Comparing U.S. and German Education

Like Apples and Sauerkraut

BY ERNEST G. NOACK

There is little point in comparing the performances of German and American students on any standardized achievement test, because public education in Germany fulfills a vastly different role from public education in America, Mr. Noack points out. Indeed, an evaluation of any education system is meaningful only if it relates its students’ performances to its own mission and goals.

HOW OFTEN DO we hear or read disparaging remarks about American students’ performances on standardized achievement tests, especially in comparison with their Asian or European peers? Yet those comparisons are as useful as comparing apples with sauerkraut, or as mis-

ERNEST G. NOACK is an assistant professor of education at Western New Mexico University, Silver City, N.M. Previously, he was a public school educator in Washington State. He maintains strong ties with his native Germany.

leading as using gas mileage to compare a compact car with a full-sized sedan, family van, ¾-ton truck, or motor home. If all one wants is a vehicle with the best gas mileage, then the compact or subcompact car may indeed be the best choice. But what if, along with good gas mileage, one also wants increased safety, comfort, or load-carrying ability — then which vehicle is best? Similarly, which education system is best should depend on which educational features and outcomes are most important to us. To use only standardized academic tests to evaluate the comprehensive American public education is like using only gas mileage to evaluate sedans, trucks, and motor homes. Academics is a very important component, but not the whole of American education. In Europe, however, academics is the whole of education. The German system provides a good example.

From Firsthand Experience

I recently lived in Germany for one school year. This situation enabled me to visit a few of the country’s public schools repeatedly and to study its education system through official channels. My ailing mother, whom I was visiting in the Black Forest in southwest Germany, coincidentally lived not far from two high schools in Tutlingen, with which my school district near Seattle had maintained a thriving GAPP (German American Partnership Program) student and teacher exchange for more than 10 years. As a high school principal and district curriculum director, I had formed strong professional ties with the Tutlingen teachers. Consequently, they invited me into their schools not as an outsider but as a trusted colleague. I visited their classrooms, sat in on faculty meetings, and attended special events.

The public education campus in urban Tutlingen consists of two adjoining grade 5-13 high schools (one is somewhat college-prep oriented, the other more standard), one grade K-4 primary school (two others lie at the city’s periphery), and one grade 10-12 vocational/technical school. One gorgeous special education school (for students aged 3 to 21) is also located in the city; its principal and I have shared a lifelong friendship, dating back to our fathers’ friendship in East Prussia in the 1930s. In addition, I became quite familiar with the regular primary, middle, and high schools in Koenigsfeld, a quaint town in the Black Forest in which my parents resettled in 1970. My dad had served the small community as its music director, and through him I had ready access to their schools as well.

I also have firsthand knowledge of the education system in the former Communist East Germany, having attended school there until fourth grade, when my family escaped to West Germany. Ultimately, in 1956, we settled in Chicago, where I resumed my education without knowing a word of English (we had been taught Russian, not English, in East Germany). No
ESL program existed in Chicago, nor was any teacher or student willing to teach me English. So I had to learn English on my own to survive — to reduce the number of times I was beaten up by classmates and openly ridiculed by teachers for being a “Nazi” (which was still synonymous with “German” back then). I also have some limited knowledge of education in Nazi Germany through my brothers, who are 11 and 13 years my senior. One was a product of the Nazis’ vocational apprenticeship program and the other of their college-prep program.

Furthermore, I keep up with current education in Germany and the European Union through subscriptions to official education publications.1 And my ongoing correspondence with several German teachers and former exchange students keeps me informed about how government policy translates into daily operation.

As a result of all my sources, I consider the German education system to be quite representative of Continental Europe. In comparison with the American education system, however, the German system is quite different. Let us examine those differences.

Historical Foundations And Purposes

Initially the purposes for public schools in America were to teach children to read and write and to enable them as adults to participate knowledgeably in our democracy and to work productively on an assembly line. Since then our schools have taken on many other functions beyond the teaching of the three R’s, such as melting pot socialization (the blending of diverse ethnicities, races, creeds, and cultures); recreation and avocation (extracurricular clubs and sports); vocational education (small classes and often expensive equipment); special-interest classes (art, music, theater); special education (including institutional-type care with extremely small staff/student ratios); health and safety education (from AIDS and drug education to drivers’ education); and food service and student transportation. None of these programs or services are provided in Germany or elsewhere in Europe. Most of these additional functions in the American public schools are extremely costly and draw on the same human and fiscal resources that also support the academic mission of the American schools.

