

SOCIAL CLASS, PEDAGOGIC PRACTICE
AND ACHIEVEMENT IN SCIENCE:
A STUDY OF SECONDARY SCHOOLS IN PORTUGAL

VOLUME TWO

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APPENDICES

APPENDIX I

CHARACTERISTICS OF SCHOOLS
INVOLVED IN THE EMPIRICAL STUDY

Characteristics of schools here presented include essentially their past history and the conditions under which they currently work. They provide information on the environment in which children were taught and teachers did their job.

We are mainly reporting features of each school which are relevant to science education. It is important to note that the science curriculum for the middle school is part of the common curriculum which all schools must provide. The common curriculum includes guidelines for the teaching of each subject. It follows that the emphasis upon science does not vary between schools. There may be variation within the upper schools according to the areas provided. However, in the case of the upper schools in our sample each upper school makes similar provision for the science subjects under investigation.

We present the schools separated in two groups: middle-class schools with a mixed social class population and working-class schools with a predominantly working-class population. At the end we present a short analysis of the characteristics of the schools.

Eight. All of them currently: official; comprehensive; mixed sex; mixed ability.

MIDDLE-CLASS SCHOOLS

SECONDARY SCHOOL X_A

(Teachers X_1 and X_2)

Sited in a large city (Lisbon).

One of the oldest schools in Lisbon, it was opened in 1902 in an old building; in 1909 it was moved to a new building. Built for 800 pupils it has currently a population of 3000 pupils divided into three shifts, one of them in the evenings for adult education (about 1000 students). A former 'liceu', it gradually changed into a comprehensive school in the late '70s. It has always been a boys' school, except in the beginning. It first had girls' classes in 1971-72 but those were completely separated from boys' classes, functioning in different periods of the day. In 1974-75 it became a true mixed sex school. It has always been a mixed ability and mixed social class school, although until the comprehensivization of secondary education it tended to be mainly a middle-upper class school; it still maintains a high percentage of pupils from that social status. It has gathered some of the best teachers in Lisbon because of its academic level. It has been a school for the initial training of teachers since 1969/70. It has had evening classes for formal adult education since 1972/73. It was the first 'liceu' to have an evening school (before that, evening adult education only existed in technical schools).

Its old building is being repaired and enlarged. Although laboratories of Biology and related fields were being rebuilt during the academic year in which data for this study were collected, teachers had all the facilities and equipment needed, including audio-visual aids. Teachers

can count on a trained laboratory technician to help them.

SECONDARY SCHOOL X_B

(Teachers X_3 and X_4)

Sited in a large city (Lisbon)

One of the oldest schools in Lisbon, it was opened in 1905 in a rented old building; in 1911 it was moved to a new building. Built for 500 pupils it has currently a population of about 3000 pupils divided into three shifts, one of them in the evenings for adult education (about 1000 students). A former 'liceu', it gradually changed into a comprehensive school in the late '70s. It has always been a boys' school except in the beginning; it had a few girls in the last two years of schooling but the sexes were segregated in some of the classes and during breaks. In 1974/75 it became a true mixed sex school. It has always been a mixed ability and mixed social class school although until the comprehensivization of secondary education it tended to be mainly a middle-upper class school; it still maintains a high percentage of pupils from that social status. Because of its high academic level it has always had some of the best teachers and pupils in Lisbon.

It functioned as a centre for teacher training for many years. Until 1947 it was one of the two 'liceus' in the country where teacher training was carried out (for that reason it was called 'Liceu Normal'), Such a function was interrupted from 1947 to 1956. From 1957 onwards it was one of the three 'liceus' in the country for teacher training. Even in 1972/73 when teacher training was expanded to many schools in Lisbon and throughout the country, it still centralized teacher training in the Lisbon area (e.g. the crucial final examination teachers had to sit was still carried out there during that year). Also, important pilot experiments in teaching were carried out

there, including one on Mathematics, one for the last two years of secondary school on Natural Sciences, one in Physics and Chemistry for the 8th and 9th years. It has had evening classes for formal adult education since 1973/74. It was the second 'liceu' (after 'liceu' X_A) to have an evening school (before those evening classes, adult education only existed in technical schools).

