

Patterns and Policies: The Changing Demographics of Foreign Language Instruction

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Students Classified as Learning Disabled and the College Foreign Language Requirement: A Case Study of One University

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It is well established that most students with diagnosed learning disabilities (LD) experience difficulties learning a foreign language (FL) in traditional high school and college classroom settings. (For a review of this literature, see Ganschow and Sparks 1993; Sparks and Ganschow 1993a; Sparks, Ganschow, and Javorsky 1992). The commonly offered explanation for this phenomenon is that this population is thought to have problems with language learning, generally (i.e., using and understanding oral language, written language, or both). Since a FL is the learning of a *language*, it stands to reason that these students will have difficulties in this area.

Universities regularly encounter difficulty in determining how to handle students diagnosed as LD who are experiencing problems meeting the demands of FL study, either to meet admissions standards or for graduation requirements. Scott (1990) describes how difficult it is to “come to terms” with these students, and she discusses the unique challenges they present to their institutions. Not only do these students struggle but they also present dilemmas to the university support staff and to the FL faculty working with them.

Recent studies indicate that a number of students not identified as LD also experience varying difficulties learning a FL and have profiles similar to the identified LD students, albeit differing in severity or degree. (For a discussion of this point, see Sparks and Ganschow 1993b.) In fact, reports in the literature indicate that many students become diagnosed as LD *after* they experience frustration and failure in FL classes and are referred to an LD specialist for a “suspected” LD (see, e.g., Cohen 1983; Lefebvre 1984; Pompian and Thum 1988; Sparks, Ganschow, and Pohlman 1989).

In the early 1980s, reports began to appear in the literature about policies and procedures that colleges and universities were developing to address the FL dilemma. The first such reference appeared in a now much cited chapter in a book about students at Harvard. Here students with histories of dyslexia were waived from the FL requirement (Dinklage 1971). In the 1980s, two surveys of four-year colleges and universities were undertaken to determine the institutions’ policies and procedures for waiver/course substitution of the FL requirement (Ganschow, Myer, and Roeger 1989; Keeney and Smith 1984). Findings of the earlier survey of 73 select colleges and universities (Keeney and Smith 1984) indicated that 90 percent required a FL in at least one degree program and that institutions were beginning to make modifications for students with disabilities. The later expanded survey responded to by LD service providers at 166 institutions (Ganschow, Myer, and Roeger 1989) indicated that about 50 percent of the institutions surveyed required a FL in at least one degree program; close to 75 percent had either a formal or informal policy for waiver/substitution; and only a small percentage provided modifications or special classes to enable students to succeed in a FL. Virtually all institutions required (80 percent) or strongly recommended (15 percent) the diagnosis of a LD to substantiate the need for FL waiver/course substitution. Over 50 percent suggested that failure in at least one language would be a helpful indicator of need. Tutoring was the main option for assisting students (74 percent), about 25 percent provided an individualized learning pace, and a very few (8 percent) provided special FL classes.

Section 504 of the Rehabilitation Act of 1973 (SUBPART E 104.44) mandates that postsecondary institutions make modifications to their academic requirements to ensure that all qualified students with special needs may participate in their programs. Modifications may include, for example, changes in the length of time permitted for the completion of

degree requirements, adaptation in the manner in which specific courses are conducted, and/or substitution of specific courses required for the completion of degree requirements. Clearly, colleges must make appropriate academic adjustments and reasonable modifications to policies and practices in order to allow full participation by their students with identified disabilities.

Reports have appeared that specifically address the issue of policies and procedures to guide colleges and universities in developing alternatives to FLs and assessing need for these alternatives. Freed (1987) described a set of procedures and policies used at the University of Pennsylvania to deal with petitions for exemption from the university's college FL requirement. Philips, Ganschow, and Anderson (1991) described the petition process and provided guidelines for service providers.

The issue of rights vs. appropriateness of students with LD to receive waiver/substitution of the FL requirement has also received recent attention (Moore 1995). Here the debate centers around the purposes of FL education and whether teachers should be making more appropriate accommodations rather than using the law to exempt these students from FL classes.

Lacking in the literature is a comprehensive longitudinal demographic description of a population who has received permission by an institution to waive or substitute the FL requirement. It would be useful for institutions that are struggling with ways to deal with the issue of course substitutions to be able to refer to such a profile. This description would also be of use to coordinators of services for students with LD, who assist the institution in making decisions about who should be referred for testing, who should receive a waiver from the FL requirement, and who should be allowed to select course substitutions. Of particular interest in such a demographic description would be the answers to questions such as the number of students who are referred for assessment each year, the diagnostic indicators used to screen and identify referred students, whether the identified students meet the generally established criteria for a diagnosed "LD" (i.e., at least one standard deviation discrepancy between intelligence [IQ] and academic achievement),¹ and how the general academic performance of these students compares with the performance of the student body at large.

The purposes of this chapter are to describe the demographic profile and standardized test results of 97 students from one university who

petitioned and received permission to substitute courses for the university's FL requirement and to discuss the findings from the perspectives of diagnosticians, universities and university service providers, and FL educators. The data for this study were collected at a state-supported, medium-sized (16,000 students), midwestern university composed mainly of undergraduate students; the university used the petition system and maintained records of its students over a ten-year period.

In this chapter, we describe the institution's petitioning and course substitution process, present a demographic profile and standardized test results of students who petitioned for and received permission to substitute courses for the FL requirement, and discuss implications for colleges and universities, service providers, FL faculties, and diagnosticians.

Petition and Course Substitution Process

Although Section 504 of the Rehabilitation Act mandates that institutions make appropriate adjustments and reasonable modifications, it neither makes clear how the terms "appropriate" and "reasonable" are to be defined nor does it specify how students access these "adjustments" and "modifications." This dilemma is brought into sharp focus when students with FL learning problems find they cannot meet admission and/or graduation requirement(s) and ask their institutions for help.

By way of background and introduction to the dilemma, when the university under discussion here appointed a Learning Disabilities Coordinator almost ten years ago, there was one sentence in the *Student Handbook* that stated that "a student may petition for an exception to any of the academic regulations." For students struggling in a FL course, this sentence remained hidden among regulations dealing with admission, registration, grades and scholarship, examinations, academic misconduct, class attendance, graduation requirements, and honors/distinctions. If students did encounter the sentence, it gave little direction as to where and how to seek help. Therefore, the first problem for the student was finding the appropriate vehicle (a petition) to address his/her problem, and the second issue was knowing whom to ask for help.

At this institution, there was an informal network of university personnel who were integral players in the petition process. For example, the petition forms were available only through the Chief Academic Advisor, the FL faculty and department chairpersons were needed to document class attendance and effort (at that time, students were expected to attempt

the language), major advisors needed to give their signed permission to a petition, and there had to be a screening by the Learning Disability Coordinator, followed by, perhaps, a referral for expensive and time-consuming evaluations. Tutoring efforts were to be documented by Office of Learning Assistance Staff. All of these university personnel worked independently in different offices across campus and were not part of a recognized, formal structure. This complicated network created many problems for students because key players were neither well identified nor in regular communication with each other.

