the chance of green practices

Responses	Whether there is any chance to exercise green in the time of tour	
	Number	Percent (%)
Yes	24	17
No	18	12
Don‟t know	101	71
Total	**143**	**100**

Source: Field survey by the researcher, 2018

Correlation Matrix Analysis

Correlation analysis is the statistical tool we use to describe the degree to which one variable is related to another. The purpose of correlation analysis is to find how strong the relationship is between two variables without making any distinction between dependent and independent variables. One such measure of this relationship is the correlation coefficient (Nurul Islam, 2015). The following table (Table-3) shows the correlation coefficient among Green Practice and the factors involved with personal efforts of tourists.

Table 3: Spearman's rho Correlation Matrix

	Green practice followed by the tourist	Personally solid waste management	Green transportation should be used by the tourists	Procuring green tourism products by the tourist	Green program implementation	Concentration on water conservation program	Having food which are environmental-friendly
Green practice followed by thetourist	1						
Personally solidwaste management	.350** (.000)	1					
Green transportation should be used by the tourists	.107 (.203)	.139 (.099)	1				
Procuring green tourism products by the tourist	.084 (.316)	.263** (.001)	.388** (.000)	1			
Green program implementation	.166* (.048)	.236** (.005)	.164* (.050)	.271** (.001)	1		
Concentration onwater conservation program	.197* (.018)	.078 (.357)	-.088 (.298)	.016 (.848)	.089 (.289)	1	
Having food which are environmentally-friendly	.318** (.000)	-.016 (.847)	.144 (.086)	.092 (.273)	-.054 (.519)	.102 (.225)	1
**. Correlation is significant at the 0.01 level (2-tailed).							
*. Correlation is significant at the 0.05 level (2-tailed).							
(…) parenthesis indicates the p-value.							

Source: Field survey by the researcher, 2018

The Table-3 reflects that relationship between green practice and personally solid waste management by the tourists is (r = 0.350) is positive and the relationship is statistically highly significant. Also, green practice has the positive and highly significant association with having food which is environmentally-friendly. The table shows that the association of green practice with green program implementation and concentration on the water conservation program are positive and significant at the .05 level. The contribution of using green transportation and procuring green tourism products toward green practices are found positive but not significant. From the analysis, it is vivid that alternative hypothesis can be accepted.

Genuine Role of the Tourists toward Green Practices

Attitude cannot confirm the same behavior which means that attitude and real doings may not be the same. So, the researcher has initiated the step to check the actual practices of tourists to the green issue. The real functions toward the green practices are evaluated by using several variables which are environmental-actions. The tourists are approached whether they used the various green products/services within one year from which decision is made about their real activities toward green practices. The following tables (Tables: 4 – 8) and graphs (Figures: 2 - 3) show the real role of the tourists toward green practices.

Solid waste management program

Personally, each tourist can give the attention for the sake of the environment through solid waste management program. Table-4 reveals genuine actions toward green practices under solid waste management. The table shows that in the case of reusing tote bags, recycled cloths and reusable water bottles tourists had greater positive contributions (80%, 78%, and 57% respectively) to save the environment. It is found from the Table-4 that 92% did not use recycled bathroom soaps and 62% had not any attention to use less toilet items in the hotel within one year. In using recycled paper cups and less linen in the hotel, green practices by the tourists were in the frustrated position. The percent of not-using the first variable was 68 and the later was 61.

Table 4: Responses regarding solid waste management

Item	Yes		No	
	Frequency	Percent	Frequency	Percent
Reusable tote bags	115	80	28	20
Reusable water bottles	82	57	61	43
Recycled paper cups	46	32	97	68
Recycled cloths	111	78	32	22
Recycled bathroom soaps	11	8	132	92
Use of less linen in hotel	56	39	87	61
Use of less toilet items in hotel	54	38	89	62

The Table-5 shows the distribution of responses of the sample tourists regarding using public transportation, carpooling, walking instead of driving and renting the hybrid car which are the actual activities toward green practices of them. It is found from the survey that 84% of tourists used public transportation within one year but in case of carpooling among the sample tourists 94% did not go to work or events through carpooling. It is also clear from the table-5 that respondents were not eager (among 143 tourists only 30% rented) to rent the hybrid car. The table-5 demonstrates that 90% of respondents walked instead of driving where possible is a matter of happiness toward green practices.

Table 5: Distribution of responses regarding use of transportation

Item	Yes		No	
	Frequency	Percent	Frequency	Percent
Using public transportation	120	84	23	16
Carpool to work or events	9	6	134	94
Walk instead of driving where possible	129	90	14	10
Rented hybrid car	43	30	100	70

Source: Field survey by the researcher, 2018

Green procurement

The following table (Table-6) and the figure-2 demonstrate that 49% of the sample tourists procured recycled content products within one year and the remaining did not purchase. It is also shown that 97% did not purchase eco-friendly soaps and in case of buying greening products only 45% of respondents purchased such products.

Table 6: Distribution of responses regarding green procurement

Item	Yes		No	
	Frequency	Percent	Frequency	Percent
Buying recycled content products	70	49	73	51
Buying eco-friendly soaps	5	3	138	97
Buying greening products	65	45	78	55

Green programs

The Table-7 and the Figure-3 are the evidences of the responses of the sample tourists regarding using green services and looking for green hotels. It is viewed from the two illustrations that 82% of tourists did not use green services and 89% did not look for green hotel within one year. Only 18% and 11% respondents used green services and searched for green hotel respectively.

Table 7: Responses regarding green programs

Item	Yes		No	
	Frequency	Percent	Frequency	Percent
Using green services	26	18	117	82
Looking for green hotels	16	11	127	89

Water conservation

The tourists can contribute to the green practices through participating in the hotel water conservation program. It is vivid from the following table (Table-8) that in water conservation program by the hotel only 41% tourists participated within one year.

Table 8: Responses of the sample tourist regarding water conservation

Item	Yes		No	
	Frequency	Percent	Frequency	Percent
Participating in hotel water conservation program	59	41	84	59

Source: Field survey by the researcher, 2018

Conclusion and Recommendations

Tourists have the direct impact on the environment in the time of the tour. Today, over the world awareness about environmental pollution is disseminated to the various stakeholders of the tourism industry. Day by day, tourists are becoming environmentally-friendly which, in the future, will lead to build a comfortable planet. They can contribute a lot to the environment through green practices. Tourists have the chance to exercise green through solid waste management, using transportation, procuring green products, implementing green program, participating water conservation, and buying organic food. Tourists should give concentration to recycled bathroom soaps and recycled paper cups. This effort will confirm to lessening pollution by the chemicals used in soaps and reducing cutting of trees. At last, it will contribute to positive impact to the environment. They also should think about less use of linen and less use of toilet items in the time of staying in the hotel. They should think of renting the hybrid car and also they can consider carpooling to their work or event. These environmental-efforts will help to minimize the pollution. If eco-friendly soaps are offered, visitors should purchase them to follow green lifestyles. Incorporating a green lifestyle into daily life is something that tourists should do. Finding green hotels and utilizing green services are two ways to go green. Hotels and restaurants have water conservation program to save water for the future. Excess use of water will lead the nation to the shortage of water that is a matter of tension for the environment.

Tourists should actively participate in the water conservation program offered by the hotels. Even they should personally heed on such issue.

Limitations and Further Study

The study was rested on more than a few variables which are significant in individual-practice of green in the time of tour. But this initiative cannot check the fullest insights of the issue. It is because that some other aspects beyond the observed variables may influence the attitude and the diverse action of the tourists toward the green practices in tourism. Learning, perception, value, belief, liking, preference etc. can be observable fact for such a form of a research. So, in future, to discover more precise findings and further insights, the researchers can take the step to conduct a noteworthy study considering the aforesaid variables.

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JOHN KEATS' "ODE TO A NIGHTINGALE" AND W. B. YEATS' "SAILING TO BYZANTIUM": MEN'S VISIONARY ESCAPE FROM THEIR CURRENT CIVILIZATION

Md. Abul Kalam Azad*

Abstract

Civilization is men's modification of their customs and traditions. Customs and traditions are the reflection of culture and society based on the habits and behaviours—the ongoing practices of the supreme creature of God. But the question is not at all undisputable that whether men are civilized or primitive. The definition of civilization and civilized is not settled at all. In the so-called civilized culture and society of this mundane world, people, who usually claim to be the supreme creature of the world, are always seen involved themselves in social crimes and corruptions causing death and destruction for trifle affairs. People are seen keeping themselves busy with materialistic search for inventions and discoveries; they are busy with the fight for not only survival like the primitive generations but for the power and prestige unlike their predecessors. This unhealthy strife and competition of human beings makes the issue of civilization much more controversial than their peaceful living and co-existence. Scholars like W. B. Yeats and John Keats are so unhappy and dissatisfied with the ongoing fever of civilization that they are always ready to leave this feverish world if possible and choose the alternative one. I have chosen two literary scholars from the two different civilizations of human history—John Keats of Romantic Civilization (1800-1850) and W. B. Yeats of Modern Civilization (1900 to Date). In their poems, Keats' "Ode to a Nightingale" and Yeats' "Sailing to Byzantium", both of these scholars have expressed their dissatisfaction and worries about their current trends of the so-called man-made civilizations, and then, made failed attempts to escape to the remote islands of visionary world just to avoid the dins and bustle of artificial city life. Anyway, this paper proposes to compare and contrast between the so-called urban life and the primitive country life of different civilizations of this materialistic world.

Keywords: Civilization, visionary escape, mundane world, fever and fret, visionary world, sensuous passion and love, wings of poetry, artifice of eternity, and permanence of beauty and art.

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Introduction

Escapism is a mental diversion from unpleasant or boring aspects of human life, typically through the activities of thoughts and ideas involving imagination or ideal entertainment. Escapism also means to occupy one's self away from persistent feelings of depression or general sadness (*Wikipedia*: 31 December 2022). According to *Oxford Dictionary* (2010), it is an activity or a form of entertainment that helps one avoid or forget some unpleasant or boring things in life. It is certainly an inclination or habit of retreating from unpleasant reality through diversion or fantasy. It is also a way of avoiding an unpleasant or boring life, especially by thinking, writing, and reading about more exciting but impossible activities, as *Cambridge Dictionary* (2008) defines.

John Keats (1795-1821) comes to this world for a very short period of time, but his contribution to the development of English literature, particularly English Romantic poetry, is unforgettable. Like Bengali poet Sukanta Bhattacharya (1926-1947), Keats permeates the literary world with love and sympathy among the common readers and scholars throughout the world despite his short span of life. The poetic description of sensuous beauty of nature in Keats' poems in the midst of deep thoughts and ideas about men's short span of life in the primitive world and the current world gives us a new taste of literature. As literature is the reflection of men's life, life with success and failure, sorrows and sufferings, love and hate, pleasures and pain, loss and gain, etc., Keats, like many other Romantic poets, sketches the exact feelings of troubled mind of troubled human beings of all times. Even when he talks about the pictorial beauty of sights and sounds of nature, he draws the attention of readers to the thoughtful reminder of decaying years of human life. His poems had been published four years before he died of tuberculosis, but his name and fame as a poet grew rapidly after his death. By the end of the 19th century he was placed in the canon of English literature (Wikipedia: The Free Encyclopedia).

Keats lost his father in 1804 when he was only eight, and six years later in 1810 he also lost his mother when he was only fourteen. And he died at the age of twenty five after suffering from tuberculosis for which there was no effective treatment until the 20th century (Motion, 1997). Darkness, disease and depression surrounded him throughout his life. He fell in love with Isabella Jones and Fanny Brawne. But he failed to continue his relationship with them due to his disease and over sensitivity. At last all of his delight and depression came to an end with his premature death except his thoughts and ideas (Gittings, 1968). Fanny Brawne stayed in mourning for six years after his death and married in 1833 more than twelve years after his death (Richardson, 1952). His deep thoughts and ideas with excessive subjectivity were expressed in his poems though they were not adequate enough due to his short span of life. Keats was extremely subjective like Percy Bysshe Shelley and other Romantics, but unlike the neo-classicists, Keats' subjectivity came from his personal grievances about life and human relationship which was seriously reflected in his poems.

William Butler Yeats (1865-1939) was an Irish poet, dramatist and writer. He was one of the foremost figures of the 20th century English literature. He was a Protestant of Anglo-Irish descent. He was educated in Dublin and London, and studied poetry from his early age like Rabindranath Tagore (1861-1941). His poetry grew more physical, realistic and politicized from the beginning of 20th century. Yeats was awarded the Nobel Prize in Literature in 1923 (Wikipedia: The Free Encyclopedia). Like Keats W. B. Yeats was a sensitive poet. Elements of romanticism are found in some of his poems for which he is called the "last romantic". Love, old age, art and aristocracy, nationalism, violence and prophecy, history, myths, unity of being and courtesy, intellectual hatred, innocence, anarchy and nostalgia, romantic longing and escape are the themes of Yeats' poetry. "The Lake Isle of Innisfree" and "Sailing to Byzantium" are the two poems of romantic longing, escape, art and aristocracy of his multifarious themes. Unlike John Keats, Yeats lived for a longer time and died at the age of seventy three. During this long life of more than seven decades, Yeats fell in love seriously with Maud Gonne, an Anglo-Irish descent who was eighteen months younger than Yeats. But his marriage proposal for Gonne had been rejected several times and to his dismay Gonne at last married Major John MacBride, an Irish republican and military leader who was later executed by the British government for his participation in the 1916 Easter Rising in Dublin. Maud Gonne's repeated refusal and marriage to MacBride made the poet shocked that had a significant and lasting effects on his poetry and his life thereafter (Foster, 1997; Khan, 2002). During this period Yeats was involved in another love affair with Olivia Shakespear, a British novelist and playwright whose novels were described that time as the books of 'marriage problem' novels. But that affair was also unsuccessful and it broke up very soon keeping the poet in more vulnerable disposition of mind and thoughts (Wikipedia: The Free Encyclopedia). At last Yeats married Georgie Hyde-Lees in 1917. She was then a young lady of twenty-five when Yeats was a mature man of fifty two (Cahill, December 2003). Their marriage was a success, in spite of the age difference, and in spite of Yeats's feelings of remorse and regret during their honeymoon. The couple went on to have two children, Anne and Michael. Although in later years he had romantic relationships with other women, Georgie herself wrote to her husband: "When you are dead, people will talk about your love affairs, but I shall say nothing, for I will remember how proud you were" (Brown, 2001).

For the last five years of his life, Yeats found a new vigour evident from both his poetry and his intimate relations with younger women. During this time, Yeats was involved in a number of romantic affairs with, among others, the poet and actress Margot Ruddock, and the novelist and journalist Ethel Mannin. As in his earlier life, Yeats found erotic adventure conducive to his creative energy, and, despite age and ill-health, he remained a prolific writer (Foster, 2003). He died in France in 1939 at the age of seventy three just seven months before the beginning of the Second World War. He saw the death and destruction in the First World War with his own eyes, and became more disappointed about the man-made civilization of this mortal world. He might anticipate that another anarchy would come to this world very soon, but unfortunately he died

just before the Second World War. During the aftermath of the First World War, he became sceptical about the efficacy of democratic government, and anticipated political reconstruction in Europe through totalitarian rule (Foster, 2003).

Objective of the Research

As escapism is a common ideal tendency of human beings to flee to the imaginary world, either of the past, or of the future, from the present circumstances of life; literature of this world, particularly poetic genre, shows variation in thoughts and ideas of its author(s). In variations of art and literature, we find some solace and solutions of our troubled mind. As a reader or thinker of the mixed history of old and modern civilization, I am one of those who are eagerly spending their valuable times in search of pleasure and happiness to forget the troubles. For such searching of pleasant life, a man always compares the youthful love and passion of early life to the ultimate achievements of decaying years. And then he feels to escape himself to an ideal world from the world of fever and anarchy. The objective of this research is to find out the reasons behind escapism and its after effects which are artistically reflected in English poetry. I have chosen two poets—John Keats and William Butler Yeats—from two renowned literary ages, Romanticism and Modernism, to collect the mixed flavor of ideas and intellects, and then to explore the visionary world of Byzantine civilization as well as the idealistic world of birds and animals. The research of the search for the temporary happiness of escapism through the witty exploration of ideal and antique worlds has been clearly focused in my following critical analysis of the two poems—"Ode to a Nightingale" and "Sailing to Byzantium."

Review of Literature

Intoxication, consciousness, isolation along with death, time, and impermanence build the theme of Keats' "Ode to a Nightingale" that is expressed and analyzed at the hands of various scholars and critics. In his pictorial narrative of poetic flavor, Keats talks about nature, art, and beauty amidst the theme of isolation and impermanence. Ali Mohammadi (2016) observes that "Ode to a Nightingale" describes a series of conflicts between reality and the Romantic ideal of uniting with nature. In support of his statement, Mohammadi refers the words of Richard Harter Fogle (1968: 41): "The principal stress of the poem is a struggle between ideal and actual: inclusive terms which, however, contain more particular antitheses of pleasure and pain, of imagination and common sense reason, of fullness and privation, of permanence and change, of nature and the human, of art and life, freedom and bondage, waking and dream." On the other hand, Albert Guerard, Jr. (1944: 495) argues that the poem contains a "longing not for art but a free reverie of any kind. The form of the poem is that of progression by association, so that the movement of feeling is at the mercy of words evoked by chance, such words as fade and forlorn, the very words that, like a bell, toll the dreamer back to his sole self." The loss of pleasure and inevitable death are the ultimate achievements of Keats' dream. Fogle (1968: 43) points out that the acceptance of the loss of pleasure by the end of the poem is an acceptance of life and, in turn, of

death. Death is a constant theme that permeates aspects of Keats poetry because he was exposed to death of his family members throughout his life. With this theme of loss of pleasure and inevitable death, the poem describes "the inadequacy of the romantic escape from the world of reality to the world of ideal beauty" (Finney, 1936, p. 632). Of course, the nightingale will die, but it is not thought to be literally dying. The focusing point that the nightingale can sing without dying does not mean the death of the mortal bird, rather its melody of the song will be heard by the people of generation after generation. Here, the poem makes clear that man cannot be able to stay in a visionary world, because death is evitable, but art is everlasting. Earl Wasserman agrees in principle with Finney, but he extends that, "the core of the poem is the search for the mystery, the unsuccessful quest for light within its darkness" and this "leads only to an increasing darkness, or a growing recognition of how impenetrable the mystery is to mortals"(1953, p. 222). Ali Mohammadi further points out that "Keats is a realist poet who struggles to depict human life as it is, though it may seem so tragic, purposeless and deterministic at times" **(**December 2016, pp. 1066-1073**).** Mohammadi continues:

> His intense and altogether genuine concern for others serves, in a sense, to shelter him from the self-knowledge he dreads. He is a man distracted from the awareness of his own mortality by the constant spectacle of the death of others. He can go very far in participating in their agony. The suffering referred to is so general that it designates a universal human predicament. Moreover, the skepticism inherent in the situation – tendency to escape the earthbound condition and the sense of futility at the discovery of the limits of that escape – enhances the quality of the poet 's aesthetic appreciation and experience of the bird 's song. (December 2016, 1066-1073)

As the last romantic, W. B. Yeats shows his romantic tendency to escape from this modern world, and seeks his artistic talent to sail to some remote islands of antique civilization. "Sailing to Byzantium" is a record of Yeats' artistic transformation into a golden bird through spiritual rebirth from an ordinary man of flesh and blood. Lok Raj Sharma considers this poem as a popular piece of art "that deals with the poet's search for spirituality" (June 2021, pp. 13-20). Virginia Pruitt points out that "Byzantium has also consistently as the source and symbol of supremely beautiful and enduring artifacts" (2005, pp. 225-227). She further mentions that in "Sailing to Byzantium", "Yeats intimates the vulnerability of the very artifact that, within the poem, symbolizes immutability" (Pruitt, 2005, pp. 225-227). We all know that the phenomena used in this poem have a symbolic significance. Helen Vendler (1963) rightly says that "the tattered coat upon a stick act as a counterpoise to the sages standing in God's holy fire." In the same way, Peter Ure (1986) thinks that in "Sailing to Byzantium" "the soul casting off the body of old age and rejecting the sensual profusion of life, travels and becomes itself a work of art." The poet's mentioning of the golden bird in the poem is a piece of art that stands for immortality. A. G. Stock (1964) rightly thinks and believes that "the bird on the golden bough was the form of the poet's [speaker's] own soul; it was the same golden bough that Aeneas carried to the underworld, and thus Byzantium is the world beyond [mundane] life." In this

context of immortality, Louis MacNeice (1969) opines that "the poet [speaker] expressed a wish to go on singing but as a golden bird, that is, to be himself a work of art, and so immortal." About the spiritual development of Yeats, John Unterecker (1996) holds the view that "the poet on his golden bough will have become himself one of those monuments he had so admired." There is no doubt that Yeats's capability of using figurative language is outstanding. About his art of poetic language, Farough Fakhimi Anbaran remarks that "Yeats uses figurative language to describe his reasons for this travel by presenting some facts about the place he is currently living and the ideal place he has been looking for" (2015, pp. 46-56). The title of this poem itself is a significant symbol of Yeats' search for antiquity. S. Bharadwaj regards that it is "a symbol of unity combining the realistic, intellectual, emotional and mythical elements into a harmony; the harmony ensuing from a resolution of conflicts or contending claims of his contemporaries" (Bharadwaj, 2018, pp. 180-196). According to Sharma (June 2021: 13-20), "[t]he aged man in the poem represents all the old folks who have reared their agony that makes them search for peace and spirituality." In this context, Richard Ellmann asserts that "an aged man appears in the second stanza, speaks out the true feelings of the poet himself, for the protagonist of the poem is not Yeats but may be described as a symbol of Yeats and of the artist and of man" (1964). Sharma (June 2021: 13-20) adds that "[t]he persona of this poem is an old man who asserts that Ireland is no country for old men; therefore, he sails to Byzantium for getting spiritual solace and pleasure. [Because] Byzantium is an ideal place where people value art, spirituality and the old ones." But Sharma might forget to mention that in the poem the speaker was the poet himself, and he wanted to escape from this world of din and bustle to take spiritual shelter into the den of antique world.

