A Gender Analysis of Iranian Middle School Textbooks

by

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Abstract

This study examines gender inequity in three Iranian middle school textbooks, and explores the efforts that Iranian women make to adopt, negotiate and resist the sexist indoctrinations of the textbooks. This thesis consists of two phases. The first phase contains a content analysis of the grade 6 Farsi Language Arts, grade 7 English as a Foreign Language, and grade 8 Natural Sciences textbooks taught in the academic year 2011-2012 in Iran. The second phase of the thesis analyzes the oral history interviews conducted with three female engineers regarding their K-12 and university education in Iran. The findings of the content analysis reveal that sexist indications permeate Iranian textbooks. Compared to men, women have a pale presence in the books. Women and girls are depicted, for the most part, in the domestic sphere, and their role as mothers and nurturers are stressed in stories, poems, and illustrations. An analysis of the women's interviews and archival documents; however, indicate that despite the sexist instructions of the textbooks, Iranian women are endeavouring to destabilise the cultural and political structures that curtail their rights. Today Iranian women are actively present in the public sphere; some of them are stepping into territories that have been long regarded as male-only grounds. By so doing, these women are gradually dismantling patriarchal systems of power.

Preface

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Glossary

Gender-sensitive approach. Leach (2003) claims that gender-neutral materials show an awareness of stereotypes and sexist practices and tend to avoid them. However, they make no concerted effort to change gender divisions. "A gender-sensitive approach would specifically address gender issues so as to destroy stereotypes and present a new way of perceiving men, women and their relationships" (p. 22).

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Dedication

For the brave women of Iran

and

For Parvin and Houshang

Chapter 1: Introduction

The curriculum and pedagogy of K-12 education in Iran is tightly controlled by the state. State censorship and self-censorship are commonly practiced in Iranian schools, and the education system is primarily textbook oriented. Teachers rarely divert from governmentsupplied textbooks and seldom include other educational materials to enhance their teaching. Whereas in Western countries including Canada, teachers are free to use a wide variety of teaching tools such as films, field trips, guest speakers, and the internet to supplement the government-mandated curriculum, in Iran, due to the restrictions imposed by cultural and religious institutions, education at elementary, middle and high school levels revolves around textbooks. In the province of British Columbia in Canada, teachers often use the "Prescribed Learning Outcomes" (PLOs for short) to plan their daily lessons and to evaluate the students' achievement. In Iran; however, there is no equivalent of the PLOs. Each textbook is accompanied by a teacher's guide, which includes justifications for the chosen material and some guidance regarding teaching strategies. As such, textbooks play a very important role in conveying knowledge to the youth, and socializing them into dominant norms of citizenship and gender roles.

It is not surprising then that the Iranian government uses textbooks to transmit not only academic knowledge but also to indoctrinate children into its dominant state discourses and values, including patriarchy. The promotion of gender equality has never been on the agenda of Iran's Islamic state, which has been in power since 1979. On the contrary, through the legislation of laws and regulations, the Islamic government of Iran has restricted Iranian women's participation in public. For example, according to the Iranian constitution, women

cannot be appointed as judges in the Islamic Republic (Poya, 1999). K-12 schooling and the traditional gender roles and relations promoted through children's textbooks are a key component promoting gender inequality for women and girls. Interestingly, sexism in textbooks at times helps politicize women. Iranian women resist the sexist norms of the patriarchal society and break the gender stereotypes proselytised by textbooks. Despite the sexist nature of textbooks, which in most cases instruct girls to remain in the private spheres of their homes, women are increasingly present in the public world. For example, women use tertiary education to gain more access to the public sphere. Recently, Iranian women have outnumbered men at the university level in both traditional and non-traditional fields like engineering (Mehran, 2009). Afary and Anderson (2005) draw our attention to another tool of resistance in the hands of Iranian women: "fashion is a feminist issue in Iran...

Women claim the public arenas with elegant capes in creative designs that meet the minimum requirement of the morality police, but are nowhere near the drab black veils recommended by them" (p. 175).

Why have I decided to focus on middle school textbooks? My decision to choose this level is rooted, to a certain extent, in the doubts and suspicions that I had at middle school level in Iran about the fairness and accuracy of the gender representations in curricula. In fact, I was at middle school when I noticed for the first time the discriminatory nature of the textbooks. I started to pose questions to myself about the legitimacy of the stereotyped role models that were represented in the books, and whether they sincerely reflected the conditions under which Iranian women lived. The sexist indications that permeated the books in both explicit and implicit forms enraged me, as they in my view, perpetuated the treatment of Iranian women as second-class citizens. Unfortunately, the right to freedom of

expression has been and continues to be violated in Iranian school environments, hence encouraging self-censorship on the part of students. Then again, I could not have been alone in my questioning the discriminatory instructions of the books.

According to the National Middle School Association (2010), an international education organization, in terms of moral development, young adolescents (aged 10 to 15) are in a transitional state in terms of moral development, shifting their focus from self to others, displaying empathy for the oppressed. Moreover, middle school students increasingly examine "adult moral judgements," and tend to build their own value systems, which are often influenced by the principles of their trusted adults (p. 58). Early adolescence is the period of identity development, a time when children are uncertain about who and what they are. Biological changes occur during early adolescence, so does gender socialization, when many parents reinforce the gender related norms of the society. It is also at this age when children, in their search for self and identity, might display "gender-atypical" behaviour or "gender-undesirable interests" (Finkenauer and Engels, 2002, p. 37). Given that students at this age are progressively more aware of the social issues and are affected by the dominant belief systems, and given the Iranian school system's reliance on textbooks, one cannot deny the important role that textbooks play in propagandizing gender-roles and socializing middle school students into dominant gender norms.

Another feature of the Iranian middle school system that renders its curriculum worthy of research is that once graduated from middle school, students will be tracked for their further studies at the high school level. Each student will be assigned to one of the three distinct academic tracks; i.e., mathematics and physics, natural sciences, or social sciences, or has to attend vocational school. To become engineers, for example, students have to be in

the mathematics and physics track. Students with high marks will have the option to choose their desired tracks. Once the student is assigned a track, it would be very hard for him or her to change tracks. In other words, by age 14, students will have a more or less clear perception of their tertiary education paths and prospective careers. Indeed, Iranian adolescents have to make an immanent decision regarding their future, one that will affect them for a lifetime. The fact that the academic future of students with regard to their tertiary education is largely determined at middle school level renders this study all the more necessary.

This study examines three subject areas: English, Farsi and Natural Science. An examination of the English as Foreign Language textbooks is of the essence because the Islamic government constantly warns the nation against Westernization; malleable children might be easily influenced by the West through reading books written in English or other foreign languages. It is therefore appealing to analyse the English textbooks and comprehend how women are portrayed in books that teach the language of the West. Farsi language arts book can serve as a vehicle to convey national cultural messages, and may therefore be used to consolidate gender specific roles through narratives, poems and images. In fact, Iranians value their language greatly; they tend to be very fond of literature, poetry, fables and proverbs; even illiterate people can recite poetry and narrate ancient texts. Natural science textbooks too are important books to analyse by virtue of their stereotypical characterization as subjects of interest primarily to men. Do Iranian math and science textbooks strengthen this stereotype by portraying math and sciences as exclusively male domains?

This research consists of two phases. In the first phase, I analysed contemporary Iranian textbooks at the middle school level in terms of gender representation, focusing on family, employment and socio-political roles of men and women. I used content analysis (Neuendorf, 2002; Leach, 2003; Rose, 2007) to analyse three Iranian middle school textbooks: grade 6 Farsi language arts, grade 7 English language, and grade 8 science. In the second phase, I used oral history methods to interview three Iranian women engineers about their experiences in the Iranian education system (at grade school and university), their perspectives on textbooks, their motivations to pursue their studies in engineering, and their reactions to sexist instruction. The goal of my study was to try to answer the following research questions:

- 1. What are the cases and patterns of gender disparity in Iranian grade 6-8 textbooks?
- 2. How have Iranian women engineers understood, adopted, negotiated and resisted gender inequities in their K-12 schooling and university education in Iran?
- 3. How have Iranian women resisted the discriminatory laws and cultural stereotypes of their society?

1.1 Socio-historical background on Iran's gender politics

The Islamic revolution that took place in February of 1979 brought an end to the Pahlavi dynasty, which was established in 1925 by Reza Shah Pahlavi. He ruled Iran for 16 years and was replaced by his son Mohammad Reza Shah in 1941 (Poya 1999). In spite of the fact that the Islamic Republic that is founded on the Sharia law and is very different from the two secular Pahlavi regimes, the gender policies of the three states have some commonalities. Yeganeh (1993) asserts "...all three states have linked women's social and familial position to the status of the nation and placed gender policies at the heart of their

programmes for national development and independence." Although Reza Shah provided "free education," and "employment opportunities for women," his aim was to "achieve national progress through the legal construction of women as social participants, educated mothers and subservient wives." More importantly, through the enactment of the Family laws of 1930s, he "endorsed polygamy, gave the right of divorce and custody to men, and prohibited women from travelling or entering into education and employment without their husband's permission" (pp. 4-5).

Under Mohammad Reza Shah women gained more privileges, for example, the right to vote in 1963, and more access to education and employment opportunities. Women's persistence in their demands for the modification of the Family laws resulted in a revision of these law in favour of women, albeit slightly (Yeganeh, 1993). Notwithstanding that women became more active socially and politically in this era, the beneficiaries of the Shah's gender policies were mostly the women who belonged to the upper and middle classes. Moreover, although state-sponsored women's organisations did exist in this period, "police repression," and "authoritarianism" precluded women's ability to form independent organisations (Moghissi, 2008, p. 545).

The gender politics of the Pahlavi states did not serve to eliminate gender discrimination. In fact, Yeganeh (1999) argues, "Pahlavi gender policy did not aim to remove patriarchal relations, simply to modernize them" (p.6). Yeganeh also claims that the Pahlavis emphasized "liberal nationalism", while the Islamic state's discourse revolves around "cultural nationalism," and "Islam's ideology," hence, "a new alliance between Islam and nationalism which became the cornerstone of the Islamic republic's gender policies." The Constitution of the Islamic Republic considers women as "both mothers and citizens",

and deems "the establishment of an Islamic nation as dependent on the Islamization of women's position" (1999, pp. 7-8). In this Islamic state, gender equity is not on the agenda. On the contrary, explicit and implicit sexist theories and practices often restrict women and pave the way for male control over women. For instance, according to UNICEF (n.d.), Iran has not yet signed the Convention on the Elimination of All Forms of Discrimination against Women, maintaining that it is not attuned with Sharia law. It is not therefore surprising that Iranian textbooks are rife with both candid and implied instances of sexism.

1.2 Islamic state's gender ideology

In the post-revolution era, the gender laws of the Islamic state were restored in such a way that women lost many of the rights that they had secured during the reign of Mohammad Reza Shah, and men regained many of their privileges regarding polygamy, family, and divorce. In fact, the main principal of the Islamic ideology has been the "binary opposition of complementary gender identities," which assigns the role of breadwinner to men and asks women to be mothers who "enjoy the luxury of being provided for and protected by men" (Shahidian, 2002, p. 37). Such an ideology, which predominates textbooks, is often reinforced through the celebration of the lives of women in early Islam. According to Poya (1999), the Islamic state systematically uses images of early Muslim women like Fatimah, the daughter of prophet Mohammad, who is often portrayed as a female role model for Iranian women: she is "a perfect mother and wife in the domestic sphere" (pp. 11-12); Fatima's birthday is currently celebrated as Mother's day in Iran. By referring to anecdotes from lives of women who lived in the seventh century and portraying them as ideal Muslim women, the Islamic state encourages women to abide by the gender laws.

Sharia Law, which constitutes the basis of the Islamic ideology and gender policies, has many supporters in the Muslim world including Iran. The proponents of Sharia law argue that women and men are "biologically, psychologically and intellectually different," and that women's monthly menstruation disturbs their "ability to testify and form judgements" (Poya 1999, p. 6). Hence women's preclusion from the judiciary. The opponents of Sharia in Iran and elsewhere in the world law argue that women are oppressed under Sharia, which reaffirms men's superiority over women not only in the public sphere but also in the family realm. For example Sharia maintains that "man is the head of the household, and the wife is obliged to submit to her husband (tamkin). If she refuses to comply with her husband's authority and demands (including sexual demands), he legally is allowed to sanction her and in certain cases is authorized to divorce her" (Kian, 2011, P. 25). The imposition of hijab or the mandatory Islamic dress code, a clear violation of women's freedom in choosing their attire, is also another restrictive aspect of Sharia in Iran.

1.3 Significance of the study

In 2009, The United Nations Educational, Scientific and Cultural Organization (UNESCO) published a methodological guide titled "Promoting Gender Equality Through Textbooks" in which the authors Brugeilles and Cromer state that textbooks are an important factor in developing education policy; the ideological and economic roles of textbooks cannot be denied. Moreover, textbooks are considered to be indispensible media that communicate social values and knowledge. In her UNESCO report written in 2007, Blumburg (2008) claims that sexism in textbooks is "one of the best camouflaged – hardest to budge rocks in the road to gender equality in education," and maintains that such biases

tend to discourage girls from pursuing mathematics and sciences (p. 4). Chatman et al. (2008) reiterate Blumburg's view on science curriculum, stating, "... girls and women are still being steered away from STEM (science, technology, engineering, and mathematics) pursuits. In K-12, boys tend to be more confident about their math and science abilities than girls, and at an early age girls are more likely to develop negative attitudes toward science, resulting in self-doubt in their abilities (p. 3)."

Although several researchers have analysed Iranian textbooks, the focus of most previous research has been discrimination in general, not gender discrimination in particular. Scholars like Higgins & Shoar-Ghaffari (1991), and Malekzadeh (2001) have examined Iranian textbooks to gauge both open and hidden forms of discrimination against different groups; namely religious and ethnic minorities, the disabled, and of course to some extent, women. Then again, former researchers have not inquired about the reactions of Iranian women to the discrimination that pervades textbooks. In fact, textbooks have the potential to change the stereotyped perceptions of men and women, thus paving the way for socially just societies. Given that at university level, women outnumber men in areas that are considered men's exclusive territory (e.g. medical science, basic sciences), it is important to examine school textbooks and discover how gender differences are addressed in the curriculum. Do science textbooks, for example, portray women scientists in a positive light? Is language used as a vehicle to empower girls and encourage them to become visible in the public sphere through furthering their education?

The reality of women in public life and educational institutions contradict the gendered teachings of the textbooks, further demonstrating that girls have not blindly accepted the sexist instructions of the books. On the contrary, they have refused to be

become more active publicly. In other words, girls have rejected the gender disparity of the books or at least have reinterpreted the directives that guided them to be docile, passive beings. The state's "legitimate knowledge" is not quite legitimate in the eyes of the Iranian girls who use their agency to discard the teachings, and in practice challenge the very teachings of the books. The focus on women's agency and their reaction to the gender disparity of the textbooks distinguishes this study from previous research. Moreover, oral history methods provided a platform for Iranian women to talk about the problems that they faced throughout their education and career, their motivations, their endeavours, and their resistance to the gendered curricula and stereotypical norms of the society. The accounts of the enterprise of these women might serve as an inspiration for the future generations in search of role models.

In January 2008, the education minister of Iran, Ali Ahmadi, emphasized the need for gender specific textbooks in Iran. Ali Ahmadi stated that due to the fact that boys and girls of the same age have different "spiritual, mental and physical" needs, the contents of the books for each sex should not be the same (Adnkronos news agency, 2008). This announcement stirred a great deal of controversy among Iranian scholars who saw no need for textbook segregation and opposed this move. Abdollahi, an education expert, for example, stated that "our boys and girls will eventually live and work, and form families. By segregating their textbooks, we will exile them into two different worlds" (Etemad newspaper, 2008). The minister's plan is still on the table as an option. Studies that expose the sexist nature of Iranian textbooks might attract the attention of activists who promote gender equity in the society and urge those in charge to prevent the materialisation of the

education minister's proposal. More importantly, in light of the recent democratic movements in the Middle East, identification of gender biases of current textbooks prepares us for the creation of gender-sensitive curricula in the future.

1.4 Women in science

In a developing country like Iran, social norms, family constraints, and stereotypical beliefs deter many girls from pursuing science related disciplines and jobs. However, as mentioned before, women are more numerous than men at undergraduate level in many disciplines including some science degrees in Iranian universities. Let us take a look at the population of engineering students in Canada and in Iran in the 2007-2008. According to Maclean's magazine, in 2007 and 2008, 17. 3% and 17.1% of all engineering students were women (Brunet, 2009). As stated by the "Facts and Figures of UBC Engineering" (2011) published by the faculty of applied science, in the years 2007 and 2008, 18.9% and 19.6% of all engineering students at the University of British Columbia were women. Interestingly, in the same academic years, there were more female engineering students in Iran than in Canada. According to Mehran (2009), in the 2007-2008 academic year, girls outnumbered boys at university level; 66% of all students enrolled in medical sciences were women; in basic sciences, fine arts and human sciences women's participation was 62%, 68%, and 59% respectively. The one subject that remains male dominated in Iran is engineering at master's and doctorate level; although women outnumber men at bachelor's level, in the same academic year, men comprised 73% of engineering fields in total as compared to women whose participation was 27%. That the Iranian women are less numerous at graduate school does not surprise me; in fact, the norms of the society are such that an Iranian woman is

expected to get married and have children in her early twenties. Although there are exceptions, it is not socially acceptable for a woman to postpone marriage or child birth simply because she desires to continue her education at grad school, particularly in engineering fields, which are practical and often require on-site work. Such statistics are thought-provoking and necessitate an extensive study of school textbooks to find out whether the school curriculum empowers young girls and encourages them to pursue their education at tertiary level. Engineering is considered a prestigious and high-paying job in Iran. But the same is true for Canada. Therefore, we need to talk to Iranian female engineers to find out about their motivations for choosing engineering fields and the influence of the school system, particularly textbooks on their decisions.

Apple (2003) states that most research on the interconnectedness of the state and education has been conducted in the countries of the Global North; namely England and Sweden. To get a better understanding of the elusive dynamics of power, we need to study societies that tend to be very different from those that have been the focus of educational research. One such society is Iran, which is strikingly different from the Global North countries in terms of religion, dominant regime, race, and more importantly, gender roles.

1.5 Scope and Limitations

In this study, I examine gender in a binary manner, masculinity versus femininity; a more comprehensive research would have looked at gender roles not as limited to male or female, masculine or feminine, but as existing along a spectrum of sexual subjectivity. Then again, homosexuality is still a cultural taboo in Iran; and homosexual acts remain a crime

worthy of the death penalty. Given the policies of the current regime, broaching the subject of gender as a spectrum is currently impossible.

Although oral history reflects the experiences of the people who are often disregarded by conventional research methods, oral history interviews have certain limitations. Oral history is in fact a re-representation of the past, and relies on the interviewee's memory. According to Abrams (2010, p. 79), "the memory recovered through oral history is not always 100 per cent reliable in objective or measurable terms though it has a truth value for the person remembering it". Then again, given the absence of recorded documents regarding the experiences of female students growing up in Iran, the oral history interviews conducted in this study provide useful, important and legitimate information about the Iranian education system and the experiences of women in their K-12 and university education in Iran.

The sample that I use in this research is a small one, containing three women engineers born into middle class families, all of whom lived in large metropolises in Iran. Women from poor families, or women who grew up in rural areas would respond differently to the research questions. In other words, in this research, I did not attempt to examine the intersection of gender with race and class.