The university had its own issues to deal with as well. At this institution, petitions were presented to a committee of six faculty members, all from different academic departments, few of whom were trained to interpret the diagnostic information that accompanied the petition. Since petitions were judged on a case-by-case basis and heard both at the divisional and interdivisional level, the petition discussions were a time-consuming process for the committee. Faculty expressed reservations, not so much over the amount of time spent reviewing petitions, but on the difficulty of judging each case on its merits. The supporting documents with each petition varied considerably. For example, some faculty wrote letters detailing a student's efforts in FL study, other faculty chose not to write at all; some high schools sent detailed histories of FL difficulties while others provided nothing; some diagnostic reports were clear in making recommendations for FL course substitutions based on standardized test information, while other reports were deficient in pertinent information concerning language aptitudes. The disparities in the supporting materials and diagnostic testing information often made the decision-making process difficult for members of the petition committee.

Additionally, there was but one favorable outcome for a petition—a course substitution plan. No waivers were granted, nor were opportunities provided for alternate methods of FL instruction (e.g., slower pace), nor other academic adjustments (e.g., audit the course without fee for one semester; a later drop date without penalty).² Thus, students who petitioned successfully found themselves *out* of the traditional FL classroom and *in* alternate culture courses, where often they still struggled with the demands of the “foreign” language vocabulary and terminology.

Thus far, we have explained the university's petitioning system and course substitution process. We now examine the demographic profile and standardized test results of the petition students. Here we begin with a description of the method of subject selection, procedure, instruments, and analyses of data.

Method

Subjects

Subjects were 97 college students who had petitioned for and received permission for course substitution of the university's FL requirement between 1985 and 1995. All of the students, 71 males and 26 females, graduated from this institution. The mean age of the students was 24 years 2 months (ages ranged from 18 to 51 years).³ Each student had been classified as LD in an evaluation from a qualified professional and had subsequently worked with the LD Coordinator in the Office of Learning Assistance to submit his/her petition.

Procedure

Demographic and standardized testing information for each subject was on file and maintained by the LD Coordinator in the university's Office of Learning Assistance. The students' information and test data were recorded on a form by the first and second authors and by graduate assistants trained by the second author.⁴ In some cases, information and standardized test data were not available to us (a few SAT and ACT scores or standardized test scores). Demographic information included 14 questions about the student's FL learning problems and his/her educational background. These questions are provided in the Results section.

Each of the students had previously been evaluated by one or more members of the medical, psychological, or educational profession. In most cases (86 of the 97 students), the students had been evaluated with a standardized test of intelligence, the *Wechsler Intelligence Scale for Children-Revised (WISC-R)* or the *Wechsler Adult Intelligence Scale-Revised (WAIS-R)*, and at least one standardized achievement test (i.e., reading, spelling, written language, oral language, mathematics).⁵ Because the students had been evaluated by many different professionals in private practice or in a public school, each of whom used different batteries of achievement tests, the records showed that a large number of achievement tests had been used. A brief description of the instruments and what they measure is in the Appendix. Here, the standardized tests are divided into five areas: Aptitude, Reading, Mathematics, Written Language/Spelling, and Oral Language.

In three cases, students had been administered achievement measures but not a standardized measure of intelligence. In four cases, students had

been administered only a FL aptitude test (either the Modern Language Aptitude Test or the Defense Language Aptitude Battery). In four cases, students had been diagnosed as LD but had not been administered standardized measures of intelligence or achievement.⁶

Analysis of Data

Frequency distributions were calculated to answer the demographic profile questions. Means, standard deviations, and test score ranges were calculated to determine the total group's standardized testing profiles.

Results

Demographic Profile

The Demographic Profile is divided into four subheadings: College Major and Class (Table 1), Number of Petition Students by Year (Table 2), Histories of Petition Students (Table 3), and Academic Records of Petition Students (Table 4).

Table 1.

Students' College Divisions and Year of Petition by Class

Major	Class				Total Number	Percent
	Freshman	Sophomore	Junior	Senior		
Arts & Sciences	9	9	26	28	72	74.2
Business	2	2	4	2	10	10.3
Education	2	0	0	1	3	3.1
Fine Arts	1	0	0	1	2	2.1
Applied Sciences	1	2	4	3	10	10.3
Total Number	15	13	34	35	97	100
Percent of Total	15.4	13.4	35.2	36.1		

Table 2.**Number of Petitions Granted by Year (1985–1995)**

Year	Number	Percent of Total
1986	2	2.1
1987	6	6.2
1988	4	4.1
1989	8	8.2
1990	13	13.4
1991	15	15.5
1992	12	12.4
1993	19	19.6
1994	11	11.3
1995 ^a	7	7.2
	97	

^a Represents only through May graduation

Table 1 shows that over 70 percent of the students petitioned as upper-level (junior and senior) students and that over 70 percent of the students were enrolled in the division of Arts and Sciences.

Table 2 presents the number of petitions granted by year. Although the number of petitions has increased gradually over time, the total number for each year was less than 20.

Table 3 shows the histories of the petition students. Most students (62.9 percent) did not have a previous diagnosis of LD. Over three-fourths (77.3 percent) of the students had been evaluated by a private clinician (e.g., psychologist, medical, and/or educational professional); less than one fourth of the students (21.7 percent) had been evaluated by his/her public school. Over three-fifths (62.9 percent) of the students had been referred to the Office of Learning Assistance only for problems in a FL course.

Table 3.**Histories of Petition Students^a**

(N=97)

LD, testing, and foreign language histories	Number	Percent
Previously Identified as LD	36	37.1
Evaluated by Private Clinician ^b	75	77.3
Referred Only for Foreign Language	61	62.9
Foreign Language Required for Graduation	81	83.5
Foreign Language Required for Admission Deficiency	26	26.8
Foreign Language Taken in High School	79	85.0
Foreign Language Taken in College	73	75.2
Tutored in Foreign Language	44	45.4
Accommodations in Foreign Language	8	8.3
Foreign Language Waived in High School	5	5.2

^a All percentages reflect a "Yes" response (i.e., 36 students were identified as LD but 61 were not identified as LD before applying for petition).

^b All remaining students except one had been evaluated by public school clinician.

Over four-fifths (83.5 percent) of the students were enrolled in the FL to fulfill a graduation requirement; about one-fourth (26.8 percent) were enrolled in the FL course because of an admission deficiency. Most of the petition students (85 percent) had taken a FL course in high school and three-fourths (75.2 percent) had completed or attempted at least one FL course in college. Almost half (45.4 percent) of the students reported having received tutoring in the FL while in college; only a few students (8.3 percent) reported having received accommodations (untimed exams, allowances for spelling) from the FL instructor. Most of the students (94.8 percent) had not received a waiver from FL courses in high school.

