GENDER STEREOTYPES AND POLITICAL LEADERSHIP: A STUDY OF MALAYSIAN SECONDARY SCHOOLS

WAN FARIHAH AHMAD FAHMY

FACULTY OF ECONOMICS AND ADMINISTRATION
UNIVERSITY OF MALAYA
KUALA LUMPUR

2020

GENDER STEREOTYPES AND POLITICAL LEADERSHIP: A STUDY OF MALAYSIAN SECONDARY SCHOOLS

WAN FARIHAH AHMAD FAHMY

DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF DEVELOPMENT STUDIES

FACULTY OF ECONOMICS AND ADMINISTRATION
UNIVERSITY OF MALAYA
KUALA LUMPUR

2020

GENDER STEREOTYPES AND POLITICAL LEADERSHIP: A STUDY OF

MALAYSIAN SECONDARY SCHOOLS

ABSTRACT

Gender inequality continues to be a pervasive problem in both developing and developed nations. While significant progress has been made towards achieving gender equality in many aspects in the recent decades, educational attainment remains an issue in many developing economies. Worldwide, various institutional barriers also continue to prevent women from achieving their fullest political, social, and economic agency. The Malaysian narrative on gender equality in education runs counter to conventional expectations. In the last three decades, girls and women in Malaysia have made significant strides in educational attainment. However, despite this gender gap in schooling favouring females, women continue to be underrepresented in political leadership in Malaysia. Possible explanations include socio-economic attitudes, influences, and deficiencies within the schooling system per se. This study investigates the latter possibility using primary data collected on 616 secondary school students and their class teachers and principals from 20 schools. It examines gender stereotypes in student attitude towards leadership (i.e. the belief that "men are better political leaders") as a function of teacher gender, independent of the influence of socio-economic backgrounds of students. The study schools are sampled from four states - Kuala Lumpur, Negeri Sembilan, Perak, and Kelantan. Three findings follow from the multivariate regression models of student attitudes towards leadership: (i) the support for the statement "Men are better political leaders" is higher among boys; (ii)having a female teacher is a significant and positive predictor of student gender attitudes; and (iii) fixed attributes such as student's race and gender matter significantly in explaining gender attitudes. This study shows that the influence of female teachers is not driven by gender of the school principal, gender belief of the teacher, sex orientation of the school and religious identity of the sample states. This is in line with findings from previous studies on gender attitudes in other nations. Implications for policies are discussed in the study.

Keywords: gender equality, leadership, secondary school, teachers, Malaysia

STEREOTAIP JANTINA DAN KEPIMPINAN: KAJIAN BERKAITAN

PELAJAR SEKOLAH MALAYSIA

ABSTRAK

Ketidaksamarataan gender terus menjadi masalah yang meluas di negara-negara membangun dan negara maju. Walaupun kemajuan ketara ke arah mencapai kesaksamaan jantina dapat dilihat dalam pelbagai aspek semenjak beberapa dekad kebelakangan ini, pencapaian pendidikan rata-rata masih menjadi isu di negara membangunan. Di seluruh dunia, pelbagai halangan institusi juga terus menghalang wanita daripada mencapai agensi politik, sosial dan ekonomi sepenuhnya. Naratif Malaysia tentang kesaksamaan jantina dalam pendidikan bertentangan dengan jangkaan konvensional. Dalam tiga dekad yang lalu, kanak-kanak perempuan dan wanita di Malaysia telah mencapai kemajuan yang ketara dalam pencapaian pendidikan. Walau bagaimanapun, walaupun jurang gender dalam pendidikan yang memihak kepada perempuan, wanita terus kurang mendapat kepimpinan politik di Malaysia. Penjelasan yang mungkin termasuk sikap sosio-ekonomi, pengaruh, dan kekurangan dalam sistem persekolahan. Kami menyiasat kemungkinan kedua menggunakan data primer yang dikumpulkan pada 616 pelajar sekolah menengah dan guru kelas dan pengetua dari 20 sekolah. Kami mengkaji stereotaip gender dalam sikap pelajar terhadap kepimpinan (iaitu kepercayaan bahawa "lelaki adalah pemimpin politik yang lebih baik") sebagai fungsi jantina guru, bebas dari pengaruh latar belakang sosio-ekonomi pelajar. Sekolah kajian diambil dari empat negeri iaitu Kuala Lumpur, Negeri Sembilan, Perak dan Kelantan. Tiga penemuan mengikuti dari model regresi multivariate sikap pelajar ke arah kepimpinan: (i) sokongan untuk pernyataan "Lelaki adalah pemimpin politik yang lebih baik" adalah lebih tinggi di kalangan lelaki; (ii) sifat-sifat tetap seperti bangsa dan jantina pelajar dengan ketara dalam menjelaskan sikap jantina; (iii) mempunyai seorang guru wanita adalah peramal penting dan positif terhadap sikap jantina pelajar. Kami menunjukkan bahawa pengaruh guru wanita tidak didorong oleh jantina prinsipal sekolah, kepercayaan jantina guru, orientasi seks sekolah dan identiti agama sampel negeri. Ini adalah selaras dengan penemuan dari kajian terdahulu mengenai sikap gender di negara lain. Implikasi untuk dasar dibincangkan dalam kajian ini.

Kata kunci: kesamarataan gender, kepimpinan, sekolah menengah, guru, Malaysia

ACKNOWLEDGEMENTS

This journey has been a long and arduous one, but it has been an exercise in patience and grit that I would not trade for any other experience. As I write this, I recognize that it is the grace of Allah Almighty, in His infinite wisdom and mercy, that allowed me to finally complete my dissertation. A few others also need to be honoured, for this would have been impossible to accomplish without them!

My supervisor and mentor, Professor M. Niaz Asadullah, for the countless hours of conversations, his relentless strive for excellence, and tireless commitment to my learning curve. One often finds enlightenment in the strangest of places, and it is his work and example that has clarified my life's purpose.

Family matters. My parents, Ahmad Fahmy Mohamad and Wan Fatimah Ahmad, who show me through their wisdom and example what good parenting should look like. In keeping with the theme of my project, it is their transmitted norms that have influenced my beliefs and life choices. For that, and many other things, I owe them the world. My sisters Farina and Farahin, who dually functioned as my research assistants and child caregivers, and my aunt, Professor Wan Azlina Ahmad, who has constantly inspired and encouraged me in my academic pursuits. My mother-in-law, Faridah Awang Ngah, for raising the best man I know, through her inspiring bravery and determination.

My former students in SMK Kamunting, who inspired this project – thank you for having taught me so much. Special mention of course for Kak Wan Nor Asiah, who is the epitome of strength and fortitude.

Above all, my sincerest and deepest gratitude is reserved for my husband, Wan Muhamad Nazhif bin Wan Yusoff, who embodies the gender equilibrium our world should aspire to. He isn't a "master wordsmith", but they say actions do speak louder than words. Our sons are blessed to have such an amazing example set before them. Finally, Wan Nafil Muhsin and Wan Adil Mukhlis, this is for you – that you may grow up to value the pursuit of knowledge, believe and advocate for an equal world, and do what is right, always.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF APPENDICES

CHAPTER 1: INTRODUCTION

1.1 Background of Study

Gender equality and female empowerment have been longstanding topics on the global development agenda. Hallmarks signaling the international community's acknowledgment of and intent to address gender inequality globally include the Convention to Eliminate All Forms of Discrimination Against Women (CEDAW) established in 1979, the 1995 Beijing Declaration, and the Millennium Development Goals (2000 – 2015). At present, the Sustainable Development Goals (SDG) (2015 – 2030) inform national governments' plan of action to reduce gender inequalities domestically.

Since the inception of these international frameworks, much progress has been made worldwide in addressing manifestations of gender inequality, particularly in health and survival as well as educational attainment. The United Nations Children Education Fund (UNICEF) reported that two thirds of nations achieved gender parity in primary education by 2016. In various developing nations including Bangladesh, Maldives, and Malaysia, gender disparity in favour of girls has even prevailed at higher levels of education (UIS, 2017).

However, despite these commendable gains in educational attainment, systemic barriers continue to prevent women and girls from achieving their fullest political, social, and economic agency (Jayachandran, 2015; Paxton and Kunovich, 2013). This is evidenced by more than 12 million girls worldwide entering marriages before the age of 18 yearly (UNICEF, 2018). The gender wage gap persists, with female workers on average earning a third less than their male counterparts for the same amount of work (UNDP, 2017). Despite their continuously expanding access to employment and

education – these considered to be "core drivers of democratic development" (Wyndow, Li, and Mattes, 2013), women remain underrepresented in political leadership and policymaking positions. To date, only 24% of parliamentary representatives worldwide are female (IPU, 2018). This lack of female presence is encapsulated by the term "missing women" (Sen, 1990). Economist Esther Duflo reiterates this when writing on women and economic development: "For each missing woman, there are many more women who fail to get an education, a job, or a political responsibility that they would have obtained if they had been men" (2012, p.1051). Evidently, gender inequality continues to present itself in multiple domains within all societies. However, it remains particularly pervasive across many developing nations (Jayachandran, 2015).

These persistent male-female gaps strengthen the argument that top-down policies and frameworks alone do little by way of redressing gender inequalities in society. As such, attention needs to be focused on prevalent social attitudes and norms that prevent countries from achieving gender equality. Such social attitudes and norms include gender stereotyping[1] attitudes, which have been documented in various cultures and societies (Eagly, 2009; Eble and Hu, 2019; Jayachandran, 2018), and in different environments such as at home (Beaman, 2011; Coleman, 1987), in school (Lavy and Sand, 2015), and in the workplace (Ellemers, 2018). Given Goals 4 and 5 of the SDG, which aim to "ensure inclusive and equitable education" and "achieve gender equality and empower all women and girls" (UNDP, 2018), this study intends to assess the prevalence of gender stereotyping attitudes in the Malaysian schooling system, focusing on a specific outcome – political leadership capability.

---

[1] Gender stereotyping refers to "the association of certain behaviours and traits to a specific gender" (Steele and Aronson, 1995).

1.2   Problem Statement

Within the last three decades, girls and women in Malaysia have made significant strides in educational attainment (Nagaraj et al., 2014). Well ahead of the deadline for the Millennium Development Goals, the country achieved a double triumph of universal education and gender parity at the primary level. At the secondary school level, girls' enrolment outweighs boys', while approximately 65% of undergraduates in local public universities are female (MEB, 2013). This is a far cry from the post-independence Malaysian experience in the 1960s, whereby hardly any females obtained secondary or tertiary education.

Malaysia's success in educating females is not only visible in terms of school enrolment and attendance but is also apparent in educational achievement. Although a small gender gap in favour of females does exist in the outcomes of international assessments like TIMSS and PISA, the achievement gaps are more significant according to other societal markers such as ethnicity and socioeconomic status (SES) (Saw, 2016). Further disavowing a significant gendered gap in mathematics and science skills common in other developed and developing nations, Asadullah and Perera (2018) find that by looking at 2012 PISA results, both boys and girls in Malaysia demonstrate equal achievement in these domains. In national examinations, Malaysian female students have consistently outperformed male students over the years (Asadullah, 2018; Zalizan and Hazadiah, 2010; Zalizan et al., 2014). These outcomes indicate that for the most part, the Malaysian education system has managed to recompense the male-female gender gap in education common barely a few decades ago.

Despite these significant successes in boosting female educational achievement and attainment, gender inequality remains pervasive particularly in political leadership. Although 50% of registered voters are female, Malaysian women have continued to be

disenfranchised from political leadership. As of 2018, Malaysia's percentage of female parliamentary representation ranks it the fourth lowest among Southeast Asian nations (IPU, 2018). The percentage of female representation has also remained consistently low over the years since the formation of the Malaysian parliament post-independence (see Figure 1.1 in appendix). Notwithstanding the milestone in electing the nation's first female deputy prime minister in the country's 14th general elections in 2018, only 13.8% of parliamentary representatives are female (IPU, 2018).

These historical patterns of overwhelmingly male political leadership raise pertinent questions. Why are Malaysian women continuously underrepresented in political leadership despite their significantly higher rates of educational attainment? Do socio-cultural or religious norms prevent women from taking up authoritative positions in the public sphere (Yeganeh and May, 2011)? Do Malaysian women face a lack of self-confidence in their ability to lead, as similarly seen studies of women in other societies (see Shih et al., 1999; Niederle and Vesterlund, 2007)? Alternatively, can the lack of female political leadership be attributed to Malaysian women's tendencies to shy away from competition (Park John, 2017)? Ultimately, what factors account for this vast gap between female educational attainment and political leadership in the Malaysian context?

Insights from studies conducted in other nations offer potential explanations for this gendered gap, which may be distilled into primary and secondary socialization practices. Coleman (1987) asserts that families have historically been the primary institution building children's social capital, and as such, have socialized them to adopt the behavioural preferences of their parents. Beaman et al. (2011) also lend support to family-level factors, having found that family-level factors such as parents' differing aspirations for their sons and daughters influence their career outcomes, which in turn alters their public visibility. Parental transmission of social attitudes also appears to

influence adolescents' perceptions of gender roles, as evidenced in India (Dhar et al., 2018). Doepke and Zilibotti (2017) attribute this transmission of cultural norms to a form of paternalistic altruism to impart the "right" or appropriate attitudes. As such, parents' beliefs of what construes acceptable social norms are passed down irrespective of other inputs such as educational attainment. Secondary socialization by communities such as faith-based or ethnic groups also transmit cultural and social conventions (Pearce, 2015). Positive or negative social sanctions resulting from socialization within these wider communities may subconsciously influence the attitudes held by adolescents (Liben et al., 2002).

Educationists and development economists also offer institutional explanations for this gendered gap between educational attainment and leadership, which sometimes paradoxically stems from inputs within schools themselves. Stromquist et al. (1998) assert that classrooms can lay the foundations for gender stereotyping and biases through implicit curriculum. Islam and Asadullah (2018) demonstrate explicit evidence of gender stereotyping through negative portrayals of females in textbooks. Rather than becoming a source of motivation to transcend social norms, this reaffirms existing social roles of males and females within society. Benzidia asserts that "school is a place where stereotypes exist, proliferate and are integrated into the collective belief" (2017, pg. 3). Whether a student experiences a co-educational or gender-segregated education may also have an influence on their gender role beliefs, with subsequent implications for family, work, and social roles (Erarslan and Rankin, 2013). Gender stereotypes formed during the schooling period influence the shying away of women from traditionally male-oriented domains such as mathematics (Sadker and Sadker, 2010). This has subsequent implications for labour market preference (Joy, 2006), given that education is an investment in the development of human capital.

