

# Developing a Scale to Measure Attitude on Gender Difference

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**Abstract:** Attitude is an important factor of human life. Measurement of attitude is also important to know human inner psyche. Considering importance, this is an approach to measure attitude on gender difference over some aspects of leadership like decision making, group work, communicating and self-understanding. The aim is to understand human preferences on gender issues in relation to those aspects. This study developed through data collection on some adult educated sample of Bangladesh. Both validity and reliability has been obtained using statistical analysis following scale construction procedure. The reliability coefficient was found 0.72 and the validity was found significant.

**Keywords:** attitude, gender difference, leadership, scale construction, validity, reliability

## I. INTRODUCTION

Attitude is a psycho-social phenomenon. It is quite complex but acquired or learnt. It is the predisposed state of mind of an individual. It is comparatively stable in nature. Attitude of an individual can be understood through one's expression or overt behaviour. It varies person to person. An individual might have attitude on another person, thing, place or event. It can be changed but this change is comparatively very slow in nature. Understanding attitude of an individual is a requirement to know his/her choices, preferences or liking/disliking. If we understand somebody's attitude, then we can interact with him/her more constructively and dealings might be more proper and conducive.

On the other hand, gender is a socially constructed term. Sex is physiological and gender is culturally based. That means gender difference is culture bound. Culture makes men and women differed in many ways including attitudes. Cultural treatments and notions on men and women create many barriers for the progress of humankind. To some extent, development of leadership can also be hampered due to biased attitude on gender. We know leadership is not a single factor. It can be defined in many ways. "Leadership is the projection of personality; it is the combination of persuasion and compulsion as well as example that make other people do what you want them to do" (Slim, 1961). So, leadership directs an individual and inspires a group. Whatever may be the definition of leadership, the aim of leadership is to achieve the common goal or mission of the organization. Despite all approaches, perspectives and styles of leadership, attitude of men and women; in other word gender difference plays role on development of leadership. Leadership has many aspects. Some of the aspects are considered here to know the attitude

in the perspective of gender difference in leadership. The aspects are decision making, working in group, communicating and self-understanding. Overall gender difference in leadership can also be measured in combination of all four aspects. An approach to develop a scale to measure attitude on gender difference in terms of cited aspects on leadership are considered here. Therefore, the purpose of this article is an endeavour for constructing a scale to measure attitude on gender difference in the context of some considered leadership aspects.

## II. JUSTIFICATION AND OBJECTIVES

Understanding attitude helps us to lead others in more favourable way. Students are learning various things and developing their own perceptions, attitudes and judgements. They are the future leaders of the society. Development of constructive attitude on gender issues among the future generations is a requirement in today's world. As a result, they can lead both men and women in a neutral way for the overall psycho-social development of the society. With this implication in mind, construction of attitude scale on gender difference carries importance to use especially while dealing with both sexes in our patriarchal society.

### 2.1 Overall Objective

To construct a scale on gender difference.

### 2.2 Specific Objectives

- To construct a scale on gender difference on some specific traits of leadership.
- To ascertain the extent of students' attitude on those specific aspects using this scale in future.

## III. SIGNIFICANCE OF THE STUDY

The endeavour of the construction of this gender difference scale are expected to add value beside the use of currently available similar scales (if any). This study may provide information for the researches on their academic pursuits in the process of developing attitude scale and it may validate this scale also through the same process. Enthusiasts may use this scale to know the gender difference among the students' community at their own and obtained results might help the leadership or authority concern to formulate any future plans related to particular culture.

#### IV. LIMITATIONS

The main purpose of this research is to formulate an attitude scale targeting to the students' community at university level. But the entire process was depended on the views of limited number of students. Thus, the use of this scale in the real scenario may be kept in careful consideration by other researchers. Constructive criticism on the limitations of this newly proposed scale are always welcome from the academicians around the world.

#### V. LITERATURE REVIEW

##### 5.1 Gender Difference

We know sex refers to the biological differences between men and women. Sex is biologically defined and determined by birth. It cannot be changed overnight. It is universal. Men and women play distinct roles biologically which are same for all men and women alike. Men and women are different or distinguished as men or women on the basis of their reproductive organs and structures (Merriam-Webster, 2018). But gender is socially constructed. Male and female roles differ according to the cultural norms, attitudes and values based on sex differences. On the other end, gender is socially constructed roles, behaviours and activities which are considered appropriate by the particular society. It is learned from the society through interaction with people.