Table 4.
Academic Records of Petition Students

Test Scores and GPA	N	X	SD	Range	
				Minimum	Maximum
SAT Verbal	17	467	64.4	390	580
SAT Math	17	568	68.2	450	680
SAT Total	17	1035	118.3	890	1260
ACT Soc Sci ^a	46	21.4	5.9	5	31
ACT Nat Sci ^a	46	24.1	5.4	10	34
ACT English ^a	46	18.9	5.8	5	30
ACT Mathematics ^a	46	18.9	6.3	3	30
ACT Composite	56	21.5	4.5	10	29
Graduating GPA	97	2.7	0.5	2.0	4.0

^a ACT subtest scores were not available on all 56 students.

Table 4 shows that the mean GPA at graduation for the petition students was 2.7. Their GPA was somewhat below the mean GPA of 2.9–3.0 reported for the total student body by the university's registrar. Also, the petition students' mean Total SAT score (1035) was somewhat below the middle 50 percent of the entering first-year students at this university (1050 to 1210). The petition students' mean ACT Total score (21) was somewhat below the middle 50 percent of entering first-year students at this university (23–28).

Standardized Test Results

The results of the five categories of tests are presented in Tables 5 and 6 under the headings Aptitude (Table 5) and Reading, Mathematics, Written Language/Spelling, and Oral Language (Table 6). Major findings are highlighted here.

Aptitude

Results of intelligence testing showed that the subjects' mean IQ was in the higher end of the Average range (Standard Score (SS) = 107, or 68th percentile). There was no major discrepancy between the subjects' Verbal and Performance IQs. Students' Full Scale IQs ranged from the lowest end of the Below Average range (SS=80, or 9th percentile) to the Very Superior range (SS=133, or 99th percentile) range.

Results showed that the petition group's score on the MLAT Long Form was in the Below Average range (SS=81, or 10th percentile). Students' MLAT scores ranged from the Poor range (SS=65, or 1st percentile) to the Above Average range (SS=115, or 85th percentile).

Reading

Results showed that the students' mean scores in reading ranged from the Average (SS=96, or 40th percentile, on the WJPB) to Superior (SS=124, or 93rd percentile, on the GORT-R).

Table 5.

Means and Standard Deviations for Standardized Testing Measures — Aptitude

Aptitude Tests	N	X	SD	Range	
				Minimum	Maximum
Intelligence					
WISC-R or WAIS-R Verbal IQ	86	106.0	10.7	80	133
WISC-R or WAIS-R Performance IQ	86	107.5	11.7	86	137
WISC-R or WAIS-R Full Scale IQ	86	107.3	10.9	81	131
Foreign Language Aptitude					
MLAT Long Form	62	81.0	10.2	65	115

Mathematics

Results showed that the students' mean scores in mathematics were in the Average range on all three testing measures (SS=100, or 50th percentile, on the WRAT-R; SS=104, or 60th percentile, on the WJ-R and WJPB).

Written Language/Spelling

Results showed generally that the students' mean scores in written language were in the Average range (SS=95, or 38th percentile, on the WJ-R: Broad Written Language Cluster; SS=98, or 45th percentile, on the WJPB). There was a substantial difference between the students' mean scores on the WJ-R: Dictation subtest (SS=90, or 25th percentile) and the WJ-R: Writing Samples subtest (SS=101, or 52nd percentile).^{7, 8}

Table 6.

Means and Standard Deviations for Standardized Testing Measures—Reading, Mathematics, Written Language/Spelling, and Oral Language

Achievement Tests	N ^a	X	SD	Range	
				Minimum	Maximum
Reading					
WRMT-R Basic Skills	6	104.7	9.8	93	118
WRMT-R Reading Comprehension	6	107.8	13.2	92	131
WRMT-R Total Test	6	105.8	9.5	98	124
WJPB Reading Cluster	6	96.2	10.4	87	115
WRAT Reading	23	98.7	11.9	78	118
WJ-R Word Identification	62	103.4	12.7	79	145
WJ-R Passage Comprehension	62	106.4	13.2	78	137
WJ-R Broad Reading	62	105.0	10.8	87	127
WJ-R Word Attack	39	98.1	13.6	75	140
PIAT-Reading Comprehension	2	102.5	6.4	98	107
Nelson-Denny	1	98.0	—	—	—
Gray Oral	15	124.0	12.6	97	145

^a Some students had been administered more than one test of reading, mathematics, written language, or oral language.

Results showed that the students' mean score in spelling was in the Average range (SS=94, or 35th percentile, on the WRAT-R: Spelling subtest).

Table 6. (cont.)

Means and Standard Deviations for Standardized Testing Measures—Reading, Mathematics, Written Language/Spelling, and Oral Language

Achievement Tests	N ^a	X	SD	Range	
				Minimum	Maximum
Mathematics					
WJPB Mathematics	8	104.1	8.6	90	115
WRAT Arithmetic	26	100.5	13.6	73	131
WJ-R Calculation	51	100.2	14.1	67	131
WJ-R Applied Problems	51	102.4	11.4	79	124
WJ-R Broad Mathematics	51	103.9	15.7	76	153
Written Language					
WRAT Spelling	53	94.4	11.2	65	114
WJPB Written Language	9	98.3	15.1	73	127
WJ-R Dictation	63	89.5	12.5	61	122
WJ-R Writing Samples	63	100.6	18.7	63	174
WJ-R Written Language	63	94.8	13.3	68	139
Test of Written Language-2	63	97.3	15.1	71	123
Oral Language					
Peabody Picture Vocabulary	26	106.9	14.4	85	133
Test of Adolescent Language-2	2	117.0	11.3	109	125
Test of Language Competence-E	25	97.4	11.5	72	121

^a Some students had been administered more than one test of reading, mathematics, written language, or oral language.

Oral Language

Results showed that the students' mean scores on measures of oral language were in the Average range (SS=97, or 42nd percentile, on the TLC-E; SS=107, or 87th percentile on the TOAL-2).⁹

Discussion

Demographic Profiles

One point of interest is the small number of students who sought petitions. At the institution, an average of only ten students per year out of a student body of close to 16,000 petitioned. The two students who petitioned in 1986 represented about 5 percent of the university's classified LD population at that time; the 19 who petitioned in 1993 represented about 10 percent. Yearly totals have consistently been in the range of 5 to 10 percent of the university's LD population. While Table 2 data reflect a decrease in petitions in 1994 and 1995, there is an explanation. In mid-1994 it became evident that the petition committees were struggling with their decisions. More petitions were rejected outright, and many were returned for "more explanation." Therefore, unless students were close to graduation, their petitions were "held" by the LD Coordinator until a change in university policy removed the responsibility for decision-making from the committee altogether. Also, the 1995 data included only January–May graduates and did not include the August–December graduates. If final data for 1995 were to include these two groups of graduates as well as the "held-over" petitions, 1995 would likely reflect a comparable number of petitions processed by the university.