Critical Analysis

John Keats' "Ode to a Nightingale," written in the Spring of 1819, is a mature poem expressing the poet's deep feelings of pangs, depression, sorrows, sufferings, delights, life and death including melody and music. The poem was written inspired by the song of a Nightingale that built its nest close to the house of one of Keats' friends in Hamptstead. The bird's song threw Keats into a sort of tranquil pleasure. The melodious music of the beautiful bird kept the poet for the time being into an aspiration towards the life of beauty away from the oppressing world. As the poet listened to the melodious song of the bird, he felt pain of excessive joy:

> My heart aches, and a drowsy numbness pain
> My sense, as though of hemlock I had drunk,
> Or emptied some dull opiate to the drains
> One minute past, and Lethe-wards had sunk: (Keats, 1977)

The lines express that the poet felt excessive joy while he was listening to its song and the pleasure turned into a joyous pain. The poet's senses seemed overpowered with the sense of sleep and dullness. He felt that he was like a person who had drunk hemlock or some other

preparation of opium that made him feel forgetful and lost. Here, the poet decided to forget everything of this mundane world of sorrows and sufferings where crimes and corruptions had become a regular feature of life, the life that had been given institutional acknowledgement of being involved in such fevers of daily activities; and for this, he wished to leave this world unseen and fade away into the dim forest of birds and animals. To fulfill his desire, the poet proposed to do so with the help of a cup of wine that had been cooled a long age in the deep-delved earth, and that was rich with all associations of songs and dances of Provence, its country of origin:

> O, for a draught of vintage! That hath been
> Cool'd a long age in the deep-delved earth,
> Tasting of Flora and the country green,
> Dance, and Provencal song, and sunburnt mirth!
> O for a beaker full of the warm South,
> Full of the true, the blushful Hippocrene,
> With beaded bubbles winking at the brim,
> And purple-stained mouth;
> That I might drink, and leave the world unseen,
> And with thee fade away into the forest dim: (Keats, 1977)

The poet expressed that if he could do so he would leave behind him all the woes and weariness, the fever and the fret of the world where we live and hear the groaning of each other, where youth grows pale very soon, and beauty fades in no time. What the poet felt was not only the scenario of the world of that time, it is the very truth that the world, where he lived, was and, the world, where we live, is the place where people have been constantly suffering and withering under the agonies of pain. Old and disappointed grey-headed people are afflicted with palsy. And young people have been growing old and declining day by day. They wither and grow thin like skeleton, and die at last. When a man of decaying years begins to reflect over his life, his past memories remind him of his sorrows and sufferings, and he falls into a state of helplessness. Like Keats, we also believe that the sensuous passion of youthful lovers lasts only for a very short duration of life:

> Fade far away, dissolve, and quite forget
> What thou among the leaves hast never known,
> The weariness, the fever, and the fret
> Here, where men sit and hear each other groan;
> Where palsy shakes a few, sad, last gray hairs,
> Where youth grows pale, and spectre-thin, and dies;
> Where but to think is to be full of sorrow
> And leaden-eyed despairs;

Where Beauty cannot keep her lustrous eyes,
Or new Love pine at them beyond to-morrow. (Keats, 1977)

But in the second phase of his thinking, John Keats understood and felt that wine was not potential enough to transport him from the real world of fever and fret into the ideal world of dream and melody. Only poetry could enable him for such travelling of ideal world. Because the art of literature, he thought, was everlasting and only through his literary contribution, the poet could live in the minds of people of all times of this mortal world. So, he wished to fly to the deep forest of Nightingale through 'the viewless wings' of poetry:

Away! Away! For I will fly to thee,
Not charioted by Bacchus and his pards,
But on the viewless wings of Poesy,
Though the dull brain perplexes and retards:
Already with thee! Tender is the night,
And haply the Queen-Moon is on her throne,
Cluster'd around by all her starry Fays;
But here there is no light,
Save what from heaven is with the breezes blown
Through verdurous glooms and winding mossy ways. (Keats, 1977)

Then he described the romantic and aesthetic beauty of the forest where he wished to go and stay with the bird. The poet said if in the darkness he could not see the colour and shape of the flowers like the hawthorn, the eglantine, the violet, and the musk rose at night, he could guess each of them by their sweet fragrances:

I cannot see what flowers are at my feet,
Nor what soft incense hangs upon the boughs,
But, in embalmed darkness, guess each sweet
Wherewith the seasonable month endows
The grass, the thicket, and the fruit-tree wild;
White hawthorn, and the pastoral eglantine;
Fast fading violets cover'd up in leaves;
And mid-May's eldest child,
The coming musk-rose, full of dewy wine,
The murmurous haunt of flies on summer eves. (Keats, 1977)

The poet compared the transient life of the mortal world with the everlasting demand of the power of poetry. According to the poet, as poetry is immortal, the sweet song of the Nightingale is also immortal. Keats thought that the bird was not born to die. The sweet melody of the bird's song that the poet heard was also heard in ancient times by emperors and clowns, it was heard

through all the ages from Ruth's time to date, and it was heard by some damsel kept imprisoned in some medieval castle. Thus the bird becomes immortal. The Nightingale would not cease its song, the poet would die but the bird would continue its singing. Here the poet contrasted the transitoriness of individual human life with the permanence of the beauty of art—the bird's melodious song and poetry:

> Thou wast not born for death, immortal Bird!
> No hungry generations tread thee down;
> The voice I hear this passing night was heard
> In ancient days by emperor and clown:
> Perhaps the self-same song that found a path
> Through the sad heart of Ruth, when, sick for home,
> She stood in tears amid the alien corn;
> The same that oft-times hath
> Charm'd magic casements, opening on the foam
> Of perilous seas, in faery lands forlorn. (Keats, 1977)

John Keats, for the time being, had tried to forget the daily activities of this feverish world—the world of the 'weariness, the fever, and the fret'—inspired by the melodious song of Nightingale that aroused his poetic imagination. Through the help of 'wings of poesy' Keats had temporarily transported himself into the dark forest of Nightingale to avoid the din and bustle of this materialistic world. But suddenly he woke up from his day-dream and realized that he was part and parcel of this real world. The very word 'Forlorn' seemed to him the loud sound of a bell that woke him up from utopia. Then the poet bade farewell to his temporary dream as well as to the Nightingale and its forest. His temporary escape from the world of sorrows, sufferings, corruption and vices came to an end with the break-up of his day-dream. And then he came back to the stern realities of life. He realized that romantic fancy, as we also do, could not help a man for long to make him forget the realities. Like a fairy being with supernatural power, fancy can only transform the real world around us into a utopia, but it can happen for only a short period of time. Calling fancy a 'deceiving elf' Keats returned to the real world to face the challenges of everyday life, and at last surrendered to the cruel death at the age of twenty five only. He bade farewell saying 'Adieu! the fancy':

> Forlorn! The very word is like a bell
> To toil me back from thee to my sole self!
> Adieu! the fancy cannot cheat so well
> As she is fam'd to do, deceiving elf.
> Adieu! adieu! thy plaintive anthem fades
> Past the near meadows, over the still stream,
> Up the hill-side; and now 'tis buried deep

In the next valley-glades:
Was it a vision, or a waking dream?
Fled is that music:—Do I wake or sleep? (Keats, 1977)

William Butler Yeats' "Sailing to Byzantium" talks about the antique civilization of Byzantium, the old name of Constantinople or Istanbul which was the capital of the Roman Empire. Byzantium was the center of Christian civilization before and after the Fall of Rome that seemed to the poet a center of ideal culture and wisdom. The poet chose the old name and old city Byzantium where he wanted to sail avoiding modern technology and modern vehicle. He did not want to visit the modern city Istanbul, the largest city of Turkey which was founded as Byzantium in the 7th century BCE by Greek settlers from Megara. In 330 CE, the Roman emperor Constantine the Great made it his imperial capital, renaming it first as New Rome and then as Constantinople after himself. The city grew in size and influence, eventually becoming a beacon of the Silk Road and one of the most important cities in history (Wikipedia: The Free Encyclopedia). Yeats wished to visit the old center of excellence in art and culture bidding farewell to the modern civilization of his own. That is why, he chose the antique ways of communication like the sailing ship instead of engine ship to make an ancient voyage through oceans and seas, and thus he wanted to sail to a land where any form of modern phenomena of youthful love and passion was totally absent. He wanted to be immortal by transforming himself into the old art and artifice of Byzantine civilization through using his 'unageing intellect'. In this poem Yeats faced the challenges of old age with the wish to forget his decaying body and educate his soul for immortality. Yeats thought that the magnificence of artifice was immortal, and so the immortality of magnificent artifice had created a lasting appeal to his heart whose life had been devoted to attempt to create lasting works of art throughout his career. Wishing to be immortal through his everlasting creation of art the poet imagined that his soul after the death of his body would be preserved in the Emperor's palace as a golden bird. The poem talks about the concrete truth of the mortality of man's life in this temporary world, and the poet through it tried to transform death into subjective purpose not denying the fact of immortality. Like John Keats, Yeats also believed in the everlasting power of art, and so he for the time being wanted to be a golden bird declining the dying generation of the world's real birds through his creation of art in poetry. He wanted to sail through his poetic imagination to the world's antique civilization to forget the chaotic times of his own. Yeats' visionary escape from this artificial world of din and bustle is a clear reminder of Keats' poetic escape from his city life of the first half of 19th century.

The first stanza of the poem describes the sensuous beauty of sights and sounds of man and nature of Byzantium that was not like those of the poet's own country. In the poem, Yeats described young men and women who are seen in close touch and embrace. He talked about the birds singing with excitement in green trees, and talked about the fishes like salmon and mackerel swimming in the pure and uncontaminated water of rivers. The poet here talked about

fish, flesh and fowl that sing the songs of the senses which are not meant for old people, and which would be in the process of death after some interval of temporary life. In this universal process of growth and decay through life and death the poet lost his mental strength and sought the utopian domain of mortality. He thought, the young phenomena of the sensuous world might have been immortal only through their artistic images. The scenes which are shown in this stanza were not meant for an old man, but for the people of young generation:

> That is no country for old men. The young
> In one another's arms, birds in the trees,
> —Those dying generations—at their song,
> The salmon-falls, the mackerel-crowded seas,
> Fish, flesh, or fowl, commend all summer long
> Whatever is begotten, born, and dies.
> Caught in that sensual music all neglect
> Monuments of unageing intellect. (Yeats, 1933)

The second stanza talks about the position of an old man who is not suitable at all in the sensuous circumstances of nature described in the earlier stanza. Due to his decaying position of physical power an old man cannot suit himself in the midst of young people and their surroundings, but at this stage of life a man can rectify his soul and mind through proper and modified education. Being educated the soul would be able to sing louder and louder with its mortal and decaying body. But it would be difficult, as the poet thought, that the ageing soul might not get the environment for its pure education in the current civilization of his own. Here the poet meant the artificial institutions for artificial mercantile education in the countries of the current generation like Ireland. The poet thought that the singing schools, instead of caring for monuments of 'unageing intellect', were busy studying monuments of their own magnificence. Finding the difficulties of getting the right schools in his own country for holy and purified education for his soul, the poet decided to sail to the old city of Byzantium across the seas and lands:

> An aged man is but a paltry thing,
> A tattered coat upon a stick, unless
> Soul clap its hands and sing, and louder sing
> For every tatter in its mortal dress,
> Nor is there singing school but studying
> Monuments of its own magnificence;
> And therefore I have sailed the seas and come
> To the holy city of Byzantium. (Yeats, 1933)

In the third stanza of the poem, the poet visited the holy city of Byzantium with its church of St. Sophia, the city of art suggesting permanence of beauty, perfection of creation and form of intellect. Here the poet saw beautiful sages standing in God's holy fire as if a figure stood in the gold mosaic work of a wall that seemed to be climbed down from mortal position in a spiritual movement. This artistic figure of creation might be the real educators of the poet's soul that would learn the right kind of song—the song that would be louder as the body would decay day by day. To purify the soul, as the poet thought, first of all he should have brought out it from his animal instincts of body throwing down physical desire. The poet suggested that once a man would be able to purify his soul in that way, he could easily gather himself into the artifice of eternity. And only then a man could go beyond the cycle of birth and death:

> O sages standing in God's holy fire
> As in the gold mosaic of a wall,
> Come from the holy fire, perne in a gyre,
> And be the singing-masters of my soul.
> Consume my heart away; sick with desire
> And fastened to a dying animal
> It knows not what it is; and gather me
> Into the artifice of eternity. (Yeats, 1933)

The final stanza talks about the poet's imagination of his eternal life after being purified through the contact of holy song of art and artifice. Completing the short procedure of birth and death, the poet here longed for a new life through the golden shape of eternity artistically made by Grecian goldsmiths in the form of a golden bird who could sing to wake up the sleepy Emperor. The poet here wanted to be a golden bird gathered into the artifice of eternity that would be set upon a golden bough in the court of Byzantium. Yeats imagined that being a part of immortal art and artifice the poet would be able to sing the holy songs of all times—past, present and future to the Lords and Ladies of Byzantium. And then the poet ensured that song would be quite different from the sensual songs of dying generations. The poet, here, was confident enough that he would be able to sing of monuments of 'unageing intellect' if he could reach the destination of immortality through his soul's purification:

> Once out of nature I shall never take
> My bodily form from any natural thing,
> But such a form as Grecian goldsmiths make
> Of hammered gold and gold enamelling
> To keep a drowsy Emperor awake;
> Or set upon a golden bough to sing
> To lords and ladies of Byzantium
> Of what is past, or passing, or to come. (Yeats, 1933)

Yeats believed that in order to get the immortality through the creation of art and artifice it was necessary to move away from the songs of the senses to the songs of the monuments of 'unageing intellect'. At the same time he warned that an old man had no place in the world of young generation who were all caught in all sorts of sensual music in Yeats' time, even who are all involved in animal pleasure in all activities of life in our time. In the world of the young people and sensuous loving, the 'monuments of unageing intellect' stand always neglected in all times of all civilizations.

Conclusion

The visionary escape from the current civilization to the ideal world of beauty as well as to the antique world of art and artifice was a common search of intellectual thoughts of the two great poets of the two different periods of English literature. Both of these literary scholars—John Keats and William Butler Yeats—were so much disappointed with the current ways of life that they wished to transform themselves into the shape of a singing bird like Nightingale or of a golden bird in the form of golden artifice to avoid the mortality of this temporary bustling world of corruption and vices. Keats wished to leave this world of weariness through his 'viewless wings of poesy', and enter the ideal world of art and beauty where beautiful birds like Nightingale live without any struggle of livelihood. Yeats wished to bid farewell to this mortal world of war, anarchy, and fever sacrificing all of his youthful passion and love, and he is ready to enter the world of art and intellectuality being a golden bird 'upon a golden bough' to get the taste of immortality. Both Keats and Yeats were fundamental in one sense that they believed on the mortality of human life and human world; they were progressive in other sense that they wanted to be immortal through their scholastic contributions in the field of art and literature. They believed that life around the sights and sounds of nature as well as life with the sensuous passion of love and aristocracy is always temporary; but the creation of art and artifice with meaningful intellects has an everlasting appeal for the world of exploration that would be continued till the last moments of the Doomsday. The difference is that Keats realized at last the impossibility of wild dwelling for a man with the birds and animals in the jungle and forest. He realized that it was quite impossible to live in the idealistic world for a man, and kept himself away from living with the Nightingale. Yeats, on the other hand, declined to stay for long in the world of men, birds and animals; and at last wished to sail to the antique civilization through art and artifice. But both of them wanted to be immortal through their works of art and literature; and for this aspiration, they chose the platform of 'viewless wings of poesy'.

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VALIDITY AND RELIABILITY OF THE TOOL USED IN TEACHER'S EVALUATION AT HAMDARD UNIVERSITY BANGLADESH

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Abstract

Teacher Evaluation is one of the most prominent procedures to analyze the performance of a teacher in the classroom. A valid and reliable teacher evaluation is the most important background work. Concerning to this, Hamdard University Bangladesh evaluates the performance of its teachers through a student questionnaire. The study is intended to analyze the validity and reliability of the tool, the student questionnaire, used in teacher evaluation at the University. So, the area of this study was Hamdard University Bangladesh and the students and the teachers were the population. The data were collected from 80 students of 11 departments, and 5 teachers of different faculties. A student questionnaire and a teacher questionnaire were used in the research to collect primary data. It also ran a qualitative analysis of the instrument used in the teacher evaluation at Hamdard University Bangladesh. The study disclosed that the whole evaluation system lacks objectivity as the participants do not have enough knowledge about it thus they imply subjective judgment. It also found inadequacy in the present evaluation tool in respect of its question formation. As there are no other tools to assess teachers' performance, the lack of triangulation creates doubts of the validity and reliability of the evaluation.

Key Words: Teacher evaluation, Tool, Validity, and Reliability

Introduction

As the role of a teacher often goes beyond the academic arena, they have to cover more than just executing lesson plans, giving classes, or assessing scripts and assignments. They are among the first ones who introduce different social skills to their students. Thus, it is imperative that teachers must perform the roles efficiently. In this regard, teacher evaluation is one of the most prominent procedures to analyze the performance of a teacher in the classroom.

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Evaluation, in teaching and learning, "is concerned with assessing the effectiveness of teaching, teaching strategies, methods and techniques. It provides feedback to the teachers about their teaching and the learners about their learning." (Evaluation in teaching and learning process, n. d.). However, as teachers are directly linked with the learning of students, the evaluation of teachers should be valid and reliable.

For the purpose of quality teaching and learning, Hamdard University Bangladesh conducts a teacher evaluation procedure every semester through a questionnaire. The students of the University participate in the evaluation process to appraise teachers' performance in a course through a (1-5) points scale questionnaire. But only one tool is used for evaluating teachers, which can raise the question of validity and reliability because there is no triangulation. Besides, students do not get enough time; they only get 15-20 minutes for evaluating 5 course teachers at a time. Moreover, the same questionnaire is used regardless the nature of the course. Even, some students do not understand the questionnaire so they give score willingly without proper judgment.

Nonetheless, an effective evaluation of any program benefits all the stakeholders. Accordingly, a functioning teacher evaluation is important not only for understanding what effective teachers do with their students but also equally the analysis and feedback of evaluation may help the teachers to give better performance in the classroom. It plays a vital role in the learning and teaching process. The researchers think that the evaluation of a teacher cannot be justified by the data from one source. There should be multiple data sources to accurate the evaluation.

Objective

The main purpose of the study was to analyze the validity and reliability of the tool used in teacher's evaluation. A secondary objective was whether the tool and the evaluation process require any changes for valuing the teacher's performance properly at Hamdard University Bangladesh.

Research Questions

The objectives of the research were investigated in the light of the following research questions:

a) How far is the used tool valid and reliable in teacher's evaluation?

b) Are there any additional tools needed for teacher's evaluation?

c) Does the evaluation have any effect on the teacher's performance?

Limitations of the Study

The study has some limitations. First, the number of student participants was a small one regarding the population. Then, only five (05) teachers were included in the survey. Therefore, the results of the research could be more generalize and valid if the sample size was big enough.

Finally, some students do not have a proper idea of the importance of teacher evaluation so they were not serious in providing their information

Literature Review

Teacher Evaluation: What and Why?

Teacher evaluation is defined by Shawchuk (2015) as a formal procedure to analyze a teacher's performance and efficiency in the classroom. Again, Danielson (2010) suggests it should be directed to ensure a teacher's competence and to stimulate academic learning with an end to improve performance in future. Moreover, Rea-Dickins and Germaine (1993) consider evaluation in teaching and learning as a core component and it offers a lot of materials which can be used for further direction, planning and management. This is why, they recommend that evaluation in an educational institution should be systematic and it should be according to particular guiding principles by means of judiciously defined standards (1993).

The two key objectives of teacher evaluation are improvement and accountability. By 'improvement', it refers to the gradual development of the teaching and learning process while 'accountability' means the responsibility of the teacher to provide what happens about the teaching-learning process. But there is an inherent tension between these two purposes. When teachers focus on the improvement of their performance, they may not provide correct data because of the danger of revealing their weaknesses. On the other hand, when the focus is on accountability, teachers may feel insecure about their work (Santiago and Benavides, 2009).

Therefore, it is important that the evaluation process of a teacher must be valid and reliable. Only a valid and reliable evaluation can ensure improvement and accountability which in return confirm the standard of education in an institution.

Teacher Evaluation: Validity and Reliability

It is essential to evaluate the validity and reliability of teacher evaluation so that the evaluation process can measure teaching effectiveness (Khong, 2014). By reliability, Kerlinger (1986) meant "relative absence of errors of measurement in a measuring instrument" and by validity he referred to the items being measured and whether the tool measures what we want to measure. (cited in Khong, 2014).

Two types of validity are frequently used in student evaluation of teaching (SET) – content validity and construct validity (Khong, 2014). According to him (2014, p 58), "Content validity refers to whether the content of the questions or items measured in the SET are representative and adequate." and "construct validity as items measured in student evaluations must be related to variables that are indicative of teaching effectiveness". Hence, if these two types of validity

are not maintained in the teacher evaluation tool, there will be potential biases in the collected data and thus the measurement will become unreliable.

Therefore, if there are problems in the validity and reliability of the measurement parameters, the evaluation of teaching does not correlate with the actual quality of the teaching being evaluated (Knudson, 1988). Citing Sproule (2002) and Marsh (1984), Khong (2014) stated, "There have been numerous questionings and doubts on the validity and reliability of student's perceptions of teaching. As such, the opinions of student evaluations vary from 'valid, reliable and useful' to 'invalid, unreliable and useless'" (p.58).

Tools of Teacher Evaluation

There are several tools that can be used to evaluate teacher's performance. Student evaluation of teaching can be considered as one of the most reliable sources of teacher evaluation and it helps to synchronize the action plans, observation and post observation which can raise the self-awareness, self-reflection and critical thinking skills of teachers (Ustunluoglu and Can, 2012). However, they also mentioned that student evaluation of teaching certainly has value but it cannot provide a complete assessment of all important aspects of teaching (2012).

Another tool of teacher evaluation is classroom observation. According to Geo, Bell and Little (2008), classroom evaluation is a tool that is used to assess the quality of teaching, learning and the interaction between students and teachers. Besides, Tucker, Stronge and Garies, (2003) mentioned portfolios, which can be used for teacher evaluation purposes, by collecting documents about the teacher and their teaching, activities and responsibilities. Moreover, Partee (2012) promoted peer evaluation for teacher evaluation. Peer evaluation entails colleagues evaluating each other through observation.

Therefore, student evaluation of teaching, classroom observation, student's achievement, self-evaluation, peer evaluation, and teacher portfolios are the common tools to evaluate the teacher's performance.

Research Methodology

Research Design

The research was conducted following the mixed method, a combination of both qualitative and quantitative approach. Both quantitative and qualitative data were collected from primary sources. Data were collected through two questionnaires and the analysis of the sample used as the tool in the teacher evaluation in Hamdard University Bangladesh.

Sample and Sampling

The students and teachers of Hamdard University Bangladesh were the research population of this study. However, the total number of participants was eighty five (85) of which eighty (80) were students and five (05) were teachers. The multi stage sampling technique was chosen for selecting participants. Firstly, the student population was stratified into eleven (11) departments and eighty (80) students were selected from the departments randomly. Then, five (05) teachers from 5 faculties were chosen following the convenience sampling technique.

Instruments

The following instruments were used to collect data:

a) Student's Questionnaire
b) Teacher's Questionnaire
c) Analysis of the present Teacher Evaluation Questionnaire

Student's Questionnaire

There were five (05) questions in the student questionnaire having both open and close ended questions. Open ended questions were used for analyzing qualitative data and close ended questions were used for quantitative data.

Teacher's Questionnaire

A questionnaire was also given to the teachers to collect their perception, opinion and advice about the teacher evaluation at Hamdard University Bangladesh. There were 5 questions having both open and close ended questions.

Analysis of the present Teacher Evaluation Questionnaire

Hamdard University Bangladesh conducts the teacher evaluation process through a questionnaire which is structured in a Likert scale. There are 10 issues in the evaluation questionnaire. The participants gave their marks in (1-5) mark scale. The researchers studied the advantages and disadvantages of Likert scale and the 10 issues included in the tool.

Data Analysis Process

Microsoft Excel 2013 was used to analyze quantitative data as well as find out the percentage and frequency in the charts and tables. The qualitative data were analyzed descriptively in depth to discover patterns based on the answers provided by the participants in the open-ended questions.

