

## Does the p in pc stand for Polly or Peter?

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### **Abstract**

*How much has gender stereotypes changed in the age of globalization and the Internet? This exploratory qualitative research examines and compares perceptions of gender stereotypes in a Foundation English class for engineering students and an English writing class for International students. While the data is not conclusive, there appears to be interesting trends or patterns. Findings indicate that some gender stereotypes have not changed at all while others seem to have been modified due to changes in society. Data also indicates a cultural and religious difference between the two groups of students. The study implies that teachers can correct and challenge negative perceptions of gender in their ESL classrooms. This is especially pertinent as teachers deal with students who will leave the university to work in male-dominated fields and core Engineering subjects do not address or highlight such equity issues.*

**Key words:** *Gender, Gender perceptions, Comparison of gender perceptions, Gender stereotypes, Gender equity*

## **Introduction**

In this fast moving age of the Internet and globalization, how much has gender roles and stereotypes changed? Do the youth of today still cling to traditional notions of male or female behavior? Or has globalization and widespread access to the Internet changed or modified these perceptions? Since Malaysia's independence, education has made strides in changing the socioeconomic face of Malaysia. More and more women are moving out into the workforce and fewer are opting to stay at home as housewives. In the midst of these rapid social changes, has the society at large embraced the inevitable changes in traditional gender roles? This paper will discuss an exploratory qualitative study which tries to identify and compare trends of gender perceptions between Malaysian Engineering Foundation students and International students studying at Universiti Tenaga Nasional (UNITEN). The study aims to explore whether perceptions of gender roles and stereotypes have changed, in these young tertiary students who will graduate and enter the highly competitive and gender-biased world of engineering. It does not attempt to make conclusive generalized statements about gender perceptions among Foundation Engineering students.

## **Literature review**

How does a child learn what is appropriate behavior? Traditional wisdom would suggest that parents play a crucial role in moulding a child's personality and character. Other influences outside the home are also believed to play a significant role in teaching social norms and acceptable gender roles. Much research has been done to examine these influences in the attempt to fully understand the processes involved in gender identification and acceptance.

One widely discussed theory to explain this phenomenon is the gender schema theory. According to Graber (1984), people form schemas through life situations they experienced personally or vicariously. Schemas are basically generalized patterns of information followed by examples that illustrate these patterns. This schema allows people to select and process information from the overwhelming onslaught of information from the actual world. Bern (1981) used the schema theory to explain sex typing. Sex typing happens when a society decides on gender roles based on male and female traits. Bern suggests that a child uses an evolving gender based schema to process information that he or

she receives from the environment. As he or she looks out at the world, information is processed through sex-linked associations found in the child's schema. She also suggests that the tendency to divide humanity into groups - the easiest being gender - is both habitual and normal (Bern, 1993). Martin and Halverson (1981) support Bern's theory in that they believe sex typing allows a child to make gender judgments on people, roles and objects. This processing of information allows the child to learn and make gender appropriate responses. Martin and Halverson also believe that sex typing gives rise to gender stereotypes.

Another useful theory to explain gender roles and stereotypes is the social learning theory. Bandura (1977) believes that people learn through social learning. That is to say, people learn by watching other people around them. These people serve as models to imitate behavior. This theory supports traditional wisdom that state children learn primarily through parental influence. Geen (1994) expands on this theory by suggesting that people watch and learn but may store behavior scripts for later use in similar situations. Thus, imitation of learnt behavior may not be immediate. Put together, the gender schema theory and the social learning theory form the social cognitive framework that can be used to explain gender roles and stereotypes.

Besides parents and significant others, how else do people learn about gender roles and stereotypes? Massey's study on the influence of the mass media on gender stereotypes reveals that while men appear twice as often in the advertisements he observed, women are more likely to be stereotyped (2006). This would include female sexual objectification such as scans of body parts and models as "background decoration" and stance subordination such as female characters sitting or lying down. Matlin (1998) observed that in magazine advertisements, men are rarely portrayed doing housework and are more likely to be seen as working outside the home than women. Women are also often portrayed as decorative objects wearing seductive clothing in advertisements while looking vulnerable and helpless. On the other hand, men are seen as standing upright, looking competent and purposeful (Jones, 1991). Furuhan and Mak (1999) made the observation that voice-overs for advertisements in 10 countries are predominantly male. Lovdal (1989, p. 721) found that "in 90% of commercials when a woman's voice is present, she is not speaking to the population at large but to dogs, cats, babies, children, and women dieters."

