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## A Comparative Study of Iranian and Swedish Educational and Research Systems

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**Abstract:** The present study aims at doing a comparative study of the Swedish educational system and its Iranian counterpart, because the current study presents the institutionalization process of educational and a research system is one of the main indices of sustainable economic development and growth in the two countries. In doing so, the present study aims at comparing the Iranian educational system with the educational system in Sweden as a developed country with a decentralized and modern structure. Thus, in the present study we first discuss the general conditions of both systems and then we discuss the similarities and differences as well as disagreement. Finally institutionalization of research has been discussed as well. Having studied the Swedish educational system one can conclude that general education goes hand in hand with education. Specific education includes effective activities avoiding unnecessary activities at school and at the same time providing methods to popularize positive behavior and reduce problems.

**Keywords:** institutionalization, education and research, economic growth and development, higher education, Iran, Sweden

### INTRODUCTION

To stabilize the economic growth and its continuous increase in the country, first its structural branches should be actualized in the society in order to guarantee successful economic development which leads to the growth and enhancement of life level and evolution of a country. Indices like institutionalization of growth, improvement of life level, technical inventions and innovations, demographic transition, structural transformation (fundamental transformation), changes in economic cycles, and institutionalization of education and research (Asadpour, 2013: 22). In the meantime, institutionalization of education and research is one of the main indices. In the present study, of Iranian and Swedish educational systems were compared. The present study was aimed at examining Iranian and Swedish systems but also using their facilities by

understanding the differences, similarities, and commonalities in different fields in order to solve the educational problems.

How to administer the education is of great importance in today's world. Every country's educational system is the most fundamental organization in strengthening the values and training the subsequent generation and it is responsible for the human's elevation as well. This starts from the elementary school and elementary school is in fact the basis of human development. Elementary school is also the most essential period in the educational systems of all countries, since the personality development as well as the person's full-scale growth are done within this period (Safi, 2000). It is also important since each country's economic growth is possible through institutionalization of education (Asadpour, 2013: 58).

Having studied the developments of the educational system in Iran, one can say that one of the basic goals of education has been providing an opportunity for all individuals to enjoy quality education. The authorities have done a great deal to make general education accessible to all people, however a large number of people, especially the teenagers, have been deprived of general education for various reasons including maladministration, lack of comprehensive and proper planning, financing shortage, and some problems with teachers' training, and educational facilities (Aghazadeh 2004).

Thus the present research mainly aims at providing a comparative study of Iranian educational system with its counterpart in Sweden as a developed country in education, and applying the successful experiences of Sweden. Before discussing the Swedish educational system and giving an overview of this country's history and geographical location, the theoretical principles of education will be discussed in detail.

## **SWEDISH EDUCATIONAL SYSTEM**

The educational system in Sweden has been inspired by the German system since the 19<sup>th</sup> century and elementary education has been compulsory since 1942. Since the beginning of the 20<sup>th</sup> century and owing to social forces the obligatory education elevated from the elementary school to secondary education. We have observed rapid developments in the Swedish educational system after World War II.

The general education in Sweden is in 4 levels and includes ages 1 to 20.

- Pre-school (4 years)
- Preschool (1 year)
- Compulsory education (9 years)
- Non-compulsory education (3 years)

Preschool education in Sweden is free and rather compulsory and starts when the child is just one year old. The children start participating in leisure and educational activities when they are just one year old. However, the kids are registered for grade one in elementary school when they are 7 or even 8 to help them develop gradually. In this condition the students are allowed to study and receive the diploma when they are 20 (Eurypedia<sup>1</sup>, 2013). According to the information provided by the National Agency for Education (Skolverket<sup>2</sup>, 2013) the structure of the Swedish educational system, including higher education, is as follows:

- **Preschool:** this level includes various centers including preschools, open preschools, Day-Care Homes (or Care Homes), the goals and functions of which depend on age and capabilities of the children and the parents' needs and expectations. In addition to the above-mentioned centers, Leisure-Time Center and Open Leisure-Time center support pre-school level. This level is for children who are one to 5 years old.
- **Pre-School:** by Preschool we mean all education before grade one in primary school and it is mainly referred to as Pre-School Class. It lasts one year and it commonly starts when they are six years old.
- **Compulsory School Level:** compulsory school has a single structure; i.e., primary school and lower secondary level have been defined as “the Comprehensive 9-year education”: Primary School (with six grades), and Lower Secondary Level (with 9 grades). Compulsory education is free and commonly starts when the kids are seven. The age of entering primary school is flexible with respect to the region and can be 6 and even 8. In this level in addition to the common schools, there are special schools for students with private needs including: deaf, blind, dumb students as well as students with mental disorders. Like preschool level, the leisure-time centers and open leisure-time centers support the education provided in this level.
- **Non-Compulsory School Level:** Having finished the compulsory school level, the students can voluntarily (and without paying any tuition) continue their studies and enter Upper-Secondary School (including 9 grades). This level includes 27 major like humanities, natural sciences, social studies, art and music, handicraft, food industry, business administration, natural resources, restaurant and hotel management. The large schools normally provide all or most of these majors in one center. Each major lasts three years and the credits of each major include: general common course, specific courses, optional courses, and dioloma project.

### **EDUCATIONAL SYSTEM IN IRAN**

The educational system in Iran, just like its Swedish counterpart, has four levels including preschool, primary school, middle school, and high school which will be discusses in detail later. Before discussing each of the levels in detail the students' population will be discussed from 1977 to 2013.

**Table 1**  
**The population of students in Iran**

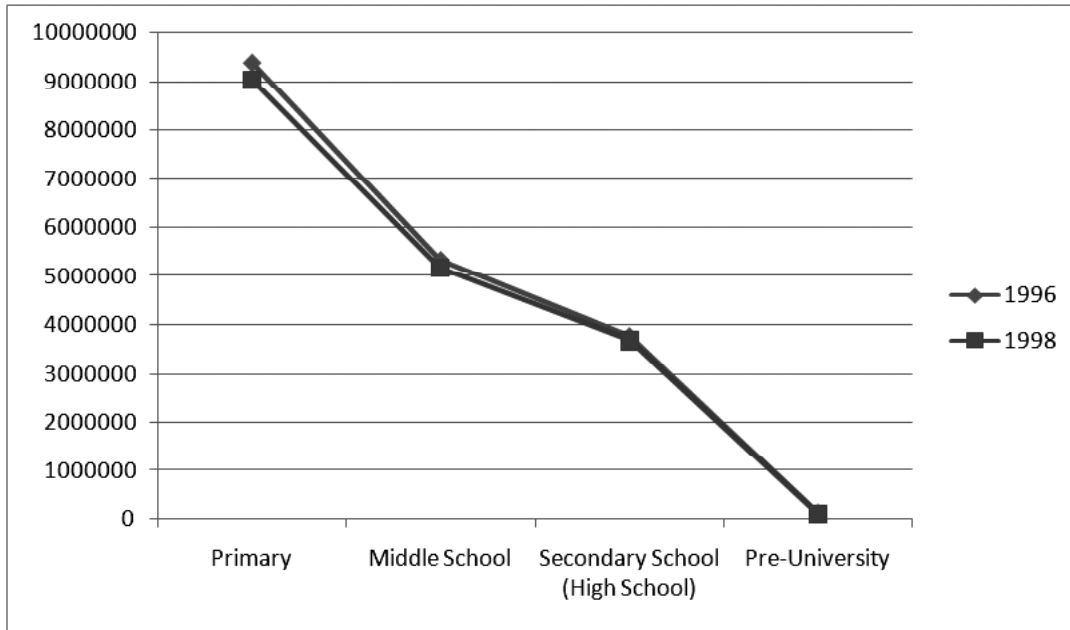
<i>The total Population of the country in the censuses</i>	<i>Total</i>	<i>Population of Female Students</i>	<i>Population of Male Students</i>	<i>Academic Year</i>
35970229	6985169	2724213	4260956	1977-1978
	7277291	2846168	4431123	1978-1979
	8048930	3115943	4932987	1979-1980
	7589056	2996910	4592146	1980-1981
	8215673	3291606	4924067	1981-1982
	8463873	3431222	5032651	1982-1983
	9030143	3754125	5276018	1983-1984