Data Analysis

Analysis of the Quantitative Data from the Student's Questionnaire

Table 1: Quantitative data of the student's questionnaire

Questions	Options	
	Yes	No
Question 1: i) Are you satisfied with the process of teacher evaluation in Hamdard University Bangladesh?	51.25%	48.75%
Question No 2: Does evaluation have any positive effect on teacher's performance?	68.75%	31.25%
Question No 3: i) Can only one tool evaluate teacher's performance?	13.75%	86.25%
Question No 4: Do you think the same questionnaire is effective for evaluating all courses?	35%	65%
Question No 5: i) Do you think any additional issues can be included in the present instrument of teacher evaluation?	84.21%	15.79%

The first question has two parts. The first section refers to the quantitative analysis of whether students are satisfied with the process of teacher evaluation in Hamdard University Bangladesh. Though 51.25% participants were satisfied, 48.75% were not satisfied with the process. However, 68.75% participants thought that the evaluation develops the performance of teacher whereas the other 31.25% participants thought that this evaluation does not have any effects on the teacher's performance. Again, 86.25% participants opined that one tool cannot evaluate the performance of a teacher effectively. Moreover, in reply of the question 4, 35% participants agreed that the same questionnaire can be used to evaluate all the courses while the majority (65%) of the participants did not think that the same questionnaire can be used to evaluate all the courses. Finally, the data of the quantitative section of question 5 infers that more issues need to be added in the present instrument of teacher evaluation.

So, from the analysis of the quantitative data collected through the student questionnaire it can be deduced that using only one tool cannot be reliable and valid in the assessment method of the teacher's evaluation at Hamdard University Bangladesh.

Analysis of the Qualitative Data from the Student's Questionnaire

The second section of Question 1 inquires why the students are satisfied or not satisfied with the present teacher's evaluation process. The satisfied students mentioned that it gave them a chance to show their justification and thinking towards the teacher and they could pass their judicious comment, opinion, problems and experiences on what they have faced in doing the courses and

express their views about the teachers and their teaching skills. On the contrary, those who were not satisfied with the process opined that the tool is not administrated properly so real evaluation cannot be done. They complained that they are not given enough time to fill up the questionnaire. They also mentioned about subjective judgment which creates bias in the evaluation.

The objective of the second part of question 3 is to find out what additional tools can be used in the teacher evaluation at HUB. The participants suggested the following tools to be used in the teacher evaluation along with the present one:

i) Class observation
ii) Student's result
iii) Report from the Dean or the Head of the Department

The qualitative part of question 5 investigates what additional issues can be included in the present student questionnaire of teacher evaluation at HUB. The participants suggested the following:

i) Timely feedback
ii) Providing creative tasks
iii) Lesson organization
iv) Motivation

Analysis of the Quantitative Data from the from Teacher's Questionnaire

There are five (05) questions in the teacher's questionnaire of which question 2 and 5 are qualitative. Besides, the second section of question 1 and 3 are also open-ended. The quantitative data from the teacher's questionnaire were analyzed and presented in the following table:

Table 2: Quantitative data of the student's questionnaire

Questions	**Options**	
	Yes	**No**
Question 1: i) Do you think students effectively evaluate teacher's performance?	20%	80%
Question No 3: i) Can only one tool evaluate teacher's performance?	20%	80%
Question No 4: Do you think the same questionnaire is effective for evaluating all courses?	20%	80%

The data from the above table clearly show that most of the teachers (80%) do not think students can effectively evaluate a teacher's performance, nor do they think one instrument can assess a

teacher's quality. They (80%) also opined that the same questionnaire is not effective for evaluating all courses.

Analysis of the Qualitative Data from Teacher's Questionnaire

The second part of question 1 studies the reasons why the present evaluation cannot measure the quality of a teacher's performance. The participants expressed positive attitudes towards the process of evaluation but stated that students do not take the evaluation seriously and effectively. Students never read the question carefully rather they simply make a copy of each other and randomly provide marks.

The second question inquires the participant's perspective about the running teacher's evaluation system. The participants responded positively about the evaluation and its necessity but were critical about how it is conducted.

The second part of question 3 probes the need of any additional tools if one tool is insufficient to judge the performance of a teacher. The participants recommended for the time to time classroom observation along with the student's evaluation to ensure a valid and reliable assessment.

The goal of question 5 was to find out what can make the existing teacher evaluation more valid and reliable. The participants suggested that students should be made aware of the importance of the evaluation and for this purpose seminars need to be arranged time to time. Moreover, the staffs who are involved with the evaluation process should be trained on how to conduct such evaluation.

Analysis of the Teacher's Evaluation Questionnaire Used at HUB

Hamdard University Bangladesh has been using one tool, student's questionnaire (Appendix – 3), to evaluate teacher's performance on a course. The questionnaire is formed following Likert scale of rating 1 to 5. Students can give their opinions on the basis of the following performance scale:

5.00	Strongly Agree
4.00	Agree
3.00	Neutral
2.00	Disagree
1.00	Strongly Disagree

Once students complete the questionnaire, the result is given in a numeric value (for example, CGPA 4.50).

As the questionnaire measures a teacher's performance on the quantitative value only, the question arises whether it can appraise a teacher's performance only on the basis of numeric

value. Moreover, Likert scale presents close-ended statements so the participants are forced to choose one of the options. This may lead to random or bias responses. The limitations of the Likert scale regarding the statements of the present questionnaire are discussed here.

There are ten (10) statements in the student questionnaire. The first statement is "The instructor has provided a course outline at the beginning of the semester". This is an important issue because this course outline includes what topic will be taught in a semester. Even at the end of the semester students can check what they have leant in the whole semester. Here, the answer should be 'yes' or 'no'. So, the choice between the options 'strongly agree' and 'agree' or 'strongly disagree' and 'disagree' is irrelevant. Even, the option 'neutral' cannot be valid. As the survey is conducted at the end of a semester, students should already know whether the teacher has provided it or not. So the statement cannot provide valid information.

The second issue in the questionnaire is "The recommended textbooks, references and/or materials used for this course were relevant". This statement has a weakness. If a student does not have the recommended textbooks, references and /or materials, she/he cannot know whether they are relevant or not. In this case, his/ her response lacks validity and reliability. Even if, the student is neutral, this cannot measure the teacher's performance.

The third and fourth issues in the evaluation tool are "The instructor has explained ideas/ topics lucidly (easily understandable)" and "The presentations/ lectures of the instructor were of good quality". Here, the words "lucidly" and "good" seem vague as the meanings of the both are relative. Which seems easily understandable or good to one might not seem so to others. Thus, the responses of the statements can easily be subjective.

Again, the seventh and ninth issues, respectively "The instructor has covered the syllabus/ materials sufficiently" and "The instructor has graded/ marked the examination papers fairly", of the questionnaire are faulty as both the statements contain two very vague terms "sufficiently" and "fairly" which are relative in their meanings and thus the responses of the statements can easily be idiosyncratic.

However, statements 5, 6, 8, and 10 are presented appropriately and can provide valid and reliable information.

Findings

After analyzing the data, the following findings regarding the teacher's evaluation at Hamdard University Bangladesh have been identified.

i) Insufficient Knowledge About the Teacher's Evaluation

Most of the student-participants do not have enough knowledge about the teacher's evaluation. They do not take it seriously. Sometimes students tend to assess teacher's performance copying other students.

ii) Need of Additional Tools

Evaluating a teacher's performance only on the basis of the students' opinions is not valid and reliable because students do not have sufficient knowledge about the process and their subjective views lead prejudiced judgment towards the performance of a teacher.

iii) Additional Issues in the Present Tool

Issues like motivation, timely feedback, creative tasks, interaction, and lesson organization which are important in teaching and learning have not been included in the present tool.

iv) Inefficiency of Using Same Questionnaire in Evaluation

Each course has some unique characteristics and thus is different from other courses. Moreover, theoretical and practical courses vary in their respective nature, objectives and outcomes. The same questionnaire cannot bring out the appropriate data and so is ineffective to evaluate the teacher's performance.

v) Limitations in Using Likert Scale

Some statements (1, 2, 3, 4, 7, & 9) in the Likert Scale are faulty structured as their inferred meanings are vague and relative.

vi) Effects on Teacher's Performance

Though most students do not have enough knowledge to evaluate a teacher's performance and using one tool has limitations, the evaluation process has a constructive effect on the teacher.

vii) Satisfaction on the Process of Teacher Evaluation

There are both positive and negative opinions among the students regarding the process of teacher evaluation at HUB. It gives them a chance to express their justification and thinking towards the teacher and they can pass their judicious comment, opinion, problems and experiences on what they have faced in doing the courses and express their views about the teachers and their teaching skills. But the process is not administrated properly. They are not given enough time to fill up the questionnaire. There is also subjective judgment which creates bias in the evaluation. However, the teachers also think that teacher evaluation is important but students do not have adequate understanding to assess the performance of a teacher.

viii) Lack of Training

The staffs who are involved in conducting teacher evaluation process are not properly trained nor do they have appropriate skill to perform such task.

Recommendation

From the basis of the data analysis and findings, the following are needed to make the teacher evaluation at HUB valid and reliable:

1. The authority should introduce more than one tool to evaluate a teacher's performance in a course. So, along with the student's evaluation of a teacher, classroom observation by the Head or the Dean or a senior colleague and students' performance on various tests might be effective tools (Levin, 1979).

2. The authority should arrange seminars on Teacher Evaluation to train the staffs and to make the students aware of the evaluation process.

3. The authority also should modify the current evaluation questionnaire. There are some issues which cannot be evaluated through Likert Scale. Moreover, the result from Likert Scale assesses the quantitative value which alone cannot judge the merit of teaching-learning process.

4. The following issues can be added in the present questionnaire used by the students:

i) Does the teacher appreciate student's point of view in the classroom discussion?
ii) Does the teacher motivate in the classroom?
iii) Does the teacher use proper opportunity of time in the class?
iv) How appropriately does the teacher organize their lesson?
v) Does teacher give creative work instruction?
vi) Does the teacher give feedback of assignment timely?

Conclusion

For a valid and reliable teacher's evaluation, an effective process is prerequisite. Hamdard University Bangladesh uses a student questionnaire in its evaluation procedure of the teacher's performance. The study concluded that though the evaluation is necessary, using only one tool lacks the validity and reliability of the assessment method as there is no way to triangulate the found data. Again, the same questionnaire for all courses is also a debatable issue. Moreover, some statements in the student questionnaire are not specific and their answers can be subjective and biased. The Likert Scale is used for quantitative information which cannot assess a complex issue like teacher's evaluation.

However, the research was conducted only on limited participants. Further study can be done with a large sample size. The present study did not include the opinions of the administrative personnel who are responsible for the strategic development of the pedagogic program of the university.

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Appendix A

Student's Questionnaire

1. i) Are you satisfied with the process of teacher evaluation in Hamdard University Bangladesh?

a. Yes b. No

ii)) If yes/no, explain your opinion:

……

2. Does evaluation have any effect on teacher's performance?

a. Yes b. No

3. i) Can only one tool evaluate teacher's performance?

a. Yes b. No

ii) If no, explain your opinion:

……..……

4. Do you think the same questionnaire is effective for evaluating all course?

a. Yes b. No

5. i) Do you think any additional issues can be included in the present instrument of teacher evaluation?

a. Yes b. No

ii) What additional issues can be included in the present student questionnaire of teacher evaluation?

……..……

Appendix B

Teacher's Questionnaire

1) i) Do you think students effectively evaluate teacher's performance?

a) Yes b) No

ii) If no, explain your opinion:

……

2) What do you think about the current system of teacher's evaluation?

……

3) i) Can only one tool evaluate teacher's performance?

a) Yes b) No

ii) If no, explain your opinion:

……..

4) Do you think the same questionnaire is effective for evaluating all the courses?

a) Yes b) No

5) What additional issues can be added to make a valid and reliable teacher's evaluation?

……

Appendix C

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HAMDARD UNIVERSITY BANGLADESH

Teaching Evaluation Form

(To be filled by the students)

Course Code | | | | | | | Course Title _____ Section | |

Name of Teacher _____

Department _____

No.	Please read the following statements and provide your best opininion for each item on a 5-point scale as: **Strongly agree = 5** **Agree = 4** **Neutral = 3** **Disagree = 2** **Strongly disagree = 1**	Scale				
		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1	The Instructor has provided me with a Course outline at the beginning of the Semester.	5	4	3	2	1
2	The recommended testbooks, references and/or materials used for this Course were relevant.	5	4	3	2	1
3	The instructor has explained ideas/topics lucidly (easily understandable).	5	4	3	2	1
4	The presentations/lectures of the instructor were of good quality.	5	4	3	2	1
5	the instructor has related theories to practical and life-oriented examples.	5	4	3	2	1
6	The instructor has been available to me for counseling.	5	4	3	2	1
7	The instructor has covered the syllabus/materials sufficiently.	5	4	3	2	1
8	The examinations reflected the materials taught in the course.	5	4	3	2	1
9	The instructor has graded/marked the examination papers fairly.	5	4	3	2	1
10	I would recommend this instructor to other students.	5	4	3	2	1

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NEED OF A LANGUAGE POLICY IN NATIONAL EDUCATION SYSTEM OF BANGLADESH

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Abstract

The National Education Policy 2010 of Bangladesh has concentrated on English language teaching in primary to tertiary level education. However, it does not clarify which language should be the medium of instruction. There are three mediums available in Bangladeshi education systems: Bengali medium, English version, and English medium in primary, secondary, and higher secondary level of education. Besides, there are vocational education systems, and Madrasah education system. Therefore, authorities, teachers, and students use their preferable language in classroom. Bengali medium uses both Bengali and English in the ELT classroom, whereas, English version and English medium use 'only English' as the medium of instruction language. Sometimes this arbitrariness hampers learning mother language; and sometimes it hampers English language learning. Use of 'only Bengali' and 'only English' in the ELT classroom has different consequences. This paper discusses this and tends to give possible solution of the problems. It also delineates the necessity of including Language Policy in National Education Policy of Bangladesh. The researcher interviewed English language teachers of 5 Bengali and 5 English medium schools. These data were analyzed to find out why the policy makers should include language policy in National Education Policy of Bangladesh.

Keywords: Language policy, mother tongue, foreign language, and pronunciation

Introduction

Bangladesh was once a part of the British colony. The British East India Company ruled this Indian sub-continent for almost 200 years. During their reign, they forced their religion, language, and culture upon the inhabitants of the Indian sub-continent. Some people learnt their language and started to get very prestigious jobs for earning. Since then, English has become a priority language in South Asian region. As the British were able to establish their colonies almost all over the world, English has become one of the mostly used languages. Henceforth, every nation needs to learn English.

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Learning English has become a prestigious issue as well. A person who speaks English fluently gets better jobs than the other. Even if the students or anyone needs to go for higher education, they have to seat for IELTS, TOEFL, or any other English language proficiency tests.

Therefore, English language is taught at the very beginning of a child's education. Bangladesh is not an exception for this. The government of Bangladesh takes English language teaching and learning very sincerely. From class I, the students need to learn English.

Though the government wants every child to learn English, they do not have any policies or procedures of doing it. Schools and colleges have implied their own policies. Therefore, there is an imbalance in producing good speakers of English language. Bengali medium students use mainly Bengali language, English version students use both English and Bengali language, and English medium students use 'only English' in their schools. The school authorities find it very prestigious if their students speak only English. This, again, is harmful in practicing mother tongue. Language is an identity of a nation. It is related with everyone's culture. Speaking and learning in mother tongue is people's right. Bengali is the mother tongue of Bangladesh. Since Bangladeshi people have fought for their right to speak their mother tongue, they are very sensitive regarding language issue. However, this imbalance regarding the medium of instruction in every educational institution needs to be stopped. The government of Bangladesh should have language policies. This paper discusses the reason of having a section on language policy in National Education Policy of Bangladesh.

Bengali is our mother tongue or L1 or the First Language. In schools, we start to learn the grammar and diction of this language. English is a global language. We learn it for communicating internationally. Learning English helps us to progress more. Both Bengali and English are taught compulsorily in the schools. However, the education system does not have any concrete rules of using language in the educational institutions. This paper focuses on why the education policy needs a language policy in it, and how the language policy will be beneficial for the country, and the country people. This paper also discusses the arbitrary use of languages, and its drawbacks in term of education and culture.

Problem of the Study

The education system of Bangladesh maintains three mediums for studying: Bengali medium, English medium and English version. In the education policy of Bangladesh, there is no mention of which language would be the medium of instruction. Therefore, schools, colleges, and universities along with vocational institutes and Madrasahs use Bengali or English arbitrarily. There must be uniformity in terms of the medium of the instruction.

Purpose of the Study

The purpose of the study is to propose that education policy makers should include a language policy in the National Education Policy. This inclusion may save the Bengali language from any further damage. It also may find a way to restore the Adivashi languages and their glory.

Central Research Questions

1. Why does the education system need a language policy included in the national education policy?
2. What could be the possible clauses added in the policy?

Literature Review

Education System in Bangladesh

The National Education Policy 2010 discusses a lot of education system in Bangladesh. However, it does not reveal which language they should use as a medium of instruction. Therefore, the schools, colleges, universities and madrasahs use Bengali and English languages as the medium of instructions. Bengali medium schools (BMSs) use Bengali for instruction while English versions and English medium schools (EMSs) use English as medium of instruction. Generally, in English language and literature classes, the language should be English in Bengali medium schools but Bengali is frequently used in the classroom. Contrarily, English medium schools do not teach Bengali with importance. Therefore, students do not learn Bengali language properly. Fatema, K. (2019) has drawn a timeline of the medium of instruction in the classroom as,

"1.1972: Bengali to be the medium of instruction in all schools (with no mention of English)
2. 1974: English to be introduced in year 6 and continue till year 12.
3. 1976: English to be introduced from year 3.
4. 1986: English to be introduced from year 1.
5. 1994: English to be re-introduced in BA (pass) courses in colleges.
6. 1996: English to be re-introduced in University undergraduate classes and so on."

Use of Languages in School of Bangladesh

Language learning does not always mean learning the grammar. It also relates with the literature and culture of a country. English medium schools prefer in teaching English literary pieces rather than Bengali literature. According to Haque and Akhter (2014),

> The British Council provides syllabi for O-level and A-level exams, that is, for standards/classes IX-XII; it does not provide any kind of syllabi whatsoever for any of the other standards/classes—pre and primary school. The EMSs can teach whatever they desire up to standard/class VIII. (p. 100)

According to the home page of Scholastica's website, they teach Bengali as a compulsory course from Class I to Class VIII. However, the students are not allowed to use Bengali in the school premises other than their Bengali class. Now, the question is if that 30-45 minutes class once/twice per week is sufficient to improve Bengali up to intermediate level. According to Cambridge O-Level Curriculum (2015), students take 'Bengali 3204' as a compulsory course for their O-Level Examinations. However, Bengali is not a compulsory paper for A-level students. On the other side, in the primary level of BMS, the quality of teaching English is not satisfactory. Hossain, Nessa & Kafi (2015) said that the teachers of primary levels are not competent to teach English properly. Some of them lack proper training; some of them are not proficient in speaking English. Thus, they use Bengali in English class frequently.

Language and Cultural Implications

Hassan (2011) said in her article that 'Banglish' is now a popular trend among the school and college goers now-a-days. This observation should be made by the government and education policy makers as well. This is a cultural degradation of the mother tongue of Bangladesh.

In addition, the English medium schools and some private universities of Bangladesh implemented 'only English' or 'no Bengali' policy in their institutions. As a result, the language teaching and learning process becomes hazardous for the students as well as for the teachers. According to Salim,

> The university administrations' expectation of producing smart English-speaking graduate has inspired the faculty to conduct English-Only classes excluding Bengali. The students who have not heard much English spoken in their schools and colleges have now been in a class where almost no Bengali is allowed. (2014:98)

Mother Tongue and Aboriginal Language Policy

Bengali is the mother tongue of all the Bangladeshis but not of the tribes. Each tribe has their own language and culture. It is important that the government preserves these languages and cultures. For many years, the scholars and the researchers are sincerely discussing about the extinction of tribal languages in Bangladesh. Tribal children study in Bengali at school, and acquire English, though both of these languages are second languages to them. According to Durinnan (2007), after the language movement of 1952 and the liberation war of 1971, the authority has forgotten about the language right of the tribes. There are many tribes living in

Bangladesh. If Bengali children have the right to study in their mother tongues, then the indigenous people should also have the advantage of studying in their own languages. Government should also have language policies to teach these aboriginal children in their mother tongue, and there should be a detailed description on language education for indigenous people.

Methodology

The researcher has intended to find out that if National Education Policy needs a section on language policy in it or not. Therefore, she interviewed English language teachers from Bengali and English medium schools. She also has provided questionnaires (Appendix A) to 100 students of five Bengali and five English medium schools to know which language they prefer to use in school. It is qualitative research. The researcher has collected the data for this research. The research instruments are:

1. Questionnaire (Appendix A): Among 100 students, 52 students were from Bengali medium schools located in Sonargaon Upazila. All the five English medium schools are situated in Dhaka. The questionnaire was consisted of both open and close ended questions.
2. Formal Interviews (Appendix B): The researcher intended to interview 100 teachers but she was able to interview 70 language teachers from different Bengali and English medium schools located in Dhaka and Sonargaon. Among Five Bengali medium schools, Four Bengali medium schools are located in Sonargaon Upazilla. The 52 students were basically the 1st semester students of Hamdard University Bangladesh. They were just enrolled in the different departments of the University. They were interviewed to find out the medium of instruction in rural schools as all the students are from rural areas.
3. Informal Interviews (Appendix C): Two members from Chakma tribes were informally interviewed by the researcher.
4. Books, journals and website: Data were also collected from books, journals and websites.

Limitations

It was difficult to interview the language teachers during their working time. The researcher had to wait for their classes to finish. It was time-consuming as the researcher also had her own job. Some teachers were not very cooperative.

Findings

The National Education Policy 2010 describes all the systems of education existing in Bangladesh. It discusses what quality education is, what should be the teacher-student ratio

should be, and how the students should be taught. It also mentions examination methods, syllabus and curriculum, and all other related things to education. However, it does not elaborate what language should be used in all classes. Policy is important to discipline education system. Language education policy is important to control culture and language imperialism as well as to save the aboriginal language and literature. The reasons for demanding a language policy in National Education Policy follows:

For Classroom Instructions

In the literature review section, the researcher said that the teachers use language arbitrarily in the classroom. 30 teachers from some EMS said that school authority imposed a rule to use 'only English' in the school premises. The authority does not care if the students understand the lesson in the classroom or not. 40 Teachers from BMS said that they are allowed to use Bengali in English language classes in primary level. However, they avoid using Bengali in English classes from secondary level. There is no hard and first rule of the medium of instruction. Both Bengali and English are used in Bengali medium schools (BMSs). They have a belief that in this way, students learn the lesson, and later, they can produce English by themselves.

However, this is the scenario of urban area schools. The medium of instruction system in rural area schools, mostly in government primary schools, is primarily in Bengali. They use regional Bengali dialects for instruction. Therefore, the students have pronunciation problems even after they complete their board examinations. They regularly use Bengali for instructions; therefore, the students prefer to speak in Bengali only. They are very shy to speak in English. The researcher interviewed 52 students of English Department of Hamdard University Bangladesh just to know about the medium of instruction while they were in schools and colleges. The students are from government schools and colleges located in Sonargaon, Comilla, Laxmipur, Noakhali, Feni, Narayanganj mostly. According to them, their classroom instructions are given by the teachers in Bengali. Some of the teachers even used regional Bengali instead of the standard Bengali language. As a result, their pronunciation of Bengali as well as English is poor.