The number of petitions in this study represents about 10 percent of the LD population at the university. The low number of petitions may occur for several reasons. First, as pointed out earlier, many students who struggle with or fail FL courses may not be aware of the university's substitution policy, or how to access that policy. Second, there may not be large numbers of students failing FL courses at this university; thus, the policy may not be used by large numbers of students. Third, students who struggle with or fail a FL course may drop out of school, change divisions to avoid the language requirement, or transfer to another university. Fourth, some students who struggle with FL coursework may persist until they pass the course(s) and meet the university's requirement. (About 5 percent of the LD group fit this profile.) Fifth, the university may have denied

petitions from students for course substitutions. We investigated these last two speculations and found that the petitions of fewer than 5 students had been denied. Of particular interest were two of these five students. One student did complete the language requirement on the third try. Another passed a FL course at another university and transferred the credit. Both students had previously failed FL courses at the institution in this study.

Another point of interest has to do with the time at which students began the petition process. Findings indicated that the large majority (71.2 percent) of students who petitioned to substitute the FL requirement first contacted the university's Office of Learning Assistance in their junior (35.1 percent) or senior (36.1 percent) years. This finding suggests that these petition students either waited until later in their college years to take a FL course or that they failed or withdrew from a FL course in their first two years at the university.

This study shows that the diagnosis of LD was likely to be based primarily on the students' problems with FL learning, not on their difficulties with academic learning generally. Only 37.1 percent had been referred for problems with other academic courses in addition to problems with a FL course. A significant number (61, or 62.9 percent) of the students in the petition group had not been previously identified as LD before entering college; however, all of these students were subsequently identified as LD and then received permission to substitute courses for the FL requirement based on the diagnosis. The finding lends additional support to the previous point that most students were referred to the Office of Learning Assistance because of FL learning difficulties. Other universities have reported similar findings (Lefebvre 1984; Pompian and Thum 1988).

The aforementioned findings raise several questions. For example, were these 61 students not previously diagnosed as LD because they had not been tested in elementary or secondary school? Were these students experiencing inordinate difficulties with academic courses other than a FL? What criteria were used by the private clinicians to diagnose these students as LD? Several students reported that they had been evaluated in elementary school because of learning problems. Others reported that they had been enrolled in remedial reading classes or speech/language therapy in the early years. However, although copies of the evaluations or other evidence to confirm their self-reports were not included in the files held by the LD Coordinator in the Office of Learning Assistance, it is possible that private diagnosticians had copies of these records. In any event, it is clear that the university and university service provider (and, perhaps, the diagnostician)

were left with incomplete records; thus, it is possible that the diagnosis of LD was made primarily on the basis of a student's problems with FL learning. It was observed in previous studies (Sparks, Ganschow, and Javorsky 1995; Sparks, Javorsky, and Ganschow 1995) that when diagnosing a LD, clinicians in private practice (as well as postsecondary institutions) are not bound to adhere to their state's guidelines (e.g., significant discrepancy between ability [IQ] and achievement) for the diagnosis of LD. Although public schools do not always adhere rigorously to their state's criteria for a LD diagnosis (Algozzine and Ysseldyke 1986; Ysseldyke and Algozzine 1983; Ysseldyke, Algozzine, Shinn, and McGue 1982), the authors speculate that the ambiguity of the criterion for diagnosis of a LD and the provision that public schools must provide services for students whom they diagnose as LD might be two reasons why a private clinician would be more likely to diagnose a LD than would a public school.

The finding that most students who applied to the university's Office of Learning Assistance were Arts and Sciences majors (74.2 percent) is consistent with the results of a survey conducted by Ganschow, Myer, and Roeger (1989), who found that most majors in the Arts and Sciences required at least one year of a FL. Because of the Arts and Sciences requirement, most petition students at this university (83.5 percent) needed the FL course for a graduation requirement; fewer students (26.8 percent) needed the course to fulfill an admission deficiency. (A small number of students needed the FL course for both.)

In general, the petition students had academic profiles similar to those of the overall student body. The mean SAT and ACT scores of the petition students were only slightly below those of entering first-year students at this university. Further, the mean graduating GPA of the 97 petition students in this study was 2.7 (B to B- average) and had been calculated with their grades in the FL courses included in their final GPA. The mean GPA of all students at this university was 2.9–3.0. Thus, students who petitioned and received permission to substitute courses for the FL requirement achieved grades that were only slightly lower than the average student at this university. It should be noted, however, that a number of petition students withdrew early from FL courses in which they were struggling or failing and received no grade for the course.

A close examination of the FL learning histories of the petition students supported the point that withdrawals from FL courses were frequent. To further investigate the grades of petition students, we conducted a qualitative assessment of their college FL grades through their college

transcripts. As reported in the Results section, 73 students had been enrolled in at least one FL course in college. Of this group, the transcripts of 58 students (79.5 percent) contained at least one grade of W (Withdrawal) or its equivalent. Of the 58 students, 22 (38 percent) had two or more W grades. Only 38 of the 73 students (52.1 percent) who had been enrolled in at least one FL course in college had received at least one grade (i.e., A, B, C, D, F) other than W in a college FL course. The following total numbers of grades were recorded: A=5, B=8, C=25, D=23, F=8, W (WP or WF)=96. These findings show that although the majority (75.2 percent) of the petition students at this university had enrolled in at least one FL course, most (79.5 percent) had withdrawn from a course.

Because numerous grades of A, B, and C in college FL courses were recorded on the students' transcripts (38 of the 69 letter grades of A, B, C, D, F, or 55 percent), we examined other aspects of students' grades. First, we compiled a list of students' college FL grades. We then analyzed the occurrence of Withdrawals in the student records. Of the 73 students who had taken at least one FL course, we found the following: nine (12.3 percent) had achieved grades of C or higher with no Withdrawals; ten (13.7 percent) had achieved grades of C or higher with at least one Withdrawal; and thirty-three (45.2 percent) had achieved only grades of W. These findings show that 26 percent of the petition students had passed (with a grade of A, B, or C) at least one semester of a college FL course, but still received permission to substitute the FL requirement. This finding suggests that some petition students were able to experience success in at least one FL course in college (usually at the beginning level). In a previous study, Sparks, Ganschow, and Pohlman (1989) speculated that some students who have had the same FL in high school are able to complete the first college course in a FL sequence successfully. However, as the material becomes more complex, some students experience increasing difficulty. In this study, almost half of the petition students had withdrawn from a FL course; it is unknown whether students who withdrew from the FL courses in which they enrolled would have passed or failed the course.