By comparison, public education in Germany has pursued a much narrower mission all along. Initially reading and writing were taught to prepare the population to read the Bible, and during this century academic skills have been taught to prepare students for careers (whether blue or white collar). Only in the last 15 to 20 years have the German public schools taken on the responsibility for special education (which until then was the responsibility of medical and state institutions or the home) and the responsibility for socialization (to assimilate a growing 12% Turkish, Muslim, non-Western student population). Extracurricular activities — from music to sports — remain exclusively the responsibility of the communities, churches, and amateur athletic associations. Vocational training continues to be primarily the responsibility of business and industry. Students must rely on private or public transportation and food services. And health and safety issues are the responsibility of HMOs, government, churches, private institutions, and the home.

School Structures

Kindergarten — although a German invention — is voluntary, and some students may not start school until age 7. But primary education in German schools appears very similar to that in the U.S.: neighborhood-based and self-contained. However, starting in fifth grade, students and parents may select the school of their choice. The school-type options are the main school, the intermediate school, the college-prep school, and the new comprehensive school. The program of studies in grades 5 and 6 is similar in all of them. But in seventh grade students may start to specialize in career-prep programs according to their interests and abilities, an approach that is more similar to colleges than to public schools in America.

The main school (Hauptschule) was once the choice of half of the students, but now only one-third choose it. From grades 5 to 9 or 10, students in the main school fulfill the state’s minimum education requirements and prepare to enter a vocational/trades apprenticeship program. During their on-the-job apprenticeships (which will be described later), students continue to receive about 10 hours of relevant language and math training weekly. The main school’s curriculum adequately prepares students to become apprentice auto-body repairers, bakers, butchers, carpenters, fast-food cooks and servers, flower arrangers, hair stylists, or janitors or to take any other jobs that require only minimal language and math skills.

Or students may enroll in an intermediate school (Realschule), which once was the choice of one-third of the students and is today the choice of one-fourth. From grades 5 to 10 students can fulfill the state’s minimum education requirements and prepare to enter any two- or three-year apprenticeship program. The intermediate school curriculum is somewhat more comprehensive and more difficult than that of the main school, including more math and science and four to six years of one foreign language. It prepares students for career apprenticeships that require relatively more language or math skills — for example, apprenticeships as auto mechanics, bank tellers, electricians, healthcare attendants, repair/service technicians, sales clerks, secretaries, and workers in any jobs that use computers.

Or students may select a college-prep school (Gymnasium) — once the choice of only a fifth of the students, now the choice of one-third, and soon to be the choice of half, according to the trend. (An interesting side note: the designation Gymnasium is derived from the Greek school, which equally emphasized the development of both the mind and the body. Whereas in America the term “gymnasium” came to represent exclusively the development of the physical body, in Germany Gymnasium came to represent exclusively the development of the mind.) From grades 5 to 12 or 13, students can study in various college-prep and white-collar-career-prep programs. Most of the Gymnasiuims offer specialized programs, such as math and physical sciences, natural sciences, social sciences and languages, health and physical education, and visual and performing arts. Students select the most appropriate Gymnasium based on their career interest — for example, architecture, business, education, engineering, law, medicine, or science.

Also, in many large cities a comprehensive school (Gesamtschule) has been jump-started but currently accounts for fewer than 10% of the students. Like the comprehensive American school, which serves as its model, this school represents the government’s hope for the future of Germany: an amalgamation of Germans and non-European foreigners, particularly in some metropolitan areas where Tur-
Kish Muslims exceed 50% of the population.

Finally, there is the special school (Sonderschule) for all handicapped students who could not succeed without special assistance in any of the schools above. Unlike some special education schools in the U.S. 20 years ago, these schools are first-class operations. Strong parent lobbies keep these programs from being integrated into the regular schools.

Common Foundations

Four generalizations can be made about the German system of school specialization.

1. German teachers are totally committed to grouping students by interest and ability, first by school and then again by curricular program (similar to American higher education). The concept of teaching heterogeneous groups does not fit in their learning theory. Consequently, their profession vehemently resists the government’s attempt to introduce the American-style comprehensive school and heterogeneous grouping.

2. The concept of specialized schools and easy student access to them is thoroughly feasible in Germany. Open enrollment (on a first-come, first-served basis) anywhere within a state is possible in Germany and Europe because of the close proximity of towns and because of efficient public transportation between them. Even the most remote hamlet is located only a few miles from the nearest city and is connected by well-scheduled feeder buses and trains. Passes provide students free or reduced-rate fares. Also, schools are situated inside the cities and close to stores, rather than in remote suburbs. Hence, even the youngest students can easily and safely commute to the most specialized school in 30 minutes or less.