Its old building have been repaired. Good laboratories for the teaching of Biology and related fields. Teachers have all the facilities and equipment needed including audio-visual aids. Teachers can count on a trained laboratory technician to help them.

SECONDARY SCHOOL X_C

(Teacher X_6)

Sited in a large city (Lisbon)

Opened in 1950, it was moved to a new building in 1961/62. Built for 700 pupils it has currently a population of about 3500 pupils divided into three shifts, one of them in the evenings for adult education (about 1200 students). A former 'liceu', it gradually changed into a comprehensive school in the late '70s. A girls' school until 1974/75, when it became a mixed sex school. Until that date all teachers and members of clerical staff were females. It still keeps a high percentage of females among its clerical staff and teachers. It has always been a mixed ability and mixed social class school although until the comprehensivization of secondary education it tended to be mainly a middle-upper class school; it still maintains a high percentage of pupils from that social status.

It has been a school for the initial training of teachers since 1972/73. It has been widely used for carrying out courses for in-service teacher training

namely some of the GTEB - Gulbenkian Foundation courses for Science Teachers. It has had evening classes for formal adult education since 1975/76.

It possesses new building with very good accommodations. Many and excellent laboratories for the teaching of Biology and related fields. Teachers have all the facilities and equipment needed, including audio-visual aids. Teachers cannot count on a trained laboratory technician to help them, although a member of the clerical staff gives them some kind of help.

WORKING-CLASS SCHOOLS

SECONDARY SCHOOL X_D

(Teacher X_5)

Sited in a large city (Lisbon)

Opened in 1980/81 it is a school without previous history. It has a population of 600 pupils divided into two shifts of 7th, 8th and 9th years, the only years functioning there. It opened as a comprehensive, mixed sex school; it is a mixed ability and mixed social class school. It does not have evening classes for adult education. The school population is constituted by pupils for whom there was no place in other schools, mainly children from the suburbs or children repeating the year.

Although a new building its accommodation is not very good because it is a ready-built construction created to answer the urgent need for schools. There are no true laboratories, only one room-laboratory for all classes of Biology and related fields. Teachers have some equipment and audio-visual aids; they cannot count on any help from laboratory technicians or members of the clerical staff.

SECONDARY SCHOOL X_E (Teacher X_7)

Sited in a large city (Porto)

Opened in 1955, it was the first secondary school in the area (working class area), built many years before the 'liceu'. A former Technical School (Industrial and Commercial), it gradually changed into a comprehensive school in the late '70s. Built for 2000 pupils (2 shifts, one in the evening) it has now 3000 divided into three shifts, one of them in the evenings for adult education (about 1000 students). It has always been a mixed sex school although sexes were completely segregated in all classes and during breaks. In the early '70s it began to have some mixed classes. In 1974/75 it became a true mixed sex school. As is the case with all technical schools it has always been a working-class school although since the comprehensivization of secondary education it has changed to a somewhat more mixed social class school.

It has always been a school for the initial training of teachers. It has always had evening classes for formal adult education.

A relatively new building, it has very good facilities and equipment for the purpose it was constructed: a technical school. However, subjects like Biology and related fields, which were not very relevant in the curriculum of technical schools (before the comprehensivization of secondary school), do not as yet have proper laboratories. There is only a room-laboratory for all classes, and teachers lack almost all kinds of equipment, from apparatus to audio-visual aids. Teachers of these subjects cannot count on any help from laboratory technicians or members of clerical staff.

SECONDARY SCHOOL Z_A (Teachers Z_1 and Z_4)

Sited in a town in the centre of Portugal.

Opened in an old building in 1955, it was moved to a new one in 1963. It was the second secondary school in the town, built many years after the 'liceu'. Built for 600 pupils (two shifts one in the evening), it has currently a population of 2000 pupils divided into three shifts, one of them in the evenings for adult education (about 400 students, comparatively less than in the early years of its functioning). A former technical school (Industrial and Commercial), it gradually changed into a comprehensive school in the late '70s. It has always been a mixed sex school although the sexes were completely segregated in classes and during breaks. In the early '70s it began to have some mixed classes and after 1975/76 it became a true mixed sex school. As is the case with all technical schools it has always been a working-class school; although since the comprehensivization of secondary education it was supposed to become a mixed social class school, there has been little change in its social composition.