This research is limited to the analysis of the grade 6 Farsi language arts, grade 7 English as a foreign language and the grade 8 science textbook. The findings of the content analysis of these three textbooks cannot be generalized to all textbooks at middle school level. Nor can we assume that the textbooks at elementary and high school levels contain the same cases and patterns of gender disparity. Also, this study is limited to textbooks and does not examine the practices of students and teachers in terms of gender equality. Broader research would include the teachers' and the students' treatment of the textbooks; whether

students pose questions regarding sexist material, and whether teachers dare criticize gendered practices. However, as mentioned before, censorship and self-censorship are common practices in Iran; students and teachers rarely discuss the truthfulness or accuracy of the texts. According to Freedom House (2007), "the problem of the Iranian educational system is the same as that of all religious schools that view the world egocentrically: the system imposes the textbooks on students and they do not have the freedom or right to criticize" (p. 49).

1.6 Overview of the thesis

This study is comprised of five chapters. In Chapter One, I provide an introduction to the thesis, focusing on the following themes: socio-historical background on Iran's gender politics, the Islamic state's gender ideology, significance of the study, women in science, scope and limitations of the study, and definition of key terms. Chapter Two includes the theoretical framework, literature review and methodology of this thesis. In Chapter Three, I conduct a content analysis of three Iranian textbooks taught at middle school level: grade 6 Farsi language arts, grade 7 English as a foreign language, and grade 8 science textbooks. Chapter Four includes the findings of the interviews that I conducted with three female engineers regarding the gender inequities that they experienced in their K-12 schooling and university years in Iran. In Chapter Five, I offer a summary of findings, a brief review of the theoretical framework, a discussion of findings, which include evidence from the wider Iranian society regarding the endeavours of Iranian women to dismantle the sexist power structures of the society, recommendations for further research, and recommendations for

educational practice and policy. The last section of my thesis includes my concluding remarks.

Chapter 2: Theoretical Framework, Literature Review and Methodology

This chapter contains the theoretical framework, literature review and methodology employed in this study. The theoretical framework of this research is informed by the views of two theorists: Michael Apple and Michel Foucault. I discuss Apple's theories on the interconnections between the state and the education system to explain the gender inequities of the Iranian curricula. I also draw on Foucault's ideas on power to justify the plurality of Iranian women in areas that are traditionally regarded as exclusively male domains, for example, engineering fields at Iranian universities. In the literature review, I present a number of studies that have been conducted in the area of inequity in Iranian textbooks up until now. In the methodology section of this study, I explain the three research questions, as well as the qualitative and quantitative methods that I used to conduct my content analysis of three Iranian textbooks. I also talk about oral history interviews with Iranian female engineers and introduce the rest of the sources that I have utilised in this study to answer the three research questions.

2.1 Theoretical framework

State-sponsored schooling is not a neutral institution; in fact, national states constantly use the institution of education to reproduce the status quo, with the social inequalities that it entails. In societies like Iran where the national curriculum is centrally controlled, the state often uses education to promote its agenda. My exploration of the Iranian school curriculum is highly influenced by Michael Apple (2004), who draws our attention to

the political nature of education and contends that educational systems "ultimately help produce the type of knowledge that is needed to maintain the dominant economic, political, and cultural arrangements that now exist" (p. x). Modifying Spencer's original question "what knowledge is of most worth", Apple asks, "whose knowledge is of most worth" (2004, p. vii). Apple (2004) also stresses the role of schools in the economic and cultural reproduction of class, race, and gender structures. Utilising Apple's insights, I will use a feminist theoretical lens in my analysis to reveal the stereotypical gender roles in the chosen Iranian textbooks. The K-12 curriculum in Iran ascribes mainly traditional gender roles to men and women, and eliminates women from non-traditional domains like mathematics and natural sciences. The aim of the Iranian curriculum is to justify the existing discriminatory practices of the society and to maintain them.

How do Iranian girls react to such ideologies? How successful are the textbooks in maintaining and reproducing sexist traditions? Iranian textbooks often stress the importance of women's duties in the domestic sphere and advise women to take on traditional and stereotypical roles. Interestingly, many Iranian women are categorically rejecting the discriminatory teachings of the textbooks. Today, Iranian woman persist in breaking the gender stereotypes proselytized by the textbooks and are gradually becoming more visible in the public sphere. In other words, the textbooks have caused a backlash among women, the result of which is women's open resistance of the traditional patriarchal beliefs and their perseverance in achieving gender parity. Here are a few examples of women's resistance. Defying the sexist instructions of textbooks and dominant social norms, women went out in large numbers to streets and even took on leadership roles in the protests against the presidential election. According to CNN, women were in the vanguard of the 2009 uprisings

that took place in Iran against the current regime (Basu, 2009). Moreover, since 2004, Iranian women have outnumbered men at university level (Povey and Rostami-Povey, 2012). According to the most recent statistical data available on the website of Iran's Ministry of Science, Research and Technology, in the academic year 2006-07, 228,479 women and 136,461 men, and in the academic year 2007-08, 327,978 women and 189,632 men attended Iranian universities. Women not only outnumbered men in traditionally female-dominated degree programs, but also in non-traditional fields. In engineering for example, in the academic year 2007-2008, 55, 457 women and 39,685 men were accepted at bachelor's level.

To explain the plurality of women in the public sphere, particularly at university level, I will use Foucault's theory of power; focusing on the notion that power is not owned by the dominant state, it circulates within the different strata of the society. Foucault draws attention to "individuals' behaviours and interactions" and the consequences of their acts on "larger patterns" and "national norms." He also argues "power comes from below," and develops in "individual choices and behaviours" (Lynch, 2011, pp. 19-22). Today in Iran women, who have been historically marginalized and placed in the bottom strata of the society, are resisting the imposed gendered curricula. Applying Foucault's notion of the circulation of power to the Iranian society, I would argue that Iranian women are demonstrating their agency; they react against efforts to limit their life possibilities, in spite of, or because of, the sexism embedded in gendered portrayals of their lives and their futures. In other words, the sexist curricula, ironically, empower girls and form young women who reject the gendered power relations of the country.

Foucault's analysis of power and his emphasis on the interplay between domination and resistance provide a useful theoretical tool. Foucault insists that resistance does not rise

"from a single point;" resistance against the state exists in multiple sites and in the form of "local struggles", for example in homes and at schools. (Diamond and Quinby, 1988, p. 9). The Iranian girls' defiance of the sexist indoctrinations of the textbooks can be regarded as a local struggle against the patriarchal power and the Islamic teachings of gender disparity. Interestingly, in "Foucault and the Iranian Revolution," Afary and Anderson (2005) state that Foucault's analyses of resistance are widely used by the Iranian intellectuals and dissidents to explain the "multiple sites of resistance" that exist in the Iranian society against the "hegemonic control of the state" (p. 174). By resisting the sexist inculcations of the Iranian curricula and by strengthening their foothold in the public sphere, Iranian girls are in fact creating another site of resistance against the state.

Foucault's theories of modern power are popular among many post-structural feminists. Amy Allen (1999), for example, sees a "basic similarity" between Foucauldian and feminist analyses of power. In "The power of feminist theory," Allen states that Foucault's analysis of power provides "key resources for the development of a feminist conception of power," due to its emphasis on the interplay between power and domination, and its "ability to view power simultaneously as constraint and enablement." She also argues that the Foucauldian "politics of everyday life" appeals to feminists who believe that "personal is political" (Allen, 1999, pp. 48-51). While discussing Foucault and Gordon's conception of power, Allen (2008), maintains that "power comes from below," and that "our analysis of power should be ascending, not descending" (p. 53-54). In the context of Iran, recent demographic changes indicate that women, in spite of the sexist indoctrinations of the Iranian curricula, are ironically using tertiary education as a tool to advance their place in the public sphere. The blatant gender discrimination of the textbooks has provoked a backlash

among women, urging them to become the antithesis of the stereotypical portrayals of women. Allen (2008) agrees with Foucault stating "power is not restricted to the sovereign or the state but is instead spread throughout the society" (p. 53). In Iran, the state has full control over the curriculum, and uses its power to inculcate sexist materials; then again, Iranian women too use their power to defy sexist inculcations.

The Iranian education system is the point at which Apple's ideas regarding the political nature of education and Foucault's power theory meet each other. As I have mentioned before, the Iranian state uses the school curriculum to maintain the discriminatory power structures of the society. Then again, the discriminatory depictions of men and women of the textbooks happen to empower the Iranian female students. Instead of conforming to the stereotypical images of the textbooks, women, who have been historically marginalized in Iran, are fighting to change the unjust economic, cultural and political structures of their society. In other words, the curriculum, mandated by the most powerful party of the country, ironically, produces other forms of power. This power is manifest in the choices that women make; for example, the choice of pursuing engineering, which is considered a masculine discipline. The fact that many women have become the antithesis of the stereotypes of the textbooks does not negate the power of the Iranian curriculum; it speaks volumes to the power of women who endeavour to change the status quo.

Does the shift in the gender dynamics of the universities or significant presence of women in the 2009 uprisings mean that Iranian women are emancipated? The answer is no. One obvious example of the unbalanced gender relations in Iran to this day occurs in the realm of paid labour. Unfortunately, the labour force in Iran is still male dominated in spite of many women's high level of education and advanced skills. Fareed Zakaria (2011),

Editor-At-Large of *Time Magazine* and the host of CNN's *Fareed Zakaria GPS*, who travelled to Iran in October of 2011, found that "after graduation, women are one-third less likely to work as men. Thirty two percent of Iranian women participate in the workforce, about half the average of advanced economies." Women's low participation in the workforce can be attributed partly to the governing Sharia law, which although it does not prohibit women from seeking gainful employment, states that in order to work outside the house, a woman has to have her husband's consent. Clearly, this consent has not been forthcoming for many educated women. Most of the Iranian men are not yet ready to relinquish their "patriarchal authority;" if a woman's employed status endangers the "patriarchal authority" of the men of the family, the state "ensures the operation of patriarchy at the level of the sate and the family" (Poya, 1999, p. 110). According to Keddie and Richard (2003), "cultural attitudes and home workloads still limit the number of working-class women who work in a now-predominantly urban Iran (p. 295). Moreover, gender discrimination reigns supreme in the labour market where business owners are still more inclined to hire men than women. Such a tendency stems from the patriarchal norms and sexist teachings of the school system that ascribe the role of breadwinner to men, and suggest that women should stay at home. Many business owners subscribe to such cultural norms and sexist indoctrinations. In fact, changing the dominant norms and traditions of the society takes more than a generation of educated, resistant woman. Despite the discriminatory laws and regulations of the society and sexist proselytization of the education system, Iranian women are endeavouring, slowly but surely, to change the power dynamics, and to transform the governing laws to advance their status in the society.

In sum, Apple's insights on the role of state-sponsored education in reproducing social inequalities serve as scaffolding for the first phase of this research, the content analysis of textbooks. In the context of Iran, the state uses the national curricula to reproduce the gender disparities that are part and parcel of Sharia. Iranian women, on the other hand, resist the sexist instructions of the textbooks. The second phase of this research, the accounts of Iranian women's resistance, is informed by Foucault's theories of power and resistance. Iranian women's increasing presence in the public sphere is further proof of their defiance of sexist indoctrinations of the dominant state.

2.2 Literature review

Several researchers have ventured to discuss Iranian textbooks, focusing on various issues such as ethnic and religious bias, Islamization, anti-western values, and some have briefly discussed gender inequalities present in the books. Higgins and Shoar-Ghaffari's (1991) study of Iranian textbooks is one such study; it mainly focuses on sex - role socialization. In their study, the authors not only examine textbooks, but also discuss Iran's education system thereby opening a window to a world that remains unknown and mysterious to the western reader. Higgins and Shoar-Ghaffari talk about a "centralized ministry of education" that is in charge of publishing textbooks that will be used in schools across the country, regardless of their being public or private. In order to advance from one grade to the next, students have to pass the ministry's regulated exams, exams that are restricted to the content of the textbooks; hence rote learning and heavy dependence on textbooks (p. 216).

Higgins and Shoar-Ghaffari analyse two sets of elementary level language textbooks, one set published in 1969-70 during the Pahlavi era and the other in 1986-87, during the Islamic Republican era. In their content analysis of text and images of the grades 1 to 4 Farsi language arts books, the authors compare and contrast the books of the two eras while focusing on family roles, occupation, depiction of males and females in joint activities, Islamic dress code, gender-typed personality and behavioural characteristics. Higgins and Shoar-Ghaffari had hypothesised a drop in women's public visibility in the Islamic Republican books, as well as an emphasis on family roles and housewifery, and portrayal of "females as emotional, irrational, empathetic, and impulsive, and males as rational, objective, independent, and assertive" (p. 223). Contrary to their hypothesis, the authors perceived little change in terms of sex-role socialization in textbooks used in the two eras. In fact, many of the Islamic Republic books of the 80's happened to be revised versions of those used in the Pahlavi era; hence little change in terms of gender socialisation in the books that were in use in 1986-87 as compared with their predecessors. I need to draw the readers' attention to the word "revised" at this point. The textbooks that Higgins and Shoar-Ghaffari used in their research were published seven years after the Islamic revolution. In the turbulent period that ensued the revolution, seven years was not sufficient for a total overhaul of the education system, including the curricula. The authors explicitly mention that the books "were indeed revisions rather than a total redesign." Interestingly, the same authors of the Pahlavi era wrote the books that were published in the 80's! Therefore, there was little change in terms of "methodology, concepts, and content" in the books published in two eras (p. 218). According to the authors, the most noticeable changes in all of the textbooks were in the pictures: while the Pahlavi era textbooks depicted unveiled women and instances of

coeducation, the Islamic era books showed women that conformed to the Islamic dress code, and showed pictures of students in single-sex institutions.

Textbooks currently published in Iran (33 years after the revolution) differ greatly from those used in the mid 80's; a different government is in charge, with different political leaders and consequently different political interests, struggles and aims. In his doctorate thesis on the postrevolutionary school system in the Islamic Republic of Iran, Malekzadeh (2011), too, confirms that although the first decade after the revolution (1979-1989) witnessed certain "ad hoc reforms" in the education system, the "fundamental changes" in textbooks began in 1998 (p. 104). A more recent analysis of textbooks has been conducted by Freedom House. In 2008, Freedom House published a content analysis of the written text and images of 2006-7 Iranian textbooks, which blatantly condemns the government of Iran for teaching students to discriminate against women, minority groups and non-Muslims. Compared with Higgins and Shoar-Ghaffari's, the Freedom House's (2008) study is more comprehensive, covering books on sciences, mathematics, Farsi language arts, foreign language arts (Arabic and English),

Since its founding in 1941 by prominent Americans concerned with the mounting threats to peace and democracy, Freedom House has been a vigorous proponent of democratic values and a steadfast opponent of dictatorships of the far left and the far right. Eleanor Roosevelt and Wendell Willkie served as Freedom House's first honorary co-chairpersons."

¹ Freedom House is a Washington based NGO founded in 1941. Freedom House advocates for religious freedom, democracy and human rights and conducts research in various parts of the world such as the United States, the Middle East and Latin America. According to their website, "Freedom House is an independent watchdog organization that supports the expansion of freedom around the world. Freedom House supports democratic change, monitors freedom, and advocates for democracy and human rights.

social sciences, religious studies, and defensive readiness from grades 1 through to 11.

Freedom House's research methodology consists of three types of analysis, "a statistical analysis of 3115 pictures from all textbooks to demonstrate gender differences, a quantitative analysis of the Farsi textbooks from Grade 1 to 11 given their importance in pedagogy, a qualitative analysis of 95 textbooks from Grade 1 to 11 to select relevant sections for the study of discrimination and intolerance toward others (p. 7)."

Freedom House concludes that a form of "gender ideology" exists in Iranian textbooks with three distinct features: "Men and women are not equal, men and women have assigned gender roles in their social and private lives, women are not purely traditional and limited to the house and the boundaries of family life; in other words, women are semi-social, semi-modern (p. 12)." According to Freedom House, the books vary in terms of their degree of gender discrimination. The less discriminatory are the science books that show pictures of women engaged in scientific activities, and the most discriminatory are the Religious and Social Studies texts, which "actively participate in the explanation, interpretation, and legitimization of discrimination (p. 50)." In the middle are the history and Farsi textbooks.

2.3 Methodology

At first glance, the reader of Iranian textbooks might not notice explicit instances of gender disparity in the language or illustrations of the books. A closer look however reveals many cases of gender stereotyping and preferential treatment in all subjects. Although girls are present in the books, in terms of images and names, boys outnumber girls. Moreover, activities and jobs attributed to girls and women are passive and require the caring and

nurturing characteristics associated stereotypically with girls and women; boys and men, on the other hand, are mainly assigned active leadership roles. Although Iranian women are still suffering from the prevailing gender disparities of the society, their efforts have been fruitful to a certain degree; women have made remarkable strides in balancing the roles of males and females at home and in the larger society. Such success is reflected in some of the books too. The degree of sexism in the books is varied; some books have even made a few attempts to show women in active roles and in non-traditional occupations, or demonstrate pictures of men who share the house chores with their female family members.

This study utilizes mixed methods, critically examining qualitative and quantitative evidence. The quantitative analysis comprises the tallying of the number of female versus male characters in the stories, the frequency of the pictures of female and male children and adults in textbooks, the frequency of female names versus male names, and the activities and roles assigned to each sex. The qualitative analysis includes the interpretation of the above data, and the interviews that determine the responses and reactions of women to the gender disparities of the books. These books are published by the Ministry of Education for use in the school year 2010-11 and posted on the internet for free public access at http://www.chap.sch.ir/. Iranian state schools are under the jurisdiction of the ministry of education and training, and are required to use a national curriculum, which is uniform across the country.

Content analysis is a common methodology when assessing forms of discrimination against women in textbooks. Neuendorf (2002), a specialist in the field of content analysis, affirms that content analysis has been widely used to study gender roles, and to compare men and women's attitudes not only in textbooks, but also in films, news coverage, children's

books, comic books, and music. Although in content analysis the researcher deals with numbers, this method requires more than simple quantitative analyses. The different phases of content analysis; i.e. devising the research questions, developing coding categories, and interpreting the results necessitate qualitative analysis on the part of the researcher (Rose 2007). Therefore, content analysis has the ability to generate both quantitative and qualitative evidence.

Research questions for the study were:

- 1. What are the cases and patterns of gender disparity in Iranian grade 6-8 textbooks?
- 2. How have Iranian women engineers understood, adopted, negotiated and resisted gender inequities in their K-12 schooling and university education in Iran?
- 3. How have Iranian women resisted the discriminatory laws and cultural stereotypes of their society?

To answer the first research question above, I analysed 3 textbooks at the middle school level in terms of gender representation. For this purpose, I conducted a content analysis of the written text and images of Farsi language arts, English as a foreign language, and natural sciences textbooks at grades 6, 7 and 8 levels, while focusing on family, employment and socio-political roles of men and women. To answer the second research questions, I used SKYPE, Google Talk and Yahoo Messenger to conduct interviews with women who obtained their first degrees in engineering in Iran. Palys and Atchison (2008), emphasize the importance of person-to-person interviews in social sciences, and maintain that feminist researchers favour oral history techniques due to their ability to give voice to women whose

ideas and experiences have rarely been reflected in history. In other words, "oral history methods rectify the gender imbalance in the largely male-dominated documentary archives of history" (p. 162-163). I interviewed three women engineers, all of whom currently reside outside Iran. While two of the women were my friends, the third was introduced to me through a common acquaintance. By unearthing memories of their education both as children and adults in the Iranian education system, these women were able to provide valuable data regarding the ways in which they resisted the sexist norms of the patriarchal society and became the opposite of the stereotypical images of textbooks.