If gender stereotypes are part of our cognitive processing and are often perpetuated through the mass media, why are they a concern? Matlin (1998) in her article entitled "Bimbos and Rambos: The Cognitive Basis of Gender Stereotypes," raises this concern because gender stereotypes tend to encourage inaccurate cognitive processing as well as perpetuate and exaggerate stereotypes. She believes that gender stereotyping results in gender polarization. The two genders are seen as two completely different entities while in real life, these gender characteristics tend to overlap. Gender stereotypes also affect our expectations of male or female behavior. A classic study by Condry and Condry (1977), illustrates clearly how adults tend to perceive behaviour according to gender expectations. Their subjects were shown a videotape of an infant being startled by a jack-in-the-box. Subjects who thought the baby was a boy said the infant showed anger while subjects who thought they were watching a baby girl, stated that the baby showed fear. Matlin also believes that gender stereotypes influence people to remember information in gender consistent schemas. She cites a study by Arnie Cann (1993) where the students remember the sentence 'Jane is a good nurse' better than 'Jane is a bad nurse'. When people are employed in gender consistent occupations, people tend to remember the person's competence. The same students also recalled the sentence 'John is a bad nurse' better than the sentence 'John is a good nurse.' This tends to suggest that when people are employed in gender inconsistent occupations, people tend to remember the person's incompetence. Cann's study highlights the potential problem Engineering students may encounter as they move into the working world. Will female engineers be perceived as less able and competent than their male counterparts? In context – are all Engineering students created equal or are male students perceived to be more able and more competent Engineering students? In this study involving Malaysian and international students, is this perception true for both groups indicating a more globalized gender perception?

## The qualitative exploratory study

To explore and compare gender perceptions among beginning Malaysian and International Engineering students enrolled at UNITEN, a qualitative and exploratory study was carried out involving several English classes. A total of 167 students were chosen at random to examine their perceptions of gender roles. The majority of these students are males and the Malaysian students are mostly Ma-

lays, Chinese and Indians. The International group consists of primarily Middle Eastern students who speak Arabic as their first language.

## Method

To collect data, the students were given a stimulus to help them generate computer-related nouns. (Appendix A & B) After that, they were asked to write a paragraph with the following instructions:

*If you look at your computer, would you say it is female or male? Give reasons to support your answer. Write a paragraph and begin with a topic sentence.*

***This writing exercise was done during class time and the students' paragraphs were collected to be analyzed. No statistical instrument was used as only descriptive analysis was carried out. The following illustrates the two groups' gender perceptions of the computer.***

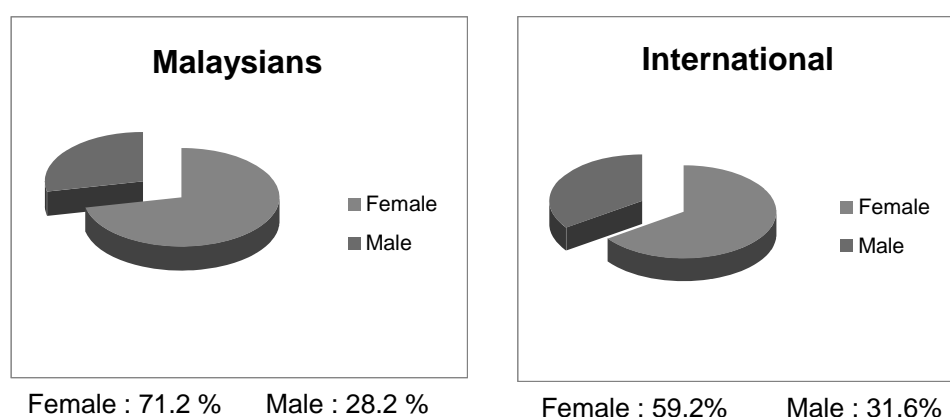


Figure 1 : Comparison of gender perceptions between the two groups

## The Data

While the data obtained cannot be said to be conclusive, the trends that emerged were interesting. The data revealed two broad trends about female gender behavior and stereotypes between the two groups. Both groups indicated negative as well as positive perceptions of the female gender. However, both groups had only positive perceptions of the male gender which are strikingly similar.