It has been a school for the initial training of teachers since 1974. It has always had evening classes for formal adult education.

A new building, it has reasonable facilities and equipment for the purpose it was built (to be a technical school). However, subjects like Biology and related fields, which were not relevant in the curriculum of technical schools (before the comprehensivization of secondary school), have not as yet proper laboratories. There is only a room-laboratory for all classes; there is some equipment and teachers can use audio-visual aids. They cannot count on any help from laboratory technicians or other members of the clerical staff.

SECONDARY SCHOOL Z_B (Teacher Z_2)

Sited in a seaside town in the south of Portugal.

Opened in 1932/33 for the teaching of the first two years of secondary school, it was the first secondary school in the town, preceding the technical school (1963/64) by many years. In 1960/61 the number of years it taught started to increase, until all years were taught. It was accommodated in an old building until 1964/65 when a new building was built. Built for 900 pupils it has currently a population of 2500 pupils divided into three shifts, one of them in the evenings for adult education (300 students). A former 'liceu', it gradually changed into a comprehensive school in the late '70s. It has always been a mixed sex school although sexes were segregated in different classes and during breaks. In 1974/75 it became a true mixed sex school. It has always been a mixed ability and mixed social class school, although until the comprehensivization of secondary education it tended to be mainly a middle class school; it still maintains a high percentage of pupils from that social status.

It has been a school for the initial training of teachers since 1971/72. It has been used to carry out courses for in-service teacher training namely one of the GTEB-Gulbenkian Foundation courses for Science teachers. It has had evening classes for formal adult education since 1975/76.

New building. It has reasonable accommodation and reasonable laboratories for the teaching of Biology and related fields. Teachers have all the facilities and equipment needed, including audio-visual aids. Teachers cannot count on a trained laboratory technician to help them, although a member of the clerical staff gives some kind of help.

SECONDARY SCHOOL Z_C (Teacher Z_3)

Sited in a small town not very far from Lisbon.

Opened in 1975/76. It is the only secondary school in the town. Accommodated in a building built for a private school which had been closed. The building which was intended for 600 pupils is now occupied by 1500 pupils divided into three shifts, one of them in the evenings for adult education (about 200 students). The school only admits pupils from the 7th to the 9th years. It opened already as a comprehensive, mixed sex school.

It has been a school for the initial training of teachers since 1980/81. It has had evening classes for formal adult education since 1977/78.

A new building, small in size, it provides reasonable accommodation. Although there is only one laboratory for the teaching of biology and related fields (obviously not enough for all classes), that laboratory is quite good and reasonably well equipped. Teachers can make use of some audio-visual aids and although they cannot count on a trained laboratory technician to help them there is a member of the clerical staff to help them.

Analysis of the Schools

From the analysis of the characteristics of the schools we can see that our sample has three middle-class schools and two working-class schools placed in large cities. The schools in the country are all working-class schools, something we did not expect when we selected the sample because, at least, schools Z_B and Z_C given their characteristics of being respectively a former 'liceu' and a new secondary school were supposed to have a higher social class school population.

The analysis also shows that all our working-class schools (except school Z_B) are former technical schools or new secondary schools with poor laboratories and facilities for the teaching of the subjects which were the object of our study. The best equipped schools in our sample are all middle-class schools (except school Z_B). These factors have certainly had an influence on the teaching children receive, although they *cannot* per se be made accountable for inferior or superior teaching and achievement. As we have seen (Chapter four) pupils in working-class schools attained in some cases a better level than pupils in middle-class schools. As we have seen the crucial factor is the teacher and not the building or the facilities it possesses, although these if inadequate have undoubtedly a depressing effect on the work of the teacher. This effect, as we have seen, is felt when the teacher remains in this kind of school for many years.