During the interviews, I asked women to reflect upon their memories as students growing up in the Iranian education system, their perspectives on the Iranian textbooks, their motivations to choose the non-traditional field of engineering, their reactions to the sexist norms and indoctrinations, and their life experiences as Iranian women engineers. I also asked them to comment on the role that gender inequity in their 6-8 grade textbooks had in shaping their lives. Appendix A contains the questions that I asked during the interviews. Although the women's responses constituted the main part of the second phase of my thesis, in conjunction with the interviews, I analyzed the data collected from archival documents and published media. Such information also helped answer the third research question. The sources that I used include the data published on the personal weblogs, various books and articles on Iran written by Iranian and non-Iranians, websites of Iran's Ministry of Education, and Iran's Ministry of Science, Research and Technology, which is in charge of higher education. Additionally, I drew on Iran's daily newspapers, accessible on the Internet. These newspapers reflect the latest changes of the education system in Iran. Some of the above information is in Farsi. BBC Persian (in Farsi) and CNN (in English), which

occasionally report on Iranian women's current issues, also serve as relatively reliable media for the purposes of this research.

2.4 Summary

The theoretical framework of this study is based on the ideas of two theorists: Apple and Foucault. I used Apple's theory on the interconnectedness of government and education to emphasize the role that the government of Iran plays in controlling the curricula, and transmitting sexist doctrines. Foucault's theory of power explained the plurality of women in the public sphere; today, Iranian women are using their agency to penetrate the patriarchal systems of power. In the literature review, I explored the previous studies conducted on the inequalities embedded in Iranian textbooks. The methodology section of this thesis contains the research question and the qualitative and quantitative methods that I utilized in this study.

In the next two chapters, I offer content analyses of three Iranian middle school textbooks, and an analysis of the interviews that I conducted with three women engineers.

Chapter 3: Content Analysis of the Three Textbooks

In this chapter, I report on the findings of a content analysis of three Iranian textbooks in the following order: grade 6 Farsi language arts, grade 7 English as a foreign language, and grade 8 science. I begin by discussing the significance of the three aforementioned textbooks and follow by a review of my method of analysis of the textbooks. Afterwards, I analyse each book separately, exploring the texts and the images to reveal instances of gender inequity.

3.1 Significance of the three textbooks in the Iranian middle school curriculum

By mandating a common national curriculum across the country, the Iranian government is exposing the youth in Iran to a common set of norms, values, behaviours and attitudes. Textbooks serve as ideal agents for the transmission of the state's desired ideology to the students. Some subjects, and consequently some textbooks, are more effective than others in socializing the youngsters into the acceptable social and political values. The three books that I have chosen from three different levels of middle school, grade 6 Farsi language arts, grade 7 English as a foreign language, and grade 8 science textbooks, well serve this purpose.

Language textbooks act as ideal socializers of the youth by virtue of their ability to transmit cultural norms through the magic of the written word: poems that have survived intact for centuries, common proverbs belonging to our ancestors, folk songs, and ancient stories, some of which already familiar to many students. Together with illustrations that

appeal to children, these texts have the ability to mesmerise the students, and to convey meanings, opinions and morals that the state deems suitable. Both the Farsi language arts and the English as a foreign language textbooks act as effective means to inculcate the knowledge of the dominant groups, including the normalization of gender disparity among this age group. According to the teacher's guide of the grade 6 Farsi textbook that is published by the Ministry of Education, in terms of structure and suggested activities for students, this book is a continuation of Farsi language arts books of the primary levels. Yet, the book is also a prerequisite for the more sophisticated themes that will be studied at the secondary level. The same is true for the grade 7 English as a foreign language textbook; in terms of content, this book teaches more advanced vocabulary and grammar rules than the grade 6 textbook, but follows the same patterns that are presented in the three middle school textbooks and the four high school books. It is important to note here that students are initiated into a foreign language at grade 6 for the first time; in other words, English is not taught at primary levels. Another significant textbook is the natural sciences at grade 8 level. Like the Farsi and English textbooks, this book is a typical example of science textbooks at primary and middle levels; it differs from high school science textbooks however. At high school level, students receive separate books for the different branches of natural sciences: physics, chemistry, and biology. Science textbooks have the potential to render natural sciences as inclusive fields, accessible to girls the same way that they are open to boys. The portrayal of female scientists who could serve as role models for girls, for instance, is of the utmost importance in science books.

Table 1 shows the number of periods that each subject is taught in a week at grades I, II, or III at middle school level, which correspond to grades 6, 7 and 8 (World Bank, 2006).

According to this timetable, a great deal of emphasis is placed on the Farsi language arts,

Subject	Number of weekly periods in each form		
	I	II	III
Persian literature	5	5	5
Mathematics	5	4	4
Science	4	4	4
Religious teaching	2	2	2
Arabic language	2	2	2
Social studies	3	3	3
Art	2	1	1
Introduction to techniques and vocations	3	3	3
Foreign language	2	4	4
Defence preparation	_	_	1-0
The Holy Quran	2	2	2
Physical education	2	2	2
'Fostering affairs'	2	1	1
Compensatory courses	2	3	2-3
Total weekly periods	36	36	36

Source: Ministry of Education. Education in the Islamic Republic of Iran 2003. Each teaching period lasts 50 minutes.

Table 1: Weekly subjects timetable. Each teaching period lasts 50 minutes.

or Persian literature. In fact, Farsi language arts textbooks tend to be thicker than most of the other books at all grade levels. English as a foreign language at grades 7 and 8 happen to occupy 4 blocks per week, the same amount that mathematics and sciences are taught.

3.2 Review of the method of analysis

My content analysis of the three textbooks is guided by the five categories suggested by Finoa Leach (2003, p. 107), a specialist, in the area of gender and education:

- "Frequency and nature of appearance of females"
- "Work/employment roles"

- "Socio-political roles of males and females"
- "The family roles of males and females"
- "Psychological traits of males and females"

Leach (2003, p. 105) also advises researchers to ask whether the book "promotes women's self-reliance," and to assess a number of gender equity issues, namely:

- "Women taking initiative to control their lives"
- "Women questioning their life conditions"
- "Women leaders"
- "Women in non-traditional roles"

It is worth mentioning that I adapted the above categories for use in each textbook, and modified them, to a certain degree, to fit the content of the book that I was analysing. For instance, whereas I focused on the psychological traits of male and female characters in the stories of the language arts textbook, I paid more attention to the sex of the scientists, when analyzing the science textbook. Also, throughout my content analysis, while choosing categories for coding, I made an attempt to conform to the guidelines listed by Rose (2002, p. 65). According to Rose, coding categories need to be "exclusive", "exhaustive", and "enlightening." The categories that I devised allowed me to examine the different aspects of images and texts. Moreover, they do not overlap, while informing the reader about the gender disparities that permeate the books.

In some pictures or stories, it was difficult to determine the sex of the characters, for example, a picture in the science textbook showed only a hand holding a lab tube, or in a few pictures in the Farsi language arts textbook, several images were so small that I was unable to assuredly determine the sex of the characters. Also, a name in the Farsi textbook could be

both men's and women's name, and the body of the story did not contain any revealing clues regarding the sex of the person. In such instances, where I was doubtful about the sex of the characters, I excluded them altogether from counting. By so doing, another researcher would be able to repeat my research and attain the same results. In areas where I thought some cultural background was needed in order to better understand the context of a story or the gestures of an individual in an image, I tried to provide the necessary information.

3.3 Analysis of Grade 6 Farsi Language Arts textbook

"An old man recites poetry into a microphone. The measured verses float over the assembled crowd through a static-garbled loudspeaker. When the poem ends he calls two wrestlers to the center of the circle. Both are barefoot, and both brush the ground with their fingertips before touching their lips and forehead... The poetry, epic tales of ancient wars and legendary heroes, was meant to inspire the wrestlers in their battle... They push each other back and forth in the circle, maintaining their grip around each other's waist" (Di Cintio, 2006, p. 1-2). The above passage is the opening scene of "Poetry and pahlevans: A journey into the heart of Iran," a book written by Marcello Di Cintio, a Calgary born journalist who travelled to Iran in 2003. A wrestler himself, Di Cintio is fascinated by the relationship between heroic poetry and wrestling matches that takes place in traditional wresting clubs in Iran. The longer Di Cintio travels in Iran, the more he is astonished by the Iranian people's love for poetry and literary work. In Shiraz, he is amazed that Iranians not only recite the verses of Hafez, an Iranian poet who lived in the Middle Ages, but visit his mausoleum in flocks. "Why is Hafez so important to Iranians?" Di Cintio asks an Iranian woman, who responds: "I guess it's because Iranians, in general, are very literate people. We grow up

reading poetry and literature..." "People in the West are literate too", Di Cintio says, "but writers, even ones we love the most, are not revered as they are here. I doubt anybody brings the family to Tolstoy's tomb for a picnic, or cries at Shakespeare's grave" (p. 101). Di Cintio's sense of astonishment at Iranians' love for literature is echoed by Roger Housden, a British writer who travelled to Iran in 2009. In a video trailer for his travelogue on Iran, Roger Housden (2011) states, "I found a vibrant, creative culture with international artists, writers, filmmakers, many of them women. All over the country, there are monuments not to generals, but to poets. Everyone in Iran could recite poetry, even the intelligence agents who took me away at the end of my journey." In "Persian mirrors: The elusive face of Iran," the American journalist Elaine Sciolino (2000) states, "For many Iranians, the fluidity, the layers of interpretation, the magic and the mystery of their poetry keep them going, the same way prayers do for others" (p. 159). "Poetry is one of the pillars of the Iranian identity" (p. 161).

I concur with the above authors. Iranians are, in fact, a nation of poetry-lovers. Poetry books and literary chef-oeuvres are common not only in ordinary people's bookshelves but also in odd places, for instance in traditional teahouses or truck stops. Given the nation's love for literature, therefore, a Farsi textbook, is an ideal mechanism to effect change or to perpetuate certain norms of the society. The grade 6 Farsi textbook, unfortunately, does the latter. It is a thick book, containing 224 pages. It consists of eight chapters, each including between four to eight lessons featuring biographies, short stories, poems, memoirs, comprehension questions, discussions, and writing activities. The texts are often accompanied by charming illustrations with vivid colours that catch the eye. The first image that shows a man is on page 10 of the Farsi textbook; it is an illustration of the prophet

Mohammad. The first woman's illustration is depicted further in the book, on page 39, and shows a mother watching over her child (Figure 1).

In terms of illustrations, there is a significant disparity between males and females' pictures. While the book contains 82 pictures of men and boys, women and girls appear 35 times. Most texts revolve around male characters who are addressed in the stories by their



Figure 1: Mother as caretaker

first or last names; girls and women appear in very few stories and memoires, and are not addressed by their names. In fact, in most texts, women are referred to as mothers or grandmothers and have peripheral roles. Only 8 women's names appear in the Farsi

textbook, and most of them are not the central characters of the texts; they are mentioned only in passing. As for men, the book talks about 84 different named male characters (Table 2).

	males		females	
	frequency	percentage	frequency	percentage
pictures	84	71%	35	29%
names	85	91%	8	9%

Table 2: The frequency of appearance of males and females

Leach (2006) instructs gender analysts to use the following questions as guidelines: "does the book promote women's self-reliance?" Do "women question their life conditions?", and whether "women are equal partners of men" (p. 105). For an in-depth content analysis of the

grade 6 Farsi textbook, I focused on the two categories that Leach (2006, p. 107) mentions as being used by Anna Obura in her UNESCO's Ukrainian study:

- "socio-political roles of males and females"
- "psychological traits of males and females"

In terms of socio-political roles, the book provides a number of examples of male leaders in a wide time span. While some men lived in the Middle Ages when Islam was first established, others happen to be contemporary leaders. The second lesson of the book is about the prophet Muhammad, the founder of Islam. The book mentions that in terms of integrity and conduct, the prophet Muhammad serves as the supreme role model for his

disciples, the Muslims of the world. This lesson furnishes brief examples of the prophet's exceptional demeanour, discusses his daily responsibilities, and ends with a poem praising the prophet. The ensuing lesson contains a brief biography of Ayatollah Khomeini, the religious leader of the 1979 revolution in Iran, who remained in power until his death in 1989. This lesson too provides examples of Khomeini's daily life as well as his ability to command the nation. The next lesson too is about a male leader; it is a poem in the honour of Ali Ibn Abi Taleb, the successor of the prophet Muhammad. This poem extols Ali, comparing him to a lion for his indisputable valour. The three men presented in three successive lessons were leaders of their respective societies, and serve as role models for many men in the Islamic world.

As for the women in this book, none of them happens to take on leadership roles. In the lesson on Khomeini, the name of the daughter of the Prophet Muhammad, Fatemeh is mentioned in passing; the book mentions that Khomeini was born on the same day that Fatemeh, the greatest dame of the world was born hundreds of years earlier. Although the lesson states that Fatemeh is "the greatest dame of the world," it does not offer an explanation nor does it provide examples of her achievements. While boys do not have to search hard to find examples of powerful leaders who were capable of commanding their people, girls do not come across a single female leader in this textbook, not even a woman with limited leadership abilities.

Besides the above-mentioned political leaders, the grade 6 Farsi textbook presents kings, grand viziers and ministers, Islamic Imams and their companions, spiritual leaders and heads of states, and other male individuals who have been engaged in the political body of the nation. None of the eight female characters presented in this book is politically involved.

In fact, Parvin E'tesami, a renowned Persian female poet who died in 1941 is the only character who is presented as a professional woman in the book, albeit the book does not fall short of mentioning that Parvin was inspired and guided by her father, an erudite multilingual man. The rest of the women in this book are defined as corollaries to men, be it their fathers, husbands or male children. Table 3 provides exact numbers regarding the frequency of leadership roles.

Type of leadership role	Number of Men	Number of Women
head of state	7	0
spiritual leader	4	0
king/Queen	2	0
minister/Vizier	6	0
military commander	4	0

Table 3: The frequency of leadership roles

Although the women in this book surely possess names like women elsewhere in the world, in the stories that are often recounted from the perspective of a male child, these women are not addressed by their names, but by formal or more intimate expressions that represent the terms mother or grandmother (equivalent Persian words for mummy or Nana). By so doing, the authors of the book have taken great trouble to imply that a woman should be known first and foremost by her nurturing characteristic, as a mother or a grandmother.

While the women in this textbook take care of the children and tend to the housework, the fathers guide their children. They are consulted with during ordeals, and their advice in various matters is sought by their sons. Fathers are presented as sages and

guides, while mothers are nurturers and caretakers. Figure 2 presents a man dressed in the customary outfit of the wise men of the old Islamic era. The book in front of him implies his ability to read and write; he is a learned man. His sons are attentively listening to their fathers' pearls of wisdom, while he is advising them against the pursuit of materialism and the gathering of wealth. "You might be wealthy today, and lose all your wealth the next day", he tells his sons, "instead of gathering wealth, learn a skill, a technique that nobody in the world could take away from you." (p. 23 of the Farsi textbook).

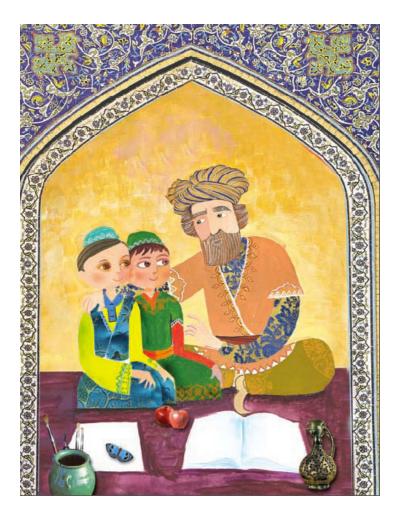


Figure 2: Father as the sage

Interestingly, none of the women in the book is employed; the women's sole contribution to the larger society is their caretaking chores. Surprisingly, these women do

not even have the jobs that are classically considered as feminine careers, like teaching or nursing. They never leave their homes to go to work; none of the women is gainfully employed. When talking about Parvin, the Iranian poet, although the book has included samples of her poems, it does not mention whether she was remunerated for her work. Whereas men are portrayed as philosophers, scientists, poets, explorers, and warriors, the vast majority of the women of this book are presented in the domestic sphere. Girls who are aspiring to financial independence from men will not find role models in this textbook. Table 4 provides the frequency of careers associated to men and women.

Careers	Men	Female
philosopher	3	0
poet	8	1
scientist	4	0
teacher	2	0
school inspector	1	0
farmer	2	0
soldier	5	0
driver/driver assistant	2	0

Table 4: The frequency of careers

Although the majority of the main characters of the stories in the grade 6 Farsi textbook are men or boys, in one short story, the protagonist, Kajal, happens to be a woman (Figure 3). In order to better analyse the psychological traits of the male and female

characters of this textbook, I have provided a summary of Kajal's story: Kajal, a rural woman sets out to visit her aunt, carrying her baby daughter Rounak when a wolf attacks



Figure 3: Kajal

them. While running away, Kajal calls out her husband's name and asks him to rescue them, but her voice is only echoed back. Kajal makes an effort to fend off the wolf but is unsuccessful as the wolf takes hold of the baby. Fortunately, a man, a farmer who is working on a nearby farm, hears Kajal's screams and runs to her rescue. The man, Azad, attacks the wolf and wrestles with the animal thereby rescuing Rounak and putting himself in danger. In

the meanwhile, Kajal puts a step forward to help Azad, but then she remembers that she needs to take care of Rounak, her baby. The wolf roars wildly and scares Rounak. Although she wants to throw a stone at the wolf, Kajal realizes that Rounak needs to be in her mother's arms. Therefore Kajal steps aside, and watches Azad who bravely tussles with the wolf. In the end, Azad triumphantly kills the wolf. At this point, Kajal, fulfills her caretaking duty by offering Azad a piece of the baby's clothes to wipe off the blood.

Although the main character of this narrative is a woman, and she is brave enough to make an effort to fight with the wolf, Kajal is dependent on men, on her husband and a stranger who becomes a hero in this story. Kajal's main responsibility is to take care of her baby. Whereas Kajal's job, being a mother, is emphasized throughout the story, Azad is introduced to us as a farmer. Notwithstanding that the protagonist of the story is a woman, the hero, happens to be a man, a strong, gallant man with superman-like characteristics, a man who rushes to rescue a woman and a baby. Kajal, on the contrary, is a fragile and dependant woman whose obligations are limited to looking after the baby and taking care of others.

Another stimulating story in this textbook is called the "Isfahan travelogue". This story is about an adolescent boy, Majid, who has lost his parents and lives in the care of his grandmother, Bibi². Bibi is the prototype of a loving, caring grandmother, while Majid, the 12 or 13 year-old boy is playful, good-humoured and sometimes foolish. When an acquaintance of the family, a truck driver, offers to take Majid to Isfahan on one of his trips, Majid leaps at the chance to visit Isfahan, an ancient Iranian city with many historic monuments. In his excitement, Majid jumps on his bike and informs all family members,

² an intimate term used to refer to grandmothers in some parts of Iran

friends, neighbours and relatives about his imminent trip to Isfahan. He also buys a map and educates himself about the geography and history of the city.