(contd... Table 1)

<i>The total Population of the country in the censuses</i>	<i>Total</i>	<i>Population of Female Students</i>	<i>Population of Male Students</i>	<i>Academic Year</i>
	9511257	3988730	5522527	1984-1985
	10295106	4354018	5941088	1985-1986
49445010	10933788	4635409	6298379	1986-1987
	11747293	5038333	6708960	1987-1988
	12738043	5524433	7213610	1988-1989
	13703086	6015717	7687369	1989-1990
	14649286	6529463	8119823	1990-1991
	15612670	7012696	8599974	1991-1992
	16494055	7476103	9017952	1992-1993
	17019786	7767306	9252480	1993-1994
	17518947	8086361	9432586	1994-1995
	17726955	8222741	9504214	1995-1996
60055488	18102021	8454601	9647420	1996-1997
	18130095	8520928	9609167	1997-1998
	18101879	8517813	9584066	1998-1999
	17720185	8366235	9353950	1999-2000
	17346278	8213752	9132526	2000-2001
	16781121	7976676	8804445	2001-2002
	16126705	7691059	8435646	2002-2003
	15583031	7453997	8129034	2003-2004
	14842819	7125869	7716950	2004-2005
	14456096	6952990	7503106	2005-2006
70495782	14015391	6746020	7269371	2006-2007
	13514967	6508436	7006531	2007-2008
	13098637	6301075	6797562	2008-2009
	12595915	6048254	6547661	2009-2010
	12381026	5949995	6431031	2010-2011
	12362649	5936776	6425873	2011-2012
76923790	12300000	5658000	6642000	2012-2013

**Table 2**  
**The population of students in different levels from 1996 to 1998**

<i>Level</i>	<i>(1998)</i>	<i>(1996)</i>
Primary School	9400000	9020378
Middle School	5350000	5153494
High School	3780000	3676220
Pre-University level	140000	108251
Total	18670000	17958343



**Figure 1: The population of students in different levels from 1996 to 1998**

*Source:* The General Population 1996

**Table 3**  
**The population of students in different level in 2011 according to Statistical Center of Iran**

<i>School</i>	<i>The number of students</i>
Public	10.678.081
Private	901.649
National Selective Schools for Exceptional Talents	102.687
Shahed Schools	308.451
Public Schools for Selected Students	239.697

*Source:* Statistical Center of Iran

### **PRESCHOOL IN IRAN**

This level includes a one-year optional educational level for kids who are 5 years old. The goal of this level is preparing the kids for entering primary schools. The main goals of preschool levels in Iran include:

- Physical, mental, emotional, and social development of the kids according to ethical and religious principles;
- Elevating the level of the kids' capabilities and talents;
- Preparing and teaching the students to understand scientific and mental concepts;
- Developing the Persian Language skills together with other local languages;
- Preparing students to make cooperation as well as social communication with others;
- Supporting the low-income families in the educational process of their children.

### **Primary School in Iran**

Primary school includes a six-year educational level for kids who are six to 12. In Iran children start school when they are seven and the courses are provided 24 hours a week. Each class lasts 45 minutes and the classes start at 8 and end at 1.

The main educational goals in this level include:

- Creating a proper educational environment for the students' ethical and religious development;
- Training the children's talents and creativities;
- Developing the children's physical power;
- Teaching reading, writing, calculating, and communicating with other people in the community;
- Teaching issues of personal and group health.