APPENDIX II

SUMMARY CURRICULUM VITAE OF TEACHERS
INVOLVED IN THE EMPIRICAL STUDY

The short history of each teacher here presented includes her family background and her educational and professional life. It serves the main purpose of providing additional data to characterise and understand each teacher's pedagogical practice.

The curriculum vitae refers to the time when the collection of data for the empirical study was carried out (1980-1981). We present the teachers ordered according to the final scale we achieved in Chapter four, i.e. teachers follow a decreasing order of competence according to our quantitative and qualitative assessments of the teachers described in that chapter. This will allow the reader to relate the teacher's characteristics with the competence they showed in the study.

For each teacher we included the description of family background, studies and professional life. Official and extra-official qualifications and publications are referred. At the end we present a short analysis of the characteristics of teachers.

TEACHER X₇ (7)

Female, 36 years old, she was born in a small town in the country where she spent the first part of her childhood. Later on her parents moved to a larger town where she took her primary education in a state school and her secondary education in a 'liceu'. She was brought up in a catholic family of traditionally quite well-off farm owners, her father being a solicitor and her mother being a housewife all of her life. She is married to a former bank employee with some years of a higher degree who became a manager of a medium commercial enterprise, and she has two small children. She lived for many years in Lisbon but has recently moved to a smaller city. She has had no job other than teaching. She took her highest academic studies in the Universities of Lisbon and Coimbra, where she obtained a Licence in Biology in 1967. Later on, in 1972, she obtained a Diploma in Pedagogical Sciences (General Psychology, Educational Psychology, History of Education, Pedagogy, Health and Education) in the University of Lisbon. She undertook her initial training for teaching in 'liceus' (Natural Sciences) in Lisbon in 1972-1973, following the traditional training scheme.¹

She has fourteen years of teaching practice in state schools, including preparatory schools, technical schools, 'liceus' and comprehensive secondary schools. Throughout her professional life she has taught subjects like Mathematics, Geology, Environmental Science, Biology, Human Biology, Ecology. She was head of department for one year and also a member of the Pedagogical Council⁵ of the school for one year.

She began to do educational research in 1973 in GTEB³ of which she has been an active member. Within that group, and in collaboration with other members of it, she has developed remarkable and outstanding work in teacher training, curriculum development and in the improvement of the teaching-learning process, which has had the greatest and

most crucial influence in the science teaching in Portugal. To summarize her work one can, for example, point out: (a) the numerous and unique courses for teachers and for trainers of teachers⁴ which she has organized and taught and for which she has written many papers; (b) the development of a new course on Environmental Science for Secondary school which was a definite advance both in the scientific content and in the methodological structure judged by either national or international standards; (c) development of a course for the training of teachers which was recently published and is being widely used in centres for teacher training throughout the country. She has attended many courses, conferences and seminars on educational subjects. Her publications, whose number rises to over twenty, are papers, books and audio-visual material on subjects ranging from teacher training and curriculum development to various materials for use in the classroom; most of these publications have been written in collaboration with other members of GTEB. She possesses a good knowledge of educational psychology and a very good knowledge of both theory and practice of science education. She has an outstanding mastery of the new methods of teaching Biology and related fields.

TEACHER X₃ (3)

Female, 38 years old, she was born in a small village in the country where she lived out her childhood and took her primary education in a state school. She was sent away from home to take her secondary studies in a 'liceu' in Lisbon. She was brought up in a catholic family of traditionally working owners of small farms, her parents being primary school teachers who spent half of their lives working in small villages and who settled later on in Lisbon. She was married to a social welfare worker with a higher degree and she has two children. She has always lived in Lisbon. Before she started teaching she had another job for

nine years where she carried out work on documentation. She took her higher academic studies in the University of Lisbon where she obtained a Licence in Biology in 1962. Later on, in 1973, she obtained a Diploma in Pedagogical Sciences (General Psychology, Educational Psychology, History of Education, Pedagogy, Health and Education) in the University of Lisbon. She undertook her initial training for teaching in 'liceus' (Natural Sciences) in Lisbon in 1973-1974, following the traditional training scheme.¹

She has ten years of teaching practice in state schools, all of them 'liceus' and now comprehensive secondary schools. Throughout her professional life she has taught subjects like Geology, Environmental Science, Biology, Human Biology, Ecology, Human Physiology. She was a teacher trainer at school level for one year of the new training scheme.² She was head of department also for one year; she was a member of the Pedagogical Council⁵ of the school for one year.