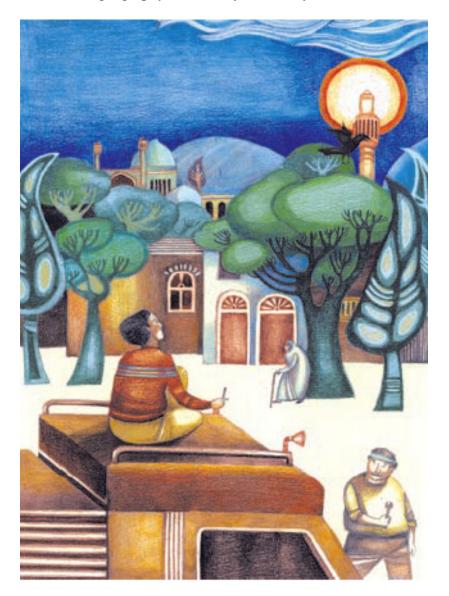


Figure 4: Majid in Isfahan

In the meanwhile, Bibi prepares Majid's bags, ensures that he is awake on time for the trip, and accompanies him to the door of the house while wishing him a safe trip in the traditional Iranian way. Majid thus travels to Isfahan in the company of the driver and his assistant. This story is complemented by three pictures, depicting Majid riding his bike, drinking tea with the driver and his assistant, and writing his diary while sitting on top of a

truck in Isfahan (Figure 4). Bibi, the affectionate grandmother, is not portrayed in any of the images. She is homebound. Majid is shown as an explorer, a curious, energetic, and adventurous boy who sets out to discover the unknown world. In figure 4, Majid's photo fills out the foreground, but if you look closely, you might be able to see an old woman in the background; she is walking while leaning on her cane.

In fact, the very few women depicted in this book are fragile and in need of protection. Figure 5 provides another example of an ailing woman, an ailing mother to be precise. In many pictures, women are illustrated together with their children; they are,

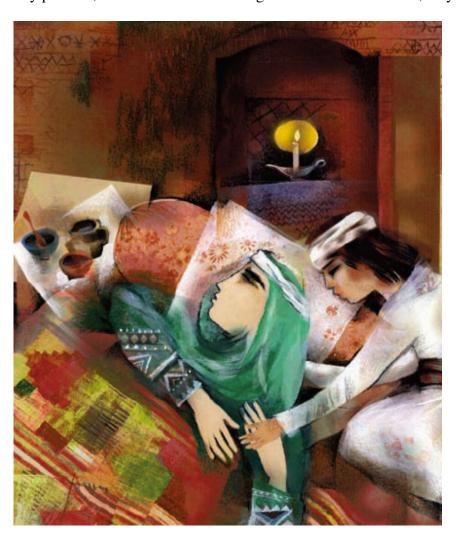


Figure 5: Ailing mother

indeed, defined by their children. In the text that accompanies the ailing mother's image, the narrator, a successful adult man explains that as a young boy, he used to take care of his mother when she was bed-ridden. While the men in the book are dynamic and ever present in the world of action, the women are emotional, fragile, weak and in need of protection.

Another characteristic that is assigned to men in various poems, stories and memoirs, and emphasized time and again is being a warrior. In several lessons, men are shown as fearless combatants, ready to sacrifice their lives for their fatherland. Some of the lessons in this textbook narrate ancient stories of Persian men who fought against the enemy, while others recount the more recent narratives of the war between Iran and Iraq in the 1980's. Regardless of the timeframe, these stories depict brave warriors who fight for freedom. In one such story, the protagonist is an underage soldier; he is only 15, and yet he voluntarily joins the army to fight the Iraqis in the frontlines. Another story depicts the Mongols' attack on Iran in the 13th century. This story is centered on a father, Hormoz, and his three sons who choose to defend the patrimony instead of running away like cowards. Hormoz instructs his sons to fight against the enemy, to defend their home and fatherland, and to never surrender. He and his sons defeat the Mongol army in an unequal combat. Then again, besides being brave, the four men are shrewd and insightful, and thus able to defeat the enemy in a surprise attack. Figure 6 illustrates part of this story.

Language textbooks have the potential to transmit core cultural values. In the grade 6 Farsi textbook, women have a very weak presence. They are shown mostly as nurturers and caretakers. Most of the female characters are dependent on men; they are not depicted as equals to men. Moreover, the women are not part of the political body of the nation, and do not happen to be gainfully employed. Then again, these women do not question their lives

and do not seek change. The grade six Farsi textbook serves to perpetuate the notion that women are not an essential part of the workforce in Iran. This book does not provide role-models who inspire self-reliance and power. Where are the women authors, artists, and filmmakers that Roger Housden has encountered during his trip to Iran in 2009?

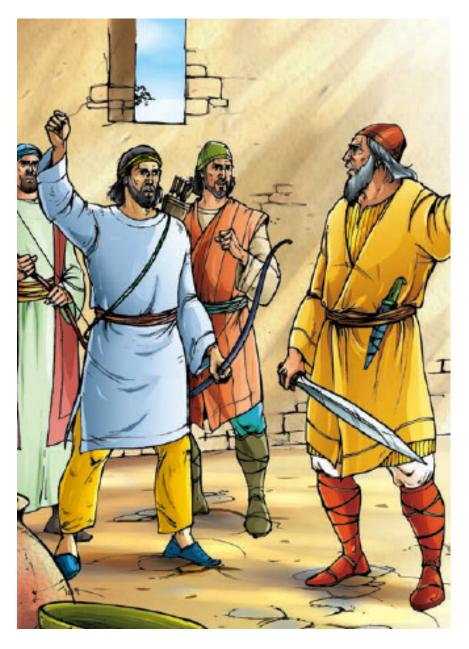


Figure 6: Hormoz and his warrior sons

3.4 Analysis of Grade 7 English as a Foreign Language textbook

In the Iranian school system, students begin to learn English as a Foreign Language at grade 6 level and continue throughout middle and high school. In large metropolises like Tehran, the children of upper middle class families are not dependent on school textbooks to improve their language proficiency in English. Many have the means to attend private language institutes and/or watch Hollywood movies on satellite TV or DVD to improve their English. These children might take English classes as an extra-curricular activity while they are in primary grades or even before starting grade school, at their private daycare facilities. For other citizens, however, school textbooks are the only source of exposure to English, the language of the West.

Because at grade 7 level, students are still novices in the English language, the textbook teaches elementary grammar rules and basic vocabulary, and uses a great deal of pictorial prompts for instruction. Given the limited ability of students to read and write at this level, illustrations play an important role in instruction.

Whereas many private English language institutes use imported textbooks that are published in the Great Britain or the United States, the textbooks mandated by the Ministry of Education for use in the schools are locally published. Therefore, the contents of textbooks are in accordance with the Islamic law, for example women and girls portrayed in the books abide by the Islamic dress code; they are all wearing the hijab even inside the house. Moreover, the majority of the names of the characters presented in the textbooks are Iranian, not Anglophone names. Some pictures portray men, women and children while

performing their daily Moslem prayers. The authors seem to have made a concerted effort to avoid propagating the culture of the west through textbooks. Have they endeavoured to avoid sexism?

Even after a cursory glance at the book, the reader will perceive many instances of gender inequality in the visual representation of the book. In total, the grade 7 English textbook contains 390 pictures of people, of which 252 (65%) show males and 138 (35%) portray females. In terms of male and female names, the book is not less biased. A total of 34 different names appear in the texts, some happen to be first names like Mary, Mina, John, Jim, and Reza; while others are last names accompanied by the titles Mr. or Mrs., for instance: Mrs. Irani or Mr. Taban. Interestingly, the terms Miss or Ms. are not mentioned in the book. This textbook contains 23 (68%) male names and 11 (32%) female names. In other words, the appearance of women's names is less than half of men's names. Notwithstanding the aforementioned inequalities, the authors of the grade 7 English textbook deserve the accolades of the gender analysts for starting the book with the picture of two girls. In terms of ordering, this textbook presents males and females on the same page; the first page of the book portrays girls on the top and boys on the bottom. In most of the other Iranian textbooks that I have examined, girls appear much later than boys. While examining the book, I noticed that in many of the pictures, the girls are depicted with their backs turned towards the reader. In the boys' illustrations, on the contrary, the faces are shown fully or partially. Furthermore, the girls are often wearing similar outfits, same model, and same colour. These girls are hardly distinguishable from one another. As for boys, however, the illustrator has made an effort to distinguish each individual boy from the other by using different colours or models of outfits. In other words, while the boys'

individual identities are emphasized throughout the book by virtue of giving them names, distinguishing facial figures, and different outfits, the faceless, nameless girls are lumped into one group, with little identity (Figure 7).

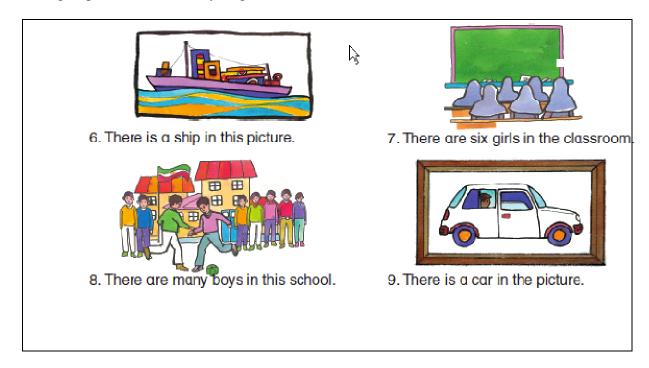


Figure 7: Identical girls versus dissimilar boys

In my content analysis of the English textbook, I endeavoured to detect the socioeconomic roles that the book assigns to males and females in texts and in illustrations. What
types of jobs are assigned to women? Are women depicted mostly in traditional jobs, or has
the book made an effort to break the stereotypes by portraying women in non-traditional
fields? In terms of public visibility, how do girls and women fare? Are they shown as equals
to their male counterparts? To find answers to the above questions, I used the following
categories for coding:

- Work/employment roles assigned to men and women
- The sex of the children portrayed in an outdoor setting

These categories are "exclusive", "exhaustive", and "enlightening" (Rose 2007, 65). By specifying two separate categories for children and adults, we will be able to explore each category in detail, comparing girls with boys, and women with men.

job	men	women
teacher	22	4
nurse	0	3
soldier	9	0
policeman	3	0
library clerk	0	1
farmer	2	0
bus driver	1	0
doctor	4	1
sales-person	1	0
dentist	1	0

Table 5: The frequency of men/women in each job category

In terms of employment, women are depicted as teachers, nurses, library clerks, and in one occasion, a woman is depicted as a doctor. No attempt has been made to portray women in non-traditional jobs. Men are portrayed as teachers, soldiers, policemen, farmers, bus drivers, doctors, sales persons, and dentists. Table 5 shows the frequency of appearance of men and women in each job category. Interestingly, even in the profession of teaching, which is traditionally associated with women, men are more numerous than women.

Nursing, however, remains the exclusive territory of women in this book. Women are not

depicted in any non-traditional profession like engineering. In other words, the book has made no attempt to break the dominant sex-related stereotypes.

The main focus of the seventh lesson of this book is careers. An example is a lesson titled, "What's your father?" This lesson opens with a dialogue between two boys who talk about the careers of their respective fathers, and is accompanied by a photo of the two boys and their fathers, a teacher and a farmer (Figure 8). Later on in the lesson, two girls talk

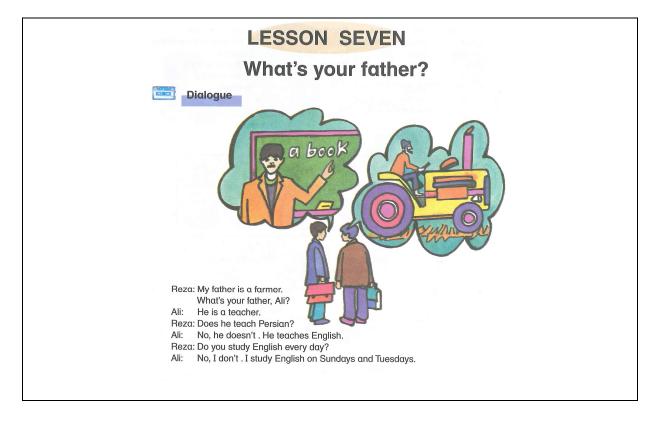


Figure 8: Fathers and jobs

about the jobs of their fathers, and introduce their fathers as a teacher and a doctor. It is important to note that in this book, boys and girls never talk about their mothers' jobs. In fact, in a previous lesson, a boy introduces his family to the readers by presenting the pictures of each family member. "My sister works in a library," and "my mother cleans the room," the boy says. Do such lessons reinforce the cultural belief that after marriage, women should

quit their jobs and stay at home to take care of their families? Unfortunately, this seems to be the intention of the book.

In terms of public presence, particularly in outdoor settings, girls do lag behind boys in this textbook. In this book, 72% of the pictures portray boys in outdoor settings, while only 28% of the pictures show girls out on the streets or in parks. In other words, out of the 64 children portrayed in outdoor settings, 46 are boys and 18 are girls. This book relegates girls to home, avoiding their depiction in public places. Those who are portrayed in the public sphere remain passive and docile. In many of the pictures, boys are holding a football, a subtle indication that it is normal for boys to play and be carefree. Many images show boys playing soccer, a very popular sport in Iran. None of the girls in the pictures, however, is holding a ball. One image particularly caught my attention that was in a vocabulary exercise, with an emphasis on counting numbers (Figure 9). This picture is divided into two different sections; the first section shows a girl in the foreground sitting on a bench in a park. She is seated with crossed arms, an indication of docility and obedience in the Iranian culture. At her foot you can see a ball; the girl is gazing toward the ball, but she is seated limply, never tempted to pick up the ball. In the background, a boy is depicted; he seems to be the owner of the ball. The second section of the image shows the same girl on the bench in the same park; this time she is shown together with another girl. Both girls are seated calmly on the beach, with crossed arms; they are not even chatting with on another. In the background, four boys are playing. Interestingly, in this image, four balls happen to be at the feet of the girls by the bench, but again the girls are seated still, not even attempting to

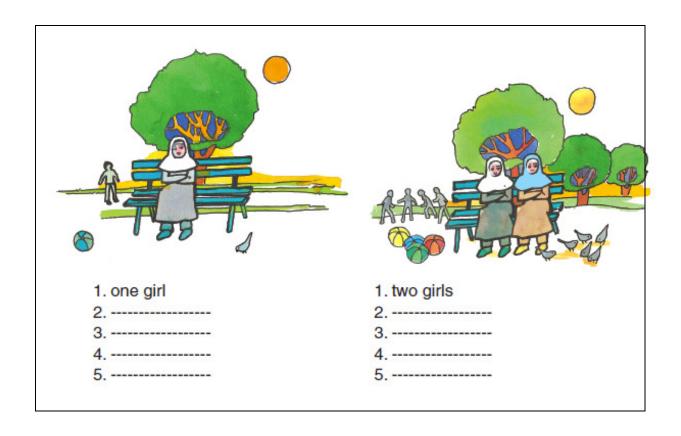


Figure 9: Girls disinterested in playing?

reach out to pick up the balls. Are Iranian girls apathetic towards sports? Do girls envy boys who freely play soccer in every street corner in Iran? Or could it be that Iranian girls use sports as a means of resistance against the restrictive laws? To what degree does the grade seven English textbook portray the reality of the Iranian society?

In reality, Iranian authorities do not encourage women to participate in sports. On the contrary, the dominant regulations pose hurdles on the path of women who seek to pursue sports. In terms of sports facilities, for example, women have significantly fewer options than men. According to the BBC, "women still have limited access to facilities, with most clubs only open for them in the mornings" (Eeles, 2004). In 2011, Iranian women's national

soccer team was caught in the middle of a dispute between FIFA³ and the Iranian officials over the acceptable dress code for the players. While FIFA banned the Islamic headscarves for players safety reasons, the Iranian regime insisted that girls needed to conform to the Islamic dress code, covering their legs, arms, hair, necks, and ears. As a result of this unresolved dispute, FIFA disqualified Iran's team in Singapore, preventing Iranian women from participating in the 2012 Olympic games in London. Mozaffar, the team's coach, stated, "when a serious woman athlete can't participate internationally, which ambitions are left for her?" (Erdbrink, 2011). Then again, Iranian women have not succumbed to defeat; on the contrary, they keep resisting the restrictive laws in an innovative manner. You might be amazed to learn that Iranian women athletes are becoming increasingly numerous in a sport that is classically associated with men even in the western countries: the martial arts. Figure 10, an image published in the Washington Post in March 2012, shows a female ninja climbing a wall (Firooz, 2012). According to the caption of this image, which is the first in a series of images of female Iranian ninjas, around 3000 women pursue martial arts in independent sports facilities in Iran. In another article, the Washington Post has posted a sixminute video of Iranian ninja women in training. Elizabeth Flock (2012), the author of the Washington Post article, acknowledges the hardships that Iranian sportswomen face, and interestingly, affirms that Iranian women have turned to martial arts, for empowerment. "Watching the video ... if you look past the tiger-striped costumes and over-the-top production, you can glimpse the self-empowerment of these women in a society that seeks to rob them of power, and perhaps begin to understand why ninjutsu, and athletics in general, have become so popular with Iranian women."

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³ FIFA is the International Federation of Association Football.

Today, Iranian women live in a society where their rights are increasingly curtailed. Their textbooks have a traditional view of gender roles, and endeavour to socialize girls into dominant norms of gender. Iranian girls; however, resist the sexist indoctrinations. By choosing fields that are often associated to men, Iranian women are seeking gender equity.



Figure 10: Iran's female martial artists

3.5 Analysis of Grade 8 science textbook

Natural sciences have been classically associated with men, and such disciplines as mathematics, physics, and engineering are considered masculine subjects. Stereotypical comic illustrations that depict the scientist as "a bald or shaggy-haired, bespectacled, middle-aged male wearing a laboratory coat and exhibiting some form of bizarre behaviour" often affect the decisions of the students in terms of choosing scientific fields for their future studies (Haggerty, 1996, p. 17). The grade 8 science textbook reinforces such stereotypical

views. In fact, the first picture of this book is very similar to Haggerty's description of scientists (Figure. 11).



Figure 11: (Translation): Scientists are never ignorant of what goes on around them

This science textbook is divided into four chapters focusing on the following themes: matters and its changes, the earth, energy, and living things. This textbook has 156 pages, and is very well-illustrated. Each illustrated page contains between 1 to 6 pictures, depicting various concepts such as structures of molecules and atoms, rock deformations, fossils, simple machines, and body parts, animals, plants, and humans. I did not include non-human images in my analysis. For each main subject, the grade 8 book presents one, two, or three scientists. In many cases a picture of the scientist is included as well. Here is a list of the scientists that are introduced in this book: 1) Democritus, the ancient Greek philosopher, who despite being known mainly as a philosopher, was among the first people to form a theory on

the shape and invisibility of atoms, 2) John Dalton, an English chemist who theorized on atoms as well, 3) Joseph Thompson, a British physicist and Nobel laureate, 4) Ernest Rutherford, the father of nuclear physics, 5) Niels Bohr, a Danish physicist and Nobel Laureate who improved Rutherford's theory on atoms, 6) James Chadwick, another British physicist and Nobel laureate who discovered the neutron, 7) Jacob Berzelius, a Swedish scientist known for his extensive research in the field of physical chemistry, 8) Jean-Baptist Lamarck, a French naturalist and evolutionary theorist, 9) August Weisman, a German evolutionary biologist, 10) Charles Darwin, the British biologist who laid foundations of the theory of evolution, 11) De Vries, a Botanist and one of the first geneticists, 12) Alfred Wegener, a German geophysicist, 13) James Joule, another British scientist who discovered the law of conservation of the energy, 14) James Watt, the inventor of the steam engine, 15) Blaise Pascal, a French mathematician and physicist, and 16) Georg Ohm, a German physicist. These scientists are the only people that are addressed by name in this book. For an example of an illustration of a scientist (figure 12).