We learn various assigning roles, responsibilities, opportunities and constraints for men and women (Website of WHO, 2018). Male and female have distinct characteristics as they are different biologically as created. These biological differences are innate. At the same time basing on these biological differences, there are some psycho-social and cultural differences as learnt. Thus, gender roles of male and female are different in society. Actually, gender is a distinct characteristic that define a person as masculine or feminine. It consists of several categories apart from only male and female biological spectrum. But here it is considered only two as masculinity and femininity.

However, gender is different from sex. Sex is biological, certain genetic traits assigned at birth to the new born. Sex difference makes man and woman. On the other hand, gender is understood socially through the influence of varieties of psycho-social, cultural and environmental factors. In line with that male and female gender is perceived as well.

Accordingly, gender role is also socially constructed. It is also at times known as sex role. But it is social role since there are social definitions of men and women. It consists of a span of behaviours, attitudes and approaches that are usually acceptable by the society. It is desirable that people should behave based on their perceived or actual sex within the society (Levesque, 2011). Gender roles are centered on femininity and masculinity. They can vary among different societies and cultures.

Indeed, sex difference is easily understood. It depends on biological or physiological aspects. But gender difference is culture and society based. Obviously, there is a variation between sex difference and gender difference. Biological adaptations are same for both men and women. But sociological adaptations are varied. Gender includes many attributes because of social and cultural influence on either sex i.e. male and female (Psychology Glossary, 2018). Sex differences based solely on biological differences. But gender differences depend on many environmental, socio-cultural and other factors which affect our cognition and overall behavioural pattern.

##### 5.2 Attitude on Gender Difference

Human have various tendencies. Somebody may have tendency to play or somebody may like singing song. Whatever the tendency is – it can be measured. Thus, attitude is nothing but positive or negative tendencies of human. So positive or negative reactions toward some object is called attitude. If a person has positive tendency towards Islam then he is likely to visit the mosque often. So, we can say that the person has belief in Islam.

The object of attitude may be school, religion or any social significance. Here we are considering some components of leadership as the object of measurement of attitude. It is mentionable that the attitude is mostly latent. It comes up while favourable situation aroused around the individual. Attitude can be favourable or disfavourable or both at a time. We may admire something or resent some aspects. It is a tendency to react in certain way either positive or negative. If we can measure it then we understand how somebody will react in some particular situation. Attitude has some components such as affective, cognitive or action. The man who believes Islam likes to enjoy prayer, he holds positive ideas on Islam and goes out for prayer and religious activities. Attitude is a very powerful instrument. It influences our perception and cognitive processes as well as our behaviour. Therefore, it can influence our leadership disposition also. Certain attitude on leadership is highly acceptable in all societies. All societies encourage capability of decision making among the leaders. Leaders should have capacity to work in group, communicating to each other smoothly and understand themselves better. But those leadership capacities between male and female may differ to some extent which may vary society to society also. For this reason, it is important to understand the attitude on decision making, group work, communicating and self-understanding both for males and females since attitude can define leadership of any individual.

However, the way women are progressing day by day in Bangladesh, the same way they are not getting leadership due to societal patriarchal attitude in almost every spheres of life. More specifically women's participation in socio-cultural and socio-economic development activities is not felt much due to patriarchal control of society in this sub-continent including

Bangladesh. Women's capabilities are at times viewed negatively due to traditional controlling cultures and the male domination in particular. The women folk lacks freedom of speech in the family as well as in the society sometimes since they are mostly governed for the fulfillment of men's requirement. Here feminism has been stereotyped. Generally female means they are dependent and submissive in nature. Due to this stereotyped attitude, it seems females lack in leadership (Burns, 1978). But at the same time, masculinity is also stereotyped. Hence it is considered males are independent, decisive and aggressive in nature. Therefore, men are regarded as leader. In Bangladesh leadership position is largely occupied by men. It is more in defence as a tradition of war. This has been happening from the pre-historic period. Therefore, men are stereotyped as leaders in defence. They are more effective than women concerning leadership here. With this backdrop in mind, measurement of attitude in our patriarchal society is a requirement here.