Studies on the influence of teachers' beliefs towards students also offer insights on this gap. Jussim and Eccles (1992) find that teachers' expectations of achievement differ for boys and girls, leading them to different subject choices and career progressions. Spencer et al. (1999) and Hoff and Pandey (2006) find that teacher stereotyping of girls and boys leads to different performance outputs in academic activities. In support of these conclusions, Lavy and Sand (2015) find that teachers' beliefs about students' ability have an asymmetric effect by gender – positively on boys and negatively on girls. The effects of these beliefs are not only evident in short-term outcomes such as academic achievement and level of education attained, but also manifest in long-run outcomes such as career choices (Jussim and Eccles, 1992) and level of self-belief in leadership ability in the workplace and beyond (Steele and Aronson, 2003).

With these insights in mind, it is important to examine the early origin of gender stereotypes towards political leadership positions, with a focus on school and teachers' characteristics. The youth population is the appropriate study group given their impending progression to age of majority voting eligibility. Evidence of stereotypical attitudes among school-going adolescents can also inform about challenges to using education as a means for achieving gender equality. To date, there has been little scholarship in the Malaysian context on whether access to education has perpetuated conventionally held beliefs or minimised gendered attitudes towards political leadership positions. Therefore, this work intends to study whether Malaysian secondary school students hold stereotypical beliefs towards political leadership positions by systematically associating one gender as superior in capability to the other. This will be achieved by engaging with 16-year old students of both genders with a purposefully designed survey to document their view through disseminating a quantitative, closed-response questionnaire in four states in Malaysia – Kuala Lumpur, Negeri Sembilan, Perak, and Kelantan.

### 1.3	Research Questions

    i.	Is there support for gender stereotypes towards political leadership ability among Malaysian secondary school students and teachers?

    ii.	What is the role of teacher gender in shaping student attitudes towards political leadership ability?

### 1.4	Research Objectives

This study is primarily concerned with tracing evidence of gender stereotypical beliefs towards political leadership positions among Malaysian secondary school students and the influence of teacher gender in shaping students' beliefs.

### 1.5	Research Hypotheses

This study proposes to test the following hypotheses:

H1: There is no support for gender stereotypes towards political leadership ability among Malaysian secondary school students and teachers.

H2: Teacher gender does not influence students' attitudes towards political leadership ability.

### 1.6	Scope and Limitation of Study

There are several important parameters to be mindful of in this study on tracing gender stereotypes in Malaysian schools. As iterated earlier, this study surveys the perspectives of 16-year old Malaysian male and female secondary school students on the political leadership ability of men and women. Given the Malaysian context of high enrolment of female undergraduates in university and low female representation in

political leadership, this study will only focus on understanding students' attitudes towards political leadership. It will neither attempt to discuss nor prescribe potential interventions to reduce gender inequality gaps at different educational levels.

Yet another parameter needs to be established. This study intends to only identify whether there is evidence of gender stereotypical beliefs among students in Malaysian secondary schools towards political leadership, as opposed to evidence of gender bias. This distinction is crucial in understanding the design of the study. Bias implies a demonstrated action of preference of one gender over another (MacNell et. al, 2014). As this study neither records nor measures the voting preferences of adolescents for leadership of school-based organizations or community groups they participate in as proxies of political leadership, evidence of gender bias is therefore beyond the scope of this work.

While care has been taken to establish external validity of this study, a few limitations affect its generalizability. First, this study only included Malaysian school-going adolescents who were 16 years old. Surveying younger or older adolescent respondents might potentially result in different responses. Additionally, this study is currently limited to four geographic locations in peninsula Malaysia, which are Kuala Lumpur, Negeri Sembilan, Kelantan, and Perak. Different sociocultural norms and traditions have been documented in these locations (see Chapter 2 for an explanation of *adat*), which provide an interesting backdrop for this study on gender roles in political leadership. However, replicating the design of this study in other geographic locations such as in East Malaysia, where different ethnicities subscribe to unique sociocultural norms, for instance, may well produce different outcomes.

Finally, conducting this study outside a classroom environment versus an in-class setup might yield dissimilar results, as this study only examines the school environment.

Parents, caregivers, and teachers' spouses were not interviewed in this study, although background demographic information on these groups was self-reported by respondents. As such, the influence of both student and teacher respondents' home environment is omitted from this study.

1.7   Key Terms and Definitions

To ensure contextualization and alignment, it is worth establishing the definitions of a few key terms that are predominantly used throughout this study. By no means are these exhaustive, although they remain central to the discussion of the topic.

Gender Stereotyping

Stereotypes are conceptualised as "general expectations about members of particular social groups" (Ellemers, 2018, p. 276). Through modelling, Bordalo et. al (2016) establish that stereotyping is a matter of social cognition, which will be later discussed in this study. Given the predominantly binary categorization of gender into male and female, gender stereotyping therefore refers to the act of generalizing gender attributes, differences, and roles of men and women (UN Women, 2017). This term is synonymous to 'sex typing', which also assigns masculine and feminine-oriented activities to individuals (Marini and Brinton, 1984).

Leadership

While various interpretations of leadership exist (see Amanchukwu, 2015; Khan, 2015; Swamy, 2014), this work identifies leadership as a position of authority held by individuals over others in their sphere of influence. This work focuses solely on political leadership at the national level – owing to the associative familiarity of female figures such as Wan Azizah, Hannah Yeoh, and Azalina Othman, to name a few.

Secondary School

The term 'secondary school' refers to national and national type secondary schools attended by adolescents between the ages of 13 and 17 (Form 1 to Form 5) in the Malaysian national education system. Given the global education context and terminology, this will be used interchangeably with the term 'high school' when reviewing international literature.

Teachers

Many studies on the relationship between teachers' gender or transmitted attitudes and students' outcomes or beliefs have focused on subject-specific teachers, such as teacher-pupil gender matching and its effects on students' English language subject performance, or female teachers and students' selection of science, technology, engineering, and mathematics (STEM) stream (Alan, Ertac, and Mumu, 2018; Eble and Hu, 2018). In this study, the teachers sampled were class teachers for Form 4 classes. In the Malaysian context, class teachers perform a number of additional duties on top of teaching a specific subject, which include electing the class' student leaders, overseeing the daily attendance of students, resolving issues related to student discipline and academic performance, and others (MOE, 2016). This is similar to the role of homeroom teachers in the American education system. These duties necessitate more non subject-based contact time with students, allowing for more interactions which may indicate a teacher's preconceptions.

1.8 Significance of Study

There are several institutional and societal conditions motivating this study. An international impetus first stems from Sustainable Development Goals (SDG) 4 and 5. Goal 4 calls on nations to ensure inclusive and equitable quality education and promote

lifelong education for all. Meanwhile, Goal 5 exhorts countries to achieve gender equality and empower all women and girls. Targets 5.1 and 5.4 are especially pertinent to this discussion, as they spur nations towards normalizing such conventions: (i) ending all forms of discrimination towards women and girls everywhere, and (ii) ensuring women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life (UNDP, 2015). To date, somewhat little understanding of adolescents' socialized gender stereotypes towards these targets has been advanced despite their impending stewardship of Malaysia as the nation approaches the year 2030.

From a national perspective, this study is well-contextualized within the backdrop of the Mid-Term Review of the Eleventh Malaysia Plan (RMK11), which for the first time includes an assessment of Malaysia's progress towards achieving SDG targets. As such, this study addresses the gap in knowledge of grassroot-level understanding of youth mindsets towards gender and social roles, particularly in visible public roles such as political leadership. Should policymakers and development practitioners be inclined, these findings could be used as a starting point for implementing interventions to close the gender gaps apparent in Malaysia's political, economic, and social contexts.

Additionally, countries invest in education with the goal of developing human capital that raise the productivity of its economy (Judson, 1998). Malaysia has lofty aims for its education system and economy. In particular, the nation aims to build a "future-ready labour force" to meet the demands of the 4th Industrial Revolution (Talentcorp, 2017). Given the fact that there is much leakage in the economy as a result of gender stratification (Seguino, 2009), it becomes a matter of necessity to depict and establish adolescents attitudes at this point so as to continue nurturing existing gender progressiveness, or if necessary, initiate interventions to promote gender equality for the imminent future of the country.

1.9   Flow of Study

This study is an attempt to contribute to the discourse on gender attitudes by tracing the beliefs of Malaysian secondary school students towards political leadership. To ground this study in Malaysia's developmental experience, Chapter 2 is divided into study context and theoretical context, in which I examine the historical involvement of women in the public sphere, focusing on their political, economic, and social activities in the precolonial, colonial, post-independence and recent years by delving into economics, Southeast Asian area studies, history, and gender studies literature on such issues. Then, this study will briefly discuss the historical evolution of gender within the Malaysian education system. To establish a theoretical framework, this chapter will then review national and international literature on stereotypes and gender attitudes, sources of gender preferences, and the consequences of gender stereotypical beliefs within the school context. Chapter 3 outlines the study's conceptual framework, discusses the sample, data collection procedure, and analytical methodology. Chapter 4 presents the analysis and findings of this study. Finally, Chapter 5 concludes the study by summarizing main findings, outlining policy implications for addressing the gender gap, and advancing recommendations of further work.

CHAPTER 2: LITERATURE REVIEW

2.1 Overview

This chapter presents the contextual and theoretical groundwork motivating this study. First, it discusses gender relations and the involvement of women in the Malaysian public sphere during the pre-colonial, colonial, post-independence years, and the recent decades. Then, it contextualizes gender in the Malaysian education system. Next, to establish theoretical context on gender stereotypical beliefs, this chapter reviews national and international literature on gender stereotypes within the education landscape, focusing on factors contributing towards the manifestation of these stereotypes.

2.2 Study Context: The Evolution of Women's Roles in the Malaysian Public Sphere

The visibility of women in the Malaysian public sphere has been conscientiously studied, particularly during the pre-colonial, colonial, and post-independence periods, as well as within the recent decades. Arguably, women in Malaysia have historically enjoyed important and visible leadership roles in the public sphere. However, the social status of Malaysian women has at times waned throughout the nation's history due to factors such as economic contribution, social norms, and situational impetus which will be discussed in this section of the literature review.

2.2.1 Pre-colonial Period: Public Visibility and Social Protection for Women

Given the evolution of the nation-state in this region, unpacking the visibility of Malaysian women first requires an understanding of gender relations within the wider Southeast Asian context. In comparison to societies in other geographical regions, Southeast Asian societies traditionally demonstrated more egalitarian gender relations (Andaya, 2000). This contrasts with the patriarchal-oriented societies in South and East Asia (Jayachandran, 2014). While it is inaccurate to depict Southeast Asian societies as

completely absent of patriarchy, women appeared to have historically enjoyed greater agency. Men and women engaged in the same political, economic, and social domains, although they served different roles according to the needs of their communities (Andaya, 2000).

Males generally retained formal control over statecraft in Southeast Asia (Hirschmann, 2016). However, historians have recorded the role of women as heads of state in various ancient Southeast Asian kingdoms, which even predates the rise and influence of religious traditions such as Hinduism, Buddhism, and Islam as the earliest organized faiths traced in this region (ibid.). Women of royal or high birth were not precluded from ascending the throne. Reid (1988) contends that the period of female rule in the historical kingdoms of Java, Aceh, and Pegu was also when the cities were at the peak of their commercial importance due to the leaders' prioritization of the welfare of their subjects and a keen understanding of diplomatic and trade relations.

Like other early Southeast Asian kingdoms, early Malay states also had female rulers. In what is modern-day Kelantan, two women, Cik Siti Wan Kembang, and Puteri Saadong, ruled consecutively in the 16th century – skillfully navigating trade and foreign relations with Arab traders from the Middle East (Manderson, 1980). Female involvement in the highest echelons of state leadership ensured that "despite the advent of Islam in Kelantan, women were able to later maintain visibility in the public sphere, particularly in economic trade and local village leadership" (Raybeck, 1980). Traditional societal laws also indicate that gender relations were relatively egalitarian (Sleboda, 2001). Deconstructing '*adat*', a Malay term for culture and tradition, indicates that both well-known sets of customary laws such as *Adat Temenggung* and *Adat Perpatih*, are "significantly bilateral in principle and content" (Wazir (1992, p.62) in

Hirschman (2006)) or female-oriented. *Adat Perpatih²*, a set of laws and customs governing Negeri Sembilan society was centred around women, the family institution, and matrilineal kinship. The provisions of these customary laws guaranteed the matrilineal continuity of families, the residence of newly married couples as being in greater proximity to the wife's family and women as recipients of their mother's inheritance. However, only men could hold leadership posts in customary governance (Malaysian Archives, 2019). This is consistent with Hirschman's assessment that during this period, women in Southeast Asia had power in household decision-making, although they were relatively constrained by broader political and economic contexts (2016).

2.2.2 The Struggle for Independence: Downplaying Women's Involvement

For the sake of brevity, this review of women's involvement in nationalist movements for independence focuses particularly on mid to late twentieth century. While Malaysia comprises diverse ethnic groups with unique narratives, attention is mainly focused on the accounts of Malay, Chinese, and Indian women given the population sampled in this study.

In contrast to the "diffident natives" (Aljunied, 2013) myth perpetuated by European colonialists, women in Malaya were actively involved in public life through membership in various women's associations with political agendas. The Penang Women's Association and the Selangor Women's Association comprised mainly Chinese members concerned with educating females. Angkatan Wanita Sedar (AWAS) and Kaum Ibu were among the most prominent Malay women associations that mobilized female support for independence (Musa, 2013).

---

² Adat Perpatih originates from Minangkabau, Sumatra, although the migration and settlement of a large community to Negeri Sembilan in the 14th century established these customary laws as the foundation of society in this area (Malaysian Archives, 2019).

Despite this, multiple historical accounts "lend credence to the master-narrative that depicts men as prime movers of great events and (Malay) women as auxiliaries in the making of an independent nation state" (Aljunied, 2013). The secondary position of women is reflected across the political spectrum (Aljunied, 2013; Musa, 2013).

Leonora Manderson's seminal work on Kaum Ibu, the women's wing in the United Malays National Organization (UMNO) (1980) illustrates this vividly. Although it was the largest political coalition of women in Malaya, Kaum Ibu always remained subordinated to the larger male wing of this party as opposed to establishing its own direction (Manderson, 1980; Maznah, 2017). This reflected the "conservative outlook and hierarchical political culture in all matters" including gender (Ting (p.76) in Gomez et al. (2007)). Other party leaders across the spectrum "consciously placed limits on the roles and activities of women activists to avoid challenges to their authority" (Aljunied, 2013).

Further examples of patriarchal dominance were seen even in radical political parties such as the Malayan Communist Party. Mahani Musa (2013) showed that although women were in fact part of the party's guerrilla operations, they were portrayed as being cooks, nurses, cleaners, and radio operators rather than undertaking the same dangerous roles as their male counterparts, subjecting them to "double colonization" (Aljunied, 2013) by both Western colonialists and local male leaders.