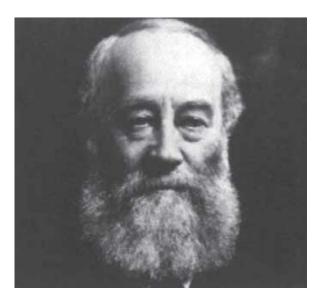


Figure 12: James Joul, British scientist (1818-1889)

To discover the cases and patterns of gender disparity of the grade 8 natural sciences textbook, I conducted a content analysis of the text and pictures of this book. I devised the following categories for coding:

- Sex of people conducting scientific experiments in the pictures
- Sex of scientists introduced in the book

These categories fulfill the requirements that Rose (2007) renders necessary for content analysis: they are exclusive, enlightening, and exhaustive (p. 65). If a scientist was mentioned more than once within the textbook, I counted him only once. In a number of pictures, it was not easy to identify the sex of the characters. For instance, many pictures simply showed the hands of a child holding laboratory equipment. I excluded such pictures from coding altogether. By so doing, this coding system will be replicable.

Results

The grade 8 natural sciences textbook depicts 16 scientists, all of whom are male.

This book also shows 10 boys and 7 men engaged in scientific activities. However, neither a woman nor a girl conducting scientific experiments is portrayed in the book. (see Table 6).

males engaged in scientific experiments	4	females engaged in scientific experiments	0
male scientists	16	female scientists	0
Total	20	Total	0

Table 6: Frequency of males and females

It is worth mentioning that this book does contain two pictures depicting women, albeit engaged in non-scientific tasks. Interestingly, the two images containing females appear one after the other, towards the end of the book, on pages 131 and 132. After many pictures of men and boys engaged in scientific and/or non-scientific activities, two women

and a girl are shown in the book, all three depicted in passive roles. The first picture is related to the subject of adolescence and emotional change. This picture shows a family, the parents, a girl and a boy, and is centred on the father (Figure 13). In a few lines above the picture, students are advised to seek the help of their family members while making critical



Figure 13: Consult your family members in critical decisions

decisions. The members of the illustrated family are looking towards the boy who is talking.

The mother and the daughter's faces are not quite visible in the picture.

The second picture too is related to the topic of adolescence. This section discusses hormonal changes and states that adolescents experience mood swings. The illustration included in this section happens to be a comic picture, depicting a woman seated in front of a pile dirty dishes, with her hand under her chin. In her thought bubble, while holding a tray containing some food and a drink, the woman is walking towards a child who is lying in his bed (Figure 14). The caption above the picture asks students to interpret the picture.

The most striking fact about the grade 8 science textbook is that it does not include the name nor a picture of at least one female scientist. One might argue that given that men have conventionally been drawn into scientific disciplines and women have chosen social sciences or arts, female scientists are hard to come by. While there is some degree of truth in this argument, the role of women in the advancement of natural sciences cannot be dismissed. To destroy the dominant stereotypes, the authors of these textbooks could have chosen to represent female scientists, such as Marie Curie, the French-Polish scientist who was awarded two Nobel prizes, or Alenoush Terian, the first female Iranian astronomer and physics professor.



Figure 14: Interpret this picture.

By excluding women scientists, these books portray natural sciences as a masculine subject, less appealing to girls. Girls who look for role models might feel disappointed when they find no pictures of female scientists, not even a single picture of an adult woman involved in scientific experiments for that matter. This might deter them from pursuing science; thus widening the gap between men and women in scientific fields.

This book tends to further polarise science, depicting natural sciences as a male-only subject. However, this disparity between the number of men and women scientists does not reflect the reality of the Iranian society. According to Izadi, Mohseni Arasteh and Seied Fadaei (2009), from 1996 to 2006 women have outnumbered men in basic sciences, namely in physics at the bachelor's level in Iranian universities. In fact, the plurality of women in natural sciences at university level testifies to girls' resistance against gendered indoctrinations of science textbooks. Let us ask the women who have studied in this system about their opinions on the sexism in the books and in the wider society.

3.6 Summary of the findings

An analysis of the content of the grade 6 Farsi language arts, the grade 7 English as a foreign language, and the grade 8 natural sciences textbooks indicates that cases of gender bias, inequality and discrimination against women and girls abound in the three textbooks. Relative to men, women have a very pale presence in the three books, and are in fact, underrepresented. The rare women presented in the books are often depicted in their nurturing and caregiving capacity; motherhood is emphasized as the primary role of a woman. Stories, poems, memoirs and their accompanying images promote stereotypical roles for women. While boys and men tend to be adventurous, courageous, and wise, women

are dependant on men, emotional, fragile, and in need of protection. A number of men are portrayed as leaders, but none of the three books shows a woman in any leadership capacity, not even in a low-ranking leadership position. In fact, few women have occupations outside the house, and those who are employed, have traditional jobs like teaching and nursing. In other words, the social importance of women is minimized through depicting them mainly in the domestic sphere. The next chapter discusses the interviews that I conducted with three female Iranian engineers.

Chapter 4: Findings: Interviews

In this chapter, I present my findings from the interviews that I conducted with three women engineers. My principal goal, as I analysed the interviews, was to answer the second research question: "How have Iranian women engineers understood, adopted, negotiated and resisted gender inequities in their K-12 and university education in Iran?" The main sections of this chapter are: (a) gender inequities in K-12 education and young women's resistance, and (b) gender inequities at university level and women's resistance.

The three women that I interviewed were born and raised in Iran, where they attended public schools at the middle and high school levels, and completed their bachelors of science degrees in engineering. After finishing their first degrees in engineering, they worked for a number of years in Iran. Today all three women work as engineers in the West. Currently, two of them hold master's degrees in engineering. To protect their privacy, I eliminated such descriptors as their current location and place of employment. Also, I randomly selected three names, Darya, Khatereh, and Sadaf to substitute for the real names of the interviewees. During the interviews we talked in Persian (Farsi); later, I translated the transcribed texts into English. As such, language was not a barrier between me (the researcher) and my participants; the three women were able to express themselves fully and eloquently in their mother tongue. Kvale (1996) states, "the interviewer must be knowledgeable in the topic investigated" and "be able to assist the subjects in the unfolding of their narratives" (147). My insider status as an Iranian woman similarly trained as an engineer in Iran, provided me with the knowledge necessary for this research, and helped me in constructing an ambience of trust throughout the interview.

The principal theme of the questions that I posed to my participants was gender inequity. I asked the three women to focus on the gender inequities that they experienced in a) their K-12 schooling, b) their university education, and to discuss how they understood, adopted, negotiated and resisted gender inequities. While studying the transcripts for data analysis, I looked for "connections among the experiences of the participants," "confirmations of previous instincts," and "surprises," as is suggested by Seidman (1991, p. 102). This led to a number of subthemes for the main two categories. What follows is findings from the interviews.

Gender inequities in K-12 education and young women's resistance

All three participants were aware of different forms of gender inequities in their K-12 years. Compared with their male counterparts, they suffered from tighter restrictions. Even at the elementary level, they were constrained by many a strict rule. Cultural expectations, religious impositions, and sexist textbooks were among the subjects that my participants brought up. Then again, none of them was willing to abide by the dominant sexist rules. On the contrary, throughout their K-12 years, the young women employed different strategies to resist the gender power structures of the education system. While some chose to defy gender rules in covert forms, others resisted rather openly and daringly.

4.1.1 Cultural expectations

According to an article titled, "Early Childhood Socialization," published by the UNICEF (2007), "gender socialization is intertwined with the ethnic, cultural, and religious values of a given society," and is reinforced by those "who have different expectations for males and females." In Iran, school authorities perpetuated the sexist cultural norms and

expectations of the society by posing many restrictions on the girls at the school.

Reminiscing about her middle school years, Khatereh stated,

"The teachers, the principals, and the vice-principals at our schools stressed the fact that we were girls, and that we had to act differently from boys. Boys were carefree and unrestricted, but girls were told to be quiet, to calm down, and to not run around in the schoolyard. 'You are not boys', the school administrators and supervisors told us, 'therefore, act like girls, act like ladies'. We were reminded all too often that we were girls, which entailed fewer liberties than boys. When playing outside at lunch, or at snack break, we were not supposed to play hide and seek, or tag; we were not allowed to chase one another in the schoolyard. Instead, we were expected to sit down at a corner and talk quietly. Many girls did actually sit down to talk quietly, like they were expected to. I hated these instructions though."

In their book titled "Women, Power and Politics in 21st Century Iran," Povy and Rostami-Povey (2012) mention that "local customs" and "customary law" pose great impediments to women's advancement in Iran (p. 80). Khatereh's memories of her school years in the Iranian education system are in accordance with the above-mentioned authors' statement. Khatereh also mentions that she did not surrender to the expectations of the school authorities; in fact, she identifies herself as a rebel who fought against the dominant customs:

"Perhaps I was a rebel back then; I wanted to be the opposite of what the society expected me to be. I acted contrary to those teachings. I did not submit to the prototype of the girl that the schoolbooks and teachers were trying to mould me into. I was anything but passive, discreet and submissive. Looking back at my photos, I would say that I was a tomboy. Seeing me now, you might find it hard to believe. Today I am more ladylike, but throughout grade school, and especially during my puberty, I wanted to act like a boy, and I was not the only one. My photos further prove that my friends and I shared this sentiment, this desire to be like boys. Was it a syndrome? A passing phase? Perhaps! But I know that it was a reaction to the teachings of the books, and the expectations of the school system. Looking at the photos that I took at middle school level, you would perceive that my friends and I were making a concerted effort to look like boys; our haircuts, our gestures, our postures, our clothes were all like those of boys our age. I remember distinctly that we all used to basketball, which is considered a competitive and aggressive sport as compared with gymnastics or swimming. In retrospect, I

have to say that we did not hate being girls, what we hated was being the type of girl that our schools wanted us to be. We wanted to be like boys because boys were free and unconventional."

Khatereh and her friends were aware of the gendered ethical codes of the society and refused to abide by them. The image of the ideal female adolescent portrayed by the cultural norms and reinforced by the school authorities was that of a young woman, modest and shy. Khatereh and others like Khatereh, however, did not associate themselves with this role model. Instead they compared themselves with boys their age, and wished to be like boys, to enjoy the same liberties that they society had granted to boys. Acting like boys, wearing "boyish" clothes, and playing tough games were among the strategies that Khatereh and her companions employed to fight the sexist expectations of the society.

4.1.2 Religious impositions

Although religion and societal customs are often intertwined, my research participants emphasized that the school regulations, which were mainly based on the Islamic law, were discriminatory in nature and served to constrict the girls while offering more freedom to boys. Both Sadaf and Darya referred to the mandatory dress code for women as an agonizing form of gender inequity. Sadaf stated,

"The first lesson in gender difference was taught to me in grade one, on the first day of school, when I was mandated to wear the headscarf. Grade school taught me that I was different from boys, and each year this difference was reiterated through the lectures of some of our religious teachers, and the material that we studied in 'religious teachings', a mandatory subject throughout grade school. Although according to the Koran, girls under nine have not still 'come of age', in Iran, they are required to cover their heads when going to school; headscarves are part of the school uniform. Boys, however, do not have to cover their hair. The scarf stresses the difference between boys and girls."

Darya's ideas regarding hijab are in line with Sadaf's; "The most noticeable difference between girls and boys who attended school back then was the fact that girls had to conform to the mandatory dress code," Darya continued:

"We had to wear uniforms, dark, loose uniforms as well as covering our hair under headscarves that looked like hoods. How can I forget sweltering days in late spring when I envied boys my age, whose hair was not sticky and greasy because their heads were not covered like ours? Boys were a lot freer in terms of dress code. They were restricted in many ways too, but at least they did not have to wear the veil. In Iran all students, regardless of their grades, had to write their end of year exams in June. Due to wearing dark uniforms and headscarves in stifling heat, we were often perspiring profusely when writing exams. Sometimes our little hands were so sweaty that we could not hold our pens; they slipped in hands. Boys; on the contrary, could write their tests wearing flimsy shirts. Isn't this discrimination? Who is potentially more successful working under such circumstances? A boy or a girl? The imposed dress code on women, starting at age seven is just one example of the many forms of discrimination that exist in our society, but in my opinion, it is the most significant."

Darya and Sadaf both asserted that despite the severe consequences that the lawbreakers had to endure, many students persisted in breaking the law and resisting the religious impositions that they regarded as unjust and restrictive. Sadaf recounted an anecdote that well exemplifies the young women's defiance against the authorities:

"I can tell you one thing: I, for one, was aware of gender discrimination, pondered upon it, was irritated by it, and attempted to be myself, rather than to submit to the stereotype that the school and the society expected me to be. Perhaps I was an audacious girl from a young age, daring and gutsy, verging on foolish." Sadaf sounded proud as she continued: "Once, I argued with my religious instructions teacher as she explained the discriminatory religious rules that were emphasized in the textbook. Her arguments did not convince me; therefore, right there and then, in the middle of the class, in front of the teacher and other students who looked at me incredulously, I started to rip off, one by one, the sheets of the book that I disliked. In retrospect, I have to admit that she was a wise and patient teacher; she did not fail me, although she had the power to. She let me vent off my anger on the textbook! I was also very lucky to have supportive parents who were bringing me up to be a strong and independent woman."

Sadaf's act of defiance is not a unique and isolated event. Many Iranian girls resisted the imposed discriminatory laws in different forms. Sadaf chose an overt approach. Although many girls disagreed publicly and explicitly with the authorities, others resisted in different ways, using covert, and less risky strategies. In the jargon of the 80's and early 90's, the term "westoxication" was tossed around frequently. Moallem (2005) defines westoxicated as "euphoric intoxication and poisoning by the West," or "a cultural disease resulting from exposure to Western culture and values" (p.77-p. 191). Wearing make-up, listening to Western music, watching foreign movies were signs of westoxication. In Iran of the 80's, the school authorities took it upon themselves to purify the school culture by banning all things related to the West, and emphasizing Islamic views instead. Consequently, girls' bags were searched in the schoolyard before they were allowed in. Cosmetics and even mirrors were among illegal items; these items were symbols of the objectification of Western women, and alluded to the students' inclination to the West. My participants mentioned in unison that during their middle and high school years, many girls persisted on carrying the illegal items. This they did despite being accused of westoxication, which was a great wrongdoing back then, and had severe outcomes for students; namely, suspension and even being expelled from the school. Darya rightly mentioned that the school authorities in boys' schools did not search the students' bags, thus providing them more freedom. She also added, "they could not break us; they could not make us respect their unjust laws.

4.1.3 Textbooks

In the beginning of this study, I stated my reasons regarding the importance of the middle school years and middle school textbooks. Two of my participants reiterated the significance of middle school. Sadaf drew my attention to the fact that towards the end of middle school, girls have reached their legal marriageable age, and might be forced to get married. Although marrying at age 13 is not common for girls in big metropolises, Sadaf remembers a classmate of hers, a girl from a middle-income family residing in Tehran, who was married off in grade 8. She believes that although instances of gender role socialization can be found even in grade one textbooks, one of the main functions of middle school textbooks is to prepare girls for their wifely and motherly duties. A textbook that particularly served this purpose was the home economics book. Sadaf mentioned that she was "enraged" by the home economics book:

"While we were forced to learn how to sew, knit, crochet, and even make macramés, boys were working on very interesting technical projects; they even had lessons on personal defense. How come we never learned personal defense? Is it not important for a girl to learn to defend herself? Perhaps the authors of our textbooks assumed that girls always stayed back in their homes, never left the safe confines of their houses, never went out to the streets, were never attacked, and therefore, personal defense would be a futile practice for them, a waste of resources."

Khatereh too used unflattering words while talking about home economics. She referred to it as her most loathed subject. Khatereh stated,

"The home economics book was the epitome of gender discrimination. While one section was common for both boys and girls, there were sections devised exclusively for boys, and sections written just for girls. We, girls, had to learn how to make an Olivier salad, or rock candy among other foods. We also had to sew and knit; sometimes we had to follow complicated knitting and embroidery patterns, too advanced for our age level. While we girls were toiling behind our desks at the school, boys would visit different technical workshops, for instance, machining, commercial electrical wiring, auto mechanics, woodworking, and commercial painting workshops. Afterwards,

they would produce projects including electrical board games, shoe shelves, hangers, and other similar crafts. I envied boys, and wanted to know why girls were not allowed to work on such projects? I often thought it would be best to have a unisex home economics textbook, which teaches the same skills to boys and girls alike, regardless of their sex. "Did the people in charge of the school curriculum assume that girls were incapable of accomplishing such projects?" I wondered. 'I will prove them the contrary. One day, I will be an engineer, a competent one, to prove that girls could do as well as boys,' I promised myself".

Khatereh's decision to become an engineer reflects her agency in refuting the dictated norms of the textbooks, norms that trained her in domestic skills. Khatereh and Sadaf both mentioned that they never found themselves in the school textbooks. They associated knitting, sewing, embroidery, and cooking with housewives. Then again, in their hearts, they knew that they would not be content with staying at home. As young women, they had great aspirations; they wanted to do something big, something important, bigger than running a house. The more they searched the books, the more disappointed they became, for the books did not illustrate heroines, only heroes. The rare women portrayed in the books never embarked on an exciting journey, or a bold enterprise. The illustrated women were not powerful.

Although Khatereh did not use the term "agency," her words endorsed my statement regarding women's agency in resisting the gendered curricula of textbooks:

"Those books were useful because they helped me develop a hatred for weakness, for passivity, and for being a victim. The books were counterproductive. Instead of producing a submissive woman, they turned me into an independent and powerful woman engineer. I believe that the authors of our textbooks had undermined the girls of our generation. Never would they imagine that the stereotypical women of their books repelled us, that we tried hard to not become like them."

Sadaf's last sentences with regards to the textbooks further validate my argument: "Those sexist books and instructions taught me one thing: to resist, to fight, and to never surrender. All those years of fighting and refusing to blindly accept the traditional gender roles of the textbooks made a fighter out of me."

The young female students' bold resistance to school authorities, and their rebellious acts against the cultural norms and religious impositions are reminders of Foucault's theory of power. According to Lynch (2011), "Foucault begins with individuals' behaviours and interactions ('local relations' like academic transcripts, or choices of what to wear), to see how large patterns, and eventually national norms or regulations grow out of them" (p. 19). In the case of Iran, as we have seen, women have changed the national demographic patterns at university level. Motivated to prove themselves and to defy the stereotypical images of the their textbooks, many female middle and high school students choose to pursue higher education, even in disciplines like engineering that are traditionally considered as exclusively male. In other words, the individual choices of young women and their resistance to unequal power relations have changed the national norms at Iranian universities.

4.2 Gender inequities at university level and women's resistance

Povey and Rostami-Povey's (2012) research shows that "women's demand for higher education and their success in occupying a bigger share of university places has been phenomenal." The authors concur that Iranian women opt for higher education in order to "postpone marriage," and "earn greater social freedom and respect." They claim, "education has changed men's attitudes towards women". My research participants discussed the many barriers that they had to surmount in order to obtain a degree in engineering. Sexism ruled

supreme in university. Women were at a disadvantage due to gender quotas, unsympathetic male professors and students, and authorities who regarded them as invaders in arenas that have traditionally been occupied by men.

