## A comparison: The German and American Educational System

## Professor Dr.-Ing. Saifullah Khandker

German public education makes it possible for qualified kids to study up to university level, regardless of their families' financial status. The German education system is different in many



ways from the ones in Anglo-Saxon countries, but it produces high-performing students.

Before beginning school the children of both countries, Germany and US have the opportunity to attend the Kindergarten. Parents may decide whether their children should attend

this institution and for how long. The children at the age of six German kids are enrolled to the Grundschule (Primary School). Similar to the American elementary school Grundschule consists of four years, the American elementary school lasts six years. The children usually have one class teacher that teaches all subjects except for physical education, religious education, music and common art.

After elementary school the German school system differs enormously from the American education. Secondary education is what makes the German school system so complicated compared to the educational systems of other countries in the world. In Germany, School children usually get a recommendation of their teacher which school-form to attend after Grundschule depending on their overall academic performance. This decision determines the further profession in life. In Germany there is a choosing between four different progressing schools. These are Hauptschule, Realschule, Gesamtschule, Gymnasium.

The American system of high school education, where all students regardless of talent attend the same school for 12 years, has been tried in Germany as "Gesamtschulen". Conservatives are usually opposed to this model, calling it egalitarian and socialist. It appears less socialist however if one takes into account that US schools are financed locally and hence poor communities gen-

erally have bad schools; the rich avoid the public school system altogether and send their kids to excellent private schools.

German pupils get 6 weeks during the summer, 2 weeks in the fall, 2 weeks for Christmas, and 2 weeks Spring Break. US pupils get a lot more vacation: 12 weeks during the summer, plus one week for Christmas and one week of Spring Break. On the other hand, German school is mostly only from 8 o'clock in the morning until lunchtime at 1pm, while in America school takes place in the mornings and lasts till 3 to 4 pm.

While teaching in the US is often considered to be just another "job", teachers in Germany are highly regarded professionals and are much better paid. The training required to become a German teacher is quite a bit longer than that for US public schools.

In US after senior high school there is no final examination, but in Germany final examinations called Abitur, takes place. With the German Abitur the students are illegible to study at a University. The American students have to sit for SAT (Scholastic Aptitude Test) and ACT respectively before the students can apply for University to study. Education in America is much more expensive than in Germany.

Introduction:

Every national educational system focuses on defined targets. Some countries rather focus on criteria's such as social skills, some more on fine arts and some on academics. All nations, however, have one thing in common: After completing the educational curriculum every student should be able to have knowledge of basic reading, writing and mathematics. I will now point out similarities and differences of the German and American educational system and try to explain the general structure of these two different educational systems.

In the beginning of the year 2002 the so called PISA (Program for International School Assessment) - study was published and created extensive discussions among the German educational professionals. This was a disappointing result of German students who marked below average.

PISA study is done every three years and this is

a survey carried by the OECD (Organization for Economic Cooperation Development). It is supposed to show the academic abilities of fifteen-year old students of 32 different industrial nations. All different school forms that exist for this level of age are part of the survey. In the year 2002, PISA primarily focused on reading comprehensive skills with a 66% weight factor and the other 34% were related to mathematics - and natural science. German students performed poorly, ranking between 20 and 23 in reading literacy among the 32 participating nations. American students generally did better. In comprehensive reading skills they ranked 15, in mathematics 20 and in natural science 15.

As a Professor, I gained practical experience both in the American and the German educational system. In General the students of Bangladesh are acquainted with the American or British education system and less familiar to the German Education System. This assay is to compare the structure of the German and US Educational System and inform the readers about the background information. The narration will also interpret the two different systems and define strength and weakness.

German Education System:

According to the German Constitution, competence for school and culture has been given to the 16 individual Länder (federal states) of the Federal Republic of Germany. The organisation and the educational aims of all school-forms are committed to follow school-laws of these 16 federal states. This particularly applies to the school system, higher education and the adult education/continuing education sector. The education system in the Federal Republic of Germany is divided into:

early childhood education primary education secondary education tertiary education continuing education

Pre-school education (Kindergarten (ages 3 to 6)):

The German educational system starts of with the so called Kindergarten and is not part of the Primary School, Parents may decide whether their children should attend this institution and for how

Contd on page-36- Col-1

## A comparison

## Cont from page 14

long before attending primary school at the age of six. Children of school age who have not yet attained a sufficient level of development to attend a school have a further option in some Länder (States), namely Schulkindergärten and Vorklassen (Pre-School). It is an extra institution which is voluntary. In the last Kindergarten year the children go to the Pre-school class (5-6) which belongs to the Kindergarten. At this level of education children are rather to mature socially than academically.