2.2.3 Post-independence Malaysia: Father Knows Best

Despite the government's centralized approach to development planning post-independence—characterized by its five-yearly plans—it was only in the Sixth Malaysia Plan (1991 – 1995) that the government "specifically emphasized and focused on issues and strategies for the advancement of women… the previous plans only paid lip service to issues relating to women" (Kalthom, Noor, and Wok, 2008, p.440).

One of the explanations for this is that the shift from agriculture to industrialization minimised the need for women to be economic contributors to the household (Alesina et al., 2013). Mechanisation ensured that productivity was less labour-intensive (Hing, 1985), which in turn relegated women to becoming secondary actors in society (Blumberg, 1984). Their participation in the labour force was limited to select sectors such as education, healthcare, and agriculture (Elias, 2011). This resulted in a decline in female bargaining power, leading to less egalitarian gender relations than in previous periods (Jayachandran, 2014).

A social constructivist perspective offers a different explanation. "Hyperethnicization" (Maznah, 2002)—a conscious state decision to significantly emphasize racial and cultural distinctions between different ethnic groups—prevented women of all races from coalescing to draw attention to women's rights issues. As such, women only united on issues necessitating immediate action such as domestic violence (Maznah, 2002; Tan and Ng, 2003). The intersection between religious revivalism and the paternalism of state-led development affirmed male authority over the Islamic household (Ong, 1990). There was systematic inattention to women as a social group, which led to their disenfranchisement in political engagement despite having advanced in other indicators such as maternal health and education (Maznah, 2018).

2.2.4 Malaysia Now: Gradually Egalitarian?

A cursory glance at indicators of gender equality show that the gender gap in Malaysia appears to be narrowing in many aspects. Maternal mortality rates have fallen, female enrolment in secondary and post-secondary levels of education have increased, and the rate of female labour force participation has increased over time (Asadullah, 2018). In 2017, Malaysia's Gender Inequality Index value was 0.287, ranking the nation

third behind Singapore (0.067) and Brunei (0.236) in Southeast Asia (UNDP, 2018). However, troubling perspectives emerge upon deeper consideration.

Like women in many other developing nations, Malaysian women are not immune from the role conflict that characterizes women's lived experiences (Kalthom, Noor, and Wok, 2008). Although the labor force participation rate has increased in the last decades, gender gaps in wages have also been documented – most glaringly in senior managerial positions, whereby males are paid 37% more than females who are doing the same work (Elias, 2014). Among many other challenges, Malaysian women suffer from the effects from "role overload" (Kalthom, Noor, and Wok, 2008, pg. 447), in which they are expected to participate in the labour force yet still shoulder the bulk of unpaid domestic work. While this double burden may be attributed to multiple cultural and economic factors such as gender role norms, a lack of family-friendly working policies, and gender asymmetry within the labour market, structural factors also prevent women from being freed of these responsibilities. Hence, there is a need for a critical mass of female legislators who will evoke real change for women (Maznah, 2018). As such, the underrepresentation of women in political leadership needs to be addressed immediately. It is hoped that this study on gender attitudes towards political leadership contributes towards redressing this lack of female political leadership.

2.3 Study Context: Gender and The Malaysian School System

The evolution of the Malaysian education system has typically reflected the nation's population changes (Hirschman, 1988). The diversity of the Malaysian population meant that schools were divided along ethno-religious lines by virtue of medium of instruction. Additionally, subject matter and instruction also differed by gender. This section briefly outlines the changing nature of the education system,

focusing particularly on the education of girls and boys in various periods and school types.

The foundations of formal education in the nation began with the spread of Islam by Arab merchants and proselytizers, which gave rise to the transmission of knowledge through faith-oriented education circles that were spearheaded by the Melaka Sultanate. Historical records indicate that such circles even coalesced at the palace of the sultanate, signalling the importance of acquiring Islamic knowledge to the rulers. Gradually, these circles led to the establishment of religious learning institutions such as 'pondok' schools - similar to 'pesantren' in Java or 'madrassas' elsewhere in the Islamic world. Even through the rise and fall of multiple colonial powers in the land, these schools continued to be a popular form of formal schooling for Malays, who are also Muslim[3]. In this setting, the focus of learning was on the transmission of religious knowledge. Given the sociocultural norms of men as religious leaders and heads of the family unit, it was mainly boys who were given formal instruction in religious knowledge and later literacy and numeracy. Meanwhile, girls were informally taught at home by their mothers, and were primarily expected to undertake domestic tasks such as cooking and sewing (O'Brien, 1980). This pattern of limiting female access to education continued well into the colonial period, cutting across ethnic groups (Rudner, 1977).

European colonization altered the global landscape, for reasons historians attribute to a need for gold and wealth acquisition, a drive to bring glory to monarchies and heads of state, and a spiritual calling to spread the teachings of Christ (Friedrich, 2018). Although Malaya was colonised by multiple powers including Japan, it is arguably the British who were the architects of contemporary Malaysia given the political and

---

[3] Article 160 of the Malaysian Federal Constitution defines Malays as individuals who speak the Malay language, practice the Islamic faith, and follow a lifestyle that is in accordance with Malay culture (Arkib Negara).

social structures institutionalized. As such, this discussion will focus on the period of British colonization in the late 19th to 20th century.

During this period, an influx of Chinese and Indian workers entered Malaya and Borneo as the human capital needed to develop and sustain British economic ventures such as tin mining and cash crop farming. Owing to the permanent settlement of workers and subsequent establishment of families as social units, vernacular schools catering to these ethnic groups began to manifest. To ensure that children remained connected to their roots, the schools' medium of instruction was in their mother tongue, and the national curriculums of China and India were taught (Rudner, 1977). To avoid impressions of having sidelined the rural Malay population, Malay vernacular education was also introduced – albeit at only the primary school level (O'Brien, 1980). However, the highest private return to investment in education happened through attendance of English medium schools – catered for the middle-class with the goal of creating civil service bureaucrats (Hirschman, 1979; O'Brien, 1982).

Given the colonial desire to spread Christianity, this period also witnessed the landing of missionaries in Malaya (Reid, 1988). Missionaries identifying as Anglicans, Roman Catholics, Jesuits, and Methodists, among others, arrived from Britain, Ireland, France, and other parts of the world to undertake mission work under the patronage of the British colonial administration. Missionaries established English medium schools as a means of educating the local population, while spreading their religious teachings. In keeping with their alignment to the religious orders they belonged to, most of these mission schools only offered single sex enrolment, although sister schools catering to the opposite sex were also established in the vicinity. Single-sex schooling remains highly regarded in neighbouring Southeast Asian nations such as Singapore (Seah, 2019), Thailand (Jimenez and Lockheed, 1988), and Indonesia (Farieda, 2017). Penang Free School, established in 1816, is purportedly Malaysia's oldest recorded school.

Similar schools include Convent Bukit Nanas, Convent Taiping, Methodist Boys School, St Theresa School, and St Paul's Institution.

2.4 Theoretical Context

This section lays the theoretical groundwork for this study by first reviewing literature on various forms of stereotypes. Subsequently, it will focus on unpacking gender stereotypes by examining the sources of gender stereotypical attitudes. Given the school environment in which this study is conducted, this section will then focus on assessing the possible drivers of gender stereotypes, evidence of gendered attitudes and beliefs in classrooms, as well as the implications of gender stereotypes in education.

2.5 Stereotypes

The Oxford English dictionary defines stereotype as a "widely held but fixed and oversimplified image or idea of a particular type of person or thing" (2018). Stereotypes are conceptualised as "general expectations about members of particular social groups" (Ellemers, 2018). A wide body of academic scholarship has documented the various forms of stereotypes among cultures and societies (Eagly, 2009), their origins and raison d'etre (Glaeser, 2013; Hoffman and Hurst, 1995; Serbin et al., 2001), as well as their far-reaching consequences (Hoff and Pandey, 2006; Shih et al., 1999).Variations of commonly-held stereotypes that "Asians are good at Math" (Shih et al., 1999), "all Muslims are terrorists" (Sikorski et al., 2017), and "women are bad drivers" (Skinner, 2015) indicate that stereotypes are usually perpetuated within societal markers such as ethnicity, religious orientation, sexual preference, and gender (Glaeser, 2005). While the sociological viewpoint frames stereotypes as being "fundamentally incorrect and derogatory generalizations (that are) reflective of the stereotyper's underlying assumptions" (Bordalo et al., 2016), stereotypes can also be framed as being positive and favourable towards a racial group or gender (Shih and Pittinsky, 2014). However, these

stereotypes often have the ironic consequences of "increasing essentialism and the application of prejudicial beliefs" (Kay et al., 2013) and impairing performance in counter-stereotypical tasks (Kahalon et al., 2018).

Holding stereotypical assumptions reduce the heterogeneity of groups of individuals or things, thereby often perpetuating unfounded and incorrect beliefs that have directional consequences for both persons who hold particular stereotypes as well as for those upon whom these stereotypes are applied on (Bordalo et al., 2016). These include short and medium-term cognitive and non-cognitive implications such as underachievement in certain subjects (Shih et al., 1999), career choices (Benzidia, 2017; Reskin and Bielby, 2005), and hiring preferences (Gorman, 2005). The pervasiveness of stereotypes not only have implications for individuals and organizations, but also impact societies by entrenching inequalities between different groups.

2.6 Gender Stereotypes

Given the predominantly binary categorization of gender into male and female, gender stereotyping refers to the act of generalizing gender attributes, differences, and roles of men and women (UN Women, 2017). This term is synonymous to 'sex typing', which also assigns masculine and feminine-oriented activities to individuals (Marini and Brinton, 1984). The pervasiveness of gender stereotyping behaviours in various societies has been shown to lead to gender inequality (Dhar et al., 2018; Jayachandran, 2014). Literature commonly portrays gender inequality as circumstances that entrench poor treatment of women. This section focuses on the literature surrounding the sources of gender stereotypical attitudes, its manifestations in classrooms, as well as its cognitive and non-cognitive consequences among school students.

2.6.1 Sources of Gender Preferences of Individuals and Societies

Glaeser and Ma (2013) compellingly present the multiple roots of gender preferences in society, attributing the prevalence of these attitudes to factors such as parents' biological expectations, economic contributions, and even historical market forces to push gendered products upon consumers[4], among others. This section delves into various drivers of gender stereotypical beliefs, focusing primarily on socialization within the school context given the population sample studied.

2.6.1.1 Biological Factors

Studies have posited that the formation of gender attitudes and preferences begins in infancy and early childhood. Biologically-oriented theories explain gender-based preferences as programmed through ancestry (Scarr and Weinberg, 1978; Archer, 1995; Simpson and Kenrick, 1996). Even before young children comprehend the concepts of sex and gender, they are already cognizant of differing physical attributes of both sexes as early as nine months (Blumberg, 1984; Sax, 2005).

However, these fall short in explaining the development of gender identity as they do not consider global cultural variation, intracultural variation, and the advancement of rapid social changes in explaining how these identities and beliefs differ in individuals (Bussey and Bandura: 1999). Additionally, these theories only view gender as being dichotomous, when in fact a multitude of studies have validated gender identity as being a broader spectrum.

---

[4] In *The Feminine Mystique*, Betty Friedan (1960) argues that cleaning supplies companies introduced the idea of women undertaking household chores in a bid to encourage sales.

2.6.1.2 Economic Factors

Gender preferences in families and societies have also been attributed to economic factors. Gender stratification theory advances the notion that the social status of females is inextricably linked to their economic standing (Blumberg, 1984). As such, in societies where women undertake productive labour, gender relations are more egalitarian given women's economic power (ibid.). This has been demonstrated in agricultural societies, where men and women both contribute to the household income vis-à-vis working in fields. Additionally, gender preferences such as son bias may also be influenced by economic factors (Jackson, 2010; Jayaraman et al., 2009). Sons are presumed to carry on family lineage and make financial contributions to the family, especially in parents' old age (Wang, 2005). This is true for many patrilineal societies. However, in the Malaysian context of matrilocality and bilateral kinship systems (Hirschman, 2016), son bias has not been particularly prevalent.

2.6.1.3 Socialization Factors

In the recent decades, scholars posit that much of the formation of gender identity appears to be based on socialization, which is learned in the context of individuals' social, cultural, and institutional environments such as family and schools.

(i)   Parents

Parents are among the earliest transmitters of social and cultural norms (Beaman et al., 2012; Humlum et al., 2019). Within the family context, individuals are socialized to adopt gender appropriate behaviours by following examples set before them (Coleman, 1987). Michel (1970) offers the social learning theory, which argues that gender identities are learned by being rewarded for displaying sex-typed behaviours. From an early age, content-specific behaviours and associations are learned through objects, persons, and

experiences (OPE) one positively and negatively interacts with (Michel in Liben et al., 2002). This includes an individual's interactions with their own parents, thus supporting the notion that parents are indeed agents of cultural transmission and preferences (Bisin and Verdier, 2001).

This tendency to transmit 'right' behaviours becomes particularly prevalent in highly unequal societies (Glaeser and Ma, 2013). Beaman et. al (2012) find that in India, parents have higher academic and career aspirations for boys compared to girls. However, this disparity is minimised when females undertake village leadership roles, suggesting a role model effect. As found by multiple studies (Dhar et al., 2018; Doepke and Zilibotti, 2017), cultural context also plays an important role in the socializing of gender beliefs. Bem advances the gender schema theory, which posits that individuals learn sex typing according to schemata of their cultural perspectives (1981). These act as filters for the long-term retainment of gender-appropriate behaviours. Liben et al. (2002) support the notion of schemas as crucial to gender identity formation, suggesting attitudinal and personal pathway models as sex-type measures of attitudes towards self and others. Given that these iterations of gender schema theory are process-oriented rather than content-based, these somewhat provide explanations for the development of gender stereotyping beliefs. Fundamentally, gender stereotyping is a "categorization process that can be a work-saving mechanism" (Heilman, 1997). However, gender schema theory alone does not sufficiently account for an individual's application of such beliefs, as it is merely limited to explaining how knowledge of gender-appropriate behaviours are acquired (Bassey and Bandura, 1999).

(ii) Schools

Curriculum

Schools provide the first significant experience in which children learn to negotiate and establish their social roles, expectations, and large-group conflicts, although experiences with parents and families are when they first learn social and emotional skills (Merell et al., 2006). Inputs within a school environment include curriculum, peers, teachers, and school leadership. These may drive the transmission of gender preferences in various forms, although schooling is expected to yield gender equitable outcomes (Asadullah, Amin, and Chaudury, 2019). Development and education scholars have asserted that gender stereotyping in education may happen through explicit and implicit messages in curricula, known as the hidden curriculum theory (Wren, 1999). Textbooks, for example, perpetuate existing societal preconceptions as opposed to countering them. For instance, male characters are forefront in positions of public authority, while females are relegated to the domestic sphere (Islam and Asadullah, 2018). Additionally, textbooks and learning material may also sex-type occupations according to gender, or use prescriptive language dictating behavioural expectations for different genders (Fernandes, 2014).