3. The transfer of students from one school or program to another is quite flexible. Although students are taught to be career-oriented as early as grade 7, a student may change his or her pre-career major at any grade level. However, the later the student does so, the more he or she will bear a cost in extra time needed to make up any deficient prerequisites — just as would be the case in an American college. Yet “all roads lead to Rome”; some are just more direct. Upon graduation from any intermediate high school or college-prep school, a student can enroll in any specialized college. (Incidentally, all higher education is tuition-free in Germany.) Higher education schools (Hochschulen) are as specialized as the public schools and are geared to virtually any profession. There are teachers’ colleges, law colleges, dental and medical and veterinary colleges, performing and visual arts colleges, religious colleges, and technical colleges (for architects, builders, computer programmers, engineers, and so on). They grant only master’s degrees, as they prepare the “master” professional — the highest level of the three-tier system: apprentice, journeymen, and master. This tier applies to all blue-collar trades as well as white-collar professions. The comprehensive Universität is another option open to all, but it is rooted exclusively in doctoral programs for research and teaching in the liberal arts, mathematics, and sciences.

4. Classes are spread over 12 months and six days of the week. The class schedule repeats by the week, not by the day. For instance, a student may not have a first-period class on Mondays or afternoo classes on Wednesdays but may have morning classes on Saturdays. A flexible schedule consists of classes varying from 30 minutes to two hours (e.g., a lab). Although school is in session for 12 months (save for a short summer vacation and several more holidays and mini-vacations than we have in the U.S.), in terms of class time the German school year is equivalent to our 180 days. All the German curricula are continuously sequential (e.g., grade 5 “math” to grade 12 “math” and grade 5 “science” to grade 12 “science”) rather than sequenced in parts as in the U.S. (e.g., algebra/geometry/calculus, biology/chemistry/physics). Written and verbal comprehensive final exams — similar to those given for graduate degrees in the U.S. — determine a student’s graduation from high school.

Student Responsibilities

As stated before, from grade 5 on, German students experience education that is closer to an American college than to K-12 education. What they do during the hours they have no class is up to them. The school has never assumed its role to be in loco parentis. It is only for student safety that some restrictions on off-campus student mobility are now being implemented in schools that are located in the largest metropolitan areas. To have access to resources, a student must go to a public library; the school does not duplicate the community library. Heavy homework is expected of and done by students daily, outside of school. In most ways German students assume much greater responsibility for independent study than do their U.S. peers.

To still their hunger or thirst during breaks, German students frequent a nearby grocery store, fast-food place, bakery, restaurant, or butcher shop serving delicious sandwiches, hot or cold. (Remember that schools are located inside cities, close to stores.) Students either bike to school or take public buses or trains. Students’ use of automobiles is extremely rare because 1) the cost of operating a car in Europe is outrageous, in comparison to the U.S.; 2) the minuscule school parking lots barely serve the staff’s needs; and 3) students may not earn a driver’s license until age 18. Hence, student parking lots are filled with bicycles, not cars.

Teacher Responsibilities

The public teaching profession in Germany also has more in common with higher education than with K-12 education in the U.S. On a part-time basis master teachers assume total responsibility for the training of teacher candidates and novice teachers, for the evaluation of teachers regarding contract renewal (tenure) and promotion, for curriculum development and the selection of instructional materials, and for campus administration. By law even teachers in these leadership positions must continue to teach at least 25% to 50% of the time; they remain teachers foremost. The concept of full-time administrators or coordinators is alien to Germans. Each cohort of students (a class of 20 to 25) elects one of its teachers as its class advisor and liaison to the rest of the faculty. There are no separate positions for counselor, librarian, or “vice” principal. Only the most serious and criminal-like student infractions are referred to the part-time principal (called director, leader, or rector), who may in turn summon the police.

Teachers in Germany are relatively better paid and respected than their American colleagues. A recent poll ranked teachers second behind judges on the "most-respected" list of professionals. Teachers earn that respect and salary. Although by contract teachers are not required to be in school except when they are teaching classes, most maintain long hours. Those who serve as
class advisors make themselves available to their advisees at almost any time of day.