The system of early childhood education is much more comprehensive in U.S. than in Germany. Kindergartens are not free in Germany, and there are not enough seats for all kids. By contrast, the U.S. has a universal and free "Head Start" program targeted at disadvantaged kids. On the other hand, American women often work until several days before giving birth, and start to work again a couple of days later; there is no financial support for parents, except for tax breaks. In Germany women are not allowed to work from 6 weeks before until 8 weeks after giving birth and receive their full salary during this time; after that the mother or father can take one year off, receiving 66% of their net pay and a job guarantee. Parents also receive \$200 Kindergeld per child and month, until the child is 18 and often longer.

Grundschule (Primary School (ages 6-10)):

In Germany, School is compulsory for all children. The first school all children in Germany attend is the Grundschule in the autumn of the year in which they turn 6 years old. Similar to the American elementary school, children usually attend primary school for four years. In the states of Berlin and Brandenburg, however, primary schooling lasts for six years. Primary schools are attended by all children and teach the basic knowledge and skills that prepare the pupils for their move to the various types of secondary school. Subjects taught usually include German, Mathematics, and General Science/local studies, Art, Music and Sport. More and more primary schools in all states are also starting to offer foreign languages.

In Germany, once the children have completed primary school at age 10, they move on to one of three different Secondary Level I Schools: Sonderschule,(ii) Hauptschule, (iii) Realschule or (iv) Gymnasium, and at which they can gain different qualifications. Which of these secondary schools the children go to is normally depends on the recommendation of their teaching staff on the basis of their primary school performance and to some extent the parents. Private schools are almost irrelevant in Germany.

German secondary education

(Secondary level I):

After elementary school the German school system differs enormously from the American education. Secondary education is what makes the German school system so complicated compared the educational systems of other countries in the world. German parents now have the opportunity of choosing between four different progressing schools, depending on the children's level of academic ability. This decision determines the further occupation in

This can consist of any of the following: Sonderschule (Klasse 5-9 or 10), Hauptschule (Klasse 5-9 or 10), Realschule (Klasse 5-10), Gymnasium (Klasse 5-10), or Gesamtschule. When they finish Secondary level 1, students can obtain a school leaving certificate and/or the Mittlere Reife examination. Depending on what they obtain, they can then start work, do vocational training, go to a vocational school, or continue in / transfer to a Gymnasium.

Sonderschule:

Sonderschule is a special school created to help mentally and physically disabled children who did not show sufficient progress in elementary school. Various types of Förderschulen (special schools, also known in some Länder Sonderschulen, as Schulen für Förderzentren or Behinderte) have been set up within the organizational framework of general and vocational education. All of these children get special attention from specially trained teachers.

Hauptschule (General Secondary School) (ages 10-15):

Children with average abilities

attend Hauptschule. Hauptschule was created for children who have already shown difficulties with the curriculum during elementary school. Children attending this school learn the same things as pupils of other school types, but on a lower level. The role of the Hauptschule is to prepare pupils for an apprenticeship after they leave school at the age of 15/16. In addition to theoretical knowledge, this school therefore aims to give pupils the practical skills necessary for their working life. At the end of five school years i.e. after 9th grade, pupils receive the Hauptschule leaving basic academic certificate (Hauptschulabschluss). Hauptschule gives pupils a general education as the basis for practical vocational training. Pupils who participate in a special 10th grade class they can receive an advanced academic certificate (qualifizierende Hauptschulabschluss) which is similar to the Realschule graduation.

In the majority of the federal states, students learn five years at the Hauptschule. The main objective of the Hauptschule is to prepare students for their entry into the world of work, Once students have obtained their Hauptschulabschluss (General Secondary School leaving certificate) at the age of 15-16, they can go into vocational training, start entry-level work in the public sector, or attend a Berufsfachschule (full-time vocational school).

Realschule (Intermediate Secondary School) - (ages 10-16):

students German attending Realschule receive a higher level of education. Students attend the Realschule for 6 years. The Realschule gives students the opportunity to take subjects such as a second foreign language. Realschule pupils are expected to show more personal initiative in learning than those attending Hauptschule. the 10th grade Realschulabschluss (Intermediate Secondary School leaving certificate) students gets different options e.g. incompany vocational training, work in the public sector at entry and executive level, or further school-level education at secondary level II or to attend a Fachgymnasium OF at Fachhochschule.