Other instances of gender stereotyping in curricula become apparent through the subject choices on offer for students. For example, woodworking or machinery classes are offered or limited to male students while home economics classes are offered to females. Pascoe (2005) notes this occurrence in an ethnographic study of a public American high school, whereby male students undertaking home economics were deemed as less socially accepted in contrast to female students who were enrolled in woodworking classes. In time, these materials and practices serve to entrench societal conventions about gender segregation as opposed to encouraging nuanced perspectives on the issue (Pascoe, 2005).

Peer Interaction and Social Rituals

Gender stereotyping in schools can also occur through peer and teacher interaction. Social cognitive theory proposes that students learn from the "imposed" education environment they are in (Bussey and Bandura, 1999). Modelling from social interactions with teachers and peers enable individuals to acquire gender-linked beliefs and behaviours. Based on this acquisition, individuals self-regulate and conform to social sanctions of acceptable gendered behaviours (Bussey and Bandura, 1999). This routinizes the process of "social learning" (Manski, 2004), in which new cohorts of decision makers learn from the prior experiences of others through inference and individual prior knowledge. Therefore, a collective set of gendered norms is established, which is transmitted from group to group such as age cohorts or student groups.

Social rituals in schools may also institutionalize gendered social norms. Pascoe (2005) argues that masculinity appears to set the social standard. For instance, male athletes are centre stage and celebrated in special school assemblies, while females are relegated to cheering from the sidelines. Such entrenched social rituals signal the supremacy archetype of masculine men as leaders (Pascoe, 2005). Interestingly, females who appear more masculine than effeminate men are accorded higher social status – suggesting that gender relations in schools remain affixed to a traditional benchmark of masculinity (ibid).

Teacher Influence

Teachers may also become agents of gendered attitudinal transmission, in addition to their predominant role of knowledge transmission. Scholars have advanced a few theoretical perspectives to measure teachers' influence and students' attitudinal and cognitive outcomes, which include the Pygmalion effect and the role model effect. The Pygmalion effect was conceptualised by Rosenthal and Jacobson (1968) to demonstrate

the influence of teachers' expectations on students' outcomes. Essentially, this refers to "the effects of interpersonal expectancies, that is, the finding that what one person expects of another can come to serve as a self-fulfilling prophecy" (Rosenthal, 2010). In the initial experiment, Rosenthal and Jacobson (1968) established a directional relationship between positive expectations and outcomes, and vice versa with negative influences and outcomes through a randomised selection of elementary school students. Building on this work, multiple studies have indicated the strength of association between teacher predictions and student outcomes in academic performance, particularly along gendered self-fulfilment. Jussim and Eccles (1992) find that teachers' expectations predicted changes in student achievement beyond other effects accounted for by students' previous achievements and motivation, which is consistent with the Pygmalion effect's self-fulfilling prophecy hypothesis. Similar findings on a classroom level have been put forth by Freidrich et al. (2015), in which class-wide mathematical performance increased with higher teacher expectations.

The Pygmalion effect is often interlinked with the role model effect brought about by teacher gender-matching. In a longitudinal matched-pairs study of American middle-school students' performance in measures of reading, science, and mathematics, Dee (2005) finds that assigning a same-gender teacher to both boys and girls has significant impact on their scores in all three measures. Scores of students significantly improved, minimising the male-female gap in achievement in verbal-linguistic and scientific measures. In a study of over 900,000 students captured by the Chilean system of measuring quality education, Valentina Paredes (2014) demonstrates that gender-matching of students and teachers results in positive effects for girls, as reflected in their test scores. However, matching male teachers to male students did not have a significant effect on the latter's test scores. The influence of female teachers on female students' achievement was mirrored in China by Eble and Hu (2018) in a study of middle-school

female students' math performance. Girls who were exposed to female math teachers for longer periods of time scored higher on tests compared to girls who were not exposed to female math teachers.

In addition to gender-matching, previous studies have also focused on ethnic-matching of teachers and students as an influence on educational performance. In a longitudinal study of African American students, Eddy and Easton-Brooks (2011) find that controlling for socio-economic factors, having an African American teacher significantly improved the mathematics score of elementary school students. Similarly, Egalite and Kisida (2016) find that the assignment of demographically congruent teachers and students affect the attitudes of students. In particular, African American males demonstrate the biggest improvements when assigned to African American teachers. In a review of 24 quantitative and qualitative studies of American students, Griessen (2015) concludes that there is unambiguous evidence that teacher-student ethnic matching has an impact on student attitudes. This suggests that teachers may indeed exert a role-model effect on students' outcomes.

Alan, Ertac, and Mumcu (2018) identify two ways in which teachers may transmit gender attitudes and beliefs in a study of elementary school classrooms in Turkey. First, teachers' positions of authority over their students appear to legitimize the views they espouse, rendering student acceptance of these beliefs. As such, teachers' gendered beliefs regarding students' capability to perform in a particular subject may influence their academic motivation, actual performance, or career aspirations to undertake a traditionally male or female field. Second, teachers' differing interactions with boys and girls appears to be a more overt form of attitudinal transmission. The belief that girls are unlikely to apply taught knowledge in a working environment post-schooling partially explains the greater focus given by teachers to boys, as found earlier by Sadker and Sadker (2010). In turn, these teacher expectations may grow into self-fulfilling student

outcomes, as evidenced by a path analysis of students' ability in physical education (PE) by Trouilloud et al. (2002) and lower self-concept of mathematical ability even among high-achieving girls (Marsh and Yeung, 1998).

2.7 Consequences of Gender Stereotypes in Schools

Gender stereotyping beliefs in schools may influence cognitive and non-cognitive outcomes for adolescents. Cognitive outcomes are usually identified with intelligence (Brunello and Schlotter, 2011) and can be measured by performance in standardized tests or academic achievement. Many studies have indicated that adolescents are affected by "stereotype threat"[5] (Spencer et al., 1999), performing worse when asked to complete tasks that are atypical of their gender such as doing mathematical sums for girls (Regner et al., 2014; Schmader, 2002; Shih et al., 1999). Conversely, adolescents that are "positively stereotyped" perform better when asked to complete the same task (see Asian-American girls in Shih et al 1999). This has long-term consequences for subsequent subject choices and career progression (Benzidia, 2017; Lavy and Sand, 2015). Teachers' gender-based biases also render male and female students susceptible to harmful effects such as subject achievement. For instance, girls' negative math anxieties and lower self-concept resulting from teachers' biases prevent them from achieving better test scores (Gunderson et al., 2011). Lavy and Sand (2015) also find that teachers' grading bias has an asymmetric effect that is positive for boys, yet negative for girls.

Noncognitive outcomes of gender stereotyping include beliefs, which may lead to actions undertaken by different-gendered individuals. Studies have consistently found that teachers have a sex bias towards males students, paying considerably more attention

---

[5] This refers to how an individual faces judgment based on stereotypes based on social group markers such as ethnicity, religious orientation, and gender (Spencer at al., 1999)

to them and permitting them more opportunities to speak in class (Sadker and Sadker, 2010; Tiedemann, 2002). This further legitimizes males' presence, which allows them to be publicly visible and subsequently, looked to as leaders of the collective community.

2.8 Gender Stereotypes in Leadership

What defines gender stereotypical beliefs towards leadership positions or roles? Heilman offers that in advanced economies, leadership is generally sex typed as being 'masculine' in nature given that the position requires one to be "independent, decisive, self-confident, and rational" – traits typically attributed to males (1997). Consequently, conventional beliefs of women being dependent, indecisive, insecure, and irrational weaken the likelihood of women assuming leadership positions, especially as status quo of few female leaders do little to challenge extant stereotypic thinking (Kanter (1977) in Heilman: 1997). Vinckenberg et al. (2011) distinguish between descriptive and prescriptive gender stereotypical beliefs that individuals or collectives hold, the former ascribing predictable attributes to males and females and the latter pertaining to their ideal or desirable traits. These categories imply a vertical distance between beliefs of what female and male leaders are currently like and how they should aspire to lead, as well as a horizontal gap between female and male styles of leadership. The prevalence of these beliefs in organizations have implications for organizational leadership, as it influences the selection and advancement of males and females into leadership positions (Vinckenberg et al., 2011).

A discussion on leadership lends itself to unpacking competence. Are males indeed more capable of leading compared to females? Studies by Beyer and Bowden (1997), Niederle and Vesterlund (2007), and Reuben et al. (2011) suggest that confidence variation in gendered self-perceptions accounts for leadership inclination. Males are more likely to display overconfidence in their capabilities, particularly in performing

conventionally male-oriented tasks (Beyer and Bowden, 1997). This leads to reinforcement of visibility and capability (Spencer et al., 1999, Reuben et al., 2011).

Can this imbalance be redressed with exposure to same-gender role models? In a study of villages without a history of female leaders in India, Beaman et al. (2011) establish that protracted exposure to female village leaders leads to a closing of the gendered aspirations gap of parents and children, suggesting the influence of the role model effect.

2.9 Studies on Gender Segregated Education

The establishment of gender-segregated education systems has usually been associated with beliefs - among which include learning differences between girls and bpys (Frawley, 2005; Pahlke et al., 2014) and religious traditions of separately educating males and females (Shah and Conchar, 2009). Single-sex education institutions are prevalent across both developed and developing countries, as will be illustrated by examples in this section.

Proponents of single-sex schooling argue that this environment provides multiple advantages by encouraging teachers to be mindful of biological differences between boys and girls (Sax, 2005) and minimising the influence of teachers' and peers' sexist attitudes on girls' learning (Sadker and Sadker, 1994). On the other hand, opponents to single-sex schooling argue that it reinforces traditional gender norms and attitudes by minimising inter-group contact (Balkin, 2002). Therefore, such school environments do not prepare students for real-world interaction, propagating further gender inequality at later stages.

Is academic performance influenced by single-sex or co-educational schooling? Various studies have rendered mixed conclusions. In line with previous studies comparing academic performance by gender, a meta-analysis by Pahlke et al. (2014) find

that girls' mathematical scores indeed increased in single-sex classrooms, although no significant changes were seen in science scores. This supports findings by Sadker and Sadker (1995) and Lockheed and Lee (1990) which find that girls have modest advantages in single-sex learning environments in the United States and Nigeria respectively. However, upon controlling for peer quality and selection, Hayes et al. (2011) find that there also appears to be no noticeable difference between the performance of girls enrolled in either single-sex or co-educational schools over time.

Are the effects of gender stereotyping diminished in single-sex learning environments? In a study of elementary school girls from single-sex and co-ed schools in Colombia, Drury et el. (2013) find that gender typicality is higher among single-sex school students in comparison to their co-ed counterparts. This may be attributed to a desire to avoid "peer victimization" (Drury et al., 2013, pg. 444) – which they find to be more likely if students are non-conformist to their gender identity. However, another implicit finding is that single-sex schools offer some merit in the Colombian context by way of reduced peer victimization compared to mixed-sex environments. In a study of secondary school students in Hong Kong, where single-sex schools are prominent due to the country's British colonial past, Wong et al. (2018) find that students from single-sex schools display more gender-salient behaviours in mixed-sex settings.

Conversely, Lee and Marks (1990) find that in the United States, girls educated in single-sex Catholic schools endorse less gender stereotypical views at university compared to their counterparts from co-ed schools. Eliot argues that single-sex schools "automatically expand the leadership opportunities available for both boys and girls" (Eliot, 2009, p. 311). As such, little gender associations are made to leadership roles in these learning environments. However, given the scarcity of studies comparing the gendered attitudes of students in SS and co-ed schools, it is premature to draw such

conclusions, particularly for the Malaysian context where there has not been previous work on single-sex or co-educational schools. It is hoped that this study advances new insights into this topic.

2.10 Gaps in the Literature

While there have been studies on gender stereotypical beliefs among school-going children, much of it has focused on the implications of such beliefs on their academic ability, educational attainment, and career choices, as outlined above. Additionally, most studies have also predominantly focused on the impact of exposure to these beliefs (i.e teacher attitudes and expectations) as opposed to studying the beliefs of school-going children themselves. This study distinguishes itself by studying the attitudes of both male and female students, as well as teachers and principals to get a more rounded perspective. To date, while studies have unpacked whether teachers' beliefs influence students' achievements and longer-term outcomes, little is known about whether teacher gender plays a role in transmitting beliefs to students.

Much of our understanding on leadership has been focused on the adult context. However, schools are the first institutions in which people typically experience leadership roles and responsibilities, either through undertaking positions or by being subjected to the power dynamics of student-teacher interactions. Very little is known about the association between gender stereotypical beliefs and leadership roles, particularly among adolescents. As such, this study presents a fresh perspective by looking at how school-going children's gendered beliefs affect their perceptions of leadership ability. From a methodological standpoint, this comprehensive attitudinal survey is also the first of its kind to be administered in Malaysia.

Additionally, much of the existing scholarship on gender inequality in Malaysia and beyond is primarily focused on male underachievement (Saw, 2016) or lower educational attainment rates among males such as the 'lost boys' (MEB, 2013) phenomenon. While scholars on the differences between boys and girls in the Malaysian context, these studies have only looked at gender as a function of attendance rates and school performance. Zalizan et al.. (2014) discuss the disparity between female and male achievement and school participation, positing that males are more likely to be susceptible to disengagement and burnout, thus contributing to underachievement and even dropout rates. Meanwhile, Aminah (2009) outlines the trends of female and male participation in different types of postsecondary education, and points to a host of probable factors such as parents' preferences, peer pressure and conformity to sex-typed areas of study as reasons for underrepresentation of both male and female students in certain subjects.

However, the attitudes of male and female students in Malaysian secondary schools remains virtually unknown. This study fills a national gap by documenting the perspective of both males and females. It is also the first study in Malaysia to document the influence of teachers and principals on students' and assess whether teachers are transferring hidden curriculum vis-à-vis their gendered beliefs and attitudes. Additionally, this paper contributes to the global literature by becoming the first case study for examining gender attitudes of pupils in Malaysia.

CHAPTER 3: METHODOLOGY

3.1 Introduction

This chapter establishes information pertinent to the design of this study on gender attitudes of Malaysian students towards political leadership, such as sample description, data collection procedure, and analytical approach towards generating findings from the primary data collected. In keeping with research ethics, this is important to ensure the integrity and validity of the study conducted.