Below is a summary of the adjectives students use to describe gender behavior and characteristics based on the writing exercise given in class. Similar perceptions between the two groups of students are presented in Table 1 as follows:

**Table 1 : Similar perceptions between Malaysian and International students**

Perceptions	Adjectives : male	Adjectives : female
Negative perceptions	none	sensitive
		vain
		submissive
Positive perceptions	multitasking	mother ( runs family)
	strong	mother ( protects)
	organized	

Table 2 below provides the different negative and positive perceptions of the male and female genders expressed by Malaysian and international students as they described the computer.

**Table 2 : Different perceptions between Malaysian and International students**

Perceptions	Adjectives : male	Adjectives/adjectival phrases :
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female		
<b>Negative perceptions</b>		
a. Malaysians	none	fragile likes to gossip like an expensive girlfriend
b. International students		stay at home lacks ability
<b>Positive perceptions</b>		
a. Malaysians	none	Intelligent, high ability, organized,
b. International students		soft ( gentle ) keeps secrets my friend my mother (love) my sister ( relaxed)

## Findings & Discussion

The data obtained from this qualitative study tend to suggest that gender stereotypes still exist among Engineering Foundation Malaysian and International students. It is interesting to note that both groups have positive and negative perceptions of the female gender. Male stereotypes seem to remain constant, unchanged and generally positive.

When data from the two groups are compared, five noticeable patterns appear. The first pattern highlights the apparent difference in perceptions of the female gender. The Malaysian students' negative perceptions tend to be highly stereotypical in nature. First, the female is depicted as a sensitive, mood driven person. The reason given is that "the computer can hang and stop responding to its master without a reason. This is exactly like a woman who is having PMS." Students also note that the female "gets angry easily especially during PMS." The international students' perception of the sensitive female is also somewhat stereotypical but less harsh and judgmental. They reasoned that the computer is sensitive because it "needs a lot of care. The computer is easily broken." Also, "girls are sensitive because they are soft."

Secondly, although both see the female as vain, the Malaysian students think that the computer is vain because it "requires accessories, need to spend money on it." They likened this to their belief that "most women love make-up, branded clothing, accessories, in order to maintain their outer beauty." However, the International students describe the female as vain not because of their love for expensive clothes and make-up but because girls like to look pretty. To them, the computer "has many colours. Girls like to put on make-up and wear many colored clothes." They also see computer peripherals as similar to girls' accessories stating that the computer "has a small beautiful webcam like the girls when they put make-up for their eyes. The students also noted that the computer "can put many USB ports as girls when they put many earrings."

The final difference pertains to the stereotype of the female gossip. Malaysian students see the computer as a gossip because the computer "provides all kinds of information. The computer share files and information. Females love to pass around hot gossip. Girls are always the busy body." The International students, however, do not share this perception. Instead they say the "computer can save

your secret when you put your private things in folders. My computer keeps the secrets. It won't tell anyone about that information like the girls do the same thing. The girls save your secrets."

The second pattern is that both groups perceive the maternal role of the female as positive. Both groups associate the mother board as a central organizing system that runs the computer with the mother who runs the home/family. The Malaysian students describe the mother as the "female who controls the money in the family." They also feel that the mother is the one "who runs the family although the father is the head of the family." The International students perceive the mother in a more traditional gender role describing the mother the ones who "control and care for the house," and one who protects her children the same way the computer "protects my information like a mother protects her children."

The third noticeable pattern is the difference in the perception of the female's ability. Although the Malaysian students perceive the female as sensitive, vain and a gossip, they also perceive her to be mobile, possessing intelligence and a good memory. To them the female is "gradually taking over the men's job, like computers slowly taking charge of everything they could." She also "performs miraculous programs like a female who lacks physical strength but gifted in memory and understanding."

And, like the computer, "females are intelligent." The International students' perception seem to reflect a cultural/religious slant as they perceive the female to lack ability, usefulness and bound within the four walls of the home. They remarked that the computer is like a female because the "computer is always at home. Girls most of the time are at home. 75% of females in my country stay at home."