4.2.1 Gender quotas

Although Iranian women were allowed to pursue engineering at the university level, gender quotas limited women's admission to many disciplines. Gender quotas were set to prevent the overwhelming presence of women in the engineering faculties. The nation-wide entrance exam for engineering fields was competitive, and the gender quotas made the entrance exam (concours) all the more difficult for girls. Consequently, the majority of students in engineering degrees were men. Mining engineering and metallurgy engineering were off-limits to women altogether. Sadaf considered gender quotas an overt form of discrimination against women, and mentioned that in order to be admitted to university in an engineering field, women had to study much harder than men. Darya talked gloomily about one of the consequences of gender quotas:

"University years were tough for women engineers in Iran. The problem stemmed from the very low number of women in engineering faculties. We were always in the minority. Men reigned the engineering faculties, they often expressed themselves with self-confidence; they walked, talked, and laughed loudly together in the hallways, on the stairs, in the workshops and labs, and in the photocopying rooms. Women, on the contrary, tried to avoid making any noise; we walked stealthily, talked quietly, and hardly laughed. Because there were too few of us, we were very visible, but we tried to make ourselves invisible so as not to draw any attention to ourselves. While boys laughed out loud at the professors' jokes, we women only smiled. Their high numbers gave them a great deal of self-confidence. If a boy did not understand a concept in class, he would get up from his chair, and ask the professor to clarify his point. His voice would be loud and deep, his posture implying his confidence, as though he had every right to pose a question. The male students were never embarrassed to ask questions. Girls, on the

contrary, never posed questions, never asked for clarifications. We never had the confidence to rise from our chairs to ask a question."

Being in the minority, hand in hand with the social norms that expected women to be modest and shy, served to diminish the self-confidence of many female engineering students. Female students were a minority group in all engineering universities, and like all minority groups in any society, they suffered the prevailing injustices. The women also realized that they had to be very tough to endure the big and small problems that they as female engineering students had to deal with on a daily basis. In spite of being in the minority, many female students insisted on participating in the campus activities and being present publicly alongside their male colleagues.

In Sadaf's school, it was customary for women to sit in the back rows of the class. The rationalization behind this custom was that by sitting in the front rows, the women, although scarce, might distract their male classmates. From time to time, though, the most daring among female students, would deliberately sit in the front rows of the class.

Oftentimes, the more conservative professors would order the girls to switch to the back of the room. Although it was embarrassing for them to pack up their belongings and to move to the back of the class, these brave women were determined to prove that they were equal to their male counterparts. Their attempt at breaking the unwritten rules of the campus, served to challenge sexist traditions. While talking about Foucault's theory of power in the theoretical framework of this study, I mentioned that resistance against the state might take the form of "local struggles" in the home and at the school. The female engineers' determination to survive in a male-dominated environment is an example of such a "local

struggle." Despite their low numbers, female engineering students were determined to prove themselves, to demonstrate that they were equal to their male classmates.

4.2.2 Unsympathetic male professors

Unfortunately, the attitudes of the professors who, for the most part, did not welcome women in the realm of engineering exacerbated the situation. Many professors did not take female engineering students seriously; some made no effort to conceal their animosity.

Darya still seemed hurt when she recalled the words of her first physics professor:

"How can I ever forget the humiliation that our first year physics professor inflicted upon us? Here is the story. One day in class, he was about to tell us a masculine joke, one that would be more appropriate for a male-only audience. But there were a few girls in that class. Looking at the corner where the girls were seated, he uttered, "Impurities of the class, cover your ears!" He referred to women as "impurities", can you believe this? In his eyes, we were impurities. The class would have been homogeneous and pure without the women. But, we, women, had ruined this harmony. What a disgrace to be called impurities."

A number of professors vocalised their beliefs about women engineers more explicitly. One particular professor's words still lingered in Khatereh's mind:

"Ladies, you are gradually becoming numerous at the formerly male-dominated field of engineering, and you are gradually destroying this field for the rest of us. Working in engineering will no longer be as profitable as it used it be. You do not work well; you are not competent engineers. After all, you are not going to be the breadwinners of your families. Even if you work as engineers, your prospective families won't be dependent on you. You bring down the prices, because you are content with lower salaries than men."

The professors were also unwilling to choose female assistants. None of my participants recall having a female Teaching Assistant. Moreover, professors, who worked with different businesses outside the university, mostly engaged male students to help them on the projects. This enabled the male students to meet the

owners of the businesses; many of the male students were already working part time when still studying. In other words, male students established networks while still at university, and continued to expand them. This was not the case for most women who were less familiar with the job market, had not been able to establish networks with businesses, and consequently, compared with male graduates, it often took women longer to find a job.

Khatereh also mentioned that in rare occasions, professors asked female engineering students to work with them on projects. However, in such rare cases, the professors enjoyed the girls' company, and did not value the female students for their academic and technical merits. Rather than selecting the most competent female students, the professors made their choice upon the women's looks, and were content, as Khatereh noted, to work with "stylish and beautiful women who were generous with their smiles. Perhaps these women softened the rough masculine atmosphere of the university for the professors".

My participants believed that it was not easy for all female students to endure sexist attitudes. Although most students completed their studies and obtained their degrees, some from the best universities in Iran, many women never attempted to find work. Instead, they got married and became full time mothers and housewives. According to Darya, "university years put a bad taste in their mouths, dissuading from persevering in a male-dominated atmosphere." Others; however, would not give up easily. Most of the female engineering students despised being regarded as commodities. Instead of taking advantage of their looks, most of the women engineers made an effort to look tough, macho and serious. These women believed that by adopting a manly disposition, they would be taken more seriously. Trying to look like men was a strategy that many women had employed in order to overcome

the gender barriers of the university years. The more difficult the situation became, the stronger these women grew. Persistence was the name of the game.

4.2.3 School authorities

The school authorities, those in high-ranking positions, were no more sympathetic to the case of female engineering students than the professors. Not only did they put no effort in to decrease gender discrimination, they seemed to deliberately aggravate the conditions for women. In Darya's campus, for example, male and female students ate in separate restaurants, located in two different buildings. The layout of the campus was such that access to the women's restaurant was not easy. Depending on the location of their faculty, women had to walk for a relatively long while to get to the restaurant. During exam times, when the women were in a rush to get from one building to another, some would give up eating altogether, due to the long distance that they had to travel to get to the restaurant. Darya compared the restaurant to a dungeon, and mentioned that "the dungeon" was the term that the female students used among themselves to refer to the women's restaurant. Here is Darya's comparison of men's and women's restaurants:

"The women's restaurant was located in the basement of a building in a far corner of the campus. Once in the building, you had to go down a number of stairs. Then you would find yourself in a dim and humid hall, the dungeon! And that is where prospective women engineers of the country had their meals. The men's restaurant was located in the centre of the campus, with easy access from all faculties. When sitting inside, the men were able to watch the outside scene through the floor-to-ceiling windows, and enjoy the flowerbeds that surrounded the building."

One might ask whether the hardships that women engineers experienced at Darya's university because of its layout was an isolated experience. Were the authorities able to facilitate things for women in other universities? Were they willing to accommodate women

engineers? The answer is unfortunately negative. My research participants had many narratives regarding the ways the authorities of their respective universities treated female engineering students. The school authorities not only made no effort to assist women, they also seemed to impede the progress of women students expressly. It was, indeed, difficult to choose among the many anecdotes that my research participants relayed regarding the maltreatment they received from the authorities, but I have chosen the following narrative due to the fact that this story not only captures the explicit forms of ongoing gender discrimination on campus, it also shows the women engineers' reactions, their fury, their perseverance and the battle that they fought to gain their rights. Here is Sadaf's account of a field trip for third and fourth year engineering students:

"When I was in my fourth year, one of our professors decided to take all the third and fourth year students in our faculty on a three-day trip to visit a number of factories in three different towns. We rejoiced at the thought of travelling together, visiting new places, and spending time away from the school, in one word, having fun. What a great opportunity for us! Later, we learned that the organizers were planning to exclude the girls from the trip; the school authorities would not sanction a mixed sex field trip. We also learned that the same professor had organized a similar trip the previous year, a male-only trip, which took place during the summer months, when the school was semi-close. The professor had asked the male students to keep it a secret, and not reveal to the female students that they had gone on a male-only trip. We were enraged. Why had they excluded the girls? Weren't we as worthy as the males? Or was it that learning was not as important for girls? Field trips, hands-on work, visits to factories, in other words, the most exciting part of education was forbidden for girls, just because of their sexuality."

Listening to Sadaf, I was thinking that what the authorities had not really thought of was the fact that girls, who had chosen engineering despite all odds, were not passive people. The women of Sadaf's generation would not succumb easily to the injustices of the society; they would fight with all their might to bring about equity.

As Sadaf said, "We were all infuriated with the decision of the faculty, but one female student in particular, decided to take this case to the higher authorities of the university." I need to provide some context before proceeding with this next story from Sadaf. In a hierarchical institution like an Iranian university, one required a great deal of courage and perseverance to find the authorities and to talk with them, let alone convince, them to bend their laws. The authorities were oftentimes so involved in bureaucratic matters that they hardly agreed to meet with students. They were the invisible people whom the students never met in person; they only got to know and hear their names. But this young woman was eager to get an authorization for her female classmates to join the trip. Here is the rest of Sadaf's story:

"This woman was, in fact, a petite girl from a small provincial town in Iran. Because of her small physique and baby face, she looked much younger than her age. In terms of appearance, she was not the prototype of a strong woman; her strength, though, was her determination to fight for women's rights, and her ability to convince the authorities of the university to discontinue their discriminatory practices. We were incredulous when we learned that she was able to gain permission for women to go on the field trip. This woman was not the talkative type; she did not reveal the details of her meetings. I only know that each time I ran to her on campus, she was trying to set up a meeting with one of the high-ranking people. We got to reap the fruits of her resolution. The authorities agreed on having female engineering students on the trip on one condition, that of being able to find a female guardian for the girls. Although the students were all adults, the authorities of the university thought that they were incapable of abiding by the rules of the university, or of taking care of themselves throughout the trip."

That the authorities insisted that the female engineering students needed to travel in the company of a guardian reminds me of the nineteenth century stories when young British women were supposed to be accompanied by their governesses on their social debuts. Were female students not able to take care of themselves for three days? Belittlement, humiliation, and offensive behaviour towards female engineering students seemed to be the norm for the

school authorities. Sadaf finished her story by saying that eventually they took the trip, ignored the guardian who tried to impose her conservative ideas on them, had a lot of fun, and cherished the memory of that trip, a trip that was a victory for all the female engineering students of her university.

Going on a school trip might seem like a small achievement, an insignificant one in the grand scheme of things, but for the Iranian engineering students, it was a considerable victory. Up until then, other engineering faculties in Sadaf's university had organized male-only trips for students. The young woman who succeeded in obtaining an authorization for a mixed-sex trip had set a precedent. This was a young woman everyone wrote off as "inexperienced" and "unsophisticated," but who fought for more rights for women, and low and behold, won the battle. As I mentioned in the theoretical framework, Foucault believes that resistance against the state exists in multiple sites. In this case, engineering schools became sites of resistance for daring women who asserted their power and sought equity despite the many obstructions that they faced.

4.3 Conclusion

An examination of the personal narratives of the three women shows that although they had never met each other in Iran, these women echo one another when recounting the hardships that they endured and the methods that they used to thrive in male-dominated environments that were especially hostile towards assertive women. All three women confirmed that the sexist practices of the society simply empowered them, and turned them into fighters. Throughout the interviews, the women mentioned words like "resistance," "defiance," "not giving up," "fighting," "fury," "rage," "tough", "power," and "hard work."

Two of the interviewed women were aware of the sexist nature of the textbooks at an early age, questioned the impartiality of the books, were infuriated by the stereotypical depictions of male and female figures of the books, and blatantly resisted such gender biases. Both women mentioned the middle school home economics textbooks as very discriminatory books: while boys attended automechanics, machining and woodworking workshops, girls had to learn the crafts of their grandmothers; they sewed, knitted, and cooked. Such traditional and stereotypical views of men and women's jobs infuriated my informants, who were at the time, grade school students. So did stories, poems, and images that depicted women as shadow figures, confined to the private sphere. As young women, they were looking for heroines in the textbooks, but the textbook women were submissive women whose main priority was to attend to their duties as wives and mothers. My informants developed a hatred towards the weak and compliant women of the textbooks, and decided to become the very opposite of those stereotypical images. Despite being very young, these girls used their agency to defy the stereotypes of textbooks. Although it was not the intention of the authors of the books and the authorities of the education systems, the textbooks served to empower the female students, and made fighters out of them. The sexist practices of the patriarchal and religious society of Iran further enraged the women, and toughened them. As girls, these women made a conscious effort to be the antithesis of the stereotypical figures of the books. Becoming an engineer was these women's way of breaking gender stereotypes and asserting themselves as equals to men.

At university level, the three girls were very aware of the sexist practices of the society and became increasingly enraged by them. The women engineers mentioned that they did not enjoy the same freedoms that their male counterparts had on campus. Their low

numbers made them more conspicuous, and diminished their self-confidence. Moreover, they were not taken seriously by their male classmates and professors. Female engineering students were excluded from a number of activities that were organized by professors; for example, professors often chose male students to assist them in the projects that were offered to them by different businesses. Male students were able to get to know different businesses and establish networks at an early stage, but women rarely enjoyed such opportunities. Such partial treatment on the part of the professors and the authorities of the universities angered the women students and disheartened some. At the same time, many of the female engineering students decided to soldier on and fight back. The very presence of women in the engineering faculties under such circumstances is a further sign of resistance.

In the next chapter, I provide examples from the wider Iranian society regarding the endeavours of women's individual and collective endeavours to become more visible in public, press for change, and gain more rights.

Chapter 5: Reality check plus

In this chapter, I begin by offering a summary of research findings, followed by a brief revision of the theories that have informed this study. Next, I try to answer the third research question regarding the ways in which Iranian women resist the discriminatory laws and cultural stereotypes of their society. To do so, I provide a discussion of research findings including specific examples regarding the challenges and opportunities that Iranian women encounter in their individual and collective battle to dismantle the gendered hierarchical systems of power. These examples include the efforts of activists who launched the "one million signatures campaign," an Iranian blogger's accounts of the International Women's Day's celebrations in Tehran, the homosocial spaces that women create to combat inequalities, the enterprises of filmmakers, journalists, female presidential candidates, and athletes. I end this chapter with recommendations for further research, educational practice, and policy.

5.1 Summary of Findings

Findings for this study consists of two sections. In the first section, I carried out a content analysis of the grade 6 Farsi language arts, the grade 7 English as a foreign language, and the grade 8 natural sciences textbooks to expose their cases of gender disparity against women and girls. These textbooks were taught at middle school level in Iran in the academic year 2011-2012. Given that the Iranian education system is centrally controlled by the state, all students in the public system study the same national curricula, and are exposed to the same textbooks. In the second section of the study, I interviewed three Iranian women

engineers, asking them to talk about their experiences of gender disparity in their K-12 schooling, university education and workplace in Iran. The goal of the second section of the study was to discover how women understood, adopted, negotiated, and resisted gender inequity.

A thorough content analysis of the above textbooks proves that instances of gender discrimination against women and girls are plentiful in these three textbooks. Men not only outnumber women in both texts and images, but they are also assigned vital roles, for example, many men in textbook stories have leadership and decision-making positions. Men make decisions for their families, take charge of their communities, control their towns, and command their nations. Women, on the contrary, are not depicted as leaders in any of the books. The few women who have gainful employment are often assigned stereotypical jobs, jobs that are traditionally associated with women: nursing and teaching. No female scientists appear in the books. The girls are not daring, they never venture out to explore the unknown. While men and boys are depicted as courageous, powerful, wise, curious, and adventurous, women and girls are shown as passive, submissive, and obedient. The females in the books seem to be content with their status as they do not question their subordinate position.

The interviews with the three women engineers affirm that the textbooks do not portray a non-biased picture of the Iranian women. The three women that I interviewed have contested the stereotypical beliefs of the textbooks by choosing engineering, a field that is traditionally associated with men. The fact that these three women have worked in disagreeable conditions in Iran proves that many Iranian women dare to defy the patriarchal systems of power. The three women talked, unanimously, about the stereotypical beliefs and

biased practices that exist in the Iranian society, beliefs and practices that pose obstacles on women's path to progress and gender equity.

While recounting their K-12 schooling experiences, my informants identified a number of sexist practices that were performed exclusively at girls' schools, and confirmed that boys of the same age had many more freedoms. The imposition of the Islamic dress code, random bag search, encouraging girls to be docile, and punishing the non-compliant girls were among the discriminatory practices that my informants identified. They also talked about the sexist stories of the textbooks, starting as early as grade one, stories that celebrated the domestic roles of women. The women mentioned the fact that homeeconomics books were different for boys and girls at the middle school level; while girls had to stay at the school and learn to cook, knit, and sew complex patterns, boys were supposed to explore different workshops; namely woodworking, automechanics and machining. Such exercises had enraged two of the girls and provoked them to question the impartiality and veracity of the depictions of the textbooks and the impositions of the school authorities. In their idea, the books did not offer a just representation of the society; the society that they liked to live in was one in which women were present in the public sphere. Although they did not find any female role models in the school textbooks, these young girls did not lose heart. On the contrary, these girls developed a loathing for the weak, docile, and conforming women of the books whose priority was their domestic duties. The girls decided to become the antithesis of the traditional role models presented in the books. In other words, the books created a backlash among the girls against the sexist portrayals of women. They wanted to prove that unlike the instructions of the textbooks, girls were no less than boys. The books

served to empower the girls. These girls pursued engineering, for in engineering they saw power and might.

My three informants were very well aware of unwritten rules and unjust norms of the universities that explicitly favoured men, restricted women, and tended to dissuade women from continuing their education by posing many hurdles on their path. Neither their male classmates nor their male professors took the young women seriously, and did not deem engineering as a suitable career for women. Professors often chose men to assist them in their projects, thereby allowing male students to develop networks within different businesses while still at university. Some professors unashamedly ridiculed women. Then again, all three women indicated that gender discrimination at university level served to toughen their characters and prepare them for the job market that was no better than the university in terms of discriminatory practices and favouritism. At the job market, the women had to compete against their male colleagues and employers, most of whom viewed engineering as a male domain and did not welcome women in their territory. To fit in a male-dominated workplace, some women engineers adopt a male disposition; by using men's vocabulary and looking tough, macho, and serious, these women improve their chances of survival in places were women are not welcome. The discriminatory practices of the K-12 education system, the sexist representations of the textbooks, and the partiality of the university authorities and professors, effectively trained women for the uninviting ambiance of the workplace. These women persevered to circumvent the barriers and gain parity with men. Then again, women engineers are not the only resisting force. Iranian bloggers, authors, journalists, artists, filmmakers, athletes, and many ordinary women who strive to gain rights in a society that celebrates male superiority are valiant fighters. These women are gradually subverting the political and cultural power structures of the society. They resist discrimination, in spite of, and because of the sexist societal beliefs and practices that were reflected in their school textbooks.

5.2 Returning to Theory: Apple and Foucault

Although due to its geopolitical significance, Iran has been getting a great deal of media coverage recently, the sophisticated gender politics of Iran is not being explored sufficiently, neither in the mainstream media nor in the academic arena. While school textbooks in Iran instruct women to be submissive and invisible in the public sphere, in reality, Iranian women resist different forms of subservience, and endeavour to become active citizens. In this study, I use Apple's theories on the interconnectedness of the state and education. In Iran, the government has full control over the curriculum, and therefore, uses textbooks to transmit self-serving values and doctrines, including sexist codes. Many women in Iran, however, do not subscribe to the sexist instructions of the curriculum. On the contrary, many Iranian women thrive to become the anti-thesis of the stereotypical portrayals of the textbooks. Today, Iranian women outnumber men in the universities and work in domains that have traditionally been regarded as exclusively male, for example, engineering. To explain the contrast between the gendered representations favoured by the state and the social realities of women, I use Foucault's theory of power, particularly, the concept that power does not belong to one stratum of the society. I argue that Iranian women are using their power to defy the sexist instructions and gain more rights.