Having examined college FL grades, we likewise thought it would be informative to examine the students' high school FL grades. Of the 97 petition students, 79 (85 percent) self-reported taking at least one FL course in high school.¹⁰ Of the 79 who reported taking at least one FL course in high school, 31 (40 percent) reported achieving grades of C or higher in those courses. Several students reported achieving grades of A and B and five students reported having achieved all As in high school FL

courses. These findings suggest that a good number of students were able to complete at least one FL course in high school successfully.

Our final examination of FL grades involved a comparison of the students' grades in high school FL courses with their grades in college FL courses. Of the 31 students who reported grades of C or higher in high school FL courses, three (9.7 percent) reported achieving grades of A, B, or C with no Withdrawals from college FL courses; five (16.1 percent) reported achieving grades of A, B, or C with at least one Withdrawal from college FL courses; eight (25.8 percent) had withdrawn from all college FL courses; three (9.7 percent) had achieved grades of C, D, or F with at least one Withdrawal from college FL courses; and 12 students (38.8 percent) who had achieved grades of A, B, or C received a petition for substitution without taking a college FL course. When this group of 12 petition students who achieved grades of A, B, or C in high school FL courses but did not take a college FL course is combined with the number of petition students (33) who had received only grades of W in college FL courses, the data provide additional support of the need for solid documentation of course struggle.

The above analyses of college and high school FL grades raise the question here as to why students received permission to substitute the FL requirement based on grades of W or on no record of performance in college FL courses. One speculation is that the students' diagnosis of LD likely weighed heavily in their favor when their petition was presented to the appropriate college committee. A second speculation is that the petition committee also weighed heavily the other documents submitted with the standardized test results, such as letters from the FL professor detailing effort and attendance, the narrative statement from the student, and the LD Coordinator's letter of support.

Standardized Test Results

Results showed similar findings across measures of aptitude, reading, mathematics, written language/spelling, and oral language. The mean scores of the students on the standardized testing measures in each of these five areas were generally in the Average range (see Tables 5 and 6). However, the group's performance on all standardized testing measures of aptitude and achievement showed wide variability (WISC-R and WAIS-R Full Scale IQ ranged from SS=81–131, or 10th–98th percentile); WRAT Reading scores ranged from SS=78–118, or 7th–88th percentile; WJ-R

Written Language scores ranged from SS=68–139, or 2nd–99th percentile). The only standardized test on which the total group's mean score was below average was the MLAT Long Form (SS=81, or 10th percentile; scores ranged from SS=65, or 1st percentile, to SS=115, or 85th percentile). Thus, the students' mean scores on aptitude and achievement tests were all in the Average range with the exception of FL aptitude. As a group, the students did not fit the minimum criteria for identification as LD (i.e., at least one standard deviation between IQ and achievement). Further, both the average scores and the wide range of scores suggest that this population of petition students is a heterogeneous group of learners.

Given the heterogeneity of the group's test profile, we conducted five additional analyses of petition students. These analyses involved those petition students who: 1) had been diagnosed as LD without the use of standardized IQ tests; 2) had a one standard deviation discrepancy (i.e., 15 standard score points) between IQ and achievement; 3) had a one standard deviation discrepancy between IQ and achievement or FL aptitude; 4) had a one standard deviation discrepancy between IQ and FL aptitude only; and 5) had at least one academic achievement test score below the 25th percentile. First, we found that five students had been diagnosed as LD without the use of either an intelligence test or achievement tests; six students had been diagnosed as LD without the use of an intelligence test, but each had been given at least one standardized measure of achievement (e.g., reading) or aptitude (i.e., the MLAT). As a diagnosis of LD implies that a student not only has significant difficulties with academic learning but also a severe discrepancy between his/her intelligence (potential for learning, or IQ) and academic achievement, we conclude that for these 11 students (11.4 percent of the petition group) the diagnosis of LD was inappropriate. Researchers have recommended that if the recommended discrepancy criteria are not used, diagnosticians should refrain from labeling their subjects as LD (Fletcher et al. 1993; Lyon and Moats 1993). The only way to determine the presence and extent of a discrepancy is to administer both standardized IQ and achievement tests.

Also, we examined the test scores of the 86 students who had been administered a standardized test of intelligence and a minimum of one standardized measure of academic achievement to determine the number of students who exhibited at least a one standard deviation between their IQ and academic achievement (reading, mathematics, written language/spelling, and oral language). The results showed that 42 (48.8 percent) of the 86 students who had been evaluated with an IQ test and a

minimum of one academic achievement test exhibited at least a one standard deviation discrepancy between their IQ and academic achievement. Thus, slightly less than half of the petition students met the minimum criteria for the diagnosis of LD.

Then, we examined the students' test scores to determine the number of students who exhibited at least a one standard deviation discrepancy between IQ and academic achievement including FL aptitude (i.e., the students' score on the MLAT). The results showed that 51 (60 percent) of the 86 students exhibited at least a one standard deviation discrepancy between their IQ and achievement when the MLAT was added as an "achievement" measure from which a discrepancy (from IQ) could be found. This finding suggests that evaluators may have used a discrepancy between IQ and the MLAT to determine either the presence of a LD (i.e., a "FL LD") or to determine that a student could not pass a FL course.

Because the preceding analysis suggested that the MLAT may have been used as a measure of "achievement" from which to calculate a discrepancy, we examined the test scores of 58 students, those who had taken both an IQ test and the MLAT. The results showed that 50 (86 percent) of the students exhibited at least a one standard deviation discrepancy between their IQ score and their score on the MLAT. This finding lends additional support to the authors' speculations that a diagnosis of LD may have been made primarily on the basis of a discrepancy between IQ and FL aptitude (and, in addition, probably the student's demographic profile). The finding, in our view, is important because the MLAT is an *aptitude* test, and its results do not quantify how much of or to what extent a FL has been learned (i.e., proficiency). Thus, using a discrepancy between a student's IQ and his/her MLAT score to quantify a discrepancy is actually determining a discrepancy between two aptitude tests, a process that does not indicate the presence of LD.

We then examined the students' test scores without using their IQ scores. In this analysis, a discrepancy between IQ and achievement was not calculated. Instead, we were interested in determining only those numbers of students who exhibited below-average test scores on academic achievement tests (without the MLAT). In this analysis, the authors counted only those students who exhibited at least one academic achievement test score (reading, mathematics, written language/spelling, and oral language) below the 25th percentile ($SS < 90$). The results showed that thirty-nine (45.3 percent) of the 86 students exhibited at least one achievement test score below the 25th percentile. Thus, the achievement test scores of the remaining 47 students (54.7 percent) were in the Average range, a finding

that suggests that the academic skills of many petition students were not weak overall.