One student remarked that if "your hard disk is full, it is male. If not, it is female. My computer is full, so it is male, not female." Other statements include "my computer can do many things that females can't do better than a male," and that females are generally "less helpful than males."

The fourth pattern reveals how the students feel about their personal computer. The computer is likened to a girlfriend, a constant companion by the Malaysian students. To them, "Boys think of the computer when they are lonely. Boys miss their girlfriend when they are lonely. However, this 'girlfriend' does not come cheap. They say that the computer "requires accessories. We need to spend a lot of money on it. This is just like our girlfriend who always wants us to spend our money on her." This perception is not apparent in the International group. The International students see the female more as a family member. One student wrote that "I love my computer as I love my mother." To another student, his "computer has a nice sound. It reminds me of my mother." Another responded that "I feel relaxed with my computer. Females always give me a good feeling, particularly my sister." This difference could be due to their cultural mores where social interaction between unrelated members of the family of the opposite sex is not allowed.

Not surprisingly, in the fifth pattern, we find that the male stereotype has not changed much in both sets of data. Men are still perceived to be strong and able-bodied in the two primarily patriarchal societies. Both groups wrote that the computer is male as "the computer is strong like a man. It can protect itself." The International students interestingly associate the color black with men specifying that "my computer is male because it is black and strong." And not surprisingly, while the maternal role of the female is perceived to be positive by both groups, the role of the male as a father or paternal figure does appear to be significant in both sets of data.

## Implications and further research

The data obtained from this qualitative, exploratory study would tend to suggest that negative stereotypes still prevail among the young students beginning tertiary education at UNITEN. When compared, neither group has a fair and equitable perception of gender role and behavior. This would imply that despite the wide and easy access to the Internet and other forms of mass media, traditional views of gender roles and gender stereotypes are very much alive and well. This is not to say that all gender roles and stereotypes must be challenged. However, teachers as educators can use opportunities in the classroom and lectures to discuss and challenge certain stereotypes which affect accurate processing of information. More often than not, the inaccurate processing of information results in unfairness. This would be even more pertinent in classrooms of students who wish to pursue careers in male-dominated fields like Engineering. Given the fact that most young men and women work after graduation, a more balanced and accurate perception of both genders would likely help the transition from university to workplace to the home. The final objective is of course to create, encourage and



perpetuate gender equity – fairness- at tertiary level and ultimately in the working field. In our time and place, there should be no room for sexism – the notion that one gender is better than the other.

Further research into gender perceptions could be carried out on a larger sample which may provide more conclusive data. This could include samples from public as well as private universities. For the International group, a random sample of non-Arabic speakers would also prove interesting and may provide a less culturally biased data.

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## Appendix A (Malaysian students)

ENG102: Exercise I.

Remember When..... ( Anonymous )

A computer was something on TV from a **science fiction show of note** a window was something you hated to clean....

And ram was the cousin of a goat....

Meg was the name of my girlfriend and gig was a job for the nights now they all mean different things and that really mega bytes

An application was for employment

a program was a TV show

a **cursor** used **profanity**

a keyboard was a piano

**Compress** was something that you did to the garbage not something you did to a file and if you unzipped anything in public, you'd be in jail for a while.

Log was adding wood to the fire

hard drive was a long trip on the road

a mouse pad was where a mouse lived

and a backup happened to your **commode**

Cut you did with a knife

paste you did with glue

a web was a spider's home

and a virus was the flu

I guess I'll stick to my pad and paper

and the memory in my head

I hear nobody's been killed in a computer crash

But when it happens they wish they were dead.

I. Comprehension :

Discuss the meaning of the words in bold.

Who is the poet? Use words or phrases in the poem to support your answer.

List other computer words not included in the poem.

II. Writing (10%)

If you look at your own computer, would you say that it is male or female? Give reasons for your answer. Write a one paragraph answer and begin with a topic sentence.

## Appendix B ( International students )

WRITING ( 5 % )

Chapter 9: Writing Descriptions.

A. Describing objects.

Name the parts of the computer as shown below.