For Producing Correct Pronunciation

It is important for the teachers to use standard pronunciation in the classroom. No matter what the medium of instruction may be, a teacher should teach the students correct pronunciation. Among 52 students of BMSs, 49 students were from Comilla, Noakhali, and Laxmipur regions (Appendix A). As they were not corrected by their teachers during their school and college educations, they mispronounce English words, and sometimes, Bengali words.

Table 1 shows the use of regional pronunciation of the students of Hamdard University Bangladesh.

Table 1. Pronunciation of Different Regions

Region	Bengali Word	Pronounced Bengali	English Word	Pronounced Word
Comilla	ভাত	বাত	Fanta	/pʌntʌ/
Noakhali Feni	পানি	হানি	Form	/fɑrɑm/
Laxmipur	পানি	ফানি	Paris	/færiʃ/

Certainly, regional verities should not be neglected. Furthermore, they can be used informally, for example, people can talk in their regional verities with their friends and family. However, during formal education, standard Bengali should be used in classroom, and English words should be pronounced correctly. Hence, there should a policy for the use of language for education purpose.

For Preservation of Tribal Languages

The country fought for her mother tongue in 1952 because she realized that the mother tongue was at stake. It was a language of a nation. It was a movement which made people realized that mother tongue cannot be neglected. Contrarily, the issue of aboriginal languages has not given much attention. Aboriginal languages are the mother tongues of tribal people. Indigenous people should not be forced to learn Bengali and English only. There should be proper teaching and learning methods for the aboriginal students as well. While collecting data from some aboriginal people, the researcher has found out that the aboriginal languages are used orally in the community. Devjanee Chakma said, "We talk in Chakma at home but do reading and writing part either in Bengali or in English. I cannot read and write in Chakma. Most of the Chakma families are facing this situation (Appendix C)." The tribal or Adivasi children learn their mother tongue orally; therefore, they only have speaking and listening skills in their mother tongue. Some Adivasi children who were fortunate to born and brought up in the city, outside their own community, they learn their mother tongue orally. As the state language is Bengali and every administrative work is done in Bengali, they rarely get a chance to learn reading and writing of their own mother tongue. As a result, they do not have the reading and writing skill in their mother tongue. This is one of the reasons that the Adivasi children and community wanted to be educated in mother tongues at the primary level of education system. The government started to publish NCTB textbooks in different indigenous languages from 2017 (Dhar, B., Manik, N., Das, S. B., 2019). They found out that as the indigenous people are able to study in their mother tongue, the rate of drop outs has been decreased. However, the problems the primary level schools are facing now is they do not have trained teachers in the indigenous languages yet. Dhar, *et. el*. (2019) said, "This is also the case in the Chitrarata Chakma

Government Primary High School is Ghonapara in Ruma Upazila. According to Assistant teacher Uksing Marma, "We have the textbooks we need, but we can only teach Marma- we don't have any Chakma or Tripura teachers even, let alone teachers who can teach in any of the other languages."

Therefore, the government and the education policy makers should produce a language policy. It is obvious that a student understand any lesson in their mother tongue better than the second language. Therefore, the Adivashi children may have given a chance to learn all the subjects in their mother language up to a certain level.

Meanwhile, they also learn and acquire Bengali and English as their second language. Terry Durnnian (2007), a researcher of Save the Children, proposed a Mother tongue-based a Multilingual Education (MLE). He suggested that MLE would increase enrollment and completion of primary level education. Hence, the government should take initiative to add a section on language policy in the education policy.

Saving Language from Cultural Influence

According to Haque & Tahmina (2014), English language has been privileged in EMS more than the mother tongue. English environment has strictly been followed in the school premises. Furthermore, Bengali is taught only up to Ordinary Level. As a result, the students of EMS lose their interest in Bengali language and literature. 24 teachers (that is, 80%) of 30 teachers of EMS said that the English medium students are losing their interest from Bengali language (Appendix B). Most of the English medium students prefer English songs, English fictions, English TV programs and movies rather than Bengali ones. Thus, it is essential to increase their interest in Bengali literature as well. On the other side, 40 teachers (that is, 100%) of BMS expressed their point of view that their students are interested both in Bengali and English literature. However, some of the students are shy to speak English. They are concerned of themselves that if they utter wrong English, others may laugh at them.

Conclusion and Recommendation

Language policy is important not only for education systems; it is also needed for media and broadcasting sectors as well. Without this language policy, people are using languages arbitrarily. The linguists of Bangladesh are working on this policy for a long time. However, there is not outcome of it yet. The paper is a very small work in this purpose. However, the reasons of wanting a language policy are valid and justifiable. After finding the reasons for the importance of a language policy in National Education Policy in Bangladesh, there are some proposed clauses that may be added in the language policy.

i. Standard Bengali language must be used for the medium of instruction in all classes of BMS, madrasah, and vocational institutions except for English classes.

ii. English medium schools must study Bengali language from elementary classes to Advanced level. They may have 'only English' environment, but Bengali must be compulsory for all the Bangladeshi students. Students must be encouraged to read and write in Bengali.

iii. For Adivashi students, their mother tongue must be used up to at least primary level. Furthermore, they must learn Bengali and English as the second language as well. With the funding provided by the UNDP, Hill Tracts NGO Forum (HTNF), Jum Aesthetics Council (JAC), Kapaeeng and Care-Bangladesh did a survey in 2005, where they recommended that the indigenous students will learn the best if the education is provided in their mother tongue. Following that, since 2017, the government has taken initiative to publish the textbooks in the indigenous languages, now they have to ensure trained teachers in the respective fields and places. It is suggested that there 54 groups of indigenous people living in Bangladesh (Murmu, 2019). "According to Justice Habibur Rahman, indigenous peoples speak 37 languages (Bangladesher Nanan Bhasa, 2014) aside from Bangla" (Cited in Murmu 2019).

iv. In rural indigenous schools, teachers must not use dialects or Bengali varieties in the classroom.

v. The medium of instruction in university level must be in English. Only teachers will be allowed to use the mother tongue, if applicable. Though, Bengali is the mother tongue and state language in Bangladesh, it cannot be denied that English is a global language. We need to learn the language for educational and economic purposes.

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Appendix A

This is a short profile of the students of English Department of Hamdard University Bangladesh. They were just enrolled in different department of the University. These are the primary questions. The interview session has few other questions related to the responses for the interviewee.

Number of Students : 52

Male : 22

Female : 30

Educational Institution : All are from Govt. colleges & Madrasahs, except one female student was a student of Motijheel Ideal School & College, and one male student was once a student of Jagannath College but dropped out.

Home Town : Among 52, 30 students are local students. Rest 22 students are from Comilla, Noakhali, Feni, and Laxmipur.

Demographic statistics of the students from Dhaka:

Number of Students : 48

Educational Institution : One BMS and Five EMSs

Interview Questions for the Students

1. What is the name of the school/college?
2. Where does it located?
3. What is the medium of the school?
4. Do the teachers use standard Bengali in the classroom?
5. Do the English language teachers in your schools, colleges and madrasahs have given lecture in English?
6. Do you always understand English in the classroom?
7. Is there any indigenous student in your classroom?
8. Is there any teacher who belongs to the group of indigenous people?

Appendix B

Interview Questions for English Teachers

The questions have been prepared to collect data from the English language teachers. The teacher will provide information on Education and language policy in Bangladesh. Their opinion is important to know if they need any language policy for teaching and learning purpose.

1. Institution:

2. Category of Institution: English medium/ English Version/ Bengali medium

3. Which level of classes are you teaching?

- ☐ Pre-primary level
- ☐ Primary level
- ☐ Secondary level
- ☐ Higher secondary level
- ☐ Other…

4. What is the medium of instruction in your school/college/madrasah?

   ☐ Only Bengali

   ☐ Only English

   ☐ Both

5. What language do you use for instruction in your class?

   ☐ Only Bengali

   ☐ Only English

   ☐ Both

6. If you use 'only Bengali' in your class, why do you do that?

7. If you use 'only English' in your class, what's the reason and outcome of it?

8. If you use 'both Bengali and English' in your class, why do you do that?

9. Do you think National Education Policy should include a language policy section in it?

10. What is the reason behind your answer?

Appendix C

This is an informal interview taken from two Chakma friends. The interview questions were:

1. Which language you consider as your mother tongue: Bengali or Chakmese?

2. What are the skills you have in your mother tongue?

3. Is there any alphabet and literature existed in your language in present status quo?

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CAUSES AND POTENTIAL SOLUTIONS TO ENGLISH SPEAKING PHOBIA OF STUDENTS AT HAMDARD UNIVERSITY BANGLADESH

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Abstract

Speaking is the way to use language to communicate with each other. By speaking, people around the world deliver information and let other people know what the speaker talks about. Speaking is a common activity in daily life, and communication through speaking contains interaction in between speaker and listener. Speaking is the product of the creative contraction of linguistic strings; the speaker makes choices of the lexicon, structure, and discourse. In Bangladesh, English is used as the medium of instruction for undergraduate, and graduate levels. Students are bound to learn and communicate in English. When learning a language, speaking phobia is considered one of the most challenging issues in teaching-learning process. In educational institutions, students frequently manifest speaking phobia when learning or using English either as their second language or as a foreign language. Different reasons may cause speaking disruptions which may affect each individual student variously. The level or intensity of speaking phobia may be caused by different internal and external factors. This paper finds out and highlights the various factors that lead to speaking phobia of students of Hamdard University Bangladesh who belong to different departments. It also sheds light on the measures taken by them to overcome their speaking phobia. This paper also proposes some feasible ways in general to encounter the challenges of speaking English based on the findings.

Keywords: Communication, Second Language Learning, Speech Anxiety, Public Speaking, Stress, and Low Efficiency

Introduction

Speaking Phobia leads to situations where students experience emotions like dizziness, rapid heartbeat, fear, anxiety, nausea, shortness of breath, and excessive sweating if they feel the focus of attention when addressing any audience. It is commonly seen that they usually try to avoid situations where they have to perform or speak in front of an audience but if not avoidable, such situations lead to intolerable anxiety.

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"Many people who converse easily in all kinds of everyday situations become frightened at the idea of standing up before a group to make a speech" (Lucas, 2011, p. 9).

A phobia is defined as an unpleasant feeling of dread or terror brought on by an impending threat. Anxiety disorders are the most common mental problems seen by foreign or second language speakers. "Anxiety disorders are among the most common mental disorders encountered by public speakers" (Kirkwood and Melton, 2002, p. 17). People who experience anxiety about speaking in public seek to avoid circumstances in which they must perform but they experience severe distress and worry when they do it.

"People in general negatively assess and appraise those who demonstrate their fears towards public speaking and fail to make a strong impression" (Kant, 2000, p. 4). These issues can act as roadblocks to reaching one's personal and professional goals; as a result, speakers must build good public speaking abilities to gain confidence.

English has come a long way gaining a global reputation despite its high level of originality and obstacles. Because, it is the language of all academic and professional disciplines, English has become the exclusive reflection of all recent growth and development. English serves as a worldwide connecting language. English is the medium of instruction in the undergraduate and graduate programs in Bangladesh. Students need to understand and use English to achieve academic excellence as well. The students are seen to develop a phobia in case of Speaking English in front of the audience.

The focus of this research is to discover and explore the reasons for students' English speaking phobia at Hamdard University Bangladesh, and thus to provide strategies for overcoming their uneasiness. The reasons for students' fear of speaking English, as well as their problems are discussed in this study. It contains a full overview of the research's findings and results.

Research Questions

1. To what extent do undergraduate students at Hamdard University Bangladesh have a phobia of speaking English?
2. What causes are accountable for the unease of speaking English of the students of Hamdard University Bangladesh?
3. What are some viable strategies for the students of Hamdard University Bangladesh to overcome their fear of speaking English?

Review of Literature

"Public speaking, a sustained formal presentation by a speaker to an audience, is simply one form of human communication. So learning to be an effective public speaker will help you to be more effective in other communication settings as well" (Verderber, Sellnow and Verderber, 2011, p.2). The factors which cause phobia while speaking English are very common, particularly among people who use English as their second or official language. Many research has been administered to analyze these factors. "Nearly 90% of people reported feel shy or uncomfortable speaking in front of others at some time in their lives" (McCains', 2012, p. 1). During L1 and L2 learning process, comprehension apprehension (CA) can affect learners. It is directly associated with the usage of language (Horwitz, 2001).

When students are exposed to several negative experiences in a foreign language context, language anxiety can occur which is acclaimed in a different study. Learners may get discouraged when they suffer from stress. Because of this, they grow a tendency to escape from taking part in classroom activities, lose faith in their abilities and even give up the effort to learn English language well. "Anxiety is a very complicated experience that needs to be perceived as a combination of feelings, state of emotions and personality traits" (Scovel, 1978, as cited in Rajitha K & C. Alamelu , 2019, P. 2).

Horwitz, Horwitz & Cope divided second language phobia into three segments, those are;

1. Learners' inability to express mature thoughts and ideas is caused by communication apprehension.
2. Learner's demand for a positive social impression on others that creates reverse social appraisal.
3. Academic evaluation and apprehension caused by test perturbation (Horwitz, Horwitz & Cope, 1986).

Most language learners have the challenge not only in speaking but also in listening to understand messages from others in communication foreboding. Previous studies had an obvious focus on language skills, particularly in the case of speaking a foreign language (Horwitz et al., 1986). It also focuses on the fear related to other language skills such as reading, listening, and writing that have only recently created the interest of researchers. The Speaking phobia could be seen clearly at the time the students performed their speech maybe it is because of this reason. There are other variables that make learners discomposure to learning a language. The main cause of anxiety stems from "learners' unrealistic beliefs about language learning" (Zhang and Zhong, 2012, P. 27). "Large audience often seems more intimidating than smaller ones" (Gamston and Wellman, 1992, p. 35). Others believe they lack the ability or gift required to learn a new language (Horwitz, 1988). Without estimating the challenge of the language learning task, and therefore, they could probably experience conflict resulting in fear.

Speaking anxiety and speaking performance was conducted by him on 125 junior military college EFL students and found that "Anxious students tended to recall less content of the text than less anxious students" (Hsu, 2004, as cited in Sutarsyah, C., 2017, P. 3). Likewise, some researchers also investigated the fact of 89 Spanish foreign language university students to show the possible relationship between language apprehensions to speaking performance. The result disclosed that "speaking anxiety was related to, but distinguished from, language anxiety. The students with high speaking anxiety and language anxiety could recall less content of the article." (Sellers, 2000, as cited in Sutarsyah, C., 2017, P. 3). Speaking phobia was related to but disintegrated from language anxiety. Students could remember less content of grammar and vocabulary than those who have high speaking anxiety and language anxiety. This is what the researcher anticipated by considering that anxiety is a negative factor rather than a positive which is likely to be the outcome of the research. Because of specific reasons, students' performance may be affected under this condition when they suffer from stress. "During L1 and L2 learning process, comprehension apprehension (CA) can affect learners. It is directly associated with the usage of language" (Horwitz, 2001, as cited in Rajitha K & C. Alamelu, 2019, P. 3). It is directly annexed with the usage of language in a second language learning environment. Many other outside sources are also involved in language phobia, apart from the student-connected factors. i.e., Learners' unreliable personality and individual attention, and not having enough support from teachers. Various reasons such as not having interested activities, improper teaching style, lack of cooperation, highly challenging and conditioned classroom atmosphere, time management reasons, and irrelevant content of teaching may increase the anxiety level of the students. Communication and interaction are inter-linked and learners of a second language user get under the nerve due to fear of peer evaluation which is caused only because of lack of confidence (Zia & Norrihan, 2015; Mcrosky, 2015, pp. 239-249). In the case of language speaking, the impact of shyness can be explained in many possible ways. Liu and Jackson revealed the fact that the failure of 547 Chinese ESL university students extrapolate because they encounter speech anxiety caused by peer evaluation fear and classroom behavioral issues as they are supposed to assess themselves in a negative way (Liu and Jackson's research, 2008). Many researchers have explored the fact that learners who lack motivation and confidence are always in retrograded position in comparison with the students having a high level of motivation and self-confidence (Krashen, 2002; Viswat and Jackson, 1993).

"Anxiety (also called angst or worry) is a psychological and physiological state characterized by somatic, emotional, cognitive, and behavioral components" (Seligman, 2001, P. 11). It can be identified as a displeasing feeling of worry and fear. Anxiety is either presence or absence of psychological stress and it can create feelings of fear, worry, uneasiness, and dread. It appears intimidating and can overcome an individual which is more of a dreaded feeling about something. Anxiety can be considered a normal feeling during speaking notably when a speaker speaks in a foreign language. As a result of this, an individual can act upon the demand of the

situation by prompting them to cope with it. However, it may fall under the categorization of an anxiety disorder when anxiety becomes overwhelming.

Along with Seligman's explanation, Spielberg previously defined phobia as pressure, nervousness, subjective feelings, apprehension, and worry which lead to activation or arousal of the autonomic nervous system. Individuals will surely undergo different levels of stress depending on their situation since it is a subjective feeling of nervousness and worry (Spielberg, 1983).

Moreover, the study on Speech articulation discloses that learners who have spoken phobia in a second language environment become conscious of the matter of self-judgment and engage themselves in activities helped them to apprehend their strengths, and weaknesses and help them to untie the knot to enhance their public speaking performance (Anandari, 2015, pp. 1-16).

Research Methodology

For the investigation, the researcher gathered both qualitative and quantitative data from students enrolled in undergraduate and graduate programs of Hamdard University Bangladesh. Data was gathered to analyze and describe the factors causing speaking anxiety during the English speaking class, as well as to identify the dominant factors of speaking anxiety. The information for this study was gathered through an open-ended questionnaire from 100 undergraduate and graduate students from various disciplines. The information is gathered through the use of a survey questionnaire and observation of various classes.

The materials used in this study are student questionnaires. In addition, the researcher conducted extensive observations of Hamdard University Bangladesh students over more than six months. The students were chosen at random from various departments at Hamdard University Bangladesh.

There are four types of questions in the students' questionnaires: factual, behavioral, attitudinal, and pedagogical.

a) Factual questions designed to elicit demographic information from participants (such as age, residential location, socioeconomic status, and so on).

b) Behavioral questions are used to elicit information about their lifestyle, habits, and personal history, among other things.

c) Attitudinal questions were used to ascertain the participants' perceptions, ideas, and beliefs about the research topic.

d) Pedagogical questions that have been used to discover various study-related and academic factors.

Sampling

Sampling reflects the people from whom data is collected, and it is closely related to teachers and students at respective institutions. The research was carried out by gathering data from 100 students from various disciplines at Hamdard University Bangladesh. Respondents are chosen based on their age, gender, academic performance, and family background. The sample size is medium, but adequate for the study. Simultaneously, the factors of time, cost, and administration were considered.

Participants

The term "participants" refers to those who took part in the research. Participants were chosen at random from various disciplines at Hamdard University Bangladesh. The participants varied in terms of class, age, and gender. The total number of participants, however, was 100. The majority of the participants were acquainted with the researcher. As a result, they have tried their hardest to help the researcher to the best of their ability by providing solid information in the case of conducting the research.

Data Collection Procedure

Effective data collection procedures are the only way to improve the reliability of research. Data was gathered using a variety of methods, including questionnaires, observations, and discussions. The researcher confidently administered the questionnaire to the student. The researcher's goal and the significance of data collection were clearly explained to the participant so that they would engage in the interaction and give their consent. The researcher attempted to clearly state his objective and purpose with a friendly introduction. Some students were nervous, while others were shy. However, the researcher was able to control the environment and create a pleasant atmosphere. A high level of ethics was maintained both during and after data collection for the study. Participants were given a piece of paper promising that their names and data would be kept completely confidential. The instruments and technical procedure greatly aided the researcher in gathering the expected data.

Data Analysis Procedure

Data collected through different methods were further analyzed through different data analysis procedures. After collecting data from the students, they were checked, verified, clean, and finally edited. A qualitative data collection procedure was used to analyze and interpret data. Graphs, charts, etc. were used as means of graphic description of the findings. The consent of the students is explained sincerely. Data were analyzed and interpreted in terms of the central research question and objectives.

Data Analysis

Q1. Does your discipline require you to speak in English?

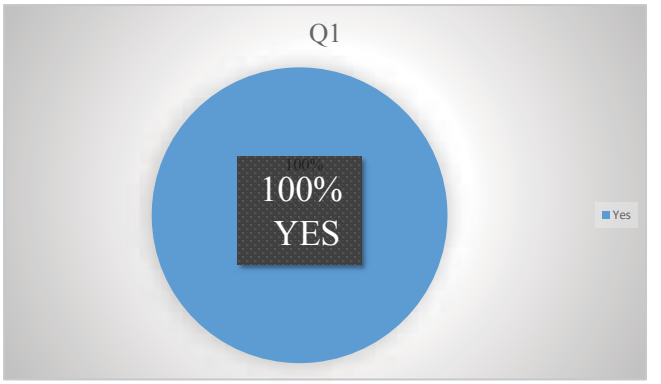


Fig.1: Discipline that requires speaking English

All the participants from different departments did agree with the fact that they require speaking English more or less. The academic design along with the encountering of practical situations put them in a condition to speak in English.

Q2. Do you feel any kind of fear or pressure in case of speaking English?

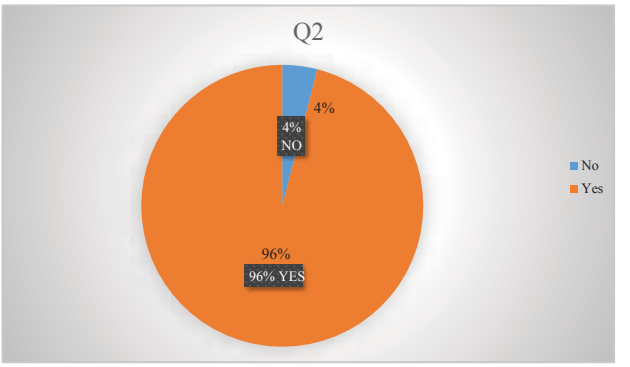


Fig.2: Feeling pressure in case of speaking English

Ninety-six percent of students of Hamdard University Bangladesh assert the fact that they feel fear or pressure in case of speaking English. Only four percent are found confident in the arena of public speaking and overall speaking condition. Both sides put forward some reasons for this situation.

The participants who answered yes to the mentioned question; (Q: 2) did agree with some points that cause their speaking nervousness. The reasons are shown with the help of bar graphs.

A. Please give a tick on the following factors which you feel when speaking in English. (Tick as many as you like)

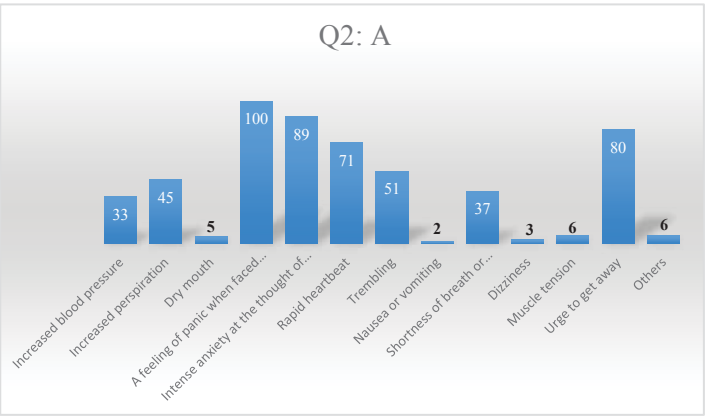


Fig.3: Factors that are felt during speaking

Fig. A: shows different negative factors which work among students during speaking English and at the face of speaking English. Among the students those who are under pressure in case speaking English; encounter or feel different negative variables. Hundred percent of them panicked at the time of speaking while Eighty-Nine percent are having intense anxiety at the thought of speaking in front of a group. Besides, the urge to get away, rapid heartbeat, increased perspiration, etc. are some major elements along with other minor variants that cause fear among learners during speaking English which has been shown in the above bar graph.