Implications

Implications for Diagnosticians

One implication is that diagnosticians who evaluate college students with FL learning difficulties should employ consistent, standard criteria for the diagnosis of LD. At most universities the diagnosis of a LD is the *sine qua non* for receiving permission to petition for substitution or waiver of the FL requirement (Ganschow, Myer, and Roeger 1989). For years, researchers have found that the lack of a consistent, empirically sound definition of LD and failure to adhere to the conceptual and operational definitions of LD has resulted in a situation in which large numbers of students who do not meet generally accepted criteria are nonetheless identified as LD and provided with services in schools (see Algozzine and Ysseldyke 1986; Algozzine, Ysseldyke, and McGue 1995; Kavale 1993; Lyon and Moats 1993; Ysseldyke, Algozzine, Shinn, and McGue 1982). Although there is ambiguity in the operational definition of LD, there are generally accepted criteria that can and should be used to diagnose students as LD (at least one standard deviation discrepancy between IQ and academic achievement; low average and below average standardized achievement test scores in, for example, reading written language).¹¹

The findings suggest that self-reported learning difficulties and other unverifiable data (data for which no written record is available) should not be used as the basis for diagnosing LD or recommending substitution or waiver of the FL requirement. Criticisms of the use of unreliable and unverifiable criteria such as self-reports to exempt students who experience FL learning problems from the FL requirement, or to identify students as LD, have been made previously (Sparks, Ganschow, and Javorsky 1995; Sparks, Javorsky, and Ganschow 1995).¹² Here, we argue that technically sound procedures based on current research in the FL literature are now available to diagnosticians.¹³ Sparks, Ganschow, and their colleagues recommend that a thorough assessment include qualitative reviews of a student's developmental, academic, and FL learning histories as well as administration of aptitude and achievement tests. (See Ganschow and Sparks 1993; Sparks and Ganschow 1993a,b; Sparks, Ganschow, and Javorsky 1992, for a description of assessment procedures.) If students are experiencing FL learning problems, they should have both a verifiable

history of native language learning problems (such as difficulties with reading, spelling, written language) and a standardized test profile that shows weaknesses in both native language skills and FL aptitude. In particular, the diagnostician should look for the following signs: deficits in phonological/orthographic processing in reading and spelling, problems with grammar and syntax in writing, difficulties with vocabulary in written and oral language, and a low level of FL aptitude.¹⁴ Because of the language-based nature of most FL learning problems, it is important to assess all aspects of the language function: expressive and receptive; and reading, writing, listening, and speaking.

We also suggest that the MLAT not be used as the sole criterion to determine either the diagnosis of LD or to recommend substitution or waiver of the FL requirement. Our conclusion is based on the inference that a single test (IQ, aptitude, achievement) cannot provide the information necessary to determine the basis for a diagnosis of a handicap, nor can one test alone determine the presence of the types of native language problems we suggest are likely to be at the "core" of FL learning problems (i.e., problems with the phonological/orthographic, syntactic, and/or semantic components of language). Further, the MLAT should not be used as the basis for calculating an IQ-achievement discrepancy because the MLAT is an aptitude measure and not an achievement test; therefore, its use in implementing the discrepancy criterion for LD is not a psychometrically sound procedure.

Implications for Universities and University Service Providers

One implication for universities and their service providers is that if they are going to use substantiation of a LD as their criterion for substitution or waiver, they should insist that petitioning students meet currently accepted criteria for the diagnosis of LD (verifiable histories of native language learning problems, low standardized achievement test scores, a minimum of one standard deviation discrepancy between IQ and academic achievement). Low IQ or low achievement test scores alone should not be the criteria for diagnosis of LD. When universities and service providers do not adhere to strict guidelines, the number of students who petition for substitution or waiver of the FL requirement is likely to increase, thereby expanding the parameters of the LD concept but, at the same time, undermining the concept. Further, the guidelines for receiving a petition for substitution from or waiver of the FL requirement may continue to expand, a situation that will ultimately decrease the number of students

taking FL courses and contribute to even more complex problems for university personnel working in the petition process.

Furthermore, universities and university service providers should closely monitor the reason for referral to the LD Coordinator. Our reason for identifying this variable is that the type of referral may be one indicator that the student is experiencing difficulties only with a FL course. In this study, 63 percent of the petition group were referred only for FL learning problems and only 37 percent had a previous diagnosis of LD. Students without a history of LD need careful documentation that they have a history of and current difficulties with native language learning.

Universities and their service providers should encourage students to take FL courses early in their college careers rather than wait until their junior and senior years. Regardless of the outcome, the very length of the petition process may cause students to delay graduation. Successful petitioners may need to take three or four substitution courses, while students judged not to be LD still have to complete the language requirement. Another problem with late-filing students is they may engender the suspicion that they may simply be trying to avoid the FL requirement.

Universities and university service providers should insist on a rigorous process for students to show that they cannot fulfill the FL requirement. For example, the university could require a student to receive formal tutoring in the FL course before a referral is made for diagnostic testing and the filing of a petition. The university could also require a student to persist in taking the FL course to completion to determine whether he or she can pass the course and fulfill the requirement. The service provider could also contact the FL instructor to determine if the student has exhibited levels of effort and motivation that are consistent with the effort needed to pass the course (attends class, asks instructor for assistance). In our view, multiple grades of Withdrawal alone should not be considered as evidence that a student cannot fulfill the FL requirement.

Likewise, universities must establish and make available clearly articulated policies and procedures for the process by which a student petitions for substitution or waiver of the FL requirement. The process should be found easily in university publications and be made known to FL faculty, university staff, advisors, and tutors. The process should describe the network of "key players" (the Office of Learning Assistance, Dean of a particular division, faculty in the FL departments) who are the contact persons in the petition process. The policy and procedures should be applied consistently across divisions within a university.

In our view, universities and university service providers should not base course substitution and waiver policies solely on whether a student is diagnosed as LD. In this study only slightly more than one-third of the petition students had a previous diagnosis of LD, yet all of the 97 students were eventually diagnosed as LD. Research literature shows that the history of the LD concept is one of both misuse and abuse. Further, professionals in the diagnostic community are not in agreement on how LDs are to be diagnosed, a point supported by the findings of this study. Thus, basing a substitution/waiver policy solely on a diagnosis of LD may result in the diagnosis of students who do not meet accepted criteria for LD.

Instead of relying solely on a diagnosis of LD, our recommendation is that a student who files for petition or waiver of the FL requirement meet the following criteria. First, the student should have a verifiable history of native language learning difficulties. This criterion can be met by asking the student to provide elementary and secondary school records along with supporting documentation that shows that the student received special services. School records should show low grades (C or lower) in courses that are related to the use and understanding of language (reading, spelling, English). Supporting documentation should show that the student was previously evaluated by a school or by a private diagnostician and subsequently received special education, remedial reading, and/or speech/language services. The student also should have a verifiable history of FL learning difficulties. This criterion can be met by providing school records, which should show low grades (C or lower) in FL courses, and by showing a "record of struggle" in FL courses (letters from FL teachers, a high school counselor, FL tutor, and/or special education teacher). Withdrawal from FL courses can be used as one piece of evidence to indicate struggle to learn the language but should not be permitted to stand alone as evidence of inability to meet the FL requirement. The student should have a verifiable record of recent testing by a diagnostician who administered measures of intelligence, native language skill, and FL aptitude. The criterion used to evaluate the student's test results should be that the test results show at least average intelligence and low scores on measures of FL aptitude and native language skill. Here, we do not provide "cut-off scores" (the test scores that a student should achieve to receive a waiver or substitution). However, we note that empirical research over several studies has shown that students who achieve scores below the 35th–40th percentile in FL aptitude and in native language phonology/orthography, syntax, and/or semantics generally experience significant problems with FL learning. This

research has demonstrated that the lower the student's levels of native language skill, the more difficult FL learning will be for him/her.