What other computer terminology do you know? List them

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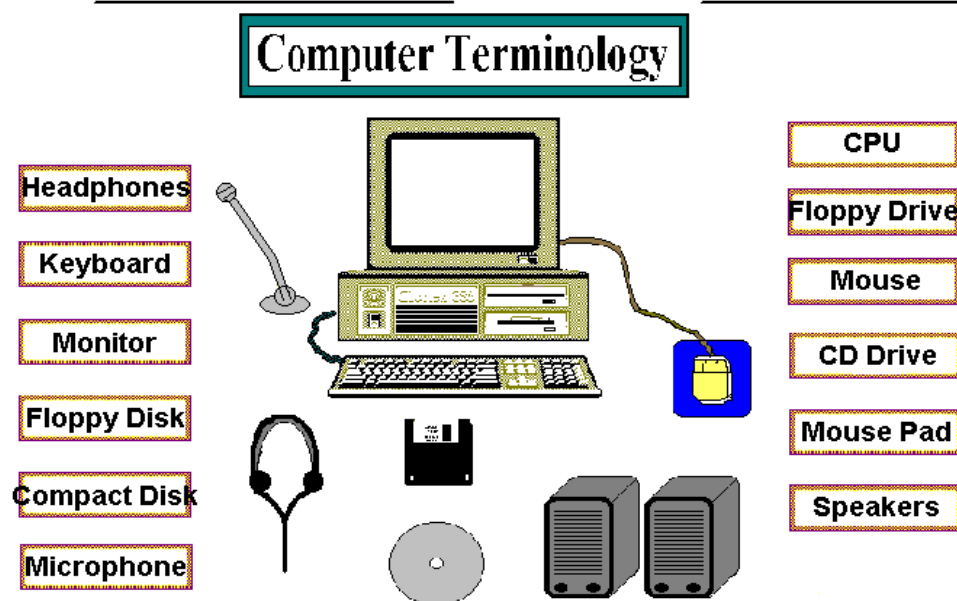
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Name: \_\_\_\_\_ Date: \_\_\_\_\_



- B. If you think about your computer – do you think it is male or female? Write a paragraph giving three reasons for your answer.  
 Begin with a topic sentence.

### Appendix C: Written Data

#### I. Similar negative female perceptions

##### MALAYSIAN STUDENTS

###### 1. Sensitive

Computer easily damaged and infected by virus.  
 Computer can hang and stop responding to its master without a reason. *This is exactly like a woman who is having PMS.*  
*Gets angry easily especially during PMS, mood swings*

###### 2. Vain

Requires accessories, need to spend money on it.  
*Most women love make-up, branded clothing, accessories, in order to maintain her outer beauty*

###### 3. Submissive

The device is also very obedient and would ask permission to execute a certain task.  
*A computer always obeys its master just like a wife who obeys her husband.*

##### INTERNATIONAL STUDENTS

###### 1. Sensitive

Computer needs a lot of care. The computer is easily broken.  
*Girls are sensitive because they are soft. A girl is sensitive because she can't stand everything.*

###### 2. Vain

It has many colors  
*Girls like to put on make-up and wear many colored clothes*  
 It has a small beautiful webcam *like the girls when they put make-up for their eyes.*  
 It can put many USB ports *as girls when they put many earrings*

###### 3. Submissive

The computer always *accepts orders like the women.*  
*My computer does what I want just like the girls.*  
*My computer is controlled by the mother board.*



Boys are never controlled by anyone. Girls are controlled by their boyfriend or husband.

## II. Similar positive female perceptions

### 1. Mother

Computer has a motherboard which controls all functions. The brain of the computer system.  
*Like a mother, arranges her family's life. The female who controls the money in the family. The mother who runs the family although the father is the head of the family*

### 2. Mother ( protects )

A computer scans for hazardous viruses to protect our computer.  
*A mother will always scan all the food before she cooks to make sure all the food is clean and nutritious. It is sensitive, just like our mother who is always sensitive to our movements (aware )*

### 1. Mother

Computers have many things – usb, network card, *like a mother who enfolds her child to her chest.*  
 It has a motherboard. The computer does that by organizing every part inside the case. *Mothers control and care for the house. The mother organizes everything for her children.*