Gymnasium (Advanced Secondary School) - (ages 10-18):

Students who are to be over performance more than average and intend to study at university usually choose Gymnasium after Grundschule. These branches of education pupils learn a minimum of two foreign languages, Latin is still very popular. It strictly focuses on improving academic knowledge.

Pupils attend Gymnasium for eight years to acquire a final qualification called the Abitur or Hochschulreife. The Abitur is regarded as a certificate of aptitude for higher education. The Gymnasium is intended for pupils who will go on to study at a University, technical college (Fachhochschule) or vocational institute or take part in a dual program (theory at university/college, practical work within a company) of their choice in Germany. Greater personal initiative and motivation is expected from Gymnasium pupils in comparison to those attending Hauptschule or

Pupils at secondary level II (the last two years at the Gymnasium) select two or three Leistungskurse (specialist subjects). Their Abitur mark is based on the assessment of these Leistungskurse and two other subjects.

Gesamtschule (comprehensive

This type of comprehensive school has established itself in the last 25 years of the German educational system because of political reforms. These schools try to compromise between the three traditional school types.

The Gesamtschule (comprehensive school) combines elements from the Hauptschule, the Realschule and the Gymnasium. This type of school was introduced later than the others. Students usually spend six years at the Gesamtschule and either obtains a Hauptschule or a Realschule leaving certificate. Pupils wishing to sit the Abitur attend the school for another three years.

There are also other schools which combine two or three school types in various ways; the way in which this is done varies between the federal states, as do the names used.

Children with special educational needs mostly attend special schools (Sonderschulen), although there is currently a move towards a more inclusive education model.

They are considered experimental schools. Many federal ministries are thinking of reducing the number of Gesamtschulen to a minimum, because of the enormously high number of students applying for Gesamtschule. According to a complicated credit system students finish the Gesamtschule with certificates corresponding to levels of the tenth grade of the three traditional schools or attain the Abitur.

Berufsschule:

These schools are typically German and can not be found in the American school system. This school teaches apprentices the basic skills needed for their future job. This education generally includes a part-time practical and theoretical education.

Students who don't go on through Gymnasium and the path to the university apply for an apprenticeship program at a company which offers this kind of program. In an apprenticeship program they go to Berufsschule after Hauptschule, Realschule Gymnasium to apprentice in a vocational skill to receive an occupational academic certificate after a 3 year apprenticeship period. Berufsschule teaches the academic curriculum with practical background, while the student becomes an apprentice at a company and learns the practical (hand-on) curriculum.

American educational system:

Just like in Germany education is a federal issue in the US. Each state has its own specific standards and guidelines. All in all they are based on a common foundation. The school-system of every state is divided up into several school districts which are generally controlled by a school board. The education is financed by fees of these 50 federal communities. In contrast to Germany teachers can be hired or fired at any time (except for professors of higher education who earn tuition after having shown an overall good record for a couple of years).

US degrees are automatically granted if the student has passed a sufficient number of classes without always having to apear an examination. Students in the United States are expected to begin school at the age of six and enrollment is mandatory in most states until the age of 16. The remaining states require students to attend school until they are 17 or 18.

"There is no uniform configuration throughout the country in the organization of primary and secondary education. Elementary school begins with kindergarten, but may continue through grades 5, 6, 7, or 8, depending on decisions made at the local federal level. High school typically begins at grade 9 or 10, with middle or junior high schools usually covering the intervening years between elementary school and high school. Students graduate from high school following grade 12. In some locations a single school may enroll students from kindergarten

through grade 12." US Kindergarten

In America enrolling of their kids to Kindergarten is a parental decision. More than 80 percent of the children in the US attend Kindergarten. The educational system also provides the opportunity of sending their kids to a private pre-school (similar to pre-Kindergarten (Vorschule) in Germany) before Kindergarten. These two institutions are not financed by the government. These forces the parents to finance these institutions of learning privately and about 20% of the population can't afford this. Those kids have a huge disadvantage in abilities, when entering elementary school compared to other children. So already before elementary school the American schoolsystem shows that money plays an important role in a children's academic development.

In the United States Kindergarten is usually a half day activity for kids who are at the age of six or seven. Here they learn the alphabet, colors and the elementary basics of everyday life. After finishing Kindergarten the pupils progress to elementary school. US Elementary School:

US elementary school consists of six grades. In these six years the children are taught the basics of reading and writing. The children start getting into basic mathematics and are confronted with a little bit of science.