Implications for FL Educators

FL educators are in a particularly difficult position in the substitution (waiver) process for several reasons. FL educators are generally not cognizant of the criteria for the diagnosis of LD, nor are they trained to evaluate native language skills and FL aptitude. Thus, FL educators typically rely on their observations of the student in the FL classroom (e.g., grades on quizzes and exams, participation in class, perceived effort in the course). One implication of this study is that FL educators need to monitor carefully the performance of the poor FL learners in their classrooms to determine the consistency of their day-to-day performance in the oral and written aspects of the FL.

FL educators should be aware of services provided by their universities to assist students with FL learning problems. For example, if the university is going to require students with FL learning problems to seek tutoring before petitioning for course substitution or waiver, the members of FL departments must know how and where to direct students for tutoring services. FL educators and university service providers could also work together to develop additional services for students experiencing difficulties with FL learning, such as regularly scheduled review sessions.

FL educators also could provide in-service training for their faculty to help them identify more easily those students who have difficulties with FL learning. This training could be provided on a yearly basis for teaching assistants who often teach introductory FL courses. Many students who struggle with FL learning will have histories of and current difficulties with native language learning. In-service training for FL faculty and teaching assistants should include an explanation of classroom accommodations that may prove successful for students who have difficulties with FL learning, such as untimed tests, providing simultaneous oral and written instruction, teaching explicitly the sound-symbol and grammatical system of the FL, and speaking more slowly in the FL.

FL departments could develop and use appropriate accommodations to help students with language learning difficulties fulfill the FL requirement. In our view, the student should still be urged to study a FL rather than, for example, to substitute a culture course. Some FL educators could work with students to provide course accommodations, such as evaluating the student in the course on his/her skill in listening to and speaking but

not reading and writing the language, or making allowances for spelling. Universities could develop alternative courses that slow the pace of instruction for students (such as allowing the student to fulfill one semester of the FL requirement in two semesters). An alternative would be for students to be taught using other methods of FL instruction, such as direct teaching of the sound-symbol and grammatical systems of the FL (see Sparks and Ganschow 1993d; Sparks, et al. 1991, 1992c). The aforementioned adjustments and accommodations would allow the student to take a FL course, and we suspect, be successful in that endeavor.

Conclusion

The LD label carries with it enormous power to influence service providers in Offices of Learning Assistance and FL educators, two groups who are not involved in the process of diagnosing LD but who, because of federal law, must provide modifications to students diagnosed as LD. Sparks, Ganschow and Javorsky (1995) and Sparks, Javorsky, and Ganschow (1995) have used the metaphor of a “sociologic sponge” to describe the sociologic function of the LD concept. Senf (1987) described the LD concept as a “sponge to wipe up regular education’s spills and cleanse its ills” (p. 87). He explained that when used as a “sponge,” the LD concept tended to absorb a “heterogeneous mess, containing subjects conforming to few knowledgeable persons’ concept of LD” (p. 92). Sparks, Ganschow, and Javorsky (1995) speculated that unless rigorous criteria are used to diagnose students with FL learning problems, the “sponge” would also absorb increasing numbers of students who would be much too heterogeneous to permit generalizations about who should be provided with classroom accommodations, course substitutions, or waivers from the FL requirement. Results of the current study lead us to speculate that until diagnosticians adhere to rigorous criteria when labeling students as LD, university support staff and petition committees require verifiable evidence of native and FL learning difficulties, and FL educators become an integral part of documenting FL learning difficulties, the “sponge” will continue to absorb increasing numbers of students who are much too heterogeneous to permit generalizations about who should be provided with classroom accommodations and/or course substitutions. Diagnosticians, university service providers, petition committees, and FL educators will need to work together to seek viable solutions for those students who have inordinate difficulties meeting the FL requirement at the postsecondary level.

Notes

1. The legal definition of LD is found in Public Law 94-142 and states: A disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, which may manifest itself in an imperfect ability to listen, speak, read, write, spell, or do mathematical calculations. The term does not include children who have learning problems that are primarily the result of visual, hearing, or motor handicaps, mental retardation, emotional disturbance, or environmental, cultural, or economic disadvantage (Federal Register, 42, 1977, 65083).
2. There were a few students who received permission to fulfill the FL requirement through correspondence courses, but generally these were students close to graduation who needed more substitution courses than the university was offering.
3. There were 11 students older than traditional undergraduate students. Their ages ranged from 29 to 51 years. All 11 students attended one of the university's two branch campuses and petitioned late in their academic careers.
4. The authors thank Mona Burts, Doug Green, and Jennifer Coyne for their assistance in recording the demographic profile data.
5. The WISC-R is administered to students under 16 years of age; the WAIS-R is administered to students 16 years of age and older. If the student's intelligence had been evaluated with the WISC-R, he or she had been evaluated when enrolled in secondary school.
6. In the four cases in which students had received no standardized testing, two had been diagnosed as LD as a result of evaluation at an Irlen Lens Clinic. Two students had been diagnosed as LD as a result of evaluation by either a medical doctor or a registered nurse. In the latter two cases, the two students had been diagnosed as having Attention Deficit Disorder and not LD.
7. Although the WJ-R: Dictation subtest has numerous items that the student must spell correctly, it is not a direct measure of spelling. For example, this measure includes grammar items (use of commas, apostrophes, capitalization, contractions, plurals) and other items on which misspellings are acceptable.
8. In the authors' view, the difference in the students' Dictation and Writing Samples subtest scores is likely due to the differences in scoring criteria for the two subtests. For example, on the Dictation subtest, a student is judged on his or her precise use of a particular

grammatical skill or on whether he or she correctly spells a word; each item is scored right or wrong. On the Writing Samples subtest, a student is asked to write a sentence after being provided with verbal directions and a picture stimulus. Unlike the Dictation subtest, each item on the Writing Samples subtest is scored as 0, 1, or 2 points based on the qualitative judgment of the examiner who uses scoring criteria provided by the tests' authors. On the Writing Samples subtest, precise use of grammar, capitalization, punctuation, and spelling is not always required nor is the use of these skills always rewarded with a higher score.