### 2. Mother ( protects )

It keeps all files and saves them.  
*Mothers always do that with their children more than men. It protects my information like a mother protects her children.*

## MALAYSIAN STUDENTS

## INTERNATIONAL STUDENTS

## III. Different perceptions about the female gender

### 1. Fragile

Computers easily damaged, virus infection  
*Girls easily hurt emotionally or physically. Need protection from her guy, needs to be protected.*

### 2. Likes to gossip

Computer provides all kinds of information. The computer share files and information  
*Females love to pass around hot gossip, well informed, girls are always the busy body. A female has a connection of relatives and friends to share news and gossip.*

### 3. Outside the home

Works like a secretary.  
*Multi tasking - work and housewife. Gradually taking over the men's job, like computers slowly taking charge of everything they could.*

### 4. Ability

Performs miraculous programs *like a female who lacks physical strength but gifted in memory and understanding.*  
 Computer can save a lot of files, has a big memo-

### 1. Soft ( gentle )

*Girls have a soft touch* just like the computer.  
 It has a hard drive and *the female is soft. The word hard is not fitting with the female.*

### 2. Keeps secrets

The computer can save your secret when you put your private things in folders.  
 My computer keeps the secrets. It won't tell anyone about that information like *the girls do the same thing. The girls save your secrets*

### 3. At home

The computer is always at home.  
 It works at home.  
*Girls most of the time are at home. 75% of females in my country stay at home. Almost all females are working at home*

### 4. Lacking ability

My computer can do many things that *females can't do better than a male. Less helpful than males.*  
 If your hard disk is full, it is male. If not, it is fe-

ry.

*Work neatly and well organized, same as the computer.*

A computer is intelligent. *Females are intelligent*

#### 5. Computer -girlfriend

Boys think of the computer when they are lonely.  
 Boys miss their girlfriend when they are lonely.  
 Ones stuck in front of the computer all the time are guys. *Guys do cling more to a girl than the opposite.*

*When girlfriend is sick, they will send their girlfriend to the clinic.* Same as computer, we will spend our money to get antivirus software.

#### 6. Computer – expensive girlfriend

Requires accessories. We need to spend a lot of money on it. *This is just like our girlfriend who always wants us to spend our money on her.*  
 Expenses for a new computer are high as the money spent for the first date with a girlfriend.  
 A hole in the pocket to upgrade the computer.  
*Women's fashion sense – can cause a hole in the pocket of their partners.*

### MALAYSIAN STUDENTS

## IV. Similar positive perceptions of the male gender.

#### 1. Multitasking, organized

The computer organizes efficiently.  
 Men usually have the capabilities of organizing and founding a company with excellent performance  
 Most Icons are males.  
 Guys can do several things at a time

#### 2. Strong

The computer is strong like a man  
 It can protect itself.  
 The shape of the computer is solid, like a male body – solid and tough.  
 The computer has speakers – loud, clear sound.  
 Males talk louder and clearer compared to females.  
 The computer has a lot of energy, like a man.  
 The man can protect himself. Not all women can protect themselves.  
 Works fast efficiently and has no emotions running high like the females.

male. My computer is full, so it is male not female.

#### 5. Computer – not girlfriend

My computer is a male -my friend, I don't befriend any females.

A computer is a male. I cannot be alone with a female because it is haram ( forbidden ).

#### 6. Computer – family member

I love my computer as *I love my mother*  
 My computer has a nice sound. *It reminds me of my mother.*  
 I feel relaxed with my computer. *Females always give me a good feeling, particularly my sister.*  
 Each computer belongs to one person but that person can have many computers.

### INTERNATIONAL STUDENTS

#### 1. Multitasking, organized

My computer is a male because it is fast.  
 It can store a lot of things like the male.  
 The computer can keep a lot of information like a male.  
 The keyboard is like a male. It has many keys and can do many tasks.  
 In my opinion, my computer is a male. It is a great manager because it can manage and organize the whole system.

#### 2. Strong

My computer is male because it is black and strong.  
 It looks like a strong man. It is heavy and has a square shape.  
 I think my computer is male. My computer can work a long time. It can work 20 hours per day.  
 My computer is a male. It is strong and heavy.  
 It is male because it can stand the difficulties of weather like hot and cold.