3.2 Conceptual Framework

As mentioned in previous sections, this study aims to examine gender stereotypical beliefs towards political leadership roles among Malaysian secondary school students and whether teachers' gender matters in influencing students' attitudes towards political leadership. To fulfil these objectives, this study considers whether there is (i) a significant association between gender of student and attitudes towards political leadership and (ii) a significant association between teachers' gender and students' attitudes towards political leadership. To identify other potential determinants of gender attitudes, this study also considers the effects of other non-gender explanatory fixed attributes such as race, parents' education and marital status, and mother's employment, as well as covariate factors such as respondents' type of school, and teacher and principal's gender as well as principal attitudes to account for the role model effect. This is combined into a self-conceptualized graphical representation as seen in Figure 1 overleaf.
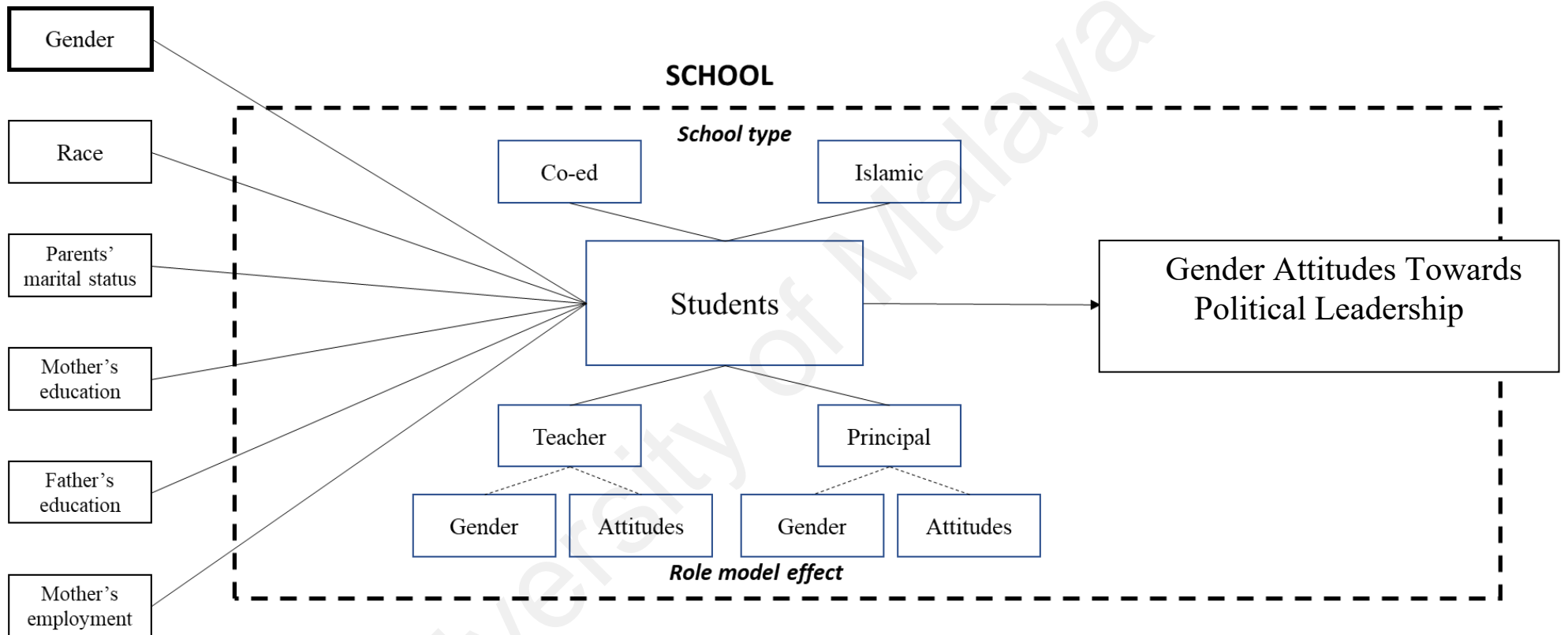
Figure 3.1: Conceptual Framework of Study

3.3 Primary Research Design

This cross-sectional study used a quantitative approach to measuring the gender attitudes of students towards leadership roles, in line with previous studies on attitudes and/or gender roles (Asadullah, Amin, and Chaudury, 2019; Baber and Tucker, 2006; World Values Survey, 2014). Building on existing measures of attitudes, a purposefully designed survey entitled 'A Survey of Adolescent Opinions on Gender Issues' was executed in secondary schools across four states in Malaysia. Advantages of this approach include its generalizability and ease of replication in future research.

3.3.1 Questionnaire Design

The six-page questionnaire contained four sections - Part 1: Personal Information, Part 2: Opinions on Employment, Part 3: Opinions on Marriage, and Part 4: Opinions on Gender. In sum, there were 20 main questions and 36 sub-questions to be answered throughout this self-administered questionnaire. The questionnaire was first piloted in June 2018 among 52 students from a secondary school in Taiping. It was translated from English to Malay as per MOE requirements and subsequently revised for clarity. Two versions of this questionnaire were used throughout the study, depending on whether the respondents were students or educators. Although the domains surveyed were largely similar between the students and teachers' version of the questionnaire, providing different versions allowed the language to be better tailored for students and teachers' circumstances. Both versions of the questionnaire are attached in the appendix.

To achieve the objectives of this study, the survey included questions on respondents' background information, such as gender, ethnicity, parents' marital status, peer mix – defined as friends of different ethnicity, parents' level of education, and household size. It also comprised questions on respondents' attitudes towards gender

norms and sex typing in multiple domains, namely, leadership, social roles, and economic participation. Respondents were required to answer the extent to which they agreed or disagreed with these questions, which used a four-point Likert scale of agreeability for these statements. The response "1" indicated that respondents "strongly agree" and "2" indicated "agree". The response "3" indicated "disagree" and "4" indicated "strongly disagree". A four-point scale was used for two reasons: to prevent respondents from adopting a neutral perspective and eliminate the possibility of socially desirable answers (Marlowe and Crowne, 1960).

To establish the reliability of the survey instrument, this measure of political leadership was adopted from previously validated studies, including Wave 6 of the World Values Survey (WVS) (2014) and the Women's Life Choices and Attitudes (WiLCAS) study run by Asadullah (2014). Table 3.1 below outlines the measure of attitudes towards political leadership.

Table 3.1: Measure of Gender Attitude Towards Political Leadership

Measure Name	Text	Scale	Other Studies Used
Male Political Leaders	"On the whole, men make better political leaders than women."	1- "Strongly agree" 2- "Agree" 3- "Disagree" 4- "Strongly disagree"	Asadullah, 2014; World Values Survey (WVS), 2014

It is important to acknowledge that the statement may be interpreted by respondents in various ways owing to its generalizability. Amongst interpretations include the historical visibility of men in political leadership, leading to the circular reasoning of men making better political leaders as opposed to women, or respondents' belief in the innate

leadership role of men owing to various sociocultural or religious norms. However, this study focuses exclusively on the political leadership capability of men and women.

3.4 Sample Description

The primary sample comprised 616 male and female students aged 16 years old (n=616), who were enrolled in Form 4 in 20 government and government-aided schools across Kuala Lumpur, Negeri Sembilan, Perak, and Kelantan. 40 teachers and principals (n=40) were also surveyed in this study. In selecting participating schools for this study, a series of techniques were employed to ensure that the conditions were as uniform as possible across four different states. Having selected the states based on differing sociocultural norms and expectations earlier outlined in Chapters 1 and 2, I then looked at data provided by district education offices (Pejabat Pendidikan Daerah) on schools in their districts. Each of these districts selected fulfilled the criteria of having both single-sex and co-educational schools in their localities. Having identified and secured permission for participating schools, the actual sample of individual student respondents were randomly determined by school personnel such as teachers, principals, or counsellors, as they selected the participating classes based on the two conditions given, (i)16-year-old Form 4 students and (ii) functional literacy levels.

Table 3.2 overleaf presents descriptive statistics of this study. To provide further insights into the variables used in this study, definitions and parameters of these variables follows on from Table 3.2.

Table 3.2: Descriptive Statistics of Study

Column 1	Variable	Obs	Mean	Std. Dev.	Min	Max
Dep. variables	Men are better political leaders	586	2.277	0.971	1	4
Indep. variables						
Teacher attitude score	Men are better political leaders	616	0.468	0.499	0	1
	Men are better political leaders	616	0.636	0.481	0	1
Principal attitude score	Female	616	0.531	0.499	0	1
Student characteristics	Race	616	0.628	0.484	0	1
	Parents' Marital Status	616	0.856	0.352	0	1
	Mother's Education	615	3.958	1.623	1	8
	Father's Education	615	3.974	1.730	1	8
	Number of people in household	616	5.680	1.984	1	10
	Peer Mix	616	0.178	0.256	0	1
	Female Motivation	616	0.620	0.486	0	1
	Mother's Employment	616	0.612	0.488	0	1
	Female Teacher	616	0.438	0.497	0	1
	Male Principal	616	0.588	0.493	0	1
School and teacher attributes	Female teacher and principal	616	0.292	0.455	0	1
	Islamic school	616	0.206	0.405	0	1
	Co-ed school	616	0.620	0.486	0	1

Table 3.3: Definitions of Variables in Descriptive Statistics of Study

Variable	Definition
Race	Refers to the ethnic group label as self-reported by respondents.
Parents' Marital Status	Refers to parents' marital status at the time of survey completion.
Mother's Education	Refers to the highest level of education completed by respondents' mothers.
Father's Education	Refers to the highest level of education completed by respondents' fathers.
Number of people in household	Refers to size of household, which also included grandparents, siblings-in-law, or other family members.
Peer Mix	Defined as number of close friends respondents had of a different ethnic background or race.
Female Motivation	Refers to the biggest female motivating influence in their lives as self-identified by respondents.
Mother's Employment	Defined as working outside of the home, or if in-home, as providing professional service to others i.e. babysitting.
Islamic School	Refers to schools that are under the purview of the MOE and the states' religious authorities.
Co-ed School	Refers to schools that accept both male and female students for enrolment.

Steinberg and Cauffman (1996) establish that adults and adolescents 16 and older share the same logical competencies, as their schema of experiences is already sufficiently formed. As such, the stereotypical views held by this age group would well be indicative of their beliefs as adults. Studying the beliefs of secondary school students, their teachers, and principals within the classroom and school context allows understanding of the relationship between teachers' attitudes and students' beliefs towards political leadership roles.

3.5 Data Collection Procedure

This survey was carried out upon securing letters of permission from federal, state, and school authorities, such as the Education Planning and Research Divison (EPRD), four State Education Departments, and individual principals of all 20 schools. This was to ensure that ethical and procedural guidelines were adhered to, especially because the primary respondents surveyed were minors under the age of 18, and under the guardianship of teachers and principals as *in loco parentis* given the school environment of the study (Bell, 2008). Policy guidelines circulated by the Ministry of Education exhort schools to protect instructional time to maximise teaching and learning (T&L) (MOE, 2015). To schedule a suitable time to visit each school, I contacted class teachers and school counsellors. Upon securing an agreement with the teachers, plans were scheduled to conduct the survey.

Each session with the students took approximately 30 minutes. Seventeen sessions were conducted during classroom instructional time between 7:30 am to 2:00 pm. Three schools elected to conduct the survey during evening prep hours between 3:30 pm – 5:00 pm owing to their boarding school schedule.

Every session began by the class teacher announcing my presence for that period and then helping to distribute the questionnaires. Subsequently, I introduced myself as a master's candidate at University Malaya and outlined the purpose and length of the questionnaire. A set of standard actions followed. To ensure that all respondents had the full set of questions to be answered, I asked them to check the sections and page numbers from 1 to 6 and request a new copy if there were missing sections. To confirm students had a baseline comprehension of the terms used in the questionnaire, I asked students to volunteer aloud the meaning of the keywords of each section, a translation into Malay, English, or Mandarin (in the sessions at the three Chinese schools surveyed) and

synonyms for each of the section's topics such as marriage, career, and gender roles. I also stressed the importance of answering the questions according to their personal opinions, as there was no right or wrong answer in this questionnaire. I also reminded them of the need to refrain from comparing or discussing answers with their peers. Next, I assured students that their responses would be analysed as a group to assure them of their privacy. Finally, I asked if students had any questions before clarifying that I would still be on hand to answer their questions throughout the session. Having completed my instructions, I asked the students to begin filling in the questionnaires. The teacher respondents also filled in the questionnaires alongside the students.

Throughout each session, I walked around the classrooms invigilating their answering, stopping to clarify a question out loud to the class at large once at least two students had individually asked the same question. A request made to teachers in charge to photograph the classroom and students for documentation purposes met with varied responses. Some teachers allowed this, but due to minor protection concerns, a few suggested taking photos of the school exterior as a substitute. Photographs documenting select sessions are included as Appendix A. Once completed, I collected the questionnaires and thanked the teachers. I then made my way to the principal's or senior administrator's office to collect their questionnaire before leaving the school premises.

3.6 Analytic Methods

As previously indicated in Table 3.2, the study measures gender attitudes towards political leadership by analysing responses on whether men made better political leaders than women on the whole using a four-point Likert scale. The response "1" indicated that respondents "strongly agree" and "2" indicated "agree". The response "3" indicated "disagree" and "4" indicated "strongly disagree". Appropriating the indexing method utilised by Dhar, Jain, and Jayachandran (2018) in their study on intergenerational

transmission of gender attitudes, I collapsed answers into a binary variable which equals one if respondents indicated 'Strongly Agree' or 'Agree' and zero if their answers were 'Disagree' or 'Strongly Disagree'. This was employed across student, teacher, and principal responses to indicate the gender conformity across different respondent groups. I assume neutrality "Neither Agree nor Disagree" at 0.5 in the index. While collapsing the responses into a binary index minimizes the intensity effect brought about by respondents' agreement or disagreement, this study is only focused on assessing evidence of whether student respondents exhibit gendered perceptions of political leadership capability, as opposed to the degree of polarization among respondents. As such, the concern on extent of agreement or disagreement with the statement, better known as the "intensity" effect, is beyond the scope of this study.

To also identify and eliminate possible confounding factors contributing to the attitudes of students towards leadership, this study uses the gender attitude towards leadership measures as dependent variables and estimates ordered probit regression models as outlined in the conceptual framework. This is similar to the methodology employed by Asadullah, Amin, and Chaudury (2019) in their study on gender stereotypes and madrasah education in Bangladesh. The next chapter presents the results of these statistical analyses.

CHAPTER 4: FINDINGS AND DISCUSSION

4.1 Overview

As earlier stated, this study is primarily concerned with tracing evidence of gender stereotypical beliefs towards political leadership capability among Malaysian secondary school students and the influence of teacher gender in shaping students' beliefs towards political leadership. This chapter presents the main results and addresses the main findings from the study.