B. Please give a tick on the following factors which cause your anxiety when speaking in English. (Tick as many as you like)

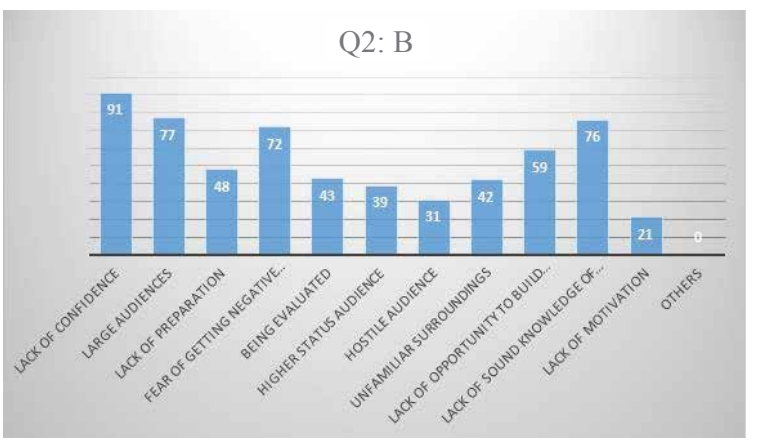


Fig.4: Factors that cause English speaking anxiety

Fig. B: displays specific factors that cause anxiety among learners during speaking English. Lack of confidence is the major reason which is responsible for Ninety-one percent of the respondents' speaking phobia. Alongside, a large audience, lack of sound knowledge of English, and fear of getting negative comments are some influential reasons for learners to suffer from anxiety during the speaking. Moreover, some other reasonable reasons have been displayed in the above figure.

C. Please give a tick on the following factors which may reduce your anxiety when speaking in English. (Tick as many as you like)

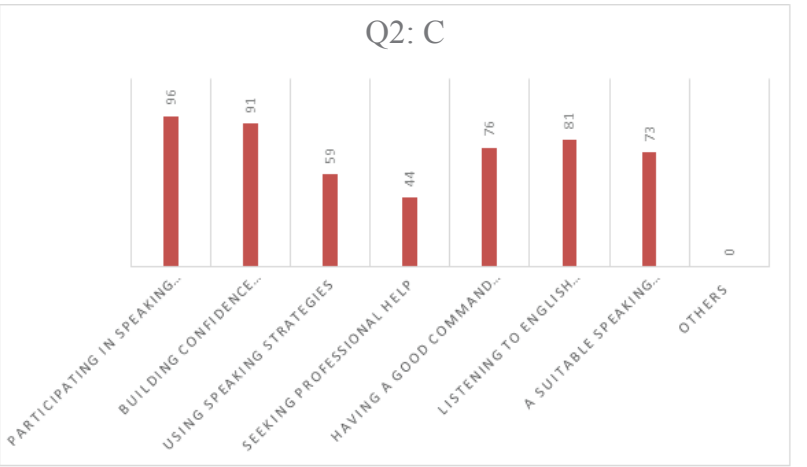


Fig.5: Factors that may reduce the speaking phobia

Fig. C: indicates some factors and possible solutions for learners to reduce speech anxiety in English. Ninety-Six percent of the respondents agreed with the fact that participating in speaking activities can enhance their English speaking ability. Also, building confidence with frequent practice and, having a good command of the English language, a suitable speaking environment can play a massive role in case of improving their fluency in English. Some other factors have been displayed in the above figure which are potential ways to reduce speech anxiety among learners of Hamdard University Bangladesh.

The participant who said 'no' to question number two has written the ways of overcoming the fear of speaking English. Though their number is not that healthy, yet an important milestone to make a pathway toward removing the fear of speaking in English. The steps are following:

- Continuous practice with friends and wherever they get opportunities

- Improving knowledge of the English Language
- Building confidence by means of speaking in a group and publicly
- Watching YouTube and listening to a different speaking activities
- Attending English speaking course/program
- Watching English movies

Findings

Findings under Research Question One

Analyzing the feedback of the learners of Hamdard University Bangladesh, it is found that they nourish negative reflexes at the time of speaking English. Most of them are always under pressure and suffer from different negative feelings. Their anxiety level is so high that deters them from speaking English. Encountering high blood pressure, increased perspiration, dry mouth, being panicked, intense anxiety, rapid heartbeat, trembling, hyperventilating, dizziness, muscle tension, urge to get away, etc. are some negation that creates apathy towards speaking English.

Findings under Research Question Two

a. **Inadequate English proficiency:**
Limited proficiency in English was identified as a significant barrier to students conversing in English in class in the current study. As a direct consequence, students may feel uncomfortable in speaking English, believing that their English is poor, and others are better than them.

b. **Lack of familiarity with the task:**
The term familiar refers to those that are well-known, frequently seen or heard, knowledgeable, or close to someone. Students' active participation in classroom activities was highly dependent on their level of interest. In short, students will speak up about a topic if they are interested, well-known, frequently seen or heard, have a good knowledge of it, or are even close or friendly to it.

c. **Lack of self-reliance:**
Confidence entails having strong beliefs, firm trust, or certain expectations, feeling certain, fully assured, not failing, and so on. Some students may have excellent pronunciation and proficiency levels, but they still prefer to be cautious due to a lack of courage.

d. **Concern about making mistakes:**
Students were fearful of losing face in an oral language class. Students remained silent and waited until they were required to speak English because they were afraid of making mistakes and felt embarrassed.

e. **Incomprehensible inputs:**
Language input is provided by the teacher, listening tasks, reading passages, and what is heard and read outside of class. It provides learners with the resources they need to start producing language on their own.

f. **Absence of suitable English speaking environment:**
The majority of the students are hesitant to speak in English. They rarely found themselves speaking in English if they did not attend the class presentation. There is no English speaking club, debate club, public speaking contest, or events that might encourage students to speak English. Learners feel shy when they attempt to speak in English, and they are never found speaking in English when they spend their free time on campus.

g. **Lack of motivation:**
In most cases, the pupils of Hamdard University Bangladesh are not self-motivated. They don't feel the urgency of speaking in English. Some of them attend the university only to earn a degree without giving much importance to the speaking sector. Some are found with no speaking aim for future career development. As a result, they are lagging behind to gain a certain level of fluency in English.

h. **Social stratification & area of living:**
According to the student demographics, the majority of Hamdard University Bangladesh students are from Gazaria, Daudkandi, and Shonargaon, and the majority of them come from middle-class families with low educational levels. They do not live in an enriched environment conducive to achieving fluency in English.

Findings under Research Question Three

1. Frequent speaking practice with friends, teachers, and others whenever they have the chance.
2. Enhancing one's command of the English language.
3. The instructor should assist students in understanding that being stressed is normal.
4. Better preparation and understanding of the topic reduces the risk of making a mistake or going off track during public speaking.
5. There is nothing to be afraid of in a moment of silence. If speakers lose track of what they are saying or become nervous, the audience is unlikely to mind a brief pause to reflect on what the speakers have said.
6. Rehearsing before any contest or event can help a lot.
7. Practicing with a small group of people is helpful.

8. During practice sessions, speakers should solicit feedback from the audience or ask someone to record the presentation. Viewing it multiple times for self-criticism also aids in the learning and improvement process.
9. Better preparation also allows speakers to recover faster if they get off track or confused.
10. The speakers should anticipate audience responses and questions that may arise during practice so that they can provide confident responses.
11. It is critical to focus on the material rather than the audience because people are primarily interested in the information being presented.
12. The speakers' success should be recognized and acknowledged. It may not have been perfect, but the speakers are likely to be far more critical of themselves than the audience.
13. Students would benefit from participating in an active public speaking forum. Once they develop the habit of exploring themselves comfortably in an unfamiliar environment while speaking in public, the anxiety will naturally decrease, putting the speakers at ease.
14. Participating in an authorized English-language course/program.

Conclusion

This study was conducted to determine how anxious students avoid speaking and offer solid evidence that this fear is widespread among people, particularly among university students. To validate the study and build upon what has already been done, the literature was reviewed to shed light on previous research in the same area. To summarize, the research shows that the English-speaking anxiety is a learned skill that can be overcome by practicing and rehearsing before presentations or speeches and persons with public speaking anxiety can perform well along with those who have a strong grasp of the subject. By following the practically identified solutions prescribed in this paper, anxiety might be replaced with confidence and learners may graft excellence to their speaking ability.

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Appendix:

Demographics

Name:
Age:
Educational Qualification:
Discipline:
Gender:
Area of living:
Favorite Pastime:

Questionnaire

A. Does your discipline require you to speak in English?

a. Yes
b. No

B. Do you feel any kind of fear or pressure in case of speaking English?

a. Yes
b. No

If yes, answer the following questions:

1. Please give a tick on the following factors which you feel when speaking in English.

   (Tick as many matches)

   - Increased blood pressure.
   - Increased perspiration.
   - Dry mouth.
   - A feeling of panic when faced with having to speak in English.
   - Intense anxiety at the thought of speaking in front of a group.
   - Rapid heartbeat.
   - Trembling.
   - Nausea or vomiting.
   - Shortness of breath or hyperventilating.
   - Dizziness.
   - Muscle tension.
   - Urge to get away.
   - Others (_____)

2. Please give a tick on the following factors which cause your anxiety when speaking in English.

   (Tick as many matches)

   - Lack of confidence.
   - Large audiences.
   - Lack of preparation.
   - Fear of getting negative comments.
   - Being evaluated.
   - Higher status audience.
   - Hostile audience.
   - Unfamiliar surroundings.
   - Lack of opportunity to build speaking skills.
   - Lack of sound knowledge of English.
   - Lack of motivation.
   - Others (_____)

3. Please give a tick on the following factors which may reduce your anxiety when speaking in English. (Tick as many matches)

    - Participating in speaking activities.
    - Building confidence through frequent practice
    - Using speaking strategies.
    - Seeking professional help.
    - Having a good command of English.
    - Listening to English speech.
    - A suitable speaking environment.
    - Others (_____)

If No, how did you overcome the fear or pressure in the case of speaking English?

- _____
- _____
- _____

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INFLUENCE OF FACEBOOK ON THINKING, SPEAKING, AND WRITING OF BANGALADESHI STUDENTS: A CASE STUDY

Lovna Akter *

Abstract

Facebook has become the most used social network in the world, especially to the students. Likewise, to the students of Bangladesh it has been very popular. The present case study probes the influences of Facebook interaction on the speaking and writing of the students of Bangladesh and the way of their thinking. A quantitative approach was taken as the research method and a total number of thirty students from a private university were selected as samples using the convenience sampling technique. The data showed that as students spend a moderate amount of time in Facebook interaction, there are evidences of changes in their thinking. Their way of speaking has also been affected by the frequent use of short forms of certain words and expressions. Moreover, students have started using short forms involuntarily in academic writings occasionally as they do it so frequently in Facebook interaction.

Keywords: Facebook, speaking, writing, thinking, changes

Introduction

Facebook users often use some abbreviations instead of a full sentence; they are getting used to speaking and writing in these short forms of languages, which are affecting their academic writing and also the way of speaking with their teachers. The words they use while talking to their friends, they sometime use it in front of the teachers. Facebook is one of the popular social networking sites and mainly students are attracted more to this site and interested to merge it with their own life styles. In a way, this social networking site is directly influencing the students and they are adapting it randomly.

Facebook was designed for college students and its primary users are still students (Hall, nd). The basic no-frills profile in Facebook includes the following:
A place for a profile picture.
Contact information and "About You" space.

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The Wall—a place where friends can publicly post comments for others (a digital bulletin board).
Status Update—where one can tell their friends how they are or what they are doing.
News Feed—regularly updated information about your friends—groups they have joined, applications or friends they have added, changes to their profiles, and a space for uploading photos and videos.

But Facebook, like many social network sites, is customizable and there is no end to the number of applications people can add to their Facebook account. Applications are additional tools and features- some are created by Facebook, but many more have been created by third party developers (Hall, nd.).

The research paper is basically about how Facebook interaction leaves an impact on Bangladeshi students-how their speaking and writing are affected, particularly the academic activities. It has also inferred their thinking reflected through these activities.

Background

Hall (nd) states that Facebook was created in 2004 by Harvard student Mark Zuckerberg. The website was intended to be an online version of the University's printed Facebook, a directory of new students. At that time, membership to the website was limited to Harvard students only. In a month's time, Facebook grew to include other Ivy League students as well, and within a year had over 1 million users. By the end of 2005, Facebook expanded to include, first, a network of 800 colleges and universities, then high schools, and then international students. In time for the fall semester of 2006, Facebook began accepting membership of anyone over the age of 13. According to Iqbal (2020), this social networking site currently has over 2.45 billion active users.

Siwek et al. (2017) said that Facebook has affected the social life and activity of people in various ways. With its availability on many mobile devices, Facebook allows users to continuously stay in touch with friends, relatives and other acquaintances wherever they are in the world, as long as there is access to the internet. It can also unite people with common interests and/or beliefs through groups and other pages, and has been known to reunite lost family members and friends because of the widespread reach of its network. Kim et al. (2017) argued that Facebook is beneficial to one's social life because they can continuously stay in contact with their friends and relatives, while Wilder et al. (2017) said that it can cause increased antisocial tendencies because people are not directly communicating with each other. Results of some studies and news story by The Daily Star (November 22, 2015) have named Facebook as a source of problems in relationships. It also suggested that using Facebook can lead to higher instances of divorce and infidelity, but the claims have been questioned by other commentators.

Recent studies have shown that Facebook causes negative effects on self-esteem by triggering feelings of envy, with vacation and holiday photos proving to be the largest resentment triggers. Other prevalent causes of envy include posts by friends about family happiness and images of physical beauty—such envious feelings leave people lonely and dissatisfied with their own lives (Epstein, 2006).

Although Facebook has an upside of friending people, there is also the downside of having someone unfriend or reject another person, according to psychologist Susan Krauss Whitbourne, (2006). Whitbourne refers to unfriended persons on Facebook as victims of estrangement. Unfriending someone is seldom a mutual decision and the person often does not know of being unfriended.

According to Dhaka Tribune (2020), "Facebook is the most sought-after social network among university students in Bangladesh. It allows establishing relationships with classmates, consulting each other about their courses, and accessing information from other students regarding lecture summaries and resources. Students can even apply for jobs and internships by using Facebook pages or groups."

Thus, it can be deduced that Facebook interaction might have some kinds of influence in the academic activities and thinking of the students of Bangladesh.

Research Questions

This research followed the following questions.
1. How far does Facebook interaction influence the thinking of Bangladeshi students?
2. What effect does Facebook interaction have on students' speaking?
3. How is students' writing affected by Facebook interaction?

Methodology

This research followed quantitative method. The research is based on primary data and for this, a survey was conducted on thirty students of a private university and most of them were in researcher's Facebook friend list. To get a range of useful data, convenience sampling was used which helped to answer the research questions. The charts were made using Microsoft Excel and descriptive statistical analysis was done for analyzing the data. Confidentiality was strictly maintained throughout the paper.

No. of Participant	Level of Education
30	Undergraduate program

Data Analysis and Findings

1. What do you think about Facebook interaction?
   A. It is an interaction that has no positive effect on our life
   B. This interaction has no effect on us
   C. It brings little changes in our life
   D. It is an interaction that has enormous negative effect on us

The question is intended to find out the opinion of the students about Facebook interaction whether it has any effect or not.

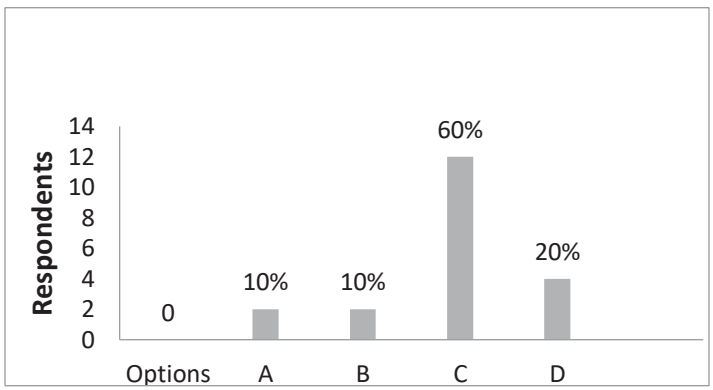


Fig. 1: Students' thinking about Facebook interaction.

The horizontal axis indicates the options that have been given for the survey. The vertical axis indicates the respondents of the answers. In the figure above, about 10% of the respondents remarked that Facebook interaction has no positive effect on their life. And almost the same number of respondents, which is 10%, chose option B that says Facebook interaction has no effect on their life. On the other hand, 60% of the respondents say that Facebook interaction has brought little changes in their life. Another 20% of the respondents think that Facebook interaction has brought enormous negative effect in their life. From this analysis the results show that Facebook interaction has brought little changes in their life.

2. How much time do you spend in Facebook interaction?
   A. 2-4 hours in a day
   B. less than 2 hours
   C. More than 6 hours
   D. only a few minutes

The objective of the question is to investigate how much time students of Bangladesh spend in Facebook interaction.

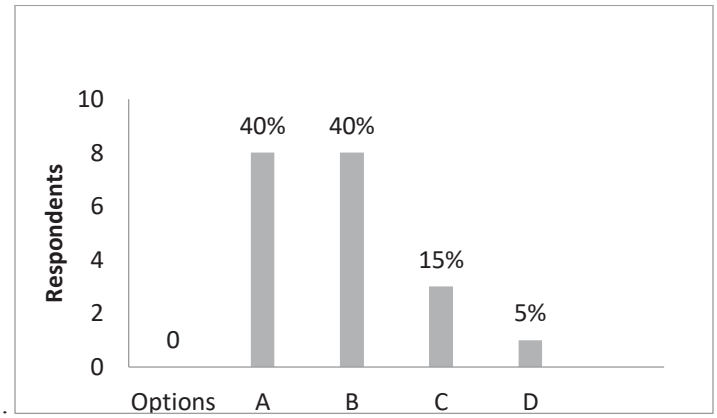


Fig. 2: Time spent in Facebook interaction.

The figure shows that 40% of the respondents use Facebook for 2-4 hours in a day. Another 40% of the respondents use Facebook less than 2 hours in a day. 15% of the respondents use Facebook more than 6 hours a day while 5% use Facebook for a few minutes. So, it can be deduced that Bangladeshi students use Facebook very frequently

3. Do you think this interaction has brought any changes in your thinking?

A. Yes, It has changed my dressing sense
B. Yes, It helped me to think in a different way
C. No, It didn't bring any changes
D. Yes, but changes are very little

As Bangladeshi students use Facebook frequently, it is important to study whether Facebook interaction has brought any changes in their thinking or not.

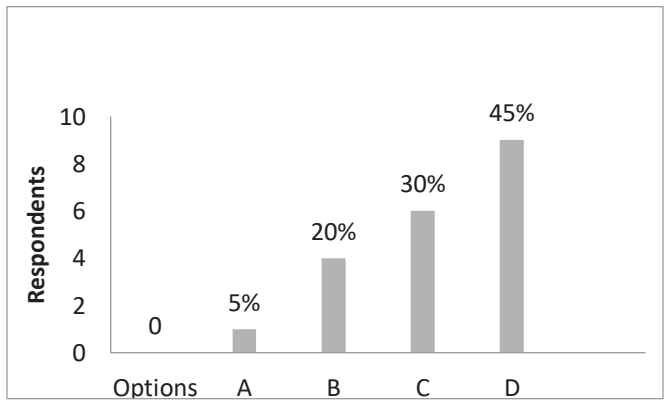


Fig. 3: Changes in speaking, thinking and writing through Facebook interaction.

The bar chart indicates that 20% of the respondents adopted option B that talks about the changes that Facebook interaction brought a difference in their thinking; but 45% think that the changes are very little. 5% of the respondents think that Facebook interaction has brought changes in their dressing sense. 30% of the respondents think that Facebook did not bring any changes in their thinking. The result shows that there have been certain changes in their way of thinking though they are not significant.

4. Does anyone's status update and comments leave any influence on your thinking?
   A. Yes, sometimes I get emotional or angry
   B. No, it doesn't make any difference
   C. Yes, it has a little influence on me
   D. Yes, it always leaves an influence

As Facebook interaction makes certain influences on the students' thinking, this question investigates what brings the effect.

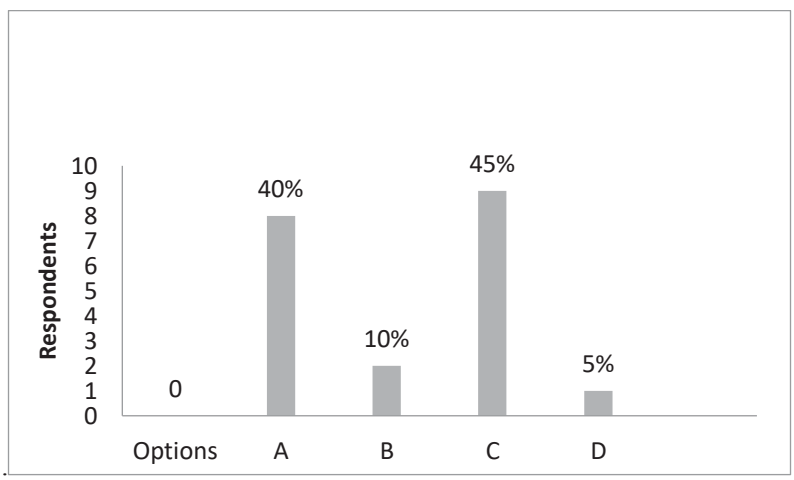


Fig. 4: Effects of updates and comments on thinking.

The data shows that 45% of the respondents agreed that status update and comments have an influence on them and on 5% it always leaves an influence. 40% admitted that sometimes they get emotional or get angry by seeing status update and comments. However, 10% of the respondents said that status and comments do not make any difference in their feelings. So, most of the students get influenced by the status update and comments posted on Facebook.

5. Do you think that Facebook interaction develops virtual empathy which actually affects someone in following ways-?

A. Improve or decline moods
B. Make teens to be more empathetic
C. Help introverts to find a way to socialize
D. Develop their self-identity.

What changes Facebook interaction has brought in the students of Bangladesh is the objective of this question.

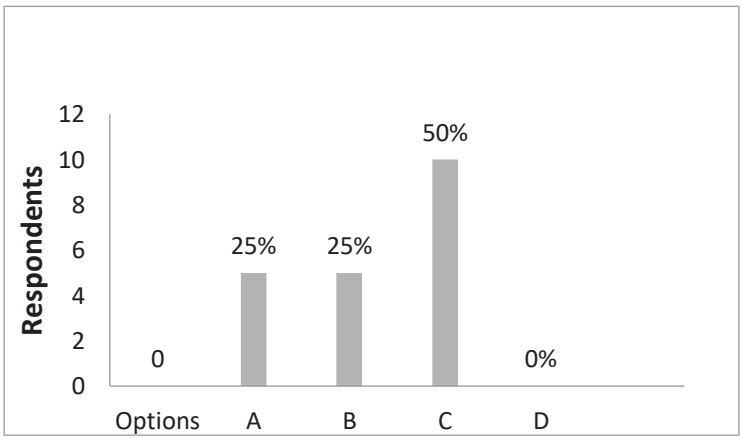


Fig. 5: Effect on virtual empathy.