### **Education in the middle school level**

This level includes a three-year level which is for those children who are 12-14 years old. Unlike Germany where there are three types of schools after the first four years of primary school which prepare the students for their potential future jobs, students in Iran enter a three-year level called Middle School after finishing six years of primary school.

The main plans of this level include:

- Persian Language and Literature, math, biology, and religious studies;
- History, geography, Arabic language, social studies, art studies;
- Vocation and technique, English language, defensive preparation, Quranic studies.

### **Secondary School (often referred to as high School) in Iran**

This level includes a three-year educational level and it is divided to theoretical, technical-vocational and skill based.

### **Pre-university in Iran**

Pre-university level has been arranged to prepare students for entering universities and higher education centers. Among the most important educational plans of this level we can refer to 63 common credits in all schools, 36 specific credits of all majors (math and physics, and humanities), 36 credits for those who study at technical-vocational schools, 32 credits for those who study at skill based (vocational) schools to achieve the Second Degree and 48 credits to achieve the first degree, 32 credits at the pre-university level including specific courses as well as English language (English, French German).

### **Higher Education in Iran**

The most important responsibilities of Ministry of Culture and Higher Education according to the act of amending the original act of establishing the ministry of Science and Higher Education in 1353 (1975 A.D) are as follows:

- Studying and offering the main goals, strategy, and planning in all educational levels, and doing scientific researches and creating harmony among the aforementioned plans;
- Defining and determining the general principles of the educational as well as research plans of the Iranian universities;
- Determining the basic educational and research standards of the universities, higher education institutes, and research institutes;
- Creating harmony with respect to the organizational standards of the universities, higher education institutes, and research institutes, and determining the general principles of employing the academic staff and the staff of universities, higher education institutes, and research institutes after the confirmation made by the National Office and Employment Affairs Organization (according to the specific needs of each of the above-mentioned organizations and institutes);
- Creating harmony with respect to the general standards and principles of the financial rules of the universities, higher education institutes, and research institutes with the cooperation of Ministry of Economic Affairs and Finance and the Planning and Budget Organization to facilitate the activities of the above-mentioned organizations;
- Providing a comprehensive planning for developing higher education and scientific researches to train the well-educated human resources needed in different areas and . . . .

The current expenses of the educational system in Iran are as follows:

<i>Year</i>	<i>Pre-School</i>	<i>The first level</i>	<i>The second level</i>	<i>The third level</i>	<i>Other levels</i>	<i>Undistributed</i>
1990	-	33.2	39.2	13.6	5.8	8.2
1994	-	27.7	36.1	22	-	14.6
1995	-	29	33.9	22.9	3.5	10.6

*Source:* Statistical Center of Iran (billion rial)

The general expenses of education (billion rial)

<i>Budget</i>	<i>year</i>	<i>Expenses (billion rial)</i>
The annual budget of informal education	1997	200
The educational expenses as a percentage of the GNP	1997	3.9
The percentage of non-educational contribution	1997	2.5

*Source:* Statistical Center of Iran (billion rial)

### **THE EXPENSES OF EDUCATION IN THE WORLD**

The methods for providing financial resources of education depends on people's and the governments attitude, culture building, passing laws and executing them.

In the 20<sup>th</sup> General Conference of UNESCO that was held in Paris in the early 1970s, this organization declared, "Education has achieved an unexpected progress such that over that last 15 years there has been an increase of 70% in the number of the students, 100% in the number of the teachers, and over 30% in the

number of literate adults” (UNESCO, 1984). And this trend continued with higher acceleration, which can be understood according to the allocation of huge budgets to the educational systems all over the world.

In 1992 about 1197 billion dollars or roughly 5.1 percent of the world’s GNP was allocated to education. The educational expenses are not distributed equally around the world. The developed countries spend about 82 percent of the world’s general expenses on education.

In short, according to the statistics of UNESCO in all parts of the world in 1984 about 50-87 percent of the financial sources of education (especially in primary level) was provided by the governments and the rest was provided through tuition, tax, parents’ financial support, local communities, economic and trade institutions, and the schools’ own revenues from the students’ participation in production and providing services. In every country different methods are applied.