4.2 Attitudes towards Political Leadership by Gender

This section outlines the descriptive analysis for this study. Although the main sample included 616 students (n=616), the main empirical analysis is based on 584 cases given missing dependent variables in the overall sample. Figure 4.1 below indicates the indexed results of measuring support for male political leadership roles among male and female secondary school students.
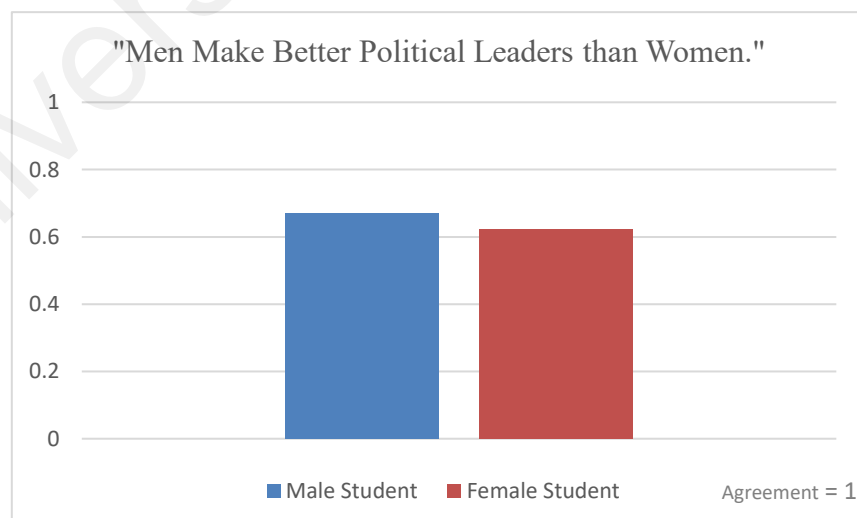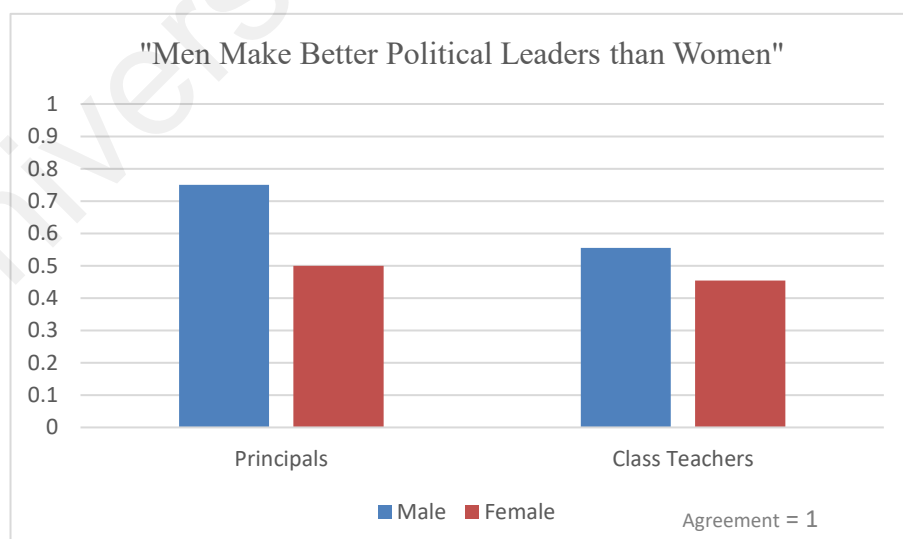

**Figure 4.1: Attitudes of Male and Female Students
Towards Political Leadership**

Both male and female students appear to demonstrate support for men being better political leaders than women. This is seen in both groups' recording scores above 0.5, which demonstrates neutrality towards this measure of leadership. This rejects the null hypothesis that there is no support for gender stereotypes in political leadership among male and female secondary school students.

Despite this, a student's gender remains a determinant of whether they were more likely to support this statement. More male students appear to demonstrate gender stereotypical attitudes towards leadership. The mean score for male students was 0.669, with a standard deviation of 0.471 (M=0.069, SD=0.471). Meanwhile, the mean score for female students was 0.621 with a standard deviation of 0.486 (M=0.621, SD=0.486).

Interestingly, these patterns are mostly repeated in the teacher and principal samples. Figure 4.2 displays the indexed gender attitudes of male and female principals and class teachers.

Figure 4.2: Attitudes of Principals and Teachers Towards Political Leadership by Gender

The results indicate that there are varying degrees of support for gender stereotypes towards leadership among both male and female class teachers and principals. As seen in Figure 4.2, male educators collectively appear to demonstrate more gender stereotypical attitudes towards leadership.

Out of these four subgroups of educators, male principals appeared most likely to show support for men being better political leaders than women. The mean score for male principals was 0.75, with a standard deviation of 0.452 (M=0.75, SD=0.452). In contrast, the mean score for female principals was 0.50, with a standard deviation of 0.523 (M=0.50, SD=0.523). In other words, female principals appear more neutral when asked about whether men make better political leaders than women.

Similar to other male subgroups sampled, male class teachers also hold more gender stereotypical beliefs towards political leadership capability. Male class teachers demonstrate more agreement with men being better political leaders than women, as evidenced by the mean score of 0.56, with a standard deviation of 0.527 (M=0.56, SD=0.527). In contrast, female class teachers appeared least likely to demonstrate gender stereotypical beliefs towards political leadership, as indicated by the mean score of 0.45, with a standard deviation of 0.421 (M=0.45, SD=0.421).

Across the board, it appears that female students, class teachers, and principals hold less gender-stereotypical beliefs in comparison to their male counterparts. Interestingly, throughout all the gendered subgroups sampled, only female teachers demonstrated disagreement that men made better political leaders. The possible determinants of such gender attitudes will be presented in the following subsection.

4.3 Determinants of Students' Gender Stereotypical Beliefs towards Political Leadership

Table 4.1 and Table 4.2 present the main results of this study.

Table 4.1: Ordered Probit Regressions of Determinants of Gender Attitudes Towards Political Leadership (Dep variable: 1 if agree with "Men make better political leaders than women"; 0 otherwise) [6]

Student Characteristics	
Female	-0.133**
	(0.0446)
Race (Malay)	0.490**
	(0.0447)
Parents' marital status	0.110
	(0.0712)
Mother's education	-0.0167
	(0.0180)
Father's education	-0.0282
	(0.0173)
Peer mix	-0.220*
	(0.0937)
Household size	0.172**
	(0.0622)
Female motivator	-0.0305
	(0.0458)
Mother's employment	0.0676
	(0.0467)
School and Teacher Attributes	
Female teacher	-0.147**
	(0.0430)
Observations	584
Pseudo R-squared	0.266

---

[6] Notes: Asterisks denote significance: * $p<0.01$, * $p<0.05$, + $p<0.1$. Robust standard errors are in parentheses.

Table 4.2: Understanding the influence of teacher gender: Ordered Probit Regressions of Determinants of Gender Attitudes Towards Political Leadership with added controls[7]

	(1)	(2)	(3)	(4)	(5)	(6)
Student Characteristics						
Female	-0.130**	-0.136**	-0.139**	-0.141**	-0.183**	-0.139**
	(0.0451)	(0.0468)	(0.0464)	(0.0467)	(0.0706)	(0.0467)
Race (Malay)	0.492**	0.486**	0.478**	0.468**	0.463**	0.488**
	(0.0457)	(0.0473)	(0.0484)	(0.0497)	(0.0498)	(0.0756)
Parents' marital status	0.111	0.116	0.122+	0.116	0.114	0.117
	(0.0713)	(0.0710)	(0.0719)	(0.0713)	(0.0710)	(0.0713)
Mother's education	-0.0169	-0.0159	-0.0158	-0.0109	-0.00987	-0.0112
	(0.0180)	(0.0179)	(0.0180)	(0.0182)	(0.0181)	(0.0183)
Father's education	-0.0277	-0.0279	-0.0279	-0.0256	-0.0257	-0.0259
	(0.0171)	(0.0170)	(0.0170)	(0.0172)	(0.0172)	(0.0172)
Peer mix	-0.220*	-0.218*	-0.215*	-0.198*	-0.193*	-0.197*
	(0.0939)	(0.0939)	(0.0937)	(0.0948)	(0.0936)	(0.0947)
Household size	0.172**	0.164**	0.150*	0.159*	0.159*	0.160*
	(0.0621)	(0.0632)	(0.0659)	(0.0662)	(0.0663)	(0.0661)
Female motivator	-0.0295	-0.0312	-0.0322	-0.0373	-0.0392	-0.0356
	(0.0456)	(0.0459)	(0.0459)	(0.0463)	(0.0462)	(0.0467)
Mother's employment	0.0667	0.0678	0.0660	0.0619	0.0576	0.0634
	(0.0469)	(0.0467)	(0.0468)	(0.0471)	(0.0473)	(0.0469)
School and Teacher Attributes						
Female teacher	-0.145**	-0.139**	-0.147**	-0.127**	-0.163*	-0.105
	(0.0433)	(0.0445)	(0.0459)	(0.0488)	(0.0651)	(0.0836)
Female principal	-0.0148	0.00382	0.0126	0.00866	0.00471	0.00865
	(0.0452)	(0.0544)	(0.0554)	(0.0548)	(0.0550)	(0.0549)
Teacher and principal gender attitudes		0.0348	0.0184	0.00410	0.00842	0.00786
		(0.0550)	(0.0594)	(0.0592)	(0.0599)	(0.0604)
Islamic school			0.0605	0.0793	0.0696	0.0839
			(0.0628)	(0.0633)	(0.0657)	(0.0649)
Co-ed school				0.0679	0.0756	0.0685
				(0.0544)	(0.0553)	(0.0545)
Teacher gender					0.0768	
					(0.0922)	
Teacher race						-0.0367
						(0.108)
Observations	584	584	584	584	584	584
Pseudo R-squared	0.266	0.266	0.268	0.270	0.271	0.270

Column (1) includes fixed-attribute student characteristics (e.g. gender, ethnicity, parents' marital status, mother's employment) and a school and teacher covariate

---

[7] Notes: Asterisks denote significance: * p<0.01, * p<0.05, + p<0.1. Robust standard errors are in parentheses.

(specifically, teacher's gender) where student responses on the attitude measure are regressed on student characteristics) and teacher's gender. Subsequently, more covariate variables (e.g. school type, teacher and principal's gender attitudes) were added in efforts to confirm the determinants of students' gender attitudes towards leadership roles, as seen in Columns 2 – 7.

A few findings follow from the multivariate regression models of student attitudes towards political leadership. First, there is strong evidence in support of students' attitudes differing by gender. Support for the statement "Men are better political leaders" appears higher among boys. Female students were significantly less inclined to support this statement.

Second, having a female class teacher appears to be a significant and positive predictor of student gender attitudes. Students with a female teacher were less likely to show support for the statement that men made better political leaders than women. As seen in Table 4.2, the influence of female teachers is not driven by gender of the school principal, gender belief of the teacher, gender composition of the school[8] and religious identity of the sample states.

Third, teacher's gender attitudes towards men making better political leaders did not appear to shape students' attitudes towards political leadership. On the other hand, it appears that students' other fixed attributes such as ethnicity also matter significantly in explaining gender attitudes towards leadership.

---

[8] Gender composition refers to student enrolment in school. Single-sex schools in Malaysia are common in the Malaysian education system (see chapter 2 for further historical context).

Overall, the results of these regressions continue to indicate highly significant associations between fixed attributes such as gender, teacher's gender, race, and student attitudes towards political leadership. These are particularly noteworthy findings given the Malaysian context of education and will be further discussed below.

As found earlier, throughout the subgroups of students, teachers, and principals sampled, males have consistently demonstrated support for gender stereotypes in their attitudes towards leadership. Even after controlling for other factors, male students continue to hold more traditional gender attitudes towards leadership compared to female students. These findings are consistent with previous studies showing that males are more likely to conform to traditional gender attitudes. To a certain extent, this finding also mirrors societal status quo in Malaysia. In Wave 6 of the World Values Survey (2014), 76.2% of males surveyed agreed that men make better political leaders than women do on the whole. In comparison, only 62.7% of women surveyed agreed that men make better political leaders. Given gender roles as a social construct, the findings of this study may be attributed to larger social forces beyond the institutional setup of schools. Previous studies on women in the Malaysian political sphere have unequivocally demonstrated the secondary role of women compared to men (Aljunied, 2013; Dancz, 1987; Manderson, 1980; Maznah, 2002; Maznah, 2018; O'Brien, 1982; Rashila, 1999). Whether these findings mirror women's reticence in claiming a place in political life owing to prevailing gender role norms (Manderson, 1980; in Maznah, 2018) or hesitation to compete (Park John, 2012) may be an area for future work. Given that teachers' attitudes held no statistical significance in influencing the view of male students, a school-level explanation may be the role of curricula in reinforcing male dominance in authority positions, as seen in Malaysian Form 4 English textbooks (Islam and Asadullah, 2018). Unfortunately, testing the strength of association between these two variables was outside the scope of this study.

In view of the fixed-effects of gender and ethnicity as determinants of gender stereotypical attitudes, can school-level interventions be implemented to minimize the gender gap in attitudes? This study has found somewhat significant evidence for the role model effect. Students with female class teachers were more likely to disagree that men made better political leaders than women. However, although earlier works have found that teachers' expectations of students influence their attitudes (Spencer et al., 1999; Steele and Aronson, 2005), this study does not find significant association between teachers' attitudes and students' attitudes. In this vein, teachers' beliefs do not appear to highly influence the transmission of gender norms. The study's findings on the role model effect applies singularly for teachers' gender. As such, having female teachers lead classrooms may likely result in more progressive gender-based views in the Malaysian context. This is similar to previous studies on teacher-student gender-matching and attitudes (Dee, 2005; Eble and Hu, 2019; Paredes, 2014). Considering that teacher ethnic-matching has also yielded positive associations to student outcomes (Eddie and Easter-Brooks, 2015; Egalite and Kisida, 2016), it might be worth investigating the strength of association between teacher gender and students' attitudes in future explorations.

While having a female class teacher positively and significantly shapes students' attitudes towards political leadership capabilities, there is no evidence suggesting that principal gender matters in influencing students' attitudes towards political leadership capability. This may be due to the lack of direct contact time between principals and students as opposed to stronger and sustained engagement between students and class teachers. Alternatively, this may also be hypothetically explained by a macro-level occurrence in the Malaysian education system. While 70% of the Malaysian teaching force identifies as female, women only occupy 40% of school principalship positions (MOE, 2018). Consequences of this could perhaps be explored in later works beyond this.