50% of the respondents said that Facebook interaction helps introverts to find the way to socialize. On the other hand, 25% of the people said Facebook interaction improves or declines moods. And another 25% of the respondents think that Facebook interaction makes teenager to be more empathetic. No one said that Facebook interaction has developed their self-identity.

6. Do you also use the short form of words that you use while Facebooking in your academic writing?

A. No, I don't use short forms in writing.
B. Yes, Sometimes I write "nd" instead of "and"
C. Yes, I only use "U" instead of "YOU"
D. Yes, Both B & C are correct.

The question is to survey the influence of Facebook interaction in students' academic writing.

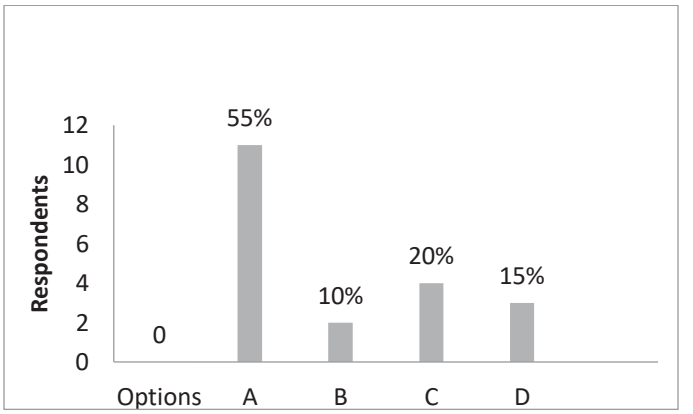


Fig. 6: Use of short form of words in academic writing.

55% of the respondents said that they do not use short forms in their academic writing. But 45% acknowledged that they used short forms in academic writing as they do in Facebook interaction. 10% of the respondents said that they use some times "nd" instead of "and". Another 20% of the respondents said they sometimes use "U" instead of "YOU". And 15% of the respondents said that they use both 'nd instead of and' and 'u instead of YOU'. So there are some changes that have come to students' academic writing through Facebook interaction.

7. How often do you use words like- ASAP, LOL, ROFL, BRB, GTG in your general speaking?

A. No, I never use these words.
B. Yes, I do use these words occasionally.
C. Yes, I strongly use these words in my general language.
D. Not always

This question is intended to find out the effects of Facebook interaction in students' speaking. Like question 6, it shows the influence of Facebook on students' academic activity in Bangladesh.

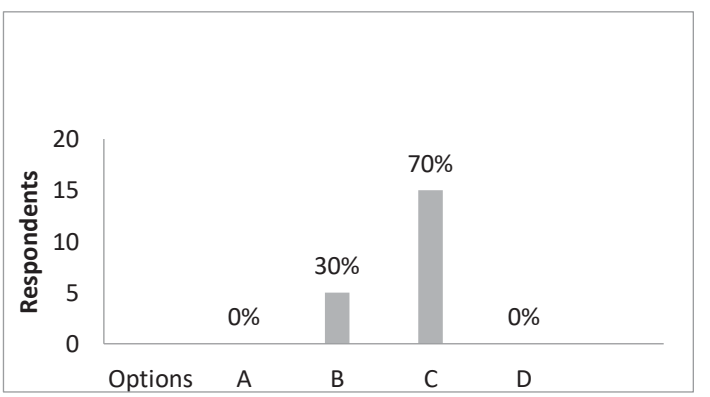


Fig. 7: Frequency of using initial's in speaking

So, here from the above chart it is clearly understandable that majority of the students (70%) use short form in their general language usage frequently. On the other hand, 30 percent respondents do believe that they use such short forms occasionally.

General Discussion on Research Findings

Academic Influence

Majority of the students use short form of words in general speaking (formal/informal situation) like ASAP, BRB, LOL, GTG etc. and it has almost become their habit.

Since students use Facebook a significant amount of time in their everyday life, an influence is seen on their academic writing. Along with oral communication, written communication is going through a change with the influence of Facebook chat. Students have started using 'nd' or 'U' instead of 'and' or 'you' which may result other way in terms of academic situation.

Influence on Thinking

Facebook has gradually become a reason for mood swing.

Emotional change is an important thing for student's thinking after following Facebook status.

Development of virtual empathy could be one of the significant issues that have an effect in students' thinking especially for the introverts who are using Facebook as a way of being socialized.

General Influence

Facebook has changed student's way of thinking and life pattern to some extent. It has started influencing student's choice of life; for example, opting for dress design indicates so.

Spending significant amount of time indicates student's preference of Facebook and its place on their mind and thinking.

Also, socializing through Facebook has become a common practice to students. In this case, introverts are using it more precisely.

Conclusion and Implication

The world is changing so does the living languages. Facebook interaction has become one of the reasons for the changes in student's thinking, speaking and writing therefore language change. Students love to follow the trend. Facebook has become a trend to them. And, following this trend, student's thinking, speaking and writing are changing. Changes in speaking and writing are affecting student's academic activities in the long run.

Students' frequent use of Facebook leaves a message. It signals that Facebook has a place in students' everyday life. The findings of the data analysis of survey questionnaire suggest that the gradual change happening through Facebook interaction causes language change and it may lead to revolutionary change one day if it is considered looking into.

However, the present research has been conducted with a relatively small size sample. A larger sample size could help to generalize the findings more vigorously. Thus, further research can explore the issue more.

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THE SENSE OF SEASONS: READERS' READING RESOURCE FOR UNDERSTANDING KEATS'S "TO AUTUMN"

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Abstract

This paper argues that an English literature class's 'schema', i.e. prior knowledge about seasons especially about autumn, is a prelude to the understanding and appreciating of Keats's season poem "To Autumn". The study is based on Keene and Zimmerman's general reading principle, which states that a reader's essential cognitive attribute for interacting with a text is their' schema,' or previous plain real-world experience related to the text's content. This paper's main claim is that Keats's "To Autumn" doesn't contain any critical themes. Therefore, the immediate attraction of this poem is its seasonal beauty. As a result, the poem's primary appeal is its seasonal beauty. Students who are unhinged on wonderful portrayal of natural attractions and who do not feel attracted to knock off for visits to country charms will have a big missing of sensual enjoyment, imagery evoking, and appraising of the poem's enjoyable quality. According to the findings, before teaching Keats' "To Autumn" to a literature class, it's a good idea to ask the students, "How much do you know about autumn?" and also an autumnal excursion may also be a rational decision as a high ground for reading and understanding the poetry in question.

Keywords: Sense of season, To Autumn, John Keats, reading resource, and prior knowledge

Introduction

Literature is often described as telling us about life (George, 2019). Reading literature has varying effects and usefulness. We read literature for enjoyment, education, and critique (Bruns, 2011). Reading conventions and styles have evolved, both philosophically and linguistically. Post-structuralism, also known as "readers' theory", has argued for reader autonomy. Donham (2013) categorizes these readers' resources as psychological, cognitive, and experiential.

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From this perspective, adequate prior information and all five senses are critical to "reader-text" interaction and understanding. It also explains why readers like Keats' poetry because it has a sensual appeal and often fascinating and astounding seasonal beauty. For example, studying Keats' "To Autumn" does not address many crucial concerns. "There was an undercurrent of meaning and feeling in all the Spring odes, "To Autumn" which is noticeably without" (Cited in Lott, 1970).

Nonetheless, the poem's most visible and effective aspect is its seasonal nature descriptions. As a result, readers of this poem must have sufficient ordinary experience of autumn or at least have visited seasonal locales in advance. If so, individuals can vividly recollect and arouse their pre-existing feelings and ideas when reading the poem "To Autumn." To connect personal experience to text is theorized (Wilhelm, 2007). Again, according to Wordsworth (Whalley, 1953), poetry production begins with observing beautiful items in nature. In 1819, Keats penned "To Autumn" following a trip across an autumnal landscape. This wonderful revelation of fall's amazing beauty and outstanding attractions enthralled him and inspired him to write the poem. As recipients of Keats' speech, readers must first be familiar with linguistic information or "schemata".

However, trying to understand poetry solely linguistically is not enough. The reader must also understand autumn to participate in the lyrical dialogue."Of course a poem must be comprehended in language (how else?) but it must also be understood as an instance of a poetic discourse..." writes Easthope (2013). Definite prior impressions and feelings about season variants and their specific traits in terms of discourse clues of time, place, and activities about fall are required of readers of "To Autumn". Those who disagree with this viewpoint should consider their sentiments and understanding of seen and unseen entities, fiction and non-fiction, physics and metaphysics. What we cannot see yet believe is blind faith. Experiential knowledge is made up of what we can see and feel. Opponents should examine the account of some blind guys describing an elephant. "To Autumn" is based on a real-life natural phenomenon with visible and audible interactions in nature. Students can gain prior real-world information at a personal or cultural level. However, the issue is that the present generation literature class is more interested in technology and social media than nature. Due to their concern with technology and lack of interest in culture, most modern students do not go outside during the seasons or have access to cultural resources. In this modern-materialistic world, our students' knowledge of autumn and ability to understand the poem "To Autumn" may be the first questions. This study's fundamental argument is this timely question. An unexpected response came from a student in our current literature class: "How is the weather in the autumn?" "Too hot." Honestly, our students' callous response inspired the present study.

Literature Review

Text and Context

A "text" is just a written, spoken piece of "language" that has a "meaning" created by linguistic systems and conventions. Texts are determined by linguistic rules, according to Tolhurst (1979). A one-sentence SMS: "Hey papa, love you" can be treated as a text, because the SMS has a meaning. It can also be used as a model text for linguistic purposes. That is, the use of 'vocative case' (hey papa), choice of 'indicative mood structure' (assertive sentence), the pattern of 'SVO' syntax, etc. are the linguistic conventions which both the text initiator (my son) and destination of the text (me) share culturally.

The "writer" and the "reader" negotiate the meaning of a text. While the writer originates the text, the intended text reader gets it by decoding its meaning according to their recognized language patterns. The third key characteristic is its "context", which heavily influences its meaning. The text does not come from "Nothing" (zero) but something. This "something" is called context. Context is constructed on questions like "when", "where", "who", "what", etc. For example, the Quranic verse "Kill the disbelievers" (Aydin, 2012) appears to be exceedingly harmful when taken out of context. This commandment is only relevant in "battlefields" in situations where your adversaries will certainly kill you if you do not kill them. Out of context, this text will always have a frightening meaning/message, prompting other religions to call Islam or the Quran "barbaric". Meaning is always contextual. So, a reader of literature like the Quranic text needs to have "context knowledge." The terms "text" and "work" are interchangeable in modern literature. In Image-Music-Text (1977), Barthes first connected 'text' with literature which implies that readers of literature should also have "context knowledge" and apply "reader skills" in appraising a literary piece, such as a poem (1977).

Reading and Readers' Skills

Reading is a physical act with cognitive involvement for making meaning from a written text, based on readers' already acquired linguistic abilities and prior real-world knowledge or experiences. Smith (1995) defines reading as an interactive process in which the reader's prior knowledge of the world interacts with the message conveyed. Therefore, reading is directed to unfolding the meaning or message represented in a text. Moreover, successfully achieving this reading goal is proportionate to readers' prior knowledge about the world they live in and continue to know about.

In their book 'Mosaic of Thought', Keene and Zimmerman (1997) claim that a skilled reader has 'schema', which signifies 'prior knowledge' or 'plain experience'. Readers engage the book with their schema and relate their world to the text's world. For example, assume a reader is reading about a mango tree. If the reader already knows what a mango tree looks like, they can easily

find out the meaning of the text about a mango tree by matching their existing knowledge with the words in the text. However, readers will engage in the content if they have no prior understanding of the mango tree. So they will struggle to build a vision of a mango tree that is accurate in every detail. Prior knowledge and experiences might be personal, cultural, or conceptual. Personal experiences include travel, work, friendship, and family, whereas cultural experiences include large-scale belonging to religious groups, clubs, societies, etc. Conceptual experiences include readers' concepts established by reading and knowing various themes. Reading other works can also provide prior knowledge. Reading is linked to Kristeva's (1986) idea of "intertextuality," which acknowledges meaning interplay across texts.

Anyway, prior knowledge is personal to each reader and helps them understand every material they read. A competent reader uses it to check new ideas or facts. Readers employ prior information before, during, and after reading to improve comprehension. Readers engage existing information and build connections to the reading material before reading. Readers can figure out what they already know and may feel confident and prepared, anticipating the information they will find in the book. They can also determine the text's register. For example, when readers are told that the content they are about to read is about "autumn", they immediately engage their existing knowledge about the season. At this point, the reader feels comfortable that this part of the book reminds them of something they have read before, like fall. Finally, the reader feels informed about the issue after reading the content. Thus, readers who have no prior understanding of a text's topic will naturally have less comprehension success than those with prior knowledge and real-life experiences.

Also, readers with incorrect knowledge of a world entity may be confused and have difficulties understanding the text explaining it. Confusion occurs when a reader's prior understanding conflicts with what the text conceptualizes. Therefore, the particular cultural background is also linked with making sense of any text.

Background of Autumn and “To Autumn”

The English term 'autumn' came from the Latin word 'autumnus' in late Middle English. This season is known as 'fall' or 'fall season' in the USA and Canada. This is the season when the weather starts to cool. Autumn occurs between September 21 and December 21 in the Northern Hemisphere and March 21 to June 21 in the Southern Hemisphere. Autumn is the time between summer heat and winter cold in the seasonal cycle of seasons. Autumn is related to agricultural celebrations in Europe. The focus is on crops and harvesting during this time of year. Many European languages used 'harvest' to mean autumn until the 16th century. Autumn is a time for harvesting, storing food, and celebrating festivals. During the autumn, people pay close attention to animal care and food preparation for the winter months. Fur-bearing animals begin to coat thicker. Autumnal fruits, vegetables, and grains have long been popular themes and motifs in Western culture. The seasons, Drennon (1934) argues, inspire poets. This literary personification

of harvest festivities, nature's mood, and joyous celebration of animal activity are in the air and on fall fields. "To Autumn" by Keats is a renowned record of these images.

One of the characteristics of Romanticism is the appreciation of the beauty of nature. John Keats, too, bountifully praises nature's "beauty work" in his poetry. One of his best pieces, "To Autumn", is a true testimony to his overmuch weakness for nature and beauty. Sofi (2013) comments that Keats as the greatest lover and admirer of nature. Keats is more popularly referred to as a "poet of beauty". He was most likely endowed with a couple of eyes with an added beauty fetish. He was, therefore, so much able to spot obvious beauty and sensuous magnetism intrinsically embodied in things and objects and all-natural domains. Keats's eyes move through all promising beauty sites starting from a season (such as autumn) to an archaeological article (such as Grecian "Urn"). When he wrote "To Autumn", it was after his once-a-gratifying walk across a beautiful autumnal countryside on a Tuesday, September 21 1819, while living in Winchester. He observed the beauty of that autumnal site and was overwhelmed in delectation. From that gainful walk, the poet returned empowered with essential imagery and vital ambition required for the ultimate creation of "To Autumn". He sent to his friend, John Hamilton Reynolds, a written description of his feelings and love towards autumn as in the following words in his letter: "How beautiful the season is now - How fine the air. A temperate sharpness about it. Really, without joking, chaste weather - Dian skies - I never liked stubble-fields so much as now - Aye better than the chilly green of the spring. Somehow, a stubble-field looks warm - in the same way that some pictures look warm. This struck me so much in my Sunday's walk that I composed upon it" (Colvin, 1921). According to Wordsworth's "poetic process" (Frey, 2008), poetry is just a sum of feelings resulting from observation of any entity capable of generating powerful feelings. In fact, "To Autumn" was inspired by Keats' musing on autumn. Thus, the poem is rooted in observing the beautiful and decadent aspects of the autumn season. The poem is often classified as a personal poem. Otherwise, an ode, although the word "ode" is not explicitly prefixed to the poem's title, according to YÁÑEZ, (2008). Anyway, "To Autumn" is accommodated in the realm of English poetry as one of the legendary poems. According to John William, "To Autumn" by John Keats is the most nearly perfect lyric poem written in English (cited in Keats, 2008).

Previous Studies and Research Gap

Scholars and critics have praised "To Autumn" as one of Keats' finest works. Styles (Nemoianu, 1978; Patterson, 1979) have been extensively studied. Aspects of ideological, historical, and process (verbal) analysis and interpretation have also been made thus far (Lott, 1970; Bracher, 1990). Scholars' focus then shifts to "fall" itself. For example, Wilcox (1956) analyzes the poem's seasonal motif. However, from the perspective of reading and comprehension of the poem in correlation with readers' existing personal and cultural grasp of autumn's features and attributes, no studies have so far been done. The present study aims at bridging this gap.

Research Methodology

Philosophically this is a qualitative study of postmodernist paradigm which accommodates multiple prospects of meanings in and lenses of engaging a text. The text of Keats' "To Autumn" served as the only data for this study. Using Keene and Zimmerman's reading principle in conjunction with other related reading theories, the data were analyzed. The contexts, linguistic items, imagery occurring in the cited text were explored in terms of readers' (university freshmen' or sophomores') required reading resource i.e., season schema.

Critical Analysis

Keats initiates "To Autumn" with a general direction of Autumn's identity to be shared with readers who will check that direction, accordingly following their unmistaken best fit of previous memories about autumn traits. Actually, the poem starts with providing with key "identifications" of Autumn. Autumn is labeled with three attributes-(i) "season of mist", (ii) "season of mellow fruitfulness" and (iii) "close-bosom friend of the maturing sun": "Season of mists and mellow fruitfulness/ Close bosom-friend of the maturing sun" (To Autumn, L, 1-2).

When a teacher reads out these autumnal identifications in a literature class, students who are acutely aware of those identifying features are expected to recognize Autumn as experientially prepared readers. This active, responsive readiness will produce instant thriving imagery of Autumn based on their prior knowledge. Ideally, Keats's imagery of autumn functions as "the symbol of writer's feelings of nature of a particular season" and readers have to "apprehend through specific images" (DeWitt, 1967). Students who have never seen Autumn or any other season and cannot look up from their Facebook or smartphone screens will struggle to recognize Autumn. Thus, these experienced students physically sit in the classroom even as mentally they must be travelling in their known world of Autumn with a generation of hefty, articulate images. Thus, their understanding of Autumn maybe like to the six blind men's understanding of a typical elephant. Even though professors do their best to describe the characteristics of Autumn in words, pupils may not be able to grasp the concept due to a lack of interest in fall and experience with its 'pro-beauty'. In this scenario, the teacher presents a "signified", but the readers may not identify it correctly since they lack prior knowledge. Readings can deteriorate due to this signifier-signified gap. Those with prior knowledge can perceive and feel the "seasonal attributes" of fall. The difference in access to the poem's aesthetic focus between readers aware of fall and those unaware of Autumn can be exemplified and equalized by two people's experiences of delicious cuisine. One of them, let us say, has never tried the cuisine and even knew its name. However, the other person knows the name, has tried the meal, and has clear, practical views. So, when that food item is mentioned before those two people, their reactions are sure to be different. The experienced person's mouth may wet while the inexperienced person does not. Third, those who misidentify Autumn are more prone to get trapped with clogged understanding, which may impede their understanding. One of our

students remarked that Autumn is a "hot" season. The word 'mist' as an autumn weather element in Keats' poem may raise the brows of this particular pupil. It's no coincidence that this uneducated pupil has trouble identifying Autumn because his prior understanding contradicts the text's information. Reading comprehension of the poem at both denotation and connotation levels requires readers to detect those identifications by making significant connections with their recollections of fall. Thus, students' comprehension may vary depending on how much of an impression they already have of Autumn from prior observation of the season. A clear, satisfactory interpretation of the poem depends on the readers' experience and feelings. For the poem to make literary identification with Autumn, readers must have previous ideas as a strong experience backing which will do a lot to supplement the understanding of Autumn itself. This connection between readers and texts is called "taking the text to self". "To Autumn's readers will be at a disadvantage if they lack this necessary "know-well" status since they are unlikely to develop bonds with the very definition and identification of "autumn" because they cannot be aggressively nostalgic with their stocks of autumn experiences. Readers familiar with Autumn should recognize the poem's unique charm. So, they'll keep bringing up the autumn images till they figure out the beauty's autumn has to offer.

On the other hand, a callous reader will make unsuccessful attempts at reading Keats' "To Autumn" with no accurate living impression and sentiments inside. So, readers with autumn knowledge are supposed to grab Autumn's distinct beauty served in the poem. Their prior feelings and experience will play out in their minds, which will make them feel leveraged to bring up the Autumn pictures to them as much obviously as they feel like they own the same category of pictures and keep matching easily with those put in the poem until they figure out the charm's autumn comes associated with. Thus, this previous knowledge could be termed as readers' "investment" for "comprehension power" brought into the reading of Keats's Autumn as a key to properly getting the poem "To Autumn".

Apart from this, knowing about Autumn alone is again less likely to suffice to understand "To Autumn", forgetting about its foregoing and following seasons. Even the chain relationship of the "doings" and "actions" of other seasons after and before Autumn is also relevant to sufficiently understand because this "comprehensive season sense" favors understanding Autumn in a recycling order of seasons. Actually, it helps to know what changes take place in line with season change, and in what way changes in nature with season change can influence human's minds. It comes to fill up the nature and to make it colorful, which implies that the season just before Autumn leaves the nature fruitless. Again, in the poem Keats mentions the names of two seasons, i.e., Autumn and spring. He doesn't mention summer and winter. Khan and Jabeen (2015) say, "Keats doesn't want to dwell on the cold days to come". However, "later flowers" in "To Autumn" refer to the "winter flowers". This might mean that Keats talks of Autumn's extension to only the beauty of winter, not its frustrating features. Thus, the point is that a comprehensive understanding and an ability to compare and contrast between seasons can

lead readers to a holistic understanding about why Keats talks about Autumn and spring and why not about summer and winter. According to Paradis (2013), binary opposition serves as an "antonym" and is a strong relation in language, cognition, and perception, which is vital for discourse coherence and how we view and comprehend the world around us. So, for underrating Autumn in Keats' poetry, readers should have a good understanding of other seasons in contrast to Autumn as well. Students need to have practical experience of seeing, feeling, and observing Autumn because the identifications of autumn help readers create imagery of Autumn. Students' hands-on experience and knowledge about seasons that may be gained at personal or cultural levels involve their working out an independent understanding of the poem. For example, "mist" and "maturing sun" create an imagery of an enjoyable morning. This imagery recognizes the time when mist around and people feel cold and the early risen sweet sun warms them. People of Indian, Bangladeshi and Pakistani culture often culturally enjoy sitting in groups in their yards. So, the readers who have gone with or been used to such weather, they can identify Autumn with a collective living and vivid feelings, but those especially who are rather lost to the valves of technologies and modernity and are running the race of Facebook and other social media, and who have tried living with rare occasions of an absorbing mind to such a day in their life will remain mentally unaffected by the reading of "To Autumn", and they cannot probably manage to connect the ideas with Autumn in the real world when out of classroom and beyond book pages, which equals to what Keene and Zimmerman (1997)call an outright failure to "take text to world".