### 5.3 Measuring Attitude on Gender Difference

There are many methods of measuring someone's attitude on something or some phenomena. Attitudes are related to somebody's self-image or how a person thinks about him/herself. Generally, people are reluctant to reveal their true self, rather they are guided by social desirability. Therefore, there are many techniques of measuring attitude since human attitude is comparatively stable in nature. Somebody's attitude can be measured directly or in indirect approach. The most common technique of measuring attitude is simply asking some question to the respondent on something or some events. Respondents are evaluating themselves either favourably or unfavourably toward those objects or events. Generally, scales are used to assess the attitude. But development of attitude scale is a cumbersome task. Here it is a trial to formulate an attitude scale to know the difference of male and female on few leadership aspects such as decision making, working in group, communicating and self-understanding.

We understand that a leader must master the organizing and influencing capability to achieve the leadership quality. Here the leadership is viewed in the gender difference perspective. Difference in sex and gender is found. Sex is physiological and gender is cultural. Physiological difference is a fact. It is accepted universally. Gender difference is culture based. It varies culture to culture. The names men and women are given due to physical difference. But the names male and female are considered due to cultural influence. Gender denotes both male and female. Masculinity comes from male and femininity from female. Likewise, manhood, manly; womanhood, womanly etc are being used today. All are cultural notions. These notions have impact on leadership especially on decision making, group work, communicating and self-understanding aspects. This research has an endeavour to observe the impact of these notions between male and female gender. That means, it is an effort to observe the attitude of gender differences on leadership considering over those aspects/traits.

## VI. METHODOLOGY

### 6.1 Data Collection and Sources

Secondary information gathering was done through studying books, journals and literatures. Students were given scrutinized questionnaire for the purpose of collecting primary data. Later the final questionnaire was framed through the judgements from the experts' opinion. Students were given opportunity to answer the questionnaire anonymously. Forty students and fourteen judges were participated in the scale construction method. Thus, this article has been prepared as an endeavor to formulate a scale for judging attitude on some specific leadership aspects between male and female students i.e. to know the gender difference. So, the purpose of this writing is a step to develop a scale on attitude over gender differences based on those specific leadership traits.

### 6.2 Gender Difference Scale (GDS) Construction

To construct the scale for gender difference in relation to our society, initially different related literature, journals, books, newspapers have been consulted and studied. Getting knowledge on gender issues and related matters, there were 25 statements were constructed and selected initially. Apparently, these statements were found suitable to find the gender difference among the educated students of Dhaka University, Bangladesh. The discriminatory power and clarity of the items were mostly taken into consideration while constructing the items. To know the worthwhile of the items, all items were arranged in a Likert type scale (Strongly Agree-5, Agree-4, Undecided-3, Disagree-2 and Strongly Disagree-1) to find the initial suitability through administering among 40 students of the same university. The students have answered all the items. Basing on the obtained marks of the scale, almost similarly marked items have been discarded. That means those items have no discriminatory power to identify related attitude among the students on gender issues in relation to those leadership aspects. There were 6 items were discarded in this initial process. Then the rest 19 items were sent to experts with the same Likert scaling method. The scale was set in a 5-point scale like most appropriate (5), appropriate (4), not sure (3), not appropriate (2), not at all appropriate (1) to know the items' appropriateness. The expert respondents have judged whether the items have discriminatory power or not to find the gender difference. The experts are teachers of the Department of Psychology and the Department of Women and Gender Studies, Dhaka University as well as some professional Psychologists of Bangladesh. They have marked the appropriateness of items' gender difference questionnaire with their valuable comments. The judges (total 14 judges) were asked to grade the items without considering their own attitude. Basing on their comments and grading, another 4 items was discarded assuming non-suitable as having lower marks. Later only 15 items were kept as the Gender Difference Scale on considered leadership traits. All these items covered cognitive, affective and behavioural aspects of gender difference in relation to the student community. Again, the items were chosen in such a way that they must have the

statements on decision making, working in group, communicating, self-understanding and overall gender difference in relation to students' perspective. All items were favourable in nature. To construct this gender difference scale, the detail procedures are as follows:

**6.2.1 Face Validity:**

After thorough scrutiny of 25 items, 19 selected items were sent to the judges (10 psychologists and 4 gender experts) for their valuable opinions. Each judge rated each statement with five-point rating choices such as most appropriate, appropriate, not sure, not appropriate and not at all appropriate as mentioned above. On the basis of the scores obtained from the judges, the mean score of each item was worked out. The maximum possible mean could be 5 and the minimum could be 1 and the mean could be 3 for each item. Items carrying score more than 3 have been selected finally. Thus only 15 items were selected for this scale to administer and validate.