Beyond the role of gender in determining gender stereotypical attitudes towards leadership, an interesting finding is the greater significance of ethnicity in determining gendered attitudes towards political leadership. Holding other factors constant, Malay students are more likely to demonstrate regressive gender attitudes towards political leadership capabilities compared to their Chinese and Indian counterparts – these being the other ethnic groups sampled in this study. Considering the notion of schools purportedly being equalizers (Bernardi, 2016; Downey et al. 2004), these findings raise further questions about whether the transmission of social and gender role norms is stronger at the family or cultural level, in line with findings of intergenerational transmission from Jayachandran et al. (2018) and Doepke and Zilibotti (2017), and the role of family in Malay women's lives (Kalthom, Noor, and Wok, 2008; Ong, 1990). Bearing in mind the Malay-Muslim entwined identity, it would also be worth examining whether religious traditions influence gender norms in the Malaysian context (Hashim, 1999; Kazemi, 2000; Sleboda, 2001). Given the lack of local scholarship on this topic, this may be an area worth pursuing in future work.

Ultimately, the difficulty of conclusively stating causal evidence of gender, teacher's gender, and ethnicity on students' attitudes must be acknowledged, given the cross-section data. On one hand, schools do not appear to equalize attitudes despite it being an "imposed environment" (Bussey and Bandura, 1999). However, given the findings, schools also do not appear to become institutions of social reproduction either. Inquiry into gender attitudes towards political leadership should perhaps look to family or cultural-level socialization or alternative explanations. This is left for future research.

CHAPTER 5: CONCLUSION

Gender inequality continues to be a pervasive problem in both developing and developed nations. While significant progress has been made towards achieving gender equality in many aspects in the recent decades, educational attainment remains an issue in many developing economies. Worldwide, various institutional barriers also continue to prevent women from achieving their fullest political, social, and economic agency. The Malaysian narrative on gender equality in education runs counter to conventional expectations. In the last three decades, girls and women in Malaysia have made significant strides in educational attainment. However, despite this gender gap in schooling favouring females, women remain underrepresented in political leadership in Malaysia. Possible explanations include socio-economic attitudes, influences, and deficiencies within the schooling system per se.

I investigated the latter possibility using primary data collected on 616 secondary school students and their class teachers and principals from 20 schools. I examined gender stereotypes in student attitude towards political leadership (i.e. the belief that "men are better political leaders than women") as a function of teacher gender, independent of the influence of socio-economic backgrounds of students. The study schools are sampled from four states - Kuala Lumpur, Negeri Sembilan, Perak, and Kelantan. Three findings follow from the multivariate regression models of student attitudes towards political leadership. First, there is strong evidence in support of students' attitudes differing by gender. Support for the statement "Men are better political leaders" appears higher among boys. Female students were significantly less inclined to support this statement. Second, having a female class teacher appears to be a significant and positive predictor of student gender attitudes. Students with a female teacher were less likely to show support for the statement that men made better political leaders than women.

Third, teacher's gender attitudes towards men making better political leaders did not appear to shape students' attitudes towards political leadership. Instead, fixed attributes such as student's race and gender matter significantly in explaining gender attitudes; The results show that the influence of female teachers is not driven by gender of the school principal, gender belief of the teacher, sex orientation of the school and religious identity of the sample states. This is in line with findings from previous studies on gender attitudes in other nations. Implications for teacher recruitment policies are discussed in the study.

Given Malaysia's recent milestones of electing both its first female deputy prime minister and Chief Justice, this study on gender stereotypical beliefs of Malaysian school students towards political leadership comes at an opportune time. It is also timely given the recent #Undi18 movement to lower the constitutional age of eligibility for voting and standing in general elections. However, much needs to be done to minimise the attitudinal gender gap between school-going boys and girls in Malaysia. Upon surveying students across the central, northern, southern, and eastern regions of Malaysia, I find that male students are more likely to demonstrate traditional gender attitudes towards leadership compared to female students. Similarly, male teachers and principals are also more likely to hold regressive views of gendered leadership in comparison with their female colleagues. This mirrors the status quo of political and organizational leadership in Malaysia, in which male presence is dominant. However, whether this is reflective of wider social norms, self-concept of leadership, or other factors remains to be seen.

Another interesting finding is the strong association between ethnicity and gender attitudes towards leadership. This study finds that Malay students tended to exhibit more traditional views of gender and political leadership, in contrast to their Chinese and Indian peers. This has profound implications for researchers keen on understanding how social

norms are transmitted in the Malaysian context, particularly given the diversity of the population. Whether or not family-level factors (Beaman et al., 2011; Doepke and Zilibotti, 2017) or cultural conditions (Jayachandran, 2014) significantly matters is a potential area of work. A limitation of this particular study is its focus only on peninsula Malaysia. The gender attitudes of students in East Malaysia towards political leadership is yet to be known.

Ultimately, this study has contributed to the body of Malaysian literature by capturing the gender beliefs of Malaysian school students. Previous studies have only focused on gender as a function of school attendance and academic performance, rather than associated non-cognitive outcomes. It also contributes to the global literature on gender stereotyping attitudes among adolescents and advances further understanding of key drivers of gender inequality in developing countries. By building insights into determinants of gender stereotypes towards political leadership attitudes, it is hoped that the male-female gap in political representation can be addressed at the earliest stages of children's development. This is the collective work of researchers, parents, and educators alike.

REFERENCES

Abdullah, K., Noor, N. M., & Wok, S. (2008). The Perceptions of Women's Roles and Progress: A Study of Malay Women. Social Indicators Research, 89(3), 439-455. doi:10.1007/s11205-008-9242-7

Ahmad, R. H. (1998). Educational development and reformation in Malaysia: Past, present and future. Journal of Educational Administration, 36(5), 462-475. doi:10.1108/09578239810238456

Alan, S., Ertac, S., & Mumcu, I. (2018). Gender Stereotypes in the Classroom and Effects on Achievement. The Review of Economics and Statistics, 100(5), 876-890. doi:10.1162/rest_a_00756

Alesina, A., Giuliano, P., & Nunn, N. (2013). On the Origins of Gender Roles: Women and the Plough. The Quarterly Journal of Economics, 128(2), 876-890. doi:10.3386/w17098

Amanchukwu, R.N. Stanley, G.J, Ololube, N.P. (2015) A Review of Leadership Theories, Principles and Styles and Their Relevance to Educational Management, Management, Vol. 5 No. 1. pp. 6-14. doi: 10.5923/j.mm.20150501.02.

Andaya, B. W. (2001). *Other pasts: women, gender and history in early modern Southeast Asia*. Honululu: Univ. of Hawaii Press.

Asadullah, M. N., Amin, S., & Chaudhury, N. (2018). Support for Gender Stereotypes: Does Madrasah Education Matter? *The Journal of Development Studies,55*(1), 39-56.

Ayalon, H. (2003). Women and men go to university: Mathematical background and gender differences in choice of field in higher education. Sex Roles: A Journal of Research, 48(5–6), 277–286.

Baber, K. M., & Tucker, C. J. (2006). The Social Roles Questionnaire: A New Approach to Measuring Attitudes Toward Gender. Sex Roles, 54(7-8), 459-467. doi:10.1007/s11199-006-9018-y

Beaman, L., Duflo, E., Pande, R., & Topalova, P. (2012). Female leadership raises aspirations and educational attainment for girls: a policy experiment in India. Science (New York, N.Y.), 335(6068), 582–586. doi:10.1126/science.1212382

Beare, H., Caldwell, B., & Millikan, R. (1997). Dimensions of leadership. In Megan Crawford, L. Kydd & C. Riches (Eds). Leadership and teams in educational management. Buckingham and Philadelphia: Open University Press.

Bell, N. (2008). Ethics in child research: Rights, reason and responsibilities. Children's Geographies, 6(1), 7-20. doi:10.1080/14733280701791827

Bem, S. L. (1981). Gender schema theory: A cognitive account of sex typing. Psychological Review, 88(4), 354-364. doi:10.1037//0033-295x.88.4.354

Benzidia, M. (2017). If I Were A Boy: Gender Stereotypes At School. Aix-Marseille University. (unpublished)

Bernardi, F., & Bernardi, F. (2016). Education, occupation, and social origin: A comparative analysis of the transmission of socio-economic inequalities. Cheltenham, UK: Edward Elgar Publishing.

Blumberg, R. L. (1984). A General Theory of Gender Stratification. Sociological Theory, 2, 23. doi:10.2307/223343

Bordalo, P., Coffman, K. Gennaioli, N., Shleifer, A. (2016). "Stereotypes." Quarterly Journal of Economics 131 (4): 1753-1794.

Bussey, K., & Bandura, A. (1999). Social cognitive theory of gender development and differentiation. Psychological Review, 106(4), 676-713. doi:10.1037//0033-295x.106.4.676

Coleman, J. S. (1987). Families and Schools. Educational Researcher, 16(6), 32–38. https://doi.org/10.3102/0013189X016006032

Crossman, Ashley. "Learn About Various Sanctions in Forcing Compliance With Social Norms." ThoughtCo, Aug. 2, 2019, thoughtco.com/sanction-definition-3026570.

Crowne, D. and D. Marlowe (1960). A new scale of social desirability independent of psychopathology. Journal of Consulting Psychology 24 (4), 349 – 354.

Chisamya, G., Dejaeghere, J., Kendall, N., & Khan, M. A. (2012). Gender and Education for All: Progress and problems in achieving gender equity. International Journal of Educational Development, 32(6), 743-755. doi:10.1016/ j.ijedudev. 2011.10.004

Dee, T. S. (2005). A Teacher Like Me: Does Race, Ethnicity, or Gender Matter? American Economic Review, 95(2), 158-165. doi:10.1257/000282805774670446

Dee, T. S. (2007). Teachers and the Gender Gaps in Student Achievement. Journal of Human Resources, (Summer 2007), 528-554. doi: 10.3386/w11660

Doepke, M. and Zilibotti, F. (2017), Parenting With Style: Altruism and Paternalism in Intergenerational Preference Transmission. *Econometrica*, 85: 1331-1371. doi:10.3982/ECTA14634

Dhar, D., Jain, T., Jayachandran, S. (2018) Reshaping Adolescents' Gender Attitudes: Evidence from a School-Based Experiment in India Buffett Institute Global Poverty Research Lab Working Paper. http://dx.doi.org/10.2139/ssrn.3301068

Downey, D. B.; von Hippel, P. T. & Broh, B. A. (2004). Are Schools the Great Equalizer? Cognitive Inequality during the Summer Months and the School Year. American Sociological Review, 69(5), 613–635. https://doi.org/10.1177/000312240406900501

Duflo, E. (2012). Women Empowerment and Economic Development. Journal of Economic Literature, 50 (4), 1051–1079.

Driessen, G. (2015). Teacher Ethnicity, Student Ethnicity, and Student Outcomes. Intercultural Education, 26(3), 179-191. doi: 10.1080/14675986.2015.1048049

Drury, K.; Bukowski, W.M.; Velásquez, A.M. et al. (2013). Victimization and Gender Identity in Single-Sex and Mixed-Sex Schools: Examining Contextual Variations in Pressure to Conform to Gender Norms. Sex Roles, 69(7-8), 442-454 https://doi.org/10.1007/s11199-012-0118-6

Dustmann, C. and Ku, H. & Kwak, W.D. (2018). Why Are Single-Sex Schools Successful? Labour Economics, 54, 79-99. https://doi.org/10.1016/j.labeco.2018.06.005

Eagly, A. H., Makhijani, M., & Klonsky, B. G. (1992). "Gender and the evaluation of leaders: A meta-analysis": Correction to Eagly et al. Psychological Bulletin, 112(3), 557-557. doi:10.1037/h0090375

Eagly, A. H., & Mladinic, A. (1994). Are People Prejudiced Against Women? Some Answers From Research on Attitudes, Gender Stereotypes, and Judgments of Competence. *European Review of Social Psychology,5*(1), 1-35. doi:10.1080/14792779543000002

Eble, A., Hu, F. (2019) Stereotypes, Role Models, and the Formation of Beliefs. CDEP-CGEG Working Paper No.43

Eddy, C. M. & Easton-Brooks, D. (2011). Ethnic Matching, School Placement, and Mathematics Achievement of African American Students From Kindergarten Through Fifth Grade. Urban Education, 46(6), 1280–1299. https://doi.org/10.1177/0042085911413149

Egalite, A. & Kisida, B. (2016). The Effects of Teacher Match on Academic Perceptions and Attitudes (Working Paper). Retrieved from https://ced.ncsu.edu/wp-content/uploads/2015/ 07/Egalite-Kisida-Teacher-Match-WorkingPaper-June-2016.pdf

Egalite, A. J., Kisida, B., & Winters, M. A. (2015). Representation in the classroom: The effect of own-race teachers on student achievement. *Economics of Education Review,* 45, 44–52. doi: 10.1016/j.econedurev.2015.01.007

Elias, J. (2011). The Gender Politics of Economic Competitiveness in Malaysia's Transition to a Knowledge-Economy. The Pacific Review, 24(5), 529-552.

Eliot, L. (2009). *Pink Brain, Blue Brain: How small differences grow into troublesome gaps and what we can do about it*. New York: Houghton Mifflin Harcourt.

Ellemers, N. (2018). Gender Stereotypes. Annual Review of Psychology, Vol. 69, pp. 275-298, 2018.://dx.doi.org/10.1146/annurev-psych-122216-011719

Erarslan, A. B., & Rankin, B. (2013). Gender Role Attitudes of Female Students in Single-Sex and Coeducational High Schools in Istanbul. *Sex Roles,69*(7-8), 455-468. doi:10.1007/s11199-013-0277-0

Fernandes L. (2014) Routledge handbook of gender in South Asia: Routledge.

Franck, A. K. (2012). Factors Motivating Women's Informal Micro-Entrepreneurship: Experiences from Penang, Malaysia. International Journal of Gender and Entrepreneurship, 4(1), 65-78.

Frawley, Timothy. (2005). Gender Bias in the Classroom: Current Controversies and Implications for Teachers. Childhood Education, 81(4), 221-227. doi: 10.1080/00094056.2005.10522277

Friedrich, A., Flunger, B., Nagengast, B., Jonkmann, K., & Trautwein, U. (2015). Pygmalion effects in the classroom: Teacher expectancy effects on students math achievement. Contemporary Educational Psychology, 41, 1–12. doi: 10.1016/j.cedpsych.2014.10.006

Gaviria, A. and Raphael, S. School-Based Peer Effects and Juvenile Behavior. Review of Economics and Statistics, 83(2), 2001, 257–268. doi:10.1162/00346530151143798.

Goh, Kim-Leng & Cheong, Kee-Cheok & Tey, Nai & Jani, Rohana. (2014). Gender Imbalance in Educational Attainment and Labour Market Dynamics: Evidence from Malaysia. Malaysian Journal of Economic Studies. 51.

Gorman, E. H. (2005). Gender Stereotypes, Same-Gender Preferences, and Organizational Variation in the Hiring of Women: Evidence from Law Firms. American Sociological Review, 70(4), 702–728. https://doi.org/10.1177/000312240507000408

Gunderson, E.; Ramirez, G.; Levine, S. & Beilock, S. (2011). The Role of Parents and Teachers in the Development of Gender-Related Math Attitudes. Sex Roles, 66, 153-166. doi: 10.1007/s11199-011-9996-2.