5.3 Discussion of findings

For many Westerners, the term "Iranian woman" often invokes images of veiled women, oppressed and subjugated, victims of patriarchy. In reality, today, many Iranian women are rebelling against patriarchal practices that have been consolidated by the Sharia law, and are endeavouring to change the unequal power relations. Women are questioning sexist traditions, some of which deeply rooted in the Iranian culture, and are struggling to destabilise the cultural and political structures that curtail their rights. Women are no longer submitting to the will of restrictive fathers, brothers, or husbands who coerce them into marriage, or prevent them from working outside the house (Keddi and Richard, 2006). Many have resorted to tertiary education to postpone marriage, obtain gainful employment, and consequently become more independent (Shavarini, 2005). To gain gender equity, some are stepping into territories that have been long regarded as male-only grounds. Let us examine the reality of women's lives in Iran.

The 2003 Nobel peace prize laureate, Shrinin Ebadi stated, "the laws imposed on Iranian women are incompatible with their status and, consequently, the equality movement is very strong. Although lacking a leader, headquarters, or branches, the movement is located in the home of any Iranian who believes in equal rights for men and women" (2009). In fact, the determination to bring about social change is so strong that despite lacking leadership and headquarters, a number of women activists decided to launch a campaign called "the one million signatures campaign" in 2008. The aim of this grassroots campaign was to collect one million signatures for a petition that asked the parliament to reform the discriminatory laws of the Islamic Republic of Iran. To do so, volunteers in 15 provinces

went door to door, raising awareness and educating people about the laws that discriminated against women. The campaigners had trained 1000 people in the "face-to-face" approach, as well as publishing a booklet about the sexist laws of the country. Some of the matters discussed in the campaign's booklet included:

equal rights for women in marriage, equal rights to divorce for women, end to polygamy and temporary marriage, increase of age of criminal responsibility to 18 for both girls and boys, right for women to pass on nationality to their children, equal dieh (compensation for bodily injury or death) between women and men, equal inheritance rights, reform of laws that reduce punishment for offenders in cases of honor killings, equal testimony rights for men and women in court, and other laws which discriminate against women (Tahmasebi, 2008).

In western countries like Canada, where people enjoy relative freedom of expression, campaigning is a common practice to raise awareness and to effect change. In Iran, however, a campaign of this scale was novel at the time, and took a great deal of courage, knowledge, time, and effort. The campaign got the attention and support of international activists, in Iran however, the campaign was not tolerated by the authorities. A number of campaigners were arrested and served time in prison, others lost some of their rights, including the right to leave the country (Ebadi, 2009). In 2011, a number of campaigners celebrated the 100th anniversary of International Women's Day behind the bars. One of the main campaigners, Nasrin Sotoudeh, who is also a well-known human rights lawyer and women's rights activist, is to this day in prison. In an interview with the Guardian in 2011, Ebadi stated that Sotoudeh "has been sentenced to 11 years in jail, and is now banned from practicing law for 20 years". Alieh Eghdam Doust, another leading campaigner and a women's rights activist

was arrested in 2009 and remained in prison for three years. According to campaign's website, Eghdam Doust was freed on January 8, 2012, and was saluted by activists who were awaiting her outside the prison. She was then taken to the home of one the campaigners who had thrown a party to celebrate Alieh's freedom and bravery. Although activists are constantly prosecuted, they continue to educate people, raise awareness, and push for reform. The "one million signatures campaign" has been forced to the stop, but the campaigners have not stopped informing people. Their campaign simply takes on different forms depending on the occasion. On March 8, 2012, the campaigners posted an article on their website voicing their opposition to a possible US-Israel led war on Iran. "We do not want to become the silent victims of this monster (the war)," the women asserted (we-change.org, 2012).

Iranian women are becoming increasingly more aware of the fact that many rights are being denied to them. Such awareness has angered many women, who voice their anger in different forms. The most daring seek opportunities to protest on the streets bravely and openly. According to the BBC, on March 8, 2004, women activists succeeded in obtaining permission from the authorities for a peaceful demonstration in a park in the center of the capital of Iran, Tehran. These activists were planning to talk about violence against women, and about the suppression of women's voices. A few hours before the demonstration, the authorities withdrew the permission to demonstrate, and tried to cancel the demonstration. Notwithstanding the intimidation tactics used by the government, hundreds of daring women entered the park, singing and shouting slogans regarding their rights. Militiamen tried to disperse the crowd hitting them hard with batons. A number of people were arrested at this event (Eeles, 2004). Figure 14 provides a well-captured snapshot of this event.



Figure 15: Vigilantes stop Iran women's demonstration (BBC News-Special Reports)

Some of the women who attended the International Women's Day demonstration in 2004 recounted the event in their blogs. In fact, blogging is very popular among the youth in Iran, and many women are using blogs and other social media to voice their concerns regarding the dominant social injustices. A popular blogger, Zeitoon, who has concealed her true identity for security reasons, often attends the March 8 rallies in Tehran and reports her experiences in her blog. Zeitoon's blog is in Farsi. Her accounts of the 2004 demonstration confirm the veracity of the BBC report. Zeitoon's narrations of the events that took place two years later, on the International Women's Day 2006 demonstration, attest the solidarity among women in their collective resistance against social injustices. In her March 9, 2006 blog post, Zeitoon wrote that she was disappointed at the low turnout of women demonstrators, but what warmed her heart was seeing a number of well-known characters among the crowd: Behbahani, a well-loved poet, Sadr, a women's rights lawyer, and Bayat, an actress were among the demonstrators. Very soon the militiamen appeared and started beating up the demonstrators. Some people escaped, but many of those who refused to leave the park were arrested. At one point, the militiamen's commander noticed Zeitoon's camera and ran towards her to confiscate the camera. But "brave women" rushed in time to protect Zeitoon and save her camera. Zeitoon mentions that she could not help but cry when, in disbelief, she witnessed militiamen brutally hitting people, young and old, with no mercy. "It was easy to tolerate the pain of the militiamen's baton strikes; what was intolerable was the pain that I endured when I saw them beat up a sixty-year-old woman and a sixteen-year-old girl." Their placards fell to the ground one by one, and were crushed under the boots of the guards. The women; however, continued their chants resolutely. A guard brandished his baton at Zeitoon and was about to attack her. Zeitoon knew that the he was about to arrest her. At that very moment, a woman, much older than Zeitoon, held her by the hand and forced her to run away, dragging her out of the park.

When reading Zeitoon's blog, I was happy that she was saved and assumed that after all that she went through, Zeitoon would catch the next bus to go back to her home, which was far away from the park. But I was wrong. The two women were not planning to escape the battleground; these shrewd women were strategizing to re-enter the park, this time in disguise! Together, Zeitoon and the older woman went shopping for new headscarves. From a store nearby, they bought two headscarves, different from the ones that they had been wearing in the park, different colours, different styles. By so doing, they were hoping that the guards would not be able to recognize them. The shopkeeper, a young man, smiled at them and told them that he knew why they were buying the scarves. He gave them a significant discount on the scarves and begged them to take care of themselves. The two women re-entered the park and were joined by another young woman. When a militiaman walked towards them, the older woman pretended to be the mother of the two younger women, called them out by made-up names, and pretended that they were ordinary passers-

by. She told the guard that she was shopping with her two daughters; they were all tired and had come to the park to sit on the benches to rest for a short while. The guard looked at them doubtfully but let them go. At that point, the three women decided to leave the park.

In fact, many women that I have talked to have similar stories to recount, stories of camaraderie among strangers or among close acquaintances who have joined forces to fight inequalities. Some researchers refer to such solidarities as sisterhood, others call them homosociality. According to Sedgwick (1985), the term homosocial "describes social bonds between persons of the same sex" (p. 1). On International Women's Day, the women in the park had formed a homosocial community, working collectively to gain rights. The woman who saved Zeitoon, the blogger, took a great risk by pretending to be the two girls' mother. In the homosocial space that developed in the park, this woman became a protective figure, attempting to promote other women's interests. Amazingly, the two women bonded, temporarily, despite the fact that they were from two different generations. They did not ask each other's political views; they could not care less. Bonding simply helped them achieve their goal of not succumbing to a law that prevented them from being in the park, together, they achieved their goal, the goal of being visible on the occasion of International Women's Day.

Drawing on Sedgwick's definition of homosociality, Naghibi (2007) argues that in Iran, "female homosocial communities enable women to move outside of the heterosexual and patriarchal family units that position them as extension of their fathers, their brothers, and, eventually, their husbands" (p. 138). Naghibi discusses an award-winning Iranian documentary titled "Divorce Iranian style," which takes place in a family courtroom in Iran. This documentary offers a glimpse into the lives of Iranian women who struggle to get a

divorce from husbands, to free themselves from the prison of married life. It is the story of men who refuse to divorce their wives, and women who fight furiously to get a divorce and/or obtain child custody. A divorce courtroom in Iran can be a very intimidating place for women. The Iranian family court is "a hothouse of double standards and male vengeance." "A woman might have to wait for years to persuade a male judge to grant a divorce" (Scoliono, 2000, p. 124). In fact, divorce still remains a social taboo in Iran, and is often discouraged by the court. Allow me to remind you that in Iranian courts, judges are always male, and in the case of this documentary, "Divorce Iranian style," the judge happens to be a male cleric. The divorce laws in Iran often strip women of most of their rights, while offering men many unmerited privileges. For instance, according to the dominant Sharia law in Iran, a man can divorce his wife "on a whim", as for a woman, neither whim nor will is enough. The custody of a child over seven will automatically go to the man regardless of his qualifications. A man is allowed to have up to four wives at the same time and as many temporary wives as he wishes (Butler, 2009). Under such circumstances, women who seek divorce need to be courageous, firm, and tireless. The women in this documentary possess such qualities indeed. Although they are victims of patriarchal traditions sustained by the Islamic laws, these women hardly look like victims. Dogged and persistent in their causes, they keep coming back after hearing "no." They do not capitulate to the judicial system easily. Naghibi argues that the women's audacious fight is attributed to the fact that despite all odds, the women had created a homosocial space in the courtroom. Encouraged by the support of the homosocial community, which included the female clerks of the court as well as the film crew members, these women strove to alter the misogynist law. Ironically, the homosocial space that imparts such courage is mandated by the laws of the Islamic Republic

of Iran, which emphasize segregation of the sexes in public. "The overwhelming, and sympathetic, presence of the women in the courtroom (in large part due to an all-female film crew) seem to afford women claimants the courage and the strength to fight for their rights, thus posing a not-insignificant threat to the established patriarchal order" (Naghibi, 2007, p. 124).

"Divorce Iranian style" is not the only movie that is made by Iranian women about their shared plight. In fact, filmmaking has proven to be a tool in the hands of Iranians to illustrate the injustices that prevail the society. During the past decade, a number of women have directed award-winning films at the international level. Although mainly fictional, these films recount the reality of the lives of men and women in Iran, and deal with such subjects as divorce, child custody, drug addiction, rape, and violence against women. The directors often test the limits of restrictive regulations of filmmaking. To secure a grant for screening in Iran, the directors often have to censor certain scenes from their movies. Despite these censorships, sometimes directors do not succeed in obtaining permissions for screening of their films in Iran. "The ladies' room," made by an Iranian actress and film director, Mahnaz Afzali, is an example of such a movie. This film, which unfolds in a women's washroom in a park in Tehran deals with the subject of prostitution and runaway girls, a serious problem in Iran today, one that the government often tends to ignore and deny its existence (Naghibi, 2007). Filmmaking is a medium for feminist Iranians to voice their concern regarding the inequalities that they are experiencing today.

Journalism too is an effective vehicle for women who seek to subvert the Islamic patriarchal structures of the society. Shahla Sherkat, the editor in chief of a feminist monthly magazine, named Zanan, has dared raise issues concerning women's oppression, namely in

the form of polygamy, sex trade, wife abuse, abortion, and honour killings. "Her magazine has helped foster a climate that allows her to address previously taboo subjects: sex, women's autonomy, even criticism of government officials" (Campbell, 2007). According to Campbell (2007), a poster in Sherkat's office showed the picture of woman, with a door on her lips, and a hand that was opening the door (Figure 15). One of the most controversial articles ever published in Zanan was a report titled, "Sir, Have You Ever Beaten Your Wife?" This report contained interviews with men who physically abuse their wives, and women who have been victims of domestic violence.

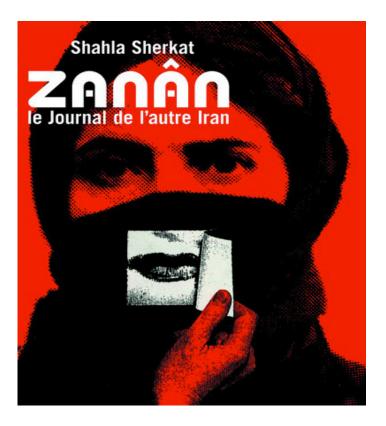


Figure 16: Women venturing to break their silence. (A poster in Sherkat's office)

Some readers criticized Sherkat for snooping into private, intimate affairs of families (Sciolino, 2000, p. 123). In the eyes of conservative Iranians, bringing up such issues endangers the sanctity of marriage. Many a time, women are forced to lie to their friends and

family about the fresh scars on their bodies that are the result of domestic violence. Sherkat's poster implies the fact that women are breaking their silence; it also invites women to be more vocal. Sherkat and other activists strive to break social taboos by discussing these issues in an explicit manner. It is worth mentioning that Sherkat's feminist magazine was closed down in 2008. According to the authorities, it was a "threat to the psychological security of the society," because it showed Iranian women in a "black light" (New York Times, 2008). In fact, activists, who venture to voice their concern regarding social inequalities, risk imprisonment in a country like Iran where freedom of expression is criminalised. According to the Press Freedom Index 2011/2012 published by the Reporters Without Borders, Iran ranks 175 out of the 179 countries surveyed. Nevertheless, women like Sherkat selflessly persist in their combat to obtain more rights for women.

In a country where women are deemed too emotional to run as judges, one woman decided to run as a candidate in the presidential election in 1999. Azam Taleghani is the daughter of the late Ayatollah Taleghani, an important figure in the 1979 revolution in Iran. According to the article 115 of the constituency of the Islamic Republic of Iran, only "religious and political men" (*rojal mazhabi-siasi*⁴) can become presidents (Siamdoust, 2009). The term "*rajol*" in Arabic is a masculine word and literally means men. Talgheani, however, contested the meaning of the word "*rajol*", claiming that it was a generic term and could mean persons, both men and women. The efforts of Taleghani are reflected in a book titled, "Persian mirrors: The Elusive Face of Iran," written by the American journalist Elaine Sciolino (2000). Sciolino states that Taleghani "went knocking on the doors of religious

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رجل مذهبی و سیاسی ⁴ In Persian:

scholars in Tehran and Qom⁵ who had been drafters of the 1979 Constitution, seeking opinions on whether she might be considered a *rajol*." The clerics were divided; while some believed that both men and women could run for presidency, others insisted that presidency was reserved for men. "One ayataollah declared that women should be invisible from public life altogether". In her interview with Sciolino (2000), Taleghani stated, "word got around Qom that Miss Taleghani, the daughter of the late Ayatollah Mahmoud Taleghani, was asking these questions. While I was at the home of one ayatollah, the phone rang. It was another cleric who said, 'Please tell her the word rajol means man and only man.' That proved I had caused quite a stir." The Guardian Council⁶ eventually disqualified Taleghani and a number of other candidates, albeit male candidates, from running for presidency. "I was told I wasn't a religious and political personality and that was why I couldn't run for president" (pp. 112-113).

Although Taleghani was disqualified, she was triumphant. In fact, Taleghani set a precedent in the history of the Islamic Republic of Iran, and became a role model for women who dare challenge the constitutional law. In 2009, other women decided to follow in her footsteps and run for presidential candidacy. Out of the 475 people who registered as presidential candidates, 42 were women. None of the women was qualified. The Guardian Council claims that it "has never announced its opinion on whether a registrant is a man or a woman. Whenever a woman has been disqualified, it has been because she's lacked general competence." Interestingly, some of the male candidates that were qualified stated that they

⁵ Qom is a religious city in Iran where most of the leading Shite leaders are trained.

⁶ The Guardian Council "is the most influential body in Iran It consists of six theologians appointed by the Supreme Leader and six jurists nominated by the judiciary and approved by parliament" (BBC, 2003).

might consider women as their cabinet members. The mere probability that women would run as cabinet members has gladdened women activists, and proven that their "grass-roots efforts have yielded results." Despite the fact that no woman has, to this day, been qualified to run for presidency, Iranian women are not discouraged. On the contrary, they regard these experiences as successful exercises, heralding more rights for women. Shadi Sadr, a political activist and a human rights lawyer claims, "The fact that dozens of women have registered for the last several rounds of the presidential elections is in itself a good sign. It has shown its impact already in the fact that the candidates talk about giving Cabinet positions to women" (Siamdoust, 2009). In fact, women realize that changing the well-established cultural traditions that have been sustained by the Islamic law for decades is not an easy task.

Therefore, women treasure every little triumph as an empowering exercise in their struggle for gender equity.

Women in Iran are constantly pushing the boundaries of the dominant laws that constrain them and confine them to the domestic sphere. Today, in sports, women are able to reap the benefits of years of persistence and clash with the authorities. After the 1979 revolution, the authorities deemed women's sports as "provocative," and closed down all women's facilities. In the first few years after the revolution, women's sports clubs did not exist in Iran. In other words, "women were prohibited from using public space to engage in sports". Educated women and women from upper middle classes realized the need for sports, and decided to resist this discriminatory law by going out to streets to jog. Because the site of a jogging woman was not acceptable for the clerics, the morality police were sent out to the posh neighbourhoods of Tehran to stop the joggers. The daily clashes with the authorities did not deter women. The joggers did not surrender easily; on the contrary, they decided to

reclaim the public space by continuing to engage in sports activities like jogging and cycling. By and by, women in the lower-class neighbourhoods and women in other cities took on jogging. The authorities eventually gave in to the unrelenting women, and approved of outdoor activities like jogging and cycling for women (Kian-Thiébaut, 2002, p. 70-71).

Women partly owe their gains in sports activities to Faezeh Hashemi, a parliamentarian in the late 1990's, and the daughter of Iran's former president, Rafsanjani. She has been a relentless advocate for women's sports. In 1993, Hashemi initiated the "first Islamic Women's Olympic games", thus organizing female contestants from the "Third World" (Jarvie, 2006, G. p. 353). When women cyclists were beaten up by a group of men in Tehran, and when hard-line clerics "denounced bike riding, boating, running, and horseback riding for women as sexually provocative," Hashemi defended women and fought back. She argued that sports would help women physically and psychologically. Hashemi also published a controversial newspaper, which criticized the country's discriminatory practices such as women's stoning, child custody and women's candidacy in the politics (Sciolino, 2000, p. 120). On January 3, 2012, Hashemi was sentenced to six months in prison and got banned from taking part in political and press activities for five years. Her crime is "making propaganda against the ruling system" (BBC, 2012).

Not contented by gaining the right to engage in like cycling and jogging, Iranian women have also sought to prove themselves at more complicated sports. Car racing, a traditionally male sport, for instance, has become popular with women lately in Iran. In 2005, Laleh Seddigh, a 28 year-old-women got first place in a national motor-racing contest, one woman against men, in a male-dominated sport. According to Robert Tait (2005) of the Guardian, "Laleh Seddigh enraged the establishment when she beat all the men to win a

national motor-racing competition - perhaps because that nation is Iran, where male superiority is enshrined in law". Seddigh who has a Bachelor of Science in industrial engineering and a Masters in production management claims, "I have always liked to do those things that traditionally belonged to men, or which are supposed to be beyond the physical capabilities of a woman." On her personal website, Seddigh is presented as a "female activist," and a "believer of equal rights for women", who "has broken many barriers on her way to becoming an icon for female rights." Although her accomplishments have shocked and angered her male competitors, Seddigh is determined to gain more rights for women by outshining men in areas where they claim to be superior.