**6.2.2 Item Analysis:**

To know the internal consistency of each item, item-total correlation (Clifford, 1981) was carried out on the 15 items responded by students through purposive sampling. The Pearson Product Moment method was applied to find the internal consistencies through the SPSS (Statistical Package for the Social Sciences) software developed by IBM (International Business Machines).

**6.2.3 Scaling of GDS:**

Selected 15 items were arranged in Likert type 5-point scale (Strongly Agree, Agree, Undecided, Disagree and Strongly Disagree). The scale covered initial instruction at the beginning. Sample subjects were instructed to encircle the relevant number among the 5 choices provided without omitting any item. The respondents were assured for the data to be kept confidential and would be used only for the research purpose. The sample respondents were asked to mark the item as Strongly Agree = 5, Agree = 4, Undecided = 3, Disagree = 2 and Strongly Disagree = 1. The total scores of the respondents were correlated with the total scores on each item.

**6.2.4 Determining Reliability of GDS:**

To find the reliability of the scale, there are many methods can be used. Here we have used only two methods to find the reliability of the scale such as Cronbach Alpha Reliability Coefficient (Cronbach, 1951) and widely used Test-Retest method. The Cronbach Alpha ( $\alpha$ ) was determined using SPSS and the result is shown here:

Table-1: Cronbach's Alpha Reliability Coefficient

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.762	.780	15

It indicates a high level of internal consistency for this newly constructed scale on gender difference (0.762 in Table-1). Again, the test-retest method was used through SPSS to find the level of significance between the test items' scores and the retest item's scores. The result is appended here:

Table-2: Correlation Coefficient through Test-Retest method

Correlations			
		Total Test	Total Retest
Total Test	Pearson Correlation	1	.721**
	Sig. (2-tailed)		.000
	N	21	21
Total Retest	Pearson Correlation	.721**	1
	Sig. (2-tailed)	.000	
	N	21	21

\*\* . Correlation is significant at the 0.01 level (2-tailed).

The Pearson Product Moment correlation coefficient (r) between 15 item scores and the total scores were obtained by the respondents over the scales. The internal consistency is shown here:

Table-3: Pearson Product Moment Correlation Coefficient for Internal Consistencies Measure

No	Items	r
1	Because of our traditional culture, I believe that there may be some silent gender difference/ variation prevailing among students.	.309
2	I feel that students are aware about gender while working with peers in a mix group (male/female).	.340
3	I expect that there should be consideration of gender issues while making certain specific decisions.	.275
4	I assume that there are some differences in assertiveness and dominance between male and female students.	.595
5	While interacting with others (especially opposite sex) for some matters of students, I become careful due to my gender.	.388
6	I think that team efforts may fail at times due to inadequate addressing of gender issues.	.667
7	Due to a greater number of male students, it seems that male students appear superior to female in leadership.	.617
8	To my view there might be some difference in cohesiveness and supportiveness between males and females.	.447
9	I usually understand equally what other students are trying to say considering their gender perspective.	.628
10	I make my decisions basing on some principles and then stick to that decision irrespective of gender issues.	.599
11	While working in a group, I feel all are sharing positive attitude towards assignment irrespective of their gender.	.392
12	In effective communication with others, there might be some difference between male and females.	.549
13	I feel that students often struggle to appreciate the efforts of team members considering gender difference.	.306
14	It seems to me that there is a difference in promptness of making decisions between male and female students.	.591
15	I sense that existing gender issues have some impact/ influence in the working environment/ relation in the student community.	.753

Except the item number 1, 3 and 13; all items have significant correlation coefficient as per the Table-3 above. The consistency reliability ranged from 0.275 to 0.753 as shown here. Next the test-retest reliability coefficient was determined. For this, the scale was administered on 21 students (preferably master’s level) of Dhaka University, Bangladesh. Among them 5 were female and rest are male having 4<sup>th</sup> to 5<sup>th</sup> year studying. Samples were selected purposively to get the responses and return back the answer sheets. The first test was done in May 2019 and next test was done after a month but the matter of retest was not disclosed. Two sets of data were obtained. The Pearson correlation between two sets of data was computed in SPSS to determine test-retest reliability of the scale. The correlation was found .721 which was significant at 0.01 level of significance as shown in the table of ‘correlations’ above (Table-2).