Students' previous sensuous pleasure found in occasional or cultural connections to Autumn can be well remembered by Keats's "To Autumn". The bottom line is that to be helped much. For comprehension conveniences, the readers of "To Autumn" really need to have previous knowledge based on "observation" and "appreciation" of the significantly traceable and changing actions of Autumn in nature that must have been really suggestive of plentifully sensuous to Keats who "takes sensuous delight in all focus of beauty" (Khan and Jabeen, 2015).

In fact, "To Autumn" is not such a poem that readers have to bother a lot to explore any critical secret documented in the poem. Southam (1960) thinks "there are no critical or textual cruces, no historical or technical references needing explanation". But, sadly, the hollow readers without accustomed love and genuine, sweetest taste of autumn season are supposed to fail to win substantial representation of the poem at all levels. "To Autumn" is meant for those readers who have true experiences of powerful feelings and who have been born into and brought up with valuable chances of cheers of charming autumnal scenes and sites beforehand. In that sense, success of teaching it to a cool crowd of the Facebook generation alienated from the natural world can't be doubted.

So, obviously the students whose back story is a life of amassed experience, especially at socio-cultural level, of the agricultural events during Autumn are more likely to be smart enough to understand the poem to the full extent. There is a striking load of agricultural setting in the poem exclusive to Autumn, which may be regarded as a perfect distillation of the season poem. They remain busy doing activities with collected paddy on "granary floor", which is a common scene in country areas during Autumn. This "crops storing" is, in fact, a celebratory time for farmers when they happily and busily collect the food grains to be stored for the rest of the years' feeding and financing.

The poem contains a lot of agricultural scenery, which is a superb distillation of the season poem. So, kids with a real knowledge of agricultural events in the Autumn are more likely to comprehend the poem fully. Autumn is crucial to agriculture. Farmers understand this connection better than anybody else. Farmers do not harvest all crops and vegetables in one season. They know what to plant when. "To Autumn" exposes farming practices. The poem mentions "storing" crops. Farmers gather the food grains to be kept for the rest of the year's feeding and finance. Farmer's wives and daughters help process paddy. They winnow paddy. They are busily collecting paddy on the "granary floor", which is a frequent scene in the countryside in the Autumn. "Gleaners" walking "across brook" is a unique autumn scene.

The "sense of season" can help imagine what time of the year a brook dries up with such low water as gleaners can walk across. The "furrows" dug out by farmers' ploughs for next season's seeding after the crops collection phase of Autumn also signifies that readers should sense the cyclical move of seasons and their "dongs" on nature and man's agricultural life. That is to say, the agricultural activities of farmers and their women in the lap of nature can be felt strongly only when readers have previous autumnal walk along with the sites of "farmers community's engagement and when they have an existing close observation of the "goings-on" in autumnal agricultural business. Keats, indeed, presents the autumnal accounts of nature, agriculture, agricultural community etc. in "To Autumn" based on his autumnal walk on 21 September 1819 along Winchester.

Only conceptual knowledge about a season might lead students to a serious missing of familiar feelings about that season's attractions and attributes. Nature arranges various kinds of enjoyment and pleasure for beauty seeking and art-loving individuals during Autumn. However, the "fume" of poppies and "juice" gathered from "oozing" sweet fruits all that autumn offers are less likely to affect those readers who have never thought and experienced before about this wonderful "working" of Autumn for human entertainment with "scent" and "drinks". When a literature class reads Keats's "To Autumn," especially if the students are from the 21st century, they may not have had time to look away from their phones or computers to look at nature. This could lead to them having a "little understanding" of the poem, which could also mean that they

do not have a "lively imagination" or vivid images of Autumn, the season that the poem is about.

Students' previous passive knowledge about season-specific activities can turn more active to interact with the text immediately after encountering the autumnal activities of people, animals, and insects in different places, all of which have been articulated in "To Autumn". In the poem's third stanza, Keats identifies "musical arrangements" of autumn time. This musical presentation is suggested to be "no less than" that of spring. Keats asks "not to think" of spring songs because Autumn has its own top-notch of songs that Keats feels, certainly make all autumn lovers forget about spring songs: “Where are the songs of spring? Ay, where are they? Think not of them, thou hast thy music too.” (To Autumn, L, 23-24)

Based on his own visit, observation and learning about autumnal natural world, Keats presents an account of the abundant "sounds" or "music" of autumn time which is unique, exciting and pleasant for music lovers. He describes the autumnal musical offering in such a way that it creates a feeling of a grand event of "musical evening "taking place in the midst of nature. With a lot of care and enthusiasm, nature makes this perfect musical arrangement in many categorical locations of the music world of nature such as "stubble-plains", "river sallows", "hilly bourn", "garden–croft", and "skies". Precisely, music can be heard in "the land" and "sky". So, the audience is just required to be all eyes and ears for a complete engagement in the holistic entertainment experience so that they don't miss any event of music going on in different directions. The timing for the concerts in nature is "soft-dying day". The decoration set-up includes just two simple supplies of "blooming like barred clouds" and "rosy hue". In the entertainment venue of Autumn are the singers such as the chorus of "small gnats", "full-grown lambs", "hedge-crickets", "the red-bread", and "gathering swallows". These groups of artists mark their presentation with different sorts of music such as "willful choir", "loud bleating", "crickets' singing", "triple soft whistling" and "twittering". The readers who have never heard and enjoyed this bounty of autumnal pieces of music in the singing of autumnal soulful singers are less likely to affect them by reading "To Autumn". While reading the poem, they may have a serious "missing" of "enthusiasm". To sum up, these all "audible" and "visible" aspects of Autumn can never be fully imagined and understood without previous practical experience and keen observational minds of the readers of "To Autumn".

Conclusion

Those who have never been to or who have no cultural upbringing in the countryside during the autumn season are most likely to find it challenging to pin down spatial directions of "stubble-plains", "river sallows", "hilly bourn", "garden croft", and the temporal scheduling of "soft-dying day" when "small gnats", "full grown lambs" "hedge-crickets", "the red-bread" and "gathering swallows" present "willful choir", "loud bleating" "singing", "triple soft whistling"

and "twittering". Furthermore, the cultural experience of autumn is the resource that accords a central place to the understanding of the agricultural activities, and places and people in "To Autumn" like "storing" "winnowing" "granary floor", "gleaners" etc., which requires urbanites to have previous locational engagement in the countryside that Keats himself visited before writing the poem. The readers who have previous knowledge about the "signified" at a personal or cultural level can use it as their "investment" for achieving the "comprehension goal" of " To Autumn", the poem.. Keats presents identifications and seasonal attributes of autumn as a "season of mist" and of "mellow fruitfulness" and a "close friend of the maturing sun", which all create season-specific images and functions as some "signifiers". Only the cultural experience of enjoying "mist" and "maturing sun" helps students create "living" and "vivid" imagery in the site of the poem. Seriously, the reception (reading) of the poem also demands that readers of "To Autumn" have a prior voluntary arrangement of striking bidding to gain a "pro-beauty" outlook like Keats', and it is a pleasure to find company in the appealing autumn. To summarize, students' main property in the engagement of reading, feeling, understanding, and appreciating Keats' "To Autumn" is a personal or cultural sense of season gained through visiting or living in the touch of autumnal sites.

This study attempts to make the point that the reading and understanding of Keats's "To Autumn" has a fundamental but heavy reliance on the readers' experiential background. Originally, Keats's "To Autumn" was a poetic production through the process of being internally enthused after his personal, powerful observation of and (Wordsworth's way) of meditation over the beauty of autumn. As the poem falls under the genre of "season cycle," the descriptions of autumn in conjunction with winter and spring run throughout the poem, implying that a comprehensive prior practical and observational education about seasons in a chain relationship is essential to the expected understanding of "To Autumn. "Naturally, Keats's identifications of autumn require the readers to be experientially served enough to remember, recognize, and open those clues of place and time too, to interact with the poem, and classify autumn within. Readers' previous experience of autumn at a personal or cultural level may be deemed a prelude to reading the poem. Readers' real education of the impressive, pivotal influences of nature during the beautiful autumn is essential to being engaged in Keats's poetic discourse of an amazing autumn of beauty, interest, and filling-up. In fact, the poem doesn't require readers to pay attention and invest special passion and energy in any critical exploration because the total and best interest of the poem is in its immediate, vivid description of the arresting beauty of autumn.

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PORTRAYAL OF WOMEN IN ENGLISH LANGUAGE TEXTBOOK AT SECONDARY LEVEL (CLASS 8) IN BANGLADESH

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Abstract

This study investigates gender representation in current English language textbooks (*English for Today*) of class eight that are designed locally by NCTB and taught as a compulsory subject in secondary schools in Bangladesh. Quantitative analysis has been done through the questionnaire survey from the students, and the text book is analyzed with reference to (i) male-female oriented topic presentation in dialogues and reading passages, (ii) gender linked occupation possibilities and (iii) household responsibilities. The findings revealed the degree of imbalance in gender representation in this textbook in terms of real context. The paper concludes by addressing the learners' perception of gender imbalance as depicted in the textbooks and some implicative suggestions are given for the ESL/EFL material developers accordingly. At the same time, the results of this study are expected to raise awareness among the material developers and English teachers to help to reconsider gender stereotypes (if any) representations in language textbooks.

Keywords: Gender representation, sexism, stereotyped gender roles, and motivation

Introduction

Gender is one of the key components of identity. We communicate with others through a language and gradually human being establishes his or her identity by a language. Our identity being a male or female can be identified from our language. In second language learning, textbooks play a vital role as these English language textbooks are important and common sources learning English as a foreign or second language. So, it is necessary to take into account that how gender is being presented in these textbooks and its impact on learners in learning different skills and sub skills of English.

Moreover, to explore that, this study will focus on grade eight text book (target textbook) level from secondary school, and analyze the way how males and females have been represented in terms of profession, appearance, sports, hobbies, personality traits, family role and house work.

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This research tries to find out the gender stereotypical elements in English language textbook from students' perspective through the following research questions:

i. What impact is being created by the English textbook of level eight on the learners in Bangladesh?
ii. How is this portrayal affecting learners' English language learning development?

Literature Review

From socio-cultural point of view gender is something one continually does rather than gender is something one has. According to Sunderland (2006),
"a variety of metaphors has been used on this idea such as gender as activity, gender as performance, gender as accomplishment."
So, gender is not something we have but something we do. There is a difference between gender and sex, sex is biological categorization based primarily on reproductive potential. On the other hand, gender is social elaboration of biological sex. Gender is an idea of social construction. Butler (2003) also supports these ideas as he says that gender reality is actually "performative", means it is real when we perform.

Generally, learners get acquainted with the target language culture and values through textbooks. According to Hartman and Judd (1978) "what is taught in ESL classrooms including lexicon, topics of reading passages or grammar, are all of cultural importance." Also as voiced by Mills (1995),

"it is through language that ideas are shaped, so, unequal treatment of women and men is not limited to textbooks; rather, it can be extended to other aspects existing in a society (p. 1).''

Therefore, if women and men are treated unfairly by language, it will affect the thought and ideas of the EFL learners too.

Now, this study attempts to examine the *English for Today* textbook to investigate whether any elements of sexism, explicit or implicit are exhibited. Regarding foreign language learning and textbooks, Rifkin (1998:218) has the following to say: 'the exclusion of girls and women from FL textbooks may seriously impair their abilities to understand the target language and its culture'. Supporting this hypothesis, this current investigation has the potential to be of some importance's. The main focus of the investigation will be on its linguistic representations of males and females, and their visual portrays will also be discussed, where necessary, because 'pictures may also serve to reinforce the traditional images [of the genders]' (Hartman and Judd, 1978:387).

There have been studies on the portrayal of men and women in textbooks, in general, and in EFL or ESL textbooks particularly from, Kingston and Lovelace (1978:138-143) and Rifkin

(1998:235). However, their focus has been on different issues such as, cultural perception, associated with those portrayals of identity developed or diminished due to those portrayals and the impacts of such portrayals on the learners. They have discussed various aspects of sexism observed in their investigations, and this section will look over some of them in the hope of gaining a better historical perspective on this issue and also presenting justification for the two main focuses of the investigation of this study – female invisibility and gender stereotyping.

In literature, one of the most frequently discussed aspects of sexism is female invisibility for example, as Weitzman et al. (1972: 1128) examined prize-winning picture books for preschool children and reached the conclusion that women were simply invisible '...they were underrepresented in the titles, central roles, pictures, and stories of every sample'. Similar findings of scarcity of females were also reported by, among many, Kyle (1978), Scott (1981) and Abraham (1989) "on pre primers and six-grade readers, on two elementary basal reading series, and on three mathematics course books, respectively." It can be easily assumed that in these materials where males outnumber females by far, in many respects, will affect learners (especially females) negatively in their long-term development. Sadker et al. (1991: 315) assert that 'invisibility is one of the most pernicious forms of bias and gender equity will need to become a mainstream issue in educational research and efforts to reform and restructure schools." So, the primary concern of all educators, female invisibility, should naturally be the main focus of investigation in any research of linguist sexism, including this paper.

Gender stereotyping is another form of linguistic sexism which researchers have inspected. It is, both, explicitly and implicitly promoted by various kinds of media. Any kind of implicit conditioning of learners toward gender-role stereotyping is dangerous. Porreca (1984:73) warns, "Children can quickly and easily integrate such gender biases into their own value systems".

This present research will investigate female invisibility and gender stereotyping, if there is any, in a selected EFL textbook. Inspections of the roles and personalities assigned to the female and male characters in the book would provide clues as to how the textbook writers perceive each gender.

Research Methodology

In order to find answers to the questions posed in the research objectives, the researcher feels to use a mixed paradigm of both quantitative and qualitative approaches. In order to identify the intensity of the issue, this study, in its quantitative approach used a questionnaire survey for the students. A qualitative analysis will also be undertaken by concentrating on four components of gender role modeling from textbook analysis, such as 1. Male- female oriented topic presentation, 2. Gender role modeling 3. Gender linked occupation, and 4. Male –female contribution at household responsibilities.

Materials

The textbook examined in this study is *English for Today* class eight (revised edition September 2014. Reprint: August, 2017). It contains nine units, each of which has minimum five lessons. Each lesson has different themes. This book was chosen as it is being used as a primary resource of a language textbook for Bengali medium learners in Bangladesh.

Textbook details:

Title of the book	Publishers	Grade	Dates of Publication	Total Number of Pages
English for Today	National Curriculum and Textbook Board	8th	2014	128

Data Analysis

Questionnaires are printed in forms for data collection, which includes thirteen questions. Data has been collected in a small domain which has covered fifty students through the questionnaire survey. First six questions are based on the theme of the role of women in different part such as personal life, profession life, domestic life, decision taking position, parents. In second part, the theme tries to get opinions from learners' point of view how their textbooks are reflecting their society. Lastly students desired role in the text book are also being discussed in various aspect.

The researcher has gone through the following steps to collect the data for this study. First, the textbook was selected and then, the textbook was examined minutely. This step of content analysis is called mass observation the result of which will be newly categorized hypotheses (Cohen & Manion, 1992, p. 49). In content analysis tradition, the researcher has to do two mass observations: the first one is done after choosing the documents (textbooks). The purpose of the first phase is to have a cursory look at the textbooks in order to make sure that the documents contain the data that the researcher is looking for. After the researcher has observed the textbooks, the textbook divided into different divisions, such as occupational roles, social activities, home chores, etc., and then carries out the second mass observation of the content analysis. This second phase of the content analysis is meant to serve the purpose of modifying the original hypotheses which have been formulated before dividing the content into different divisions, such as occupational roles and home chores (ibid). Therefore, the original hypotheses and purpose of the study were modified slightly after mass observation. After the textbooks were observed, different categories were chosen for investigation. Finally, the frequencies of each category were counted in the form of a content analysis.

Procedures

The procedures in this study were in two stages. The first stage has focused on counting the number of occurrences of females and males in both text and illustrations and the results were summed up and tabulated, together with the total number of times that female/male-oriented topics were presented in dialogues and reading passages.

In the second stage, the occupation possibilities for females and males were identified and tabulated. Then, the household responsibilities of females such as *cooking, cleaning* were paired with their male counterparts and the results of the distribution were tabulated

The Findings

The analysis of the collected data is divided into two sections. Section A shows the results of the quantitative analysis from the survey questionnaire. section B shows qualitative analysis which has been done according to the four-given category- part (1) male-centered language; part (2) gender-linked occupation possibilities; part (3) distribution of household responsibilities, and part (4) distribution of difficult and different activities.

Quantitative Analysis

There were 13 questions in the questionnaire filled up by fifty students. Each question had four options: A, B, C and D. The questions were asked to delineate the feasibility of the *portrayal of woman in eight grade textbook in Bangladesh*.

The first question of the questionnaire (Appendix A) was asked to determine the role of a female character demonstrated in their textbook. It was essential to know because the basic question is a part of both quantitative and qualitative findings connected with first research question. 22 learners out of 50 (45%) believe that female characters are presented in the language textbook either as a mother (45%) or as a housewife (35%) only (20%) few represent different roles in their reading passages. The purpose of the second question was to determine the role of female characters in various professions. Maximum time women are portrayed as a teacher (75%) in professional domain. in domestic part women are involved more actively (65%) than men. Most (80%) of the time female characters are not found in challenging jobs as it is found in men.

Questions	A	B	C	D
1. Family role of a female character in English language text book	45%	35%	20%	-
2. Professional role of a woman	-	75%	-	25%
3. Active in domestic roles	15%	65%	15%	5%
4. Decision making	25%	45%	30%	-
5. Female characters in different challenging jobs	10%	80%	10%	-

Questions	A	B	C	D
6. common feature as parents	-	10%	90%	-
7. In which role you want to see female characters?	15%	5%	50%	-
8. men and women in ability and intelligence	15%	95%	-	-
9. women as better fit for caring jobs	10%	5%	-	85%
10. women take care of the household acts and men provide for the family income	30%	70%	-	-
11. women in different professions/acts	15%	85%	-	-
12. participation in sports activities	85%	15%	-	-
13. renowned female sport character	5%	95%	-	-

The third and fourth questions regarding household acts participation show a predictable reply. Female (65% & 45%) are more active in household activities and decision making.

In the fifth question, students were asked representation of different roles of female characters in job sector and 10% said yes, they have found such female role and 10% said replied opposite. Rest 80% replied there is no such presentation is available in their language textbook.

Sixth question was about same profession for mother and father characters being presented in their English language textbook. The reply received from the learners that all 'father' characters are working and 'mother' characters are housewives (80%).

Question seven was about learners' choice in which sector they want to see more female characters. Students replied that they also want to see the true representation of female characters in challenging fields like sports, military and business.

Eighth question was about the representation of men and women characters in terms of ability and intelligence. 95% learners agreed that in their text book this does not show equally.

Question nine & ten were about common setting both in culture and the textbook regarding the common believe of women that they will take care of children and men will earn has been denied by 70% learners. In Bangladeshi culture, we see woman's participation is nearly equal to man but 95% learners say this picture is not found in their language text books.

Question 11 & 13 posed on female participation in sports, music and military which is not visible in the textbook. In response of 12th question, students replied that 95% woman is found in sports, military, music and in many other different professions. Question seven has echoed this where researcher found that the above-mentioned percentages do not match with students' culture and society rather students also want to see female characters in various role playing situation.

Qualitative Analysis

Gender linked occupation possibilities in English for Today:

Female	Male
Teacher	Physical exercise Teacher
Housewife	Doctor
Boutique shop owner	Business personality

Representation of male and female occupations portrayed in the textbook units:

Unit 1	Female as housewife	Male as a Businessman
Unit 2	Female as air hostess	Male as an active father
Unit 3	Female cleaning the house yard	Boys are well dressed and hygiene
Unit 4	Mother as a cook	Men are involved in outdoor activity
Unit 8	No female character	Boy who made world record as a computer expert
Unit 9	No female character	Airlines detail showed male preference

As shown in above, males were presented in a wider range and overall, a higher level of employment than females in the textbook. A close examination indicates that women occupied positions such as *housekeeper, nurse, teacher, and librarian*, with an exception of the portrayal of a woman as a *boutique house owner on* page 49 (unit 5). In contrast, men enjoyed greater diversity of occupations ranging from lower ranking roles such as*, boatman, farmer, to* higher ranking roles such as*, teacher, doctor and businessman.*

An evaluation of the distribution of household responsibilities shown in (Table 4) reveals the sad reality that out of the total of ten household responsibilities; eight were performed by females in the family, *mothers and daughters*, whereas males were only responsible for earning money. It is obvious that females were fundamentally shunted into indoor passive activities.

Discussions and Contributions

The findings have showed that there is an "imbalance in gender representation" in current English for Today book. These findings are similar to that of many studies into gender bias in EFL/ESL materials since the 1970s (such as Lee and Collins 2006).

This paper is more concerned about how a student learning is hampered as students are not motivated because of the imbalanced and monotonous portrayal of woman. Students desired dream characters may increase integrative motivation in language learning. This study will help to minimize the imbalance in gender representation to increase students' integrative motivation.

Conclusion

The findings have shown that there is an imbalance prevalent in gender representation in EFT textbook in Bangladesh. Although this study has showed improvement to some areas of the textbooks when compared with the first edition of the same textbook, there is still more scope for improvement to provide an equal opportunity for learning for all students.

A pedagogical implication is that EFT curriculum in Bangladesh needs to be examined as the lessons significantly affects students' motivation, attitudes, and their understanding of culture, and their surroundings.

Therefore, guidelines should be provided by educational authorities for the equal treatment of gender in designing textbooks. Equal representation of female and male characters topics presented in dialogues and reading paragraphs consisting of a wider range of occupational possibilities and personal traits should be there. Moreover, further research is necessary to be conducted based on a wide range of current ESL/EFL textbooks to look at the issues regarding the gender representation.

Here women are representing two major roles such as a mother or as a house wife. Again professionally women are found in two specific sectors, one is teaching and the other is medical professional. This stereotyping representation of women does not match with the student's culture and they do not get enough motivation from their English language text book which hinders their better learning scopes. The results of this study are expected to raise awareness among the material developers and English teachers and help reconsider gender stereotypes representation in language textbooks.

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Appendix

Survey questionnaire for class eight students

DISCLAIMER- This information is going to be used only for academic purposes and will not be disclosed to anybody or any organization.