The teaching profession adheres to its own professional hierarchy, which is similar to that of the professional guilds (apprentice, journeyman, and master) and that of higher education in the U.S. (assistant professor, associate professor, and full professor). Upon graduation from a teachers college, successful completion of student teaching, and passage of the state’s certification test, a novice teacher is employed for two years as an apprentice teacher under the continuous tutelage of a master teacher. The apprentice teacher may earn passage to the second tier of independent teaching and tenure as a civil servant (equivalent to journeyman or associate rank) once he or she has received advanced training at a teachers college, on-site staff development, a recommendation from the mentor teacher, and successful evaluations from outside master teachers and has passed the second state certification exam. Many teachers stay at this level for the remainder of their careers.

However, a multi-pronged career ladder awaits those who seek higher responsibilities. After several more years of teaching, three-day observations by two outside master teachers, passage of a third state certification exam, and nominations from in-building master teachers, the journeyman teacher may qualify to become a master teacher. (At the Gymnasium level most teachers who aspire to this highest rank will also have earned a doctorate along the way.) This highest rank qualifies a teacher to serve part time in regional or statewide leadership capacities in curriculum development, selection of instructional materials, professional growth and development, teacher evaluation, or campus administration.

State Responsibilities

Each of Germany’s 16 states assumes exclusive responsibility for the education within it. Although each state is divided into regional education administrative units, these are not independent or intermediate school districts as we know them in the U.S. Each state is fully responsible for the salaries of its teachers, who are civil servants in the state. A committee of subject-matter master teachers develops curriculum by subject matter and grade level for the entire state. (This is an example of the lure to achieve master teacher status.) The office of the state minister of education provides coordination, communication, and consultation. Likewise, the promotion of teachers to the independent journeyman or master ranks is conducted exclusively by master teachers (who are never from the school of the teacher being evaluated). Teachers who serve as part-time campus administrators report to area administrators, who work under the state minister of education. The lay public plays no role at all in German public education — again similar to American higher education.

Community Responsibilities

A community’s responsibility, in turn, is to provide and maintain the educational facilities and to supply the operating costs, including those for instructional materials (which the faculty selects from a state-approved list). The schools are a function of the local government — no different from the police department, fire department, or parks and recreation department. It is also the community organizations, not the schools, that fill the avocational needs (from athletics to music and theater) of all residents — children and adults. It is quite common for a town band, orchestra, chorus, or theater group to include people of all ages, from young children to senior citizens. Facilities such as an auditorium, a gym, a track, and even the library are used by both the school and the community, but make no mistake about it: these facilities are owned and operated by and for the entire community. Don’t look for any “school” athletic teams or cheerleaders; they don’t exist. Only the classroom building per se constitutes “the school.”

Business and Industry Responsibilities

By far the greatest cost saving to German public education is the comprehensive responsibility that industry and business assume for vocational education in Germany. The public schools educate children in pre-career skills such as reading, writing, computing, thinking, and responsible work habits. Thereafter, the craft guilds and business and industry take over the responsibility for on-site vocational training. A few vocational/technical schools exist primarily to prepare students for technical college.

Most important, by law one cannot apply for a job without job certification — not even at a fast-food place, not even part-time! The implication of this law for schools is virtually a 0% dropout rate. A student must be enrolled in either an apprenticeship program or a college to learn a trade. Those who select professions that require formal education past high school will also serve apprenticeships or internships in their professions after graduation from college.

The school/employer/apprenticeship relation is quite symbiotic in nature. The initial matching of a high school student’s choice of trade/vocation and an employer’s needs for apprenticeship candidates is coordinated through the public school. The school ranks the students on each career/trade interest list according to their past performance in school (including academics, attendance, and attitude). Prospective employers then interview the top students from the list to select their apprentices. This process provides motivation for students to do well in school, regardless of their trade/career interests. The employer gets to hire part-time apprentices at below minimum wage. The apprentice in turn is trained on the most up-to-date equipment by up-to-date journeymen or masters — something no public or vocational school could match. The apprentice also earns some wages while studying and is almost always guaranteed permanent employment as a journeyman, once he or she completes the apprenticeship satisfactorily and passes the on-site state certification tests. Apprentices continue to spend an average of 10 hours a week in school (any combination of evenings and Saturdays) to learn more language and math, but all in the context of the job — i.e., the language and math skills they need for a particular trade.

Conclusion

From this brief look at the German education system, it should be clear that there is little point in comparing the performances of German and American students on any standardized achievement test, because public education in Germany fulfills a vastly different role from public education in America. This can probably be said of any other country’s public education as well. An evaluation of any education system is meaningful only if it relates its students’ performances to its own mission and goals.