In addition to these subjects, many elementary schools offer courses in typing and computing. Pupils at this level of education are only taught by a single class room teacher and always stay in the same classroom for all of the sub-

In some schools you can find a bilingual education in Spanish speaking children and to have them keep up with English speaking population. About 98 % of all US children complete elementary school.

US secondary education:

The US secondary educational structure is very simple. All children regardless of talent and ability attend the

same school type up to 12th grade, US Junior and Senior High School:

After having reached the 6th grade children usually leads to Junior High School which covers grades 7 to 9. The adolescents further attend Senior High School till the 12th grade. Students attending the 9th grade are called freshmen, 10th grade sophomores, the 11th grade juniors and finally students who attend the 12th grade are called

Most students (88 %) attend public high schools; a minority is enrolled in private schools or in church-related High Schools.

High School starts at eight a.m. and usually ends at 3 p.m. During this time students attend 6 to 8 classes. The chosen classes are always every weekday and only vary every half year.

In junior and senior high school the variety of different subjects is enormous. In many larger high schools students have the opportunity of choosing out of a bowl of 90 different classes ranging from repairing cars to baby sitting and gardening. Other classes given are for example jazz band, drama, nutrition and food, journalism, dance choreography, child development, psychology, drivers education and typing. Depending on what state you live in, only few courses are mandatory like science, math, reading or language, arts, history. (vgl. Reise Know-How Als. Gastschüler in den USA, Page 23).

One of the main problems of US High School education is whether it should provide vocational or general education. Therefore all larger high schools offer a number of different pro-

The academic curriculum prepares children for college; the basics for High School graduation requirements are English, mathematics, science, social studies, computer, science and a foreign language if students go on to college. Commercial classes, which include typing, shorthand and bookkeeping. Vocational programs, which offer courses in auto mechanics, printing, agriculture, homemaking, cosmetology, marketing and sales skills."

Tests and exams are written once a week in every subject in every class and not only twice or three times in a halfyear. After finishing the 12th grade the high school automatically grants students high school diploma. Almost 75% of all students who graduate from elementary school eventually graduate from High school. 60% of these graduates go on to an institution of higher learning by enrolling in universities or

A major problem of American high school is crime. It sounds odd, but many American high schools require students walking through a metal detector at the entrance. This is never the case in German Schools.

After-school activities:

A very important part of high school is not only academic education, but also social education. Therefore high school gives the opportunity to participate in a variety of after school activities, Primarily a lot of students join diverse sport teams such as football teams, basketball teams, soccer teams etc... This cannot only grant you a good reputation at school; it can also help you get a scholarship for college. Students who show a professional attitude towards sports can easily have the opportunity of earning some extra money for joining a team and are able to finance their everyday life that way. 75 % of the students in the US who are not as lucky have part-time jobs. Almost all rookies that join professional US sport leagues, like the NBA (National Basketball Association), or the MLB (Major League Baseball) are drafted out of college. This is one of the reasons why American students are encouraged to be excellent in sports. Other afterschool activities are dancing, arts, choir, etc.

Every student also has a personal guidance counselor that helps the student to manage their personal and academic problems and also gives advice which courses to take, or where to get a part time job.

Another important part of highschool life is the so called school spirit. Many schools have many special occasions a week in which this ideology is expressed. For instance for one day of the week every student wears the school colors.

Universities/Colleges:

After having successfully received their high school diploma, students have the prospect of being enrolled in a college/university. About half of all the institutions of higher learning are public. Most of them are co-educational. All students who proceed to college have to complete an admission requirement called SAT (Scholastic Aptitude Test). Many different types of programs of higher learning are offered in more than 3000 colleges and universities.

One option is to enroll to the twoyear Junior or Community College. Further on there are also the two-year Technical College and the four-year undergraduate institutions. Most of the high school students seek a college or university education. Here students have the ability to seek a bachelor, master or doctoral degree,

The US offers a variety of different colleges, some are state universities, some are private institutions. Costs vary from about 1.750.- \$ paid in annual fees for a state university, and 8.770. S for a private college. Many of these private colleges have an excellent international reputation such as Harvard, Princeton, North Carolina...Therefore the US university system is much more prestige orientated, and sometimes in the job market it is not important how well you did during college, but where you went to college. About 15% of the country's people complete the last four years of their education.