### **THE EXPENSES OF EDUCATION IN SWEDEN**

The average research expenses in Sweden over 2000-2014 was 3.37% of GDP. Since last decades, Sweden has been progressing with regard to innovation, research, technology, and competitiveness. According to the reports by Global Competitiveness Index, Sweden is placed the tenth in the world in 2014-15 and the second in 2010-11. In Innovation Union Scoreboard (IUS), in 2014 Sweden placed the first for the fourth time among 27 European countries.<sup>3</sup>

Moreover, Sweden achieved a good place among the European countries in terms of research expenses. The average research expenses of Sweden over 200-2014 was 3.37% of the GDP. Out of 1,000 employees, 16.1 individuals are working in research sector, and in 2012 it placed the third among the UN countries only after Finland (20.1) and Denmark (19.2). In addition, Sweden is among the best countries of the world regarding research fields (including health, environment, information technology, and communications).<sup>4</sup>

### **THE EXPENSES OF EDUCATION IN IRAN**

According to the Fourth Development Plan and the 20-Year Perspective Document, research budget in 2006 should have been 1.5% of GDP; however, in that year research share was 0.45% in the budget bill and predicted 0.41% in the budget law. Therefore, research share in the budget bill in 2008 and 2009 reduced respectively 0.65 and 0.59%.

According to Article 46, the Fourth Economic, Social, and Cultural Development Plan, the government was responsible for investing at least 2% of GDP obtained from the public funding of the executive agencies and 1% of the operational income of the governmental organizations, banks (except for interest on bank deposits) until the end of the fourth plan in order conduct mission- and demand-oriented research in order establish a comprehensive system of research and technology (Shahabadi, 2002)

According to Mehr News Agency, in August-September 2014, the general policies of science and technology were announced, in which the policies of higher education, research, and technology were dealt with. Paragraphs 2-8 of the research budget refer to “an increase in research budget at least to 4% of the GDP by 2025 with an emphasis on optimal use of resources and productivity enhancement”. However, the situation of the research budgets tell another story.<sup>5</sup>



The number of those working in research sector is also another development index. In developed countries, there are 50,000 researchers out of 1,000,000 people, while in Iran there are 450 researchers out of 1,000,000 individuals; however, in Sweden 16.1 individuals out of 1,000 work in research sector.

## CONCLUSION

The present study aimed at studying the educational systems of Sweden. In doing so we discussed the educational systems of the two countries and we also discussed the goals and plans and elaborated on the main and effective issues.

According to the above paragraphs, it can be concluded that institutionalization of education in Iran and Sweden has actualized. While institutionalization of research has accomplished in Sweden while in is halfway in Iran. A more general conclusion is that one of the important indices of economic growth and development (i.e. institutionalization of education and research) in Iran are partially actualized.

**Table 4**  
**Comparing the educational systems in Iran and Sweden**

<i>Sweden</i>	<i>Iran</i>	<i>Country</i>
After summer holidays	Mehr First (July 9 <sup>th</sup> )	School start time
6 years old	6 years old	Summer education start time
1 to 5.5 years	10 years	Higher education term of study
1 year old	6 years old	Entering Pre-school Age
Compulsory until grade 9- for those who are 7-16 years old.	Compulsory-Free	Primary and secondary school
Determined by the ministry of education	Determined by the ministry of education	Primary and Secondary course books
6 years	6 years	Secondary school term of study

## NOTES

1. European Encyclopedia on National Education Systems
2. Available at: <http://www.skolverket.se>
3. <http://www.kooperation-international.de/buf/schweden/bildungs-forschungs-und-innovationslandschaft/forschungs-und-innovationslandschaft.html>
4. <http://www.kooperation-international.de/buf/schweden/bildungs-forschungs-und-innovationslandschaft/forschungs-und-innovationslandschaft.html>
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