Hashim, I. (1999). Reconciling Islam and feminism. Gender and Development, 7(1), 7-14.doi:https://doi.org/10.1080/741922938

Hing, Ai Yun (1985) Work orientation: A case study of factory workers in Peninsular

Malaysia, Journal of Contemporary Asia, 15:3, 267-287, DOI: 10.1080/00472338580000181

Hirnstein, M., Coloma Andrews, L., & Hausmann, M. (2014). Gender-Stereotyping And Cognitive Sex Differences in Mixed- And Same-Sex Groups. Archives of Sexual Behavior, 43(8), 1663-73.

Hirschman, C. (1979). Political Independence and Educational Opportunity in Peninsular Malaysia. *Sociology of Education,52*(2), 67. doi:10.2307/2112446

Hirschman, C. (2016). Gender, the Status of Women, and Family Structure in Malaysia. Malaysian Journal of Economic Studies, 53(1), 33-50.

Inter-Parliamentary Union. (2018). Retrieved from https://www.ipu.org

Hoff, K., and Pandey, P. (2006). Discrimination, Social Identity, and Durable Inequalities. American Economic Review, 96(2), 206-211.

Humlum, M.K.; Nandrup, A.B. & Smith, N. J. (2019). Population Economics, 32(2). 455-500. https://doi.org/10.1007/s00148-018-0692-1

Islam, K. M. M., and Asadullah, M. N. (2018). Gender Stereotypes and Education: A Comparative Content Analysis of Malaysian, Indonesian, Pakistani and Bangladeshi School Textbooks. Plos One, 13(1). doi:10.1371/journal.pone.0190807

Jayachandran, S. The Roots of Gender Inequality in Developing Countries. (2014). Annual Review of Economics, 7, 63-88. doi:10.3386/w20380.

Jayaraman A, Mishra V, Arnold F. The relationship of family size and composition to fertility desires, contraceptive adoption and method choice in South Asia. International Perspectives on Sexual and Reproductive Health. 2009;35(1):29–38.

Jelas, Zalizan & Dahan, Hazadiah. (2010). Gender and Educational Performance: The Malaysian Perspective. Procedia - Social and Behavioral Sciences. 7. 720–727. 10.1016/j.sbspro.2010.10.098.

Jelas, Zalizan & Salleh, Amla & Mahmud, Izwan & Azman, Norzaini & Hamzah, Hanizah & Hamid, Zaleha & Jani, Rohana & Hamzah, Ramlah. (2014). Gender Disparity in School Participation and Achievement: The Case in Malaysia. Procedia - Social and Behavioral Sciences. 140. 62-68. 10.1016/j.sbspro.2014.04.387.

John, J. P. (2017). Gender differences and the effect of facing harder competition. Journal of Economic Behavior & Organization, 143, 201-222. doi:10.1016/j.jebo.2017.08.012

Joy, L. (2006). Occupational Differences Between Recent Male and Female College Graduates. Economics of Education Review, 25(2), 221–231.

Judson, R. (1998). Economic Growth and Investment in Education: How Allocation

Matters. Journal of Economic Growth, 3(4), 337-359. Retrieved from http://www.jstor.org/stable/40215992

Jussim, L., & Eccles, J. S. (1992). Teacher expectations: II. Construction and reflection of student achievement. Journal of Personality and Social Psychology, 63(6), 947-961.http://dx.doi.org/10.1037/0022-3514.63.6.947

Kahalon, R., Shnabel, N., & Becker, J. C. (2018). Positive stereotypes, negative outcomes: Reminders of the positive components of complementary gender stereotypes impair performance in counter-stereotypical tasks. British Journal of Social Psychology, 57(2), 482–502. doi: 10.1111/bjso.12240

Kay, A. C., Day, M. V., Zanna, M. P., & Nussbaum, A. D. (2013). The insidious (and ironic) effects of positive stereotypes. Journal of Experimental Social Psychology, 49(2), 287–291. doi: 10.1016/j.jesp.2012.11.003

Kazemi, F. (2000). Gender, Islam, and Politics. Social Research, 67(2), 453-474. Retrieved from http://www.jstor.org/stable/40971480

Kenworthy, L., and Malami, M. (1999). Gender Inequality in Political Representation: A Worldwide Comparative Analysis. Social Forces, 78(1), 235–268. doi:10.1093/sf/78.1.235.

Khairudin Aljunied, S.M. (2013). Against multiple hegemonies: Radical Malay women in Colonial Malaya. Journal of Social History 47 (1) : 153-175. ScholarBank@NUS Repository. https://doi.org/10.1093/jsh/sht056

Klasen, S. (1999). Does Gender Inequality Reduce Growth and Development? Evidence From Cross-Country Regressions. World Bank Policy Research Report Working Paper No. 7. Washington, DC: World Bank.

Lavy, Victor and Sand, Edith, On the Origins of Gender Human Capital Gaps: Short and Long Term Consequences of Teachers' Stereotypical Biases (2015). NBER Working Paper No. w20909. Available at SSRN: https://ssrn.com/abstract=2558961

Lawless, J. & Pearson, K. (2008). The Primary Reason for Women's Underrepresentation? Reevaluating the Conventional Wisdom. The Journal of Politics, 70(1), 67-82. doi:10.1017/s002238160708005x

Lee, V. E. & Marks, H. M. (1990). Sustained Effects of The Single-Sex Secondary School Experience on Attitudes, Behaviors, and Values in College. Journal of Educational Psychology, 82(3), 578-592.

Lee, V. & Lockheed, M. (1990). The Effects of Single-Sex Schooling on Achievement and Attitudes in Nigeria. Comparative Education Review, 34(2), 209-231. Retrieved from http://www.jstor.org/stable/1187954

Liben, L., Bigler, R., Ruble, D., Martin, C., & Powlishta, K. (2002). The Developmental

Course of Gender Differentiation: Conceptualizing, Measuring, and Evaluating Constructs and Pathways. Monographs of the Society for Research in Child Development, 67(2), I-183. Retrieved from http://www.jstor.org/stable/3181530

Manderson, Leonore. 1980. Women, Politics and Change: The Kaum Ibu UMNO, Malaysia, 1945–1972. Kuala Lumpur: Oxford University Press

Manski, C. F. (2000). Economic Analysis of Social Interactions. Journal of Economic Perspectives, 14(3), 115-136.

Marsh, H. W. & Yeung, A. S. (1998). Longitudinal Structural Equation Models of Academic Self-Concept and Achievement: Gender Differences in the Development of Math and English Constructs. American Educational Research Journal, 35(4), 705–738. https://doi.org/10.3102/00028312035004705

Maznah M. (2018). Getting More Women into Politics under One-Party Dominance: Collaboration, Clientelism, and Coalition Building in the Determination of Women's Representation in Malaysia. In "Divides and Dissent: Malaysian Politics 60 Years after Merdeka," edited by Khoo B. T. Southeast Asian Studies, 7(3), 415-447.

Ministry of Education. (2015). Executive Summary Malaysia Education Blueprint 2013-2025 (Preschool to Post-Secondary Education). [online] Available at: http://www.moe.gov.my/cms/upload_files/articlefile/2013/articlefile_file_00311 4.pdf

McKown, C. & Weinstein, R.S. Modeling the Role of Child Ethnicity and Gender in Children's Differential Response to Teacher Expectations. (2002). Journal of Applied Social Psychology, 2002, 32(1), 159-184.

Medearis, J. (2001). *Joseph Schumpeter's Two Theories of Democracy*. Cambridge: Harvard University Press.

Merrell, K. W.; Buchanan, R.; & Tran, O. K. (2006). Relational Aggression in Children and Adolescents: A Review with Implications for School Settings. Psychology in the Schools, 43, 345–360. doi:10.1002/pits.20145

Musa, Mahani. (2013). Women in the Malayan Communist Party, 1942–89. Journal of Southeast Asian Studies. 44. 10.1017/S0022463413000052.

Nagaraj, S. et al. (2017) Gender Imbalance in Educational Attainment and Labour Market Dynamics: Evidence from Malaysia. Malaysian Journal of Economic Studies, [S.l.], v. 51, p. 127-145.

Niederle, M. and Vesterlund, L. (2007). Do Women Shy Away From Competition? Do Men Compete Too Much? The Quarterly Journal of Economics. 1067–1101. doi:10.3386/w11474

Ng, Cecilia; Maznah Mohamad; and Tan Beng Hui. (2007). Feminism and the Women's

Movement in Malaysia: An Unsung (R)evolution. London: Routledge

O'Brien, L. (1982). Class, Gender, and Ethnicity: The Neglect of an Integrated Framework. Southeast Asian Journal of Social Science, 10(2), 1-12. Retrieved from http://www.jstor.org/stable/24490808

Ong, A. (1990), State versus Islam: Malay families, women's bodies, and the body politic in Malaysia. American Ethnologist, 17: 258-276. doi:10.1525/ae.1990.17.2.02a00040

Pahlke, E., et al. (2014). Reasoning About Single-Sex Schooling for Girls Among Students, Parents, and Teachers. Sex Roles, 71(5-8), 261–271. doi:10.1007/s11199-014-0410-8

Pahlke, E.; Hyde, J.S. & Allison, C.M. (2014). The Effects of Single-Sex Compared With Coeducational Schooling on Students' Performance and Attitudes: A Meta-Analysis. Psychological Bulletin, 140(4), 1042-1072.

Pande, R. and Ford, D. (2011). Gender Quotas and Female Leadership. World Bank Group, 2011, pp. 1–44.

Paredes, V. (2014). A teacher like me or a student like me? Role model versus teacher bias effect. *Economics of Education Review*, 39, 38–49. doi: 10.1016/j.econedurev.2013.12.001

Pascoe, C. J. (2005). 'Dude, You're a Fag': Adolescent Masculinity and the Fag Discourse. Sexualities, 8(3), 329–346. https://doi.org/10.1177/1363460705053337

Paxton, P., and S. Kunovich. (2003). Women's Political Representation: The Importance of Ideology." Social Forces, 82(1), 87–113. doi:10.1353/sof.2003.0105

Pearce, L. D. (2015). Religion and Youth. In International Encyclopedia of the Social & Behavioral Sciences (Second Edition) (2nd ed., pp. 298–306). Elsevier. Retrieved from https://doi.org/10.1016/B978-0-08-097086-8.84031-3

Raybeck, D. (1980). The Ideal and the Real: The Status of Women in Kelantan Malay Society. Women and Politics, 1, 7-21. 10.1080/1554477X.1980.9970319

Reid, A. (1988). *Southeast Asia in the Age of Commerce. Vol. I: The Lands Below the Winds.* New Haven, Yale University Press.

Régner, I., Steele, J. & Huguet, P. (2014). Stereotype threat in children: Past and present. *Revue internationale de psychologie sociale*, tome 27(3), 5-12. https://www.cairn.info/revue-internationale-de-psychologie-sociale-2014-3-page-5.htm.

Reskin, Barbara, F., and Denise D. Bielby. (2005). "A Sociological Perspective on

Gender and Career Outcomes." *Journal of Economic Perspectives*, 19 (1): 71-86.

Rosenthal, R., & Jacobson, L. (1968). *Pygmalion in the Classroom: Teacher Expectation and Pupils' Intellectual Development*. New York: Holt, Rinehart & Winston

Rosenthal, R. (2010). Pygmalion Effect. In The Corsini Encyclopedia of Psychology (eds I. B. Weiner and W. E. Craighead). doi:10.1002/9780470479216.corpsy0761

Sacerdote, Bruce. (2002). The Nature and Nurture of Economic Outcomes. American Economic Review, 92(2), 344–348. doi:10.3386/w7949

Sadker, M., & Sadker, D. M. (2010). *Failing at fairness: how Americas schools cheat girls*. New York: Simon & Schuster.

Saw, G. K. (2016). Patterns and Trends in Achievement Gaps in Malaysian Secondary Schools (1999-2011): Gender, Ethnicity, and Socioeconomic Status. Educational Research for Policy and Practice, 15(1), 41-54.

Sax, Leonard. (2005). *Why Gender Matters: What Parents and Teachers Need to Know About the Emerging Science of Sex Differences*. Random House Inc.

Sen, A. K. (2001). *Development as freedom*. Oxford: Oxford University Press.

Serbin, L. A., Poulin-Dubois, D., Colburne, K. A., Sen, M. G., & Eichstedt, J. A. (2001). Gender stereotyping in infancy: Visual preferences for and knowledge of gender-stereotyped toys in the second year. International Journal of Behavioral Development, 25(1), 7–15. doi: 10.1080/01650250042000078

Shah, S. & Conchar, C. (2009). Why Single-Sex Schools? Discourses of Culture/Faith and Achievement. Cambridge Journal of Education, 39(2), 191-204. doi: 10.1080/03057640902903722

Shih, M., et al. (1999). Stereotype Susceptibility: Identity Salience and Shifts in Quantitative Performance. Psychological Science, 10(1), 80–83. doi:10.1111/1467-9280.00111

Seguino, S.; Berik, G. & Rodgers, Y. (2009). *"Promoting Gender Equality as a Means to Finance Development,"* Working Paper Series, Department of Economics, University of Utah 2009_10, University of Utah, Department of Economics.

Sleboda, J. (2001). Islam and Women's Rights Advocacy in Malaysia. Asian Journal of Women's Studies, 7(2), 94-136. doi: 10.1080/12259276.2001.11665905

Steele, C. M. & Aronson, J. (1995). Stereotype Threat and The Intellectual Test Performance of African Americans. Journal of Personality and Social Psychology, 69(5), 797–811.

Steele, J. R. (2003). Children's gender stereotypes about math: The role of stereotype stratification. Journal of Applied Social Psychology, 33(12), 2587-2606. doi:10.1111/j.1559-1816.2003. tb02782.x

Trouilloud, D. O., Sarrazin, P. G., Martinek, T. J. and Guillet, E. (2002), The influence of teacher expectations on student achievement in physical education classes: Pygmalion revisited. Eur. J. Soc. Psychol., 32: 591-607. doi:10.1002/ejsp.109

Wang, W. (2005). Son preference and educational opportunities of children in China— "I wish you were a boy!" Gender Issues, 22(2), 3–30. doi: 10.1007/s12147-005-0012-4

Wong, W. I.; Shi, S. Y.; & Chen, Z. (2018). Students from Single-Sex Schools Are More Gender-Salient and More Anxious in Mixed-Gender Situations: Results from High School and College Samples. PloS one, 13(12). doi:10.1371/journal.pone.0208707

Yeganeh, H. and May, D. (2011), "Cultural values and gender gap: a cross-national analysis", Gender in Management, Vol. 26 No. 2, pp. 106-121. https://doi.org/10.1108/17542411111116536