Generally speaking, the average American Ph.D. is less capable and less broadly educated in their field than the German Dr.rer.nat. Specialization occurs earlier in the US, the time is shorter and many more people of only medium talent pursue a doctorate. Most Ph.D.'s become college teachers with minimal research tasks; such teaching jobs are much rarer in Germany.

The US university system is very prestige oriented; whenever you state your degree, you immediately add the name of the school where you obtained it. The better universities can afford to maintain high entry requirements, while schools lower on the list have to take all students they can get. By contrast, the German university system is largely homogeneous and degrees are perceived to be equivalent.

Conclusion:

In America many children of the upper class avoid being integrated in the public school system and choose private schools. About 12% of the American students are sent to excellent private schools. Just like in higher education only rich Americans can afford above average education. In Germany everyone, rich or poor, has equal opportunities, because superior primary, secondary, and higher education is almost entirely subsidized by the gov-

General Differences:

In general the German school system places much more emphasis on examinations, while the American school system gradually has guidelines which have tests written on an every week

The grading also shows a general difference in these two compared systems; In Germany grades range from a 6 (being the worst grade) to a 1 (being the best). After 12th grade students receive grades from zero - to 15 points. In the US grades range from a (being the best) to f (being the worst).

Accessibility of higher education:

There is a big difference in the accessibility of colleges or universities in these two different countries. In the US almost one half of the population acquires a college degree in their lifetime, in Germany only about one third of the population. This is partially caused by the fact that attendance of German university is free of charge, the only requirement for studying at a university is the Abitur (in some very popular fields a special mark in the Abitur called the NC is also required). The German government even provides a loan for the essentials of everyday life to every student without affluent parents. In the US, many parents spend all their life (even with second jobs) saving enough money to finance higher education for their children.

Another difference is that a lot of

American citizens between the age of 30 or 40 go back to college to upgrade their degree. In Germany, people are also allowed to attend night schools to get their Abitur, but only very few do. So once you have chosen your career in Germany you usually stick to it. Commonly the German University Diploma is regarded as a degree of higher standard compared to the American Bachelor degree, The Diploma is rather equivalent to the American master's degree. This is a reason why many German students sometimes have a better chance of finding a job on the international job-market than the Americans. However with the longer time span of education in Germany this advantage can quickly turn into a disadvantage, because many companies nowadays have the tendency of looking for younger professionals with superficial professional knowledge, rather than older professionals (at the age of 30) with very deeply rooted theoretical skills, but without practical experiences in a certain profession.

Another difference between the two compared systems is the accessibility of higher education to foreigners. In America you have an enormous variety of foreigners of many different countries, that not only attend but also teach at American colleges/universities compared to the German system of higher education. This is mainly caused by the language barrier, but partially also because of the stricter immigration laws in Germany; this may be one of the reasons why America is considered a country of "thousands of different

Impact on secondary education:

One main difference in the compared educational systems and maybe a reason for the under-average German ranking is the structure of German secondary education. The PISA study has shown that Germany is the country with the biggest difference of ability between the lowest form of education (Hauptschule) and the highest level (Gymnasium). The study has also shown that "students attending Hauptschule only reached 394 points in reading literacy, students of Realschule were able to gain 494 points, students attending the Gymnasium attained points."(http://www.pisa.oecd.org) The OECD average was 500 points. which shows that Germany has many students who don't have any problems keeping international standards and are able to compete with the superlative

students of every country.

But the study also shows that

Germany has many students who are just way behind in performance. In the US the performance spread was by far less differentiated, which might be related to the fact that all students regardless of talent go to the same secondary form of education for 12 years Also interesting is, that German comprehensive schools (Gesamtschulen), which basically follow the American system of high school education (kids of different abilities all go to the same school-type for 12 years) achieved an overall score of 494 points, which is only six points under the OECD average of 500, and 10 points under the score of the American students (504). Maybe German officials should start thinking about developing a more egalitarian school-system where all students go to the same school-type for 12 years. This would also help to get rid of a caste system that divides students according to performance in Germany. This could also help to provide more equal opportunities to all students. Although German education follows the general principle of equality, children at a young age are intensely influenced by their parents in choosing the form of secondary education, which is

> (Professor Dr.-Ing. Saifullah Khandker is Chairman, German University Bangladesh Trust, University Building, Telepara, Chowrasta, Chandana, Gazipur 1702, Email: Sakhandker@tonline.de, Web: www.gub.edu.bd )

not always an advantage.