6.2.5 Determining Validity of GDS:

The face validity and the criterion validity of the scale were determined carefully. Expert opinions were sought to determine the face validity initially. Accordingly, relevant items were chosen. Judges rating was given priority while selecting the final items. Later criterion related validity was obtained through SPSS. For this, the final scale was administered over 12 of my colleagues and acquaintances (not expert on psychology or gender and non-related to research). They graded the items a bit higher. The total scores of 12 respondents (non-related) and total scores of 21 respondents (related to students) were compared by independent sample t-test. The results are shown below:

Table-4: Level of Significance between Student Respondents and Non-student’s Group

Group Statistics								
Related Test vs Non-Related		N	Mean	Std. Deviation	Std. Error Mean	df	t	Sig
Total Test	Non-Related Score	12	57.75	2.417	.698			
	Related Test Score	21	53.95	6.054	1.321	31	2.542	.017*

Here we obtained \*  $p < 0.05$  at 95% level. So, the result indicates that there are significant differences between related to studentship and non-related to student groups of respondents. Therefore, the new scale is found to be valid (as shown in Table-4).

VII. RESULTS AND DISCUSSION

Construction of attitude scale is quite time-consuming. Step by step procedures has been followed to construct this scale to know the gender differences on specific leadership aspects such as decision making, group work, communicating and self-understanding. This scale has been prepared considering the university level student population of Bangladesh. The

researchers may use this final scale to understand the differences of opinion among the students on their decision-making capability, ability of group work, capacity of communicating to each other and their self-understanding. Considering the less significant correlation coefficient for internal consistency measure (Table-3), the Item-1, Item-3 and Item-13 have been discarded from the final scale. Thus, the final scale is shown below (Table-5):

Table-5: Final Attitude Scale on Gender Difference

No	Statements
1	I feel that students are aware about gender while working with peers in a mix group (male/female).
2	I assume that there are some differences in assertiveness and dominance between male and female students.
3	While interacting with others (especially opposite sex) for some matters of students, I become careful due to my gender.
4	I think that team efforts may fail at times due to inadequate addressing of gender issues.
5	Due to a greater number of male students, it seems that male students appear superior to female in leadership.
6	To my view there might be some difference in cohesiveness and supportiveness between males and females.
7	I usually understand equally what other students are trying to say considering their gender perspective.
8	I make my decisions basing on some principles and then stick to that decision irrespective of gender issues.
9	While working in a group, I feel all are sharing positive attitude towards assignment irrespective of their gender.
10	In effective communication with others, there might be some difference between male and females.
11	It seems to me that there is a difference in promptness of making decisions between male and female students.
12	I sense that existing gender issues have some impact/ influence in the working environment/ relation in the student community.

Obtained final scale consists of 12 statements only which covers the leadership traits of decision making, group work, communicating and self-understanding. Using this scale gender differences may be obtained on those leadership traits. The chosen statements are universal in nature but the participating sample size is quite less in number. The scale may be used in Likert type format against each statement like Strongly Agree= 5, Agree= 4, Undecided= 3, Disagree= 2 and Strongly Disagree = 1. Respondents will answer all the items or statements. Minimum score will indicate strong disagreements and maximum score will indicate strong agreements on the statements of the final scale. Here the minimum score will be 12 and maximum will be 60.

Preferences of liking and disliking between men and women is a requirement to lead others in a productive manner since it is desirable that people should behave appropriately based on sex within the society (Levesque, 2011). Stereotyped attitude hinders the group activity, cohesion and leadership. Before commenting on females’ leadership qualities, counterparts are to know their own attitude about those leadership aspects since stereotyped attitude hampers the development which was found in a study by Burns in 1978.

Leadership capacities between male and female may differ which may vary society to society. So, it is desirable to understand the attitude on decision making, group work, communicating and self-understanding both for males and females since attitude can impact leadership. This scale may be used to understand the attitude on those leadership aspects in order to find the gender differences.

### VIII. CONCLUSION

Human attitude is an important factor. It affects behaviour of our life especially leadership aspects. If we understand attitude over gender difference on some leadership aspects then it might help us to lead other in more specific way. With this aim, develop a scale over attitude on gender difference among students is a requirement here. Thus, relevant data has been obtained from students and using those primary data, a scale has been constructed to measure attitude on gender difference on the specific leadership traits following psychological scale construction method. This newly constructed scale is a pilot study. So, there is still room for improvement. However, the scale may be used among the student community within the educational environment after considering cultural notions and contexts.

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