Name ---------- Institution----------

Class---------- Age ---------- Gender ----------

1. What types of family role does a female character have in your English language text book most of the time?

A. mother B. housewife C. working women D. others

2. Which professional role woman are representing in the text?

A. doctors B. teachers C. soldiers D. others

3 Who works actively in domestic roles?
A. father B. mother C. children D. others

4. In stories who gives decisions most of the time?
A. father B. mother C. children and parents together D. others

5. In the text book do you find female characters in different challenging jobs?
A. yes B. no C. others D. not sure

6. Which feature is common for male and female characters as parents?
A. parents are in the same profession
B. parents are working in different fields
C. father is working and mother is a housewife.
D. others

7. In which role you want to see female characters?
A. sports B. military C. business D.

8. Are men and women portrayed equally in ability and intelligence?
A. yes B. no C. only ability D. only intelligence

9. In your society are women, by their very nature better fit for caring jobs such as -
A. nurse B. teacher C. doctor D. others

10. Is it "natural" in your culture that women take care of the household, and raise the children, and that men provide for the family income?
A. yes B. no C. some cases D. every cases

11. Are women portrayed in different ways in your textbook-musician, day laborer, driver, and defense?
A. yes B. no C. sometimes D. not sure

12. Is it common for women and men to take part in sporting activities in your culture?
A. yes B. no C. sometimes D. not sure

13. Do you have any renowned female sport character in your language text book?
A. yes B. no C. others D. not sure

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ROLE OF MEDICINAL PLANTS AGAINST DENGUE VIRUS: A REVIEW

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Abstract

The dengue virus caused severe illness in Bangladeshi citizens from the last few years. The dengue virus is transmitted by the vector *Aedes aegypti* mosquito. Dengue virus was detected in Bangladesh (Then East Pakistan) in 1960 (Russell et al., 1966). The severity of dengue fever has increased recently. The cause of the dengue pandemic makes global climate change. In recent years, secondary infection and dengue shock syndrome (DSS) were the main causes of death among dengue fever patients. Presence of bioactive compound in some of the medicinal plants plays vital role in the treatment of viral infection as well as in enhancing the platelets count in blood significantly. In this study, 10 potential native botanical species have been presented as anti-dengue agents for controlling DENV-1 to DENV-4 with their effective dosages and toxicity levels. Native species *Andrographis paniculata, Azadirachta indica, Carica papaya, Curcuma longa, Cymbopogon citrates, Momordica charantia, Ocimum sanctum, Piper nigrum, Psidium guajava* and *Tinospora cordifolia* have been selected for study. In conventional therapy, there is no specific treatment for dengue; only symptomatic and supportive cares are advised by doctors till now. In case of *C. papaya,* the review study says that 25ml leave aqueous extracted orally twice daily for 5 days that increased platelets count from $55\times10^3/\mu L$ to $168\times10^3/\mu L$ (Katherine H. et al 2021). This increased platelet could lead to reduce bleeding in Dengue hemorrhagic fever that supported to control severity observed in human trial experiment. However, the objective of the review study is to draw attention of the scientists in the field of natural medicine to develop an effective, available and inexpensive remedy for dengue serotypes viral infections.

Keywords: *Aedes aegypti,* hemorrhagic, dengue, serotypes, botanical species, and antiviral effect

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Introduction

Dengue fever is a viral infectious disease transmitted by the vector *Aedes aegypti* mosquito and sometimes it causes a potentially lethal complication called severe dengue. Bangladesh is one of the countries that is affected by dengue viruses (WHO, 2019). The virus is passed to humans through the bites of an infective female *Aedes mosquito*, which mainly acquires the virus while sucking the blood of an infected person. The full life cycle of dengue fever virus involves the role of mosquitoes as a transmitter (or vector) and humans as the main victim and source of infection. In recent years, the pattern of the symptoms of Dengue fever has been changed from its usual characteristic, and the situation is so deteriorating that it may turn into an epidemic in Bangladesh. The increasing dengue situation in Bangladesh has been emerging as a serious public health problem in terms of morbidity and mortality. The dengue incidences are getting worse with each passing year. The numbers of infected peoples were more than doubled in July 2019 compared with the same period last year (Helemul, 2019 July). Dengue Virus DENV-1, DENV-2, DENV-3, and DENV-4; serotypes virus are genetically similar and share approximately 65.0% of their genomes. Infection with one of the serotypes confers serotype-specific lifelong immunity; however, secondary infection with a heterogonous serotype often creates devastating outcomes, which may be due to antibody-dependent enhancement (Shirin, Muraduzzaman, Alam, Sultana, Siddiqua, Khan, 2019). Dengue shock syndrome (DSS) is a dangerous complication for dengue which is often caused by a secondary infection with a different virus serotypes. Most of the people who died due to dengue this year have suffered from Dengue shock syndrome (DSS) and some are infected for the second-time (Helemul, 2019August).

The Geneus of the Dengue virus is classified as Flavivirus (Guzman A and Isturiz RE, 2010; NaTHNaC, 2009). To identify a potential antiviral treatment for DENV, it is necessary to understand the life cycle of the virus. After being transmitted to a new human host by infected mosquitoes, the virus replicates in the lymph nodes and spreads through the lymph and blood to other tissues (Goel, Patel, Lakhani, Agarwal, Agarwal, Singla, Agarwal, 2004). The dengue virion is a small particle with a lipoprotein envelope and an icosahedral nucleocapsid containing a positive single-stranded RNA genome (Ocazionez, Meneses, Torres, Stashenko, 2010). Virus infection of the cell begins with binding to the host cell surface. It enters the cell by receptor-mediated endocytosis (Qi, Zhang, Chi, 2008) with the cell membrane forming a sac-like structure known as an endosome. In the endosome, the virus penetrates deep into the cell until the endosome membrane acquires a negative charge, which allows it to fuse with the endosomal membrane to open a port for release of genetic material. At this point, the virus in the cell fluid starts to reproduce (Sarangi and Padhi, 2014).

Historically, medicinal plants are always important part of traditional remedy and treatment sources for various diseases in Bangladesh as well as other countries of the world. The medicinal plants are famous to their bioactive compounds, which are the rich source of pharmaceuticals, some of which contain good antiviral activity.

Some well-known and commonly found antiviral plant species have been represented in this study which is very effective for preventing the dengue virus potentially. Most of the botanical ingredients are traditionally used to control the dengue fever and also very useful in different ailments too. In this study, numbers of authentic experimental studies on dengue virus and their antiviral experiments by the selective botanical species have been reviewed:

1. Andrographis paniculata

Andrographis paniculata is an erect annual herb, which is commonly known as creat in English and kalomegh in Bangladesh. The main phytochemical compound is a bicyclic diterpenoid lactone (Chao and Lin, 2010); some constituents are known as rographolide, neoandrographolide (NAND), 14 deoxyandrographolide (DAND), and 14-deoxy-11, 12-didehydro andro-grapholide (DDAND) (Rao, Vimalamma, Rao, Tzeng, 2004). *In vitro* studies of antiviral activity of methanolic extract of *A. paniculata* on dengue fever, the crude extract of *A. paniculata* shows larvicidal activity against many insects, specifically mosquitoes such as *Ae. aegypti* (Govindarajan, 2011). Combined effects of *A. paniculata* and Anasimyia lineata on insects demonstrated insecticidal activity against *Ae. Aegypti,* as the study shows (Renugadevi, Ramanathan, Shanmuga, Thirunavukkarasu, 2013).

2. Azadirachta indica

Azadirachta indica is fast-growing tree and it is commonly known as neem in Bangladesh. The neem bark extract significantly blocked HSV-1 entry into cells at concentrations ranging from 50 to100 μg/mL (Yerima, Jodi, Oyinbo, Maishanu, Farouq, & Junaidu, 2012). The blocking activity of NBE was noticed when the extract was preincubated with the virus but not with the target cells suggesting a direct anti-HSV-1 property of the neem bark (Vaibhav , Nissar, Beatrice , & Deepak, 2010). Leaves extract of neem (*Azadirachta indica*) (NCL-11) has shown virucidal activity against coxsackievirus virus B-4 as suggested via virus inactivation and yield reduction assay besides interfering at an early event of its replication cycle (Badam, Joshi, & Bedekar, 1999). The Adulticidal efficacy of crude Neem oil extract, Pine oil extract and Till oil extract with five different concentrations i.e. 2%, 4%, 6%, 8% and 10% of each plant oil extracts in acetone ware tested against five to six days old sugar feed female of *Aedes aegypti.* The adult percentage mortality was observed after 24 hours and 48 hours under laboratory conditions. The results of the adulticidal activity of Neem oil extract against adult *Aedes aegypti* after 24 hours of exposure ware observed with mosquito mortality ranging from 26.6% to 48.9% being maximum. The percentage mortality of *Aedes aegypti* after 48 hours of exposure was much higher than 24 hours exposure and ranged between 71% to 100%. Maximum mortality (100%) was observed at the concentrations of 8% (Arqum, Nazeer, Imtiaz, Bismillah, Ashraf, Muhammad, Muhammad, Khwaja, Zelle, & Saeed , 2015).

3. Carica papaya

Carica papaya is an erect, fast-growing and unbranched tree or shrub. *C. papaya* leaf has been used traditionally in the treatment of DF (Siti Latifah, Harisun, & Razauden, 2013). The leaves of papaya have been shown to contain many active components that can increase the total antioxidant activity in blood and reduce lipid peroxidation level, such as papain, chymopapain, cystatin, tocopherol, ascorbic acid, flavonoids, cyanogenic-glucosides and glucosinolates (Otsuki, Dang, Kumagai, Kondo, Iwata, & Morimoto, 2010). The alkaloids, flavonoids, saponins, tannin, and glycosides are related with anti-inflammatory activity. The leaf of CP is considered as non toxic because its LD_{50} is more than 15g per kg body weight (Kardono, Artanti, Dewiyanti, Basuki, & Padmawinata, 2003). The therapeutic effects of aqueous extract of papaya (*Carica papaya*) leaves are presumed to be due to several active components such as papain, chymopapain, cystatin, L-tocopherol, ascorbic acid, flavonoids, cyanogenic glucosides and glucosinolates. These are antioxidants that reduce lipid peroxidation, exhibit anti-tumor activity and immune modulatory effects (Otsuki, Dang, Kumagai, Kondo, Iwata, & Morimoto, 2010). *Carica papaya* leaves extract was also found to have anti-bacterial effect (Romasi, Karina, & Parhusip, 2011), anti tumor, and immunomodulator activities (Otsuki, Dang, Kumagai, Kondo, Iwata, & Morimoto, 2010). The *Carica papaya* leaf extract was applied in cause of dengue affected thrombocytopenia patients and observed a significant increase in the platelets in the intervention group which reaffirmed the results of earlier pilot study (Venugopal, K., Suresh, R, M,. & Halesha, B.R., 2018). The possible mechanism action for thrombocytopenia is the increased peripheral platelet destruction by the DENV. This could be due to an autoimmune reaction, where antibodies produced by the host against the DENV bring about activation and destruction of platelets (Hottz, Tolley, Zimmerman, Weyrich, & Bozza, 2011).

4. Curcuma longa

Curcuma longa is commonly known as turmeric (haldi) and the secondary active compound curcumin is isolated from this plants. (Tayyem, Heath, Al-Delaimy, & Rock, 2006). The recent experimental studies also indicate that *C. longa* extract has properties that act as antioxidant, anti-inflammatory, antiviral, antimicrobial etc. (Benzie & Wachtel-Galor, 2011). Another secondary metabolite turmerone (Roth, Chandra, & Nair, 1998) isolated from the oil of *Curcuma longa* showed the 100% activity against *A. aegypti* at 10 mg mL^{-1} (Sulochana, Samander, & Vikrant, 2018). *Curcuma longa* with curcumin as major active compound has been identified for its antiviral effect.

5. Cymbopogon citratus

Cymbopogon citratus is known as lemon grass and it is a tropical plant. The antiviral activity of *Cymbopogon citratus* was determined based on cytopathic effects shown by the degree of inhibition of DENV-1 infected Vero E6 cells (Tang, Ling, Koh, Chye, & Voon, 2012). The methanolic extract of *C. citrates* showed a slight inhibition effect on DENV-1. The C. citrates

showed the lowest of MNTD at concentration of 0.001 mg mL^{-1} and it showed maximum cytotoxicity at 0.075 mg mL^{1} (Sarangi and Padhi, 2014).

6. Momordica charantia

Momordica charantia is commonly known as bitter gourd (karela). It contains flavonoids such as luteolin, kaempferol, and quercetin (Han, Bu, Ji, Liu, & Wang, 2005). The methanolic extract of *M. charantia* showed inhibitory effect on DENV-1 by antiviral assay based on cytopathic effects and against DENV-1 around 50% inhibition was studied (Tang, Ling, Koh, Chye, & Voon, 2012).

7. Ocimum sanctum

Ocimum sanctum is commonly known as holy basil and tulsi in Bangladesh. The extract of *Ocimum sanctum* contains many flavonoids such as orientin, vicenin, and luteolin. The tea prepared from the leaves of *O. sanctum* is also used for dengue cure (Mohan, Amberkar, & Kumari, 2011).

8. Piper nigrum

The leaves of *Piper nigrum* (commonly known as golmorich in Bangladesh) were evaluated for chemical constituents and mosquito larvicidal activity against the larvae of *Aedes aegypti*. GC and GC–MS analyses revealed that the crude extracts contain 16 compounds. Thymol (20.77 %) and c-elemene (10.42 %) were identified as the major constituents. Larval mortality was observed after 3h of exposure period. *P. nigrum* extract was severely affecting the mosquito gut cellular organelles (Jalasteen, Senthil-Nathan, Thanigaivel, Pradeepa, Srinivasan, Ponsankar, Edwin, Rani, & Megeed, 2015). Molecular dynamic stimulation and binding free energy calculation showed that Piperine could inhibit Methyltransferase (PDB id 1L9K) of Dengue and VP35 Interferon Inhibitory Domain (PDB id 3FKE) of Ebola viruses (Nag.A, & Chowdhury, R.R. 2020).

9. Psidium guajava

Psidium guajava is commonly called guava and peyara in Bangladesh. The *P. guajava* contains a number of active ingredients such as terpenoids, flavonoids, and tannins. The mature fruit or juice of guava has also been given to the DF patients to increase the level of platelets (Sulochana, Samander, Vikrant, Jaya, 2018).

10. Tinospora cordifolia

The stem and leaf decoction of *Tinospora cordifolia* (commonly known as Giloy) or gulancha had been used as medicine for dengue by Gujjar community in Jammu and Kashmir (Savita, Batish, Singh, Negi & Kohli, 2013), tribal and local people of Bijnor in Uttar Pradesh (Bhatnagar, Bhushan & Malik, 2016) and by tribal and local people of Chhattisgarh (Sharma,

Sahu, Chandrol, Jain, Sharma, 2016). The leaves of *Tinospora cordifolia* and *Carica papaya* have been used as home remedy based on indigenous cultural beliefs and experience to prevent and treat dengue fever.

Dengue virions comprise of structural proteins, envelope glycoproteins and non-structural proteins such as NS1, NS2A, NS2B, NS3, NS4A, NS4B and NS5 (Saraf & Kavimandan, 2018). Flavonoid from papaya cordifolia has been shown to inhibit viral nonstructural 2B and 3 (NS2B-NS3) protease complexes and thereby prevents dengue 2 viral (DENV-2) assembly using molecular docking study (Senthilvel, Lavanya, Kumar, Swetha, Anitha, Bag, Sarveswari, Vijayakumar, Ramaiah & Anbarasu, 2013). This prompted us to evaluate the docking behavior of phytoconstituents in giloy and papaya against three dengue receptors namely Glyco-protein E, NS2B-NS3 and NS1 (Bency & Helen, 2018).

Key Findings and Discussion

Methanolic extract of *Andrographis paniculata* was found to have high potential to be an anti-dengue agent, particularly towards DENV-1 serotype. *A. paniculata* recorded the maximal dose, which was not toxic to cells at 0.050-1. The methanolic extract of *A. paniculata* showed the highest antiviral inhibitory effect on DENV-1 by antiviral assay based on cytopathic effects (Sarangi & Padhi, 2014).

In cytotoxicity studies, the Maximum Non-Toxic Dose (MNTD) were determined in a virus inhibition assay and the aqueous extract of neem leaves (NL) completely inhibited 100–10,000 tissue culture infective dose $(TCID)_{50}$ of virus as indicated by the absence of cytopathic effects at its maximum non-toxic concentration of 1.897 mg mL-1. An *in vivo* study on the inhibitory effects on virus of NL aqueous extract in day-old suckling mice was carried out by intra cerebral inoculation. It was shown that the aqueous extract inhibited the virus at nontoxic doses in the range of 120–30 mg mL-1 as indicated by the absence of 511-bp dengue group specific ampliconsupon RT-PCR (Siti Latifah, Harisun, & Razauden, 2013).

The leaves of *Carica papaya* have been investigated for its potential efficacy against DF. The aqueous extract of *C. papaya* leaves exhibited potential activity against DF by increasing the platelet (PLT) count, white blood cells (WBC) and neutrophils (NEUT) in blood samples of a 45-year-old patient bitten by carrier mosquitoes (Ahmad N *et al.,* 2011). After 5 days of oral administration of 25 ml aqueous extract of *C. papaya* leaves to the patient twice daily, the PLT count increased from $55 \times 10^3/\mu L$ to $168 \times 10^3/\mu L$, WBC from $3.7 \times 10^3/\mu L$ to $7.7 \times 10^3/\mu L$ and Neutrophils from 46.0 to 78.3 %. Increased platelets could lead to reduce bleeding, thus avoiding progression to the severe illness of DHF (Sarangi & Padhi, 2014). The other main mechanism proposed for thrombocytopenia is the increased peripheral platelet destruction by the DENV. This could be due to an autoimmune reaction, where antibodies produced by the host against the DENV bring about activation and destruction of platelets (Hottz, Tolley, Zimmerman, Weyrich, Bozza, 2011). Animal studies suggest that papaya leaf extracts have

potential therapeutic effect on disease processes causing destabilization of biological membranes as they inhibit hemolysis *in vitro* (Ranasinghe, Ranasinghe, Kaushalya, Abeysekera, Sirimal Premakumara, Perera, 2012) and may cause increased platelet and red blood cell counts (Dharmarathna, Wickramasinghe, Waduge, Rajapakse, & Kularatne, 2013).

The antiviral effects of *Curcuma longa* extract on DENV-2 *in vitro* and *in vivo* along with its toxicity in liver and kidney of ddY mice have been observed. Antiviral activity (IC_{50}) and toxicity (CC_{50}) *in vitro* ware examined on Huh7it-1 cells by focus assay and a MTT assay, respectively. The *C. longa* extracts was given orally with dose of 0.147 mg/mL for each mouse at 2 hours after injected with DENV-2 infected Huh7it-1 cells (Ichsyani, Ridhanya, Risanti, Desti, Ceria, Putri, Sudiro, & Dewi, 2017).

In case of *Cymbopogon citratus* (Lemon grass), the methanolic extract showed a slight inhibition effect on DENV-1. The C. citratus showed the lowest of MNTD at concentration of 0.001 mg mL^{-1} and showed maximum cytotoxicity at 0.075 mg mL^{-1} (Sarangi & Padhi, 2014).

The MNTD of the methanolic extract of *Momordica charantia* against Vero E6 cells was investigated *in vitro* and it was found 0.20 mg/ml in vero cell lines (Tang, Ling, Koh, Chye, & Voon, 2012). *M. charantia* recorded a maximal dose that was not toxic to cells of 0.20 mg mL^{-1}. The MNTD of *Ocimum sanctum* extract was 0.10 mg mL^{-1} with cytotoxic values of 1.5 mg mL^{-1}. It inhibits the DENV-1 serotype in cell lines (Tang, Ling, Koh, Chye, & Voon, 2012). However, the MNTD value obtained from Hep G2 cells was 0.023 mg mL^{-1} which is much lower than those reported in Vero E6 cells. This shows that the extracts are more cytotoxic toward Hep G2 cells as compared to Vero cell (Ling, Khoo, Seah, Foo, Cheah, & Chye, 2014).

The crude extract showed remarkable larvicidal activity against *Ae. aegypti* ($LC_{50} = 34.97$). The larvae of *Ae. aegypti* exposed to the *Piper nigrum,* significantly reduced the activities of α- and β-carboxylesterases and superdioxide. The leaf extract of *Psidium guajava* plant has been tested, and it showed the *in vitro* anti-dengue activity (Roses, 2011). The boiled leaves extract increased the platelets to 100,000/mm^3 within a time of around 16 h. (Sulochana, Samander , Vikrant, & Jaya, 2018).

The methanol extract of the *Tinospora cordifolia* seeds completely inhibited (10–1,000 fold) the $TCID_{50}$ of virus at its maximum non-toxic concentration of 0.25 mg mL^{-1} as indicated by the absence of cytopathic effects. A low dose of *Q. lusitanica* (0.032 mg mL-1) showed 100 % inhibition with 10 $TCID_{50}$ of virus. Tinosponone in *Tinospora cordifolia* was found to be potent inhibitor of NS2B-NS3 receptor in Dengue virus because it exhibited maximum binding affinity (−2.8 kcal/ mol) and minimum docking score (−5.5 kcal/ mol) and free (−4.5 kcal/ mol) energy (Bency & Helen, 2018).

Conclusion and Recommendation

Recently large number of deaths indicates that urgent awareness is required to have an early detection of dengue at all healthcare facilities and public health management like a vector control programme. Prevention and regular surveillance are very important. The upsurge in dengue cases and the recent outbreak of dengue viral infection are the major threat to the health of the community people. This emerging situation warns an increased level of interventions and suggests the allocation of both human and financial resources in the health sector of Bangladesh. The findings of this study have been reflected almost screened 10 indigenous potential anti-dengue inhibiting medicinal plants species which could be proposed for development of new drugs for dengue fever in Bangladesh. There is no antiviral agent and vaccine available for dengue virus. Some plants have reported to have anti-dengue activity, but there is no wide research carried out on these plants with mechanism action against serotypes dengue infection. Researchers in this field should give more attention to clinical research to develop an effective medicine to treat dengue fever.

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Conflict of Interest

The authors declared that they have no conflict of interest regarding publication of this paper.

List of Abbreviation

CC_{50}: cytotoxicity concentration

CP: *Carica papaya*

DAND: 14 deoxyandrographolide

DDAND: 14-deoxy-11, 12-didehydro andro-grapholide

ddY: ddY, stands for the capital letters of Deutschland (= Germany), Denken, and Yoken in case of mouse

DENV: Dengue virus)

DF: Dengue Fever

DSS: Dengue shock syndrome

GC: Gas chromatography

GC–MS: Gas Chromatography Mass Spectrophotometer

HSV: Herpes simplex *viruses*

IC_{50} : Antiviral activity

LD_{50}: Lethal Dose 50

MNTD : mean nearest taxon distance

MNTD: Maximum Non-Toxic Dose

NAND: neoandrographolide

NEUT: neutrophils

NL: neem leaves

NS: non-structural (one types of proteins)

PLT: platelet

RT-PCR: Reverse transcription polymerase chain reaction

TCID: tissue culture infective dose

TCID: Median Tissue Culture Infectious Dose

WBC: white blood cells

WHO: World Health Organization

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SUMMARY OF PROGRAMS
HAMDARD UNIVERSITY BANGLADESH

Program Name	Credit	Duration	
		Semester	Year
Undergraduate Programs			
BBA	141	8	4
BSc in CSE (Regular)	152	8	4
BSc in CSE (for Diploma Engineer)	135	7	4
BSc in EEE (for Regular)	154.5	8	4
BSc in EEE (for Diploma Engineer)	139.5	7	3 ½
BSc (Honors) in Mathematics	141	8	4
BA (Honors) in English	140	8	4
BSS (Honors) in Economics	140	8	4
BA (Honors) in Islamic Studies	144	8	4
Graduate Programs			
MBA (for BBA holders)	36	2	1
MBA	66	4	2
EMBA	48	3	1 ½
MPH	71	3	1 ½
MA in ELT (1-year)	36	2	1
MA in ELT (2-years)	66	4	2
MSc in Mathematics (1-year)	36	2	1
MSc in Mathematics (2-years)	69	4	2
Hamdard Institute of Unani and Ayurvedic Medicine			
BUMS (Regular)	--	--	6
BUMS (Diploma)	--	--	3
BAMS (Regular)	--	--	6
BAMS (Diploma)	--	--	3

Standardization, Quality Control and Pharmacological Review on Rauvolfia Serpentina (l.) Benth. Ex kurz.
Hakim Md Yousuf Harun Bhuiyan and Hakim Kamrun Nahar Harun

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