Figure 17: Laleh Seddigh (http://lalehseddigh.com)

As I mentioned in the Chapter 3, recently Iranian women have developed an interest in another traditionally male sport, the martial arts, particularly, in ninjutsu. Why do 3500 women practice the martial arts, trying to be like fearless ancient Japanese warriors? According to the Guardian (2012), by engaging in ninjutsu, these women are "fighting for sexual equality". These Ninja women are striving to assert themselves as powerful and formidable women, women who are no less than men, women who are equal to their men.

The Guardian also mentions that these women might "represent only the tip of an iceberg of resistance and refusal."

In this section, I referred to the endeavours of a number of groups and individuals including the 1000 signatures campaigners, female journalists and lawyers, Taleghani who ran for presidential candidacy, Laleh Seddigh the race car driver, Zeitoon the blogger, and other women who continue to assert their presence in public knowing very well that they might face humiliation, arrest, and time in prison. How have these women understood, adopted, negotiated and resisted the stereotypical depictions of their K-12 textbooks? To answer this question, I will return to Apple and his question "whose knowledge is of most worth?"

Apple (2000) believes that students respond to text in three different ways: "dominant", "negotiated", and "oppositional". In the dominant form of reading, the reader "accepts the messages at face value." In the negotiated response, the reader might disagree with certain sections of the text, but he or she generally accepts the "tendencies or interpretations of a text." In the oppositional reading, "the reader repositions himself or herself in relation to the text and takes on the position of the oppressed". In other words, the reader repudiates the main messages and tendencies of the text (p. 58). The women that I talked about in this section have responded to the textbooks in oppositional forms. These women did not passively accept the tendencies of the textbooks, on the contrary, by reading and reinterpreting the books, the women became aware of the inequities of their society and decided to take action. Their actions took the form of fighting for more rights for Iranian women and children, changing the discriminatory laws of the society, giving a voice to the

oppressed groups, and strengthening their foothold in the public sphere despite the dangers that they faced.

As the above examples illustrate, women in Iran are gradually more conscious of their rights. Choosing to excel at traditionally male disciplines, publishing feminist journals, blogging, and campaigning for women's rights are examples of women's efforts to change the status quo in Iran and to pave the way for a less discriminatory society. While some women are negotiating with the unjust system of power visibly and overtly, others are attempting to circumvent the barriers that have been imposed on their path to progress. Iranian women are resisting the sexist indoctrinations of the dominant powers and the discriminatory inculcations of their textbooks, and striving to bring about social change.

5.4 Recommendations for further research

In this study, I analysed the textbooks that were in use in the academic year 2011-2012 in Iran. On January 26, 2012, Haji Babai, Iran's current minister of education announced that the ministry is planning to publish separate textbooks for male and female students (BBC News -Persian, 2012). Haji Babai; however, did not specify the exact date of the new textbooks' release. A gender analysis of the future segregated textbooks, or a comparison between the old and new textbooks might interest prospective researchers. Moreover, my analysis was limited to three textbooks at middle school level. The analyses of other textbooks at middle school level, as well elementary and high school books will shed more light on the subject of gender inequity in the Iranian education system.

While I chose to focus on women engineers exclusively, I am aware of the fact that engineering is not the only domain in which women endeavour to overcome gender barriers

and thrive to gain equity with their male counterparts in Iran. Further research should incorporate interviews with women in other fields including journalism, business, sports, medicine, and fine arts. Such research will reflect the experiences of women whose voices are often discounted or dismissed. Moreover, my research was limited to interviews with three women; a larger sample would shed light in different ways.

5.5 Recommendations for educational practice and policy

The following recommendations are based on the interviews that I conducted with women engineers, and on the content analysis of the Farsi language arts, English as a second language and science textbooks. These recommendations are addressed to three different stakeholders of education: teachers, school administrators, and the ministry of education in Iran, which is in charge of educational policy.

Teachers and school authorities play a principal role in perpetuating or dismantling gender stereotypes. In the introduction of this thesis, I talked about the centrality of textbooks in Iran, and the fact that teachers are not allowed to discuss matters unrelated to the subject at hand. Those who refuse to comply with the mandated laws of their workplace risk losing their jobs. Given the restrictions that they face and the problem of self-censorship, teachers and school authorities that wish to combat gender inequity have a difficult task. Then again, by some artful manoeuvring, they can manage to guide the students in the right direction. For example, teachers can draw the students' attention to the few positive female role models that are depicted in the textbooks. A number of inquisitive or rebellious students might question the gendered portrayals of the books, and feel unable to associate with the

weak women depicted in the textbooks. In such cases, teachers should direct these young women to read the biographies of powerful women.

Likewise, the school administrators can serve as role models for girls who would esteem exemplars of power and courage. From time to time, the school principals may invite speakers who have a positive influence on the students by virtue of their independence. Female scientists, journalists, entrepreneurs, photographs, and filmmakers will inspire girls who do not envisage themselves in the domestic sphere. Rather than highlighting gender stereotypes and reinforcing constrictions, the school authorities need to empower the girls and encourage them to become independent women. In reality, not all teachers and school authorities would urge the girls to seek more rights, but those who desire a more equitable future for the next generation, should combat gender inequities in a subtle manner.

The authors and editors of the textbooks who are engaged by the ministry of education have a delicate job as well. Those who aim to empower the girls need to push for change in the messages that are transmitted to young minds through textbooks. In designing the books, the authors need to devise gender sensitive texts and images by using the following techniques:

- Increase reference to women and girls in both texts and illustrations
- Stress the individual identities of different girls and women by assigning them names, distinguishing facial features, and/or outfits. Avoid lumping all girls and women into one faceless, nameless group with little identity
- Portray female athletes
- Assign leadership roles to women

- Avoid depicting women in the domestic sphere exclusively. Portray women in the public sphere, as contributors to the politics of economy of their societies
- Present famous female scientists, and illustrate women and girls who are engaged in scientific activities
- Instead of depicting women with weak and fragile characters, portray heroines, bold,
 powerful, and independent women

5.6 Conclusion

This thesis not only brings to light the hardships that Iranian women endure, but it is a testimony to the resistance of many a determined woman to change the gendered hierarchies of their society. Today, individually and collectively, Iranian women combat profound gender injustices and demand for change in the dominant patriarchal practices. The sexist teachings of textbooks, imposed gender quotas, dominant patriarchal beliefs and cultural attitudes, and restrictive religious practices of the society have not deterred women; on the contrary, Iranian women have become more fierce fighters who resolutely combat the gendered inequalities and press for change. More power to them!

Bibliography

- Afary, J., Anderson, K., & Foucault, M. (2005). Foucault and the Iranian revolution:

 Gender and the seductions of Islamism. Chicago: University of Chicago Press.
- Allen, A. (1999). *The power of feminist theory: Domination, resistance, solidarity.*Boulder: Colo: Westview Press.
- Allen, A. (2008). The politics of our selves: Power, autonomy, and gender in contemporary critical theory. New York: Columbia University Press.
- Adnkronos news agency. (2008). *Iran: School textbooks latest target of sexual apartheid*.

 Retrieved from http://www.adnkronos.com/AKI/ English/CultureAnd

 Media/?id=1.0.1810317115
- Apple, M. W. (2000). *Official knowledge: Democratic knowledge in a conservative age*. New York: Routledge.
- Apple, M. W. (2003). The state and the politics of knowledge. Newyork: RoutledgeFalmer.
- Apple, M. W. (2004). *Ideology and curriculum*. New York: RoutledgeFalmer.
- Basu, M. (2009. June 19). Women in Iran march against discrimination. *CNN*. Retrieved from http://articles.cnn.com/2009-06-19/world/iran.protests.women_1_iranian-women-mohammed-khatami-reformist?_s=PM:WORLD
- BBC News. (2003). *Who holds power*. Retrieved from http://news.bbc.co.uk/2/shared/spl/hi/middle_east/03/iran_power/html/guardian_council.stm
- BBC News. (2012, January. 3). *Iran jails former president Rafsanjani's daughter*.

 Retrieved from http://www.bbc.co.uk/news/world-middle-east-16392121

 BBC News-Persian. (2012, January 16, 2012). Retrieved from

- http://www.bbc.co.uk/persian/rolling_news/2012/01/120116_l06_segregation_bo oks schools iran.shtml
- BBC News-Special Reports. (2012, Ocober 7). Iran: Political Struggle. Retrieved from http://news.bbc.co.uk/2/hi/in_depth/middle_east/2004/iran/default.stm
- Blumburg, R.L. (2008). Gender bias in textbooks: a hidden obstacle on the road to gender equality in education. *Unesco*. Retrieved from: http://unesdoc.unesco.org/images/0015/001555/155509e.pdf
- Brugeilles C., Cromer S. (2009). Promoting gender equality through textbooks: A

 Methodological guide. Retrieved from

 http://unesdoc.unesco.org/images/0015/001588/158897e.pdf
- Brunet, J. R. (2009, September 17). Getting into the game. Blame it on culture. Or genes. Or Dilbert. In engineering, it's a man's world for now. *Maclean's*. Retrieved from http://www2.macleans.ca/2009/09/17/getting-into-the-game/
- Butler, K. (2009, February 26). Lipstick revolution: Iran's women are taking on the mullas. *The Independent*. Retrieved from http://www.independent.co.uk/news/world/middle-east/lipstick-revolution-irans-women-are-taking-on-the-mullahs-1632257.html
- Campbell, D. (2007). Iran's quiet revolution: A feminist magazine, a novelist, and a rising generation try to promote women's equality. *Ms. Magazine*. Retrieved from http://www.msmagazine.com/winter2007/iransquietrevolution.asp
- Chatman L., Katherine, N., Erin J. S., Kimberly D. T., Atkin J. M., Bullitt Bequette M., Phillips M. (2008). *Girls in science: A framework for action*. Arlington, Va:

- NSTA Press.
- Diamond, I., & Quinby, L. (1988). Feminism & foucault: Reflections on resistance.

 Boston: Northeastern University Press.
- Di Cintio, M. (2006). *Poets and pahlevans: A journey into the heart of Iran*. Toronto, ON: Alfred. A. Konpf Canada.
- Ebadi, S. (2009, October 6). Iran's women are not afraid. *The Guardian*. Retrieved from http://www.guardian.co.uk/commentisfree/2009/oct/06/iran-women-rights-vote-discrimination
- Ebadi, S. (2011, March 7). The riskiest jobs in Iran. *The Guardian*. Retrieved from http://www.guardian.co.uk/commentisfree/libertycentral/2011/mar/07/the-riskiest-job-in-iran?INTCMP=ILCNETTXT3487
- Eeles, M. (2004, March 8). Vigilantes Stop Iran women's demo. *BBC*. Retrieved from http://news.bbc.co.uk/2/hi/middle_east/3544791.stm
- Eeles, M. (2004, August 16). Iran's sportswomen adapt to religious custom.

 Retrieved from http://news.bbc.co.uk/2/hi/middle_east/3570040.stm
- Erdbrink, T. (2011, June 6). Olympics 2012: FIFA bans headscarves for Iranian women's soccer team. Retrieved from http://www.washingtonpost.com/sports/united/olympics-2012-fifa-bans-headscarves-for-irans-women-soccerteam/2011/06/06/AGzT1JKH_story.html
- Etemad Newspaper. (2008). Retrieved from http://www.magiran.com/npview.asp? ID=1562463
- Facts and Figures of UBC engineering. (2011). Retrieved from http://www.engineering.ubc.ca/about/facts/index.php

- Finkenauer, C., Engels, R. C. M. E., Meeus, W., & Oosterwegel, A. (2002). Self and identity in early adolescence: The pains and gains of knowing who and what you are. In Brinthaupt T.M. & Lipka. R. P. (Eds.), *Understanding early adolescent self and identity: Applications and interventions*. Albany: State University of New York Press.
- Firooz, C. (2012, February 16). Iran's female martial artists. Retrieved from http://www.washingtonpost.com/world/irans-female-martial-artists/2012/02/16/gIQAUHgCIR_gallery.html#photo=1
- Freedom House. (2008). *Discrimination and Intolerance in Iran's Textbooks*. Retrieved from: http://www.unhcr.org/refworld/docid/484901281a.html
- Haggerty, S. (1996). Towards a gender inclusive science in schools: Confronting student Teachers' perceptions and attitudes. In Parker, L. H., Rennie, L. J., & Fraser, B. J. (Eds.), *Gender, science, and mathematics: Shortening the shadow (pp. 17-27)*.

 Boston: Kluwer Academic Publishers.
- Higgins, P. J., Shoar-Ghaffari, P. (1991). Sex-Role Socialization in Iranian Textbooks.

 NWSA Jouranl. 3, no. 2, 213-232. Retrieved from:

 http://muse.jhu.edu/journals/nwsa/
- Housden, R. (2011, January 31). Saved by Beauty by Roger Housden. [Video File].

 Retrieved from http://www.youtube.com/watch?v=sBIBU93nWRA
- Izadi, D., Mohseni Arasteh A., Seiedi Fadaei, A. (2009). Activities to attract girls in Iran.

 In Hartline, B.K., Horton, K.R., Kaicher, C.M. (Eds.) *AIP Conference Proceedings*,
 doi:10.1063/1.3137733
- Jarvie, G. (2006). Sport, culture and society: An introduction. London, [U.K.]: Routledge.

- Kvale, S. (1996). *Interviews: An introduction to qualitative research interviewing*. Thousand Oaks, Calif: Sage Publications.
- Keddie, N. R., & Richard, Y. (2003). *Modern Iran: Roots and results of revolution*. New Haven, [Conn.]: Yale University Press.
- Kian, A. (2011). Gendering Shi'ism in post-revolutionary Iran. In R. Bahramitash & E.Hooglund (Eds.), *Gender in contemporary Iran: Pushing the boundries*. (pp. 24-35).Abingdon, Oxon: Routledge.
- Kian-Thiébaut, A. (2002). Women and the making of civil society in post-Islamic Iran. In E. Hooglund (Ed.), *Twenty years of Islamic revolution: Political and social transition in Iran since 1979*. (pp. 56-73). Syracuse, N.Y: Syracuse University Press.
- Laleh Seddigh. (2005). Retrieved from http://lalehseddigh.com
- Leach, F. (2003). Practicing gender analysis in education. Oxford: Oxfam.
- Lynch, R.A. (2011). Foucault's theory of power. In D. Tyler. (Ed.), *Michel Foucault: Key concepts*. (pp. 13-26). Durham, [England]: Acumen.
- Malekzadeh, S. (2011). Schooled to obey, learning to protest: The ambiguous outcomes of postrevolutionary schooling in the islamic republic of iran. (Master's thesis).

 Retrieved from ProQuest Dissertations and Theses.
- Mehran, G. (2009). Doing and undoing gender: female higher education in the Islamic Republic of Iran. *International Review of Education*, 55, 541-599. doi:10.1007/s11159-009-9145-0
- Ministry of Science, Research and Technology, Islamic Republic of Iran. (2008). Higher

- Education Statistics in Iran. Tehran: Institute for Research and Planning in Higher Education.
- Moghissi, H. (2008). Islamic cultural nationalism and gender politics in Iran. *Third World Quarterly*, 29(3), 541-554. doi:10.1080/01436590801931504
- National Middle School Association. (2010). *This we believe: Keys to educating young adolescents*. Westerville, Ohio: National Middle School Association.
- Neuendorf, K. A. (2002). *The content analysis guidebook*. Thousand Oaks, CA: Sage Publications Inc.
- Naghibi, N. (2007). Rethinking global sisterhood: Western feminism and Iran.

 Minneapolis, Minn: University Presses Marketing.
- Palys, T., Atchison, C. (2008). *Research decisions: Quantitative and qualitative perspectives*. Scarborough: Ont: Thomson Nelson.
- Povey, T., & Rostami-Povey, E. (2012). Women, power and politics in 21st century iran. Burlington, VT: Ashgate.
- Poya, M. (1999). Women, work and Islamism: Ideology and resistance in Iran. New York: ZED Books.
- Reporters without borders. (2012). *Press Freedom Index 2011/2012*. Retrieved from http://en.rsf.org/press-freedom-index-2011-2012,1043.html
- Rose, G. (2007). Visual methodologies: An introduction to the interpretation of visual materials. Thousand Oaks, CA: Sage Publications Inc.

Siamdoust, N. (2009, March 20). A woman as president: Iran's impossible dream? *Time*.

Retrieved from

http://www.time.com/time/world/article/0,8599,1899763,00.html

- Sciolino, E. (2000). Persian mirrors: The elusive face of iran. New York: Free Press.
- Seidman, I. E. (1991). *Interviewing as qualitative research: A guide for researchers in education and the social sciences*. New York: Teachers College Press.
- Shahidian, H. (2002). Women in Iran: Emerging voices in the women's movement.

 Westport, CT: Greenwood Press.
- Shavarini, M.K. (2005). The feminisation of Iranian higher education. *International Review of Education*. 51(4), 329-347. doi:10.1007/s11159-005-7738-9

Tahmasebi, S. (2008, February 24). One Million Signatures Campaign: Answers to Your Most Frequently Asked Questions. Retrieved from

http://www.we-change.org/english/spip.php?article226

Taylor, D. (2011). Michael Foucault: Key concepts. Durham [England]: Acumen.

Textbooks retrieved from http://www.chap.sch.ir/ (The website is in Farsi.)

The Guardian. (2012, February, 19). Iran's female ninjas: fighting for sexual equality.

Retrieved from

http://www.guardian.co.uk/world/shortcuts/2012/feb/19/irans-female-ninjas

- The New York Times. (2008, February 7). Editorial: Shutting down Zanan. Retrieved from http://www.nytimes.com/2008/02/07/opinion/07thu1.html
- UNICEF- Islamic Republic of Iran. (n.d.). Retrieved Dec 14, 2011 from http://www.unicef.org/iran/girls education 1643.html

UNICEF. (2007). Early Childhood Socialization. Retrieved August 27, 2012 from http://www.unicef.org/earlychildhood/index_40749.html

http://www.we-change.org/english/

World Bank. (2006). World Data on Education. Retrieved from

http://ddp-ext.worldbank.org/EdStats/IRNwde07.pdf

- Yeganeh, N. (1993). Women, nationalism and Islam in contemporary political discourse in Iran. *Feminist Review*, (44), 3-18.
- Zakaria, F. (2011, October 7). Zakaria: Comparing the status of women in Iran and Saudi Arabia. [Web log message]. Retrieved from http://globalpublicsquare.blogs.cnn.com/2011/10/27/zakaria-comparing-the-status-of-women-in-iran-and-saudi-arabia%E2%80%A8/
- Zeitoon. (2006, March 9). More photos from women's international day. [Web log Message]. Retrieved from http://z8un.com/archives/2006_03.html

Appendices

Appendix A

Interview Guide

- 1. What, if any gender inequities did you experience in grade school?
- 2. How did you negotiate these gender inequities?
- 3. How did you negotiate gender inequities, if any, in university?
- 4. What are your perspectives on Iranian textbooks in terms of gender equity?
- 5. How have gender inequities in grades 6-8 textbooks shaped your life?
- 6. What were your motivations to choose the non-traditional field of engineering?
- 7. Please talk about your professional experience as an Iranian woman engineer.