9. There are two likely reasons why measures of oral language were not administered as frequently as were measures of reading, mathematics, and written language/spelling. First, oral language measures are generally administered by speech and language pathologists, not psychologists or educational diagnosticians. Second, the age norms of most oral language measures (i.e., the TLC-E and TOAL-2) extend only to 18 years, 11 months. (PPVT-R norms extend through adulthood.) In the present study, most students who were administered a measure of oral language were evaluated when enrolled in high school.
10. Students' high school FL histories, including grades, are self-reported; high school transcripts were not available to the authors.
11. We do not defend the discrepancy concept, which has been criticized by most researchers in the field and has been found to have numerous psychometric problems (see Hessler 1987; Siegel 1989; Stanovich 1991). We suggest only that a discrepancy between IQ and academic achievement is the accepted, standard procedure at this time for operationalizing the conceptual definition of LD found in PL 94-142 (see Note 1).
12. In a recent study, McGuire et al. (1996) find problems with the documentation to become eligible for LD support services at the postsecondary level. Problems include flaws in the comprehensiveness of assessments and the use of testing instruments inappropriate for postsecondary level students.
13. Sparks, Ganschow, and their colleagues have written about and published research in support of their Linguistic Coding Differences Hypothesis (LCDH), which speculates that, for the most part, problems with FL learning are based on problems with native language learning. (See, for example, Ganschow et al. 1991; Sparks 1995; Sparks and Ganschow 1991, 1993b,c, 1995a; Sparks, Ganschow, and

Pohlman 1989). Studies show that students with overt or subtle problems with native language learning have difficulty with FL learning and that students with significantly stronger native language skills achieve both higher grades and higher levels of oral and written proficiency in the FL than students with significantly weaker native language skills (Ganschow et al. 1991, 1994; Ganschow and Sparks 1995, 1996; Sparks and Ganschow 1993d, 1995b, 1996; Sparks et al. 1992a,b,c, 1996, in press). Sparks, Ganschow et al. suggest that a plausible diagnosis of FL learning problems should be made on the basis of reliable and verifiable evidence showing that a student has a history of significant problems with one or more aspects of native language learning. Evidence may include but must not be limited to students' self-reports.

14. Sparks, Ganschow, and Javorsky hypothesized that there is not a discrete entity such as a "FL learning disability" because language learning exists on a continuum from very good to very poor language learners and the "cut off point" for a "FL learning disability" along this continuum would be arbitrary (Sparks, Ganschow, and Javorsky 1993). Further, one would have to calculate a discrepancy between a student's IQ and a FL achievement measure as one way to determine the presence of a "FL learning disability" (if the standard definition of LD is followed). To our knowledge, standardized measures of FL achievement are not available at this time.

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Appendix

Alphabetical Listing of Testing Instruments Used by Evaluators

Aptitude

Modern Language Aptitude (MLAT)

Tests FL aptitude using a simulated format to provide an indication of probable degree of success in learning a FL; includes five subtests: Part I (Number Learning); Part II (Phonetic Script); Part III (Spelling Clues); Part IV (Words in Sentences); and Part V (Paired Associates)

Wechsler Adult Intelligence Scale-Revised (WAIS-R)

Tests general intelligence; 12 subscales

Wechsler Intelligence Scale for Children-Revised (WISC-R)

Tests general intelligence; 12 subscales

Reading

Gray Oral Reading Test-Revised (GORT-R)

Tests oral reading comprehension by having student read paragraphs aloud and respond to five multiple-choice questions following each paragraph

Nelson Denny Reading Test (NELSON)

Tests reading comprehension by having student read silently and respond to multiple-choice questions in a timed format

Peabody Individual Achievement Test (PIAT) — Reading

Comprehension subtest

Tests reading comprehension by having student read silently a sentence on one page and then selecting the one picture (out of four) on the following page that best represents the meaning of the sentence

Wide Range Achievement Test-Revised (WRAT-R) — Reading subtest

Tests skill in reading words out of context

Woodcock-Johnson-Revised (WJ-R) — Broad Reading Cluster

Letter-Word Identification Subtest: tests ability to identify isolated words

Passage Comprehension: tests ability to determine a word that would be appropriate in the context of a passage

Woodcock-Johnson Psychoeducational Battery (WJPB) — Reading Cluster

Letter-Word Identification Subtest: tests ability to identify isolated words

Word Attack Subtest: tests ability to read pseudowords

Passage Comprehension: tests ability to determine a word that would be appropriate in the context of a passage

Woodcock Reading Mastery Test-Revised (WRMT-R) — Total Test

Word Identification: tests ability to read isolated words

Word Attack: tests ability to read nonsense (pseudo) words

Word Comprehension: tests ability to read a word and respond orally to items presented in antonym, synonym, and analogy formats

Passage Comprehension: tests ability to determine a word appropriate in the context of a passage

Math

Wide Range Achievement Test-Revised (WRAT-R) — Arithmetic Subtest

Tests skill in counting, reading number symbols, solving oral problems, and performing written arithmetic computation

Woodcock-Johnson-Revised (WJ-R) — Broad Mathematics Cluster

Calculation Subtest: tests skill in performing mathematical calculations

Applied Problems Subtest: tests skill in analyzing and solving practical problems in mathematics

Woodcock-Johnson Psychoeducational Battery (WJPB) — Mathematics Cluster

Calculation Subtest: tests skill in performing mathematical calculations

Applied Problems Subtest: tests skill in analyzing and solving practical problems in mathematics

Written Language/Spelling

Test of Written Language-2 (TOWL-2)

Tests written language skills in both contrived and spontaneous formats; skills tested include vocabulary, spelling, grammar, capitalization, and punctuation

Wide Range Achievement Test-Revised (WRAT-R) — Spelling subtest

Tests performance on writing single words from dictation

Woodcock-Johnson Psycho-Educational Battery (WJPEB) — Written Language Cluster

Dictation Subtest: tests ability to respond in writing to a variety of questions requiring knowledge of punctuation and capitalization, spelling, and usage

Proofing Subtest: tests ability to read a short passage and identify punctuation and capitalization, spelling, or usage errors in the passage

Woodcock-Johnson-Revised (WJ-R) — Broad Written Language Cluster

Dictation Subtest: tests skill in providing written responses to items requiring knowledge of spelling, punctuation, capitalization, and word usage

Writing Samples Subtest: tests skill in writing sentences that are evaluated with respect to quality of expression. The student is generally not penalized for errors in the basic mechanics of writing, such as spelling or punctuation.

Oral Language

Peabody Picture Vocabulary Test-Revised (PPVT-R)

Tests receptive vocabulary for standard American English

Test of Adolescent Language-2 (TOAL-2)

Tests skill in oral and written language; includes four areas (listening, speaking, reading, writing) with two subtests (vocabulary, grammar) in each area

Test of Language Competence-Expanded Edition (TLC-E)

Tests oral expressive and receptive language proficiency in semantics, syntax, and pragmatics