She began to do educational research in 1974 in GTEB³ of which she has been an active member. Within that group, and in collaboration with other members of it she has developed remarkable and outstanding work in teacher training, curriculum development and in the improvement of the teaching-learning process, which has had the greatest and most crucial influence on science teaching in Portugal. To summarize her work one can, for example, point out: (a) the numerous and unique courses for teachers and for trainers of teachers⁴ which she has organized and taught and for which she has written many papers; (b) the development of a new course on Environmental Science for Secondary School which was a definite advance both in the scientific content and in the methodological structure judged by either national or international standards; (c) the development of a course for the training of teachers which was recently published and is currently widely used in centres for teacher training throughout the country.

She has attended many courses, conferences and seminars on educational subjects. Her publications whose number rises to over twenty, are papers, books and audio-visual material on subjects ranging from teacher training and curriculum development to various materials for use in the classroom; most of these publications have been written in collaboration with other members of GTEB. She possesses a good knowledge of educational psychology and a very good knowledge of both theory and practice of science education. She has an outstanding mastery of the new methods of teaching Biology and related fields.

TEACHER X_2 (2)

Female, 44 years old, she was born in a small village in the country where she spent her childhood and where she took her primary education in a state school. She was sent to Lisbon to a well known catholic private boarding school, where she took most of her secondary education, the last two years of it having been taken at a state school, also in Lisbon. She was brought up in a catholic family of traditionally working and non-working owners of small farms. Her father is an office employee with supervisory functions in a medium industrial enterprise and her mother a housewife during all of her life. She is a single woman who spent seven years of her life teaching in Mozambique and Angola when they were still Portuguese colonies. She has also lived in towns in the country and in Lisbon, where she is now settled. She has had no job other than teaching. She took her higher academic studies in the University of Lisbon where she obtained a Licence in Biology in 1966. Later on, in 1969 she obtained a Diploma in Pedagogical Sciences (General Psychology, Educational Psychology, History of Education, Pedagogy, Health and Education) in the University of Lisbon. She undertook her initial training for teaching in 'Liceus' (Natural Sciences) in Angola in 1970-1971 following the traditional training scheme.¹

She has twenty years of teaching practice, the first six of them in private schools. After that she has always taught in state schools all of them 'liceus' and now comprehensive secondary schools. Throughout her professional life she has taught subjects like Geology, Biology, Human Biology, Ecology, Environmental Science. She was a teacher trainer at school-level for two years of both training schemes, the traditional¹ and the new² ones. She has also been head of department for three years and a member of the Pedagogical Council⁵ of the school for four years.

From 1976 onwards, she has been a teacher's trainer in the GTEB-Gulbenkian Foundation in-service teacher's training courses.⁴ To be prepared for such a task she attended the GTEB's courses for teacher's trainers. She is currently a member of GTEB.³ She also taught a few other courses for teachers and she has attended many courses, conferences and seminars on educational subjects, one of them a GTEB course⁴ (which she attended before becoming one of the trainers of such courses). Her publications are a collection of inquiry and discussion slides with teacher's guide, which she made in collaboration with other members of GTEB. She possesses a good knowledge of educational psychology and a good knowledge of both theory and practice of science education. She has a very good mastery of the new methods of teaching Biology and related fields.

TEACHER Z₂ (9)

Female, 43 years old, she was born in a town in the country, where she spent her childhood and where she took her primary education and the two first years of secondary education, always in state schools. After that she was sent away from home to continue her secondary studies (always in a 'liceu') firstly in another town in the country and finally in Lisbon. She was brought up in a family who could be defined as non catholic but with hegemonic catholic

influence. Her father was a taxi driver initially employed in a family enterprise and he maintained a close friendship with his employers. Later on he became self-employed. Her mother who started as a self-employed dressmaker became, later on in her life, a housewife. There is in the family background of this teacher a discrepancy between the socio-economic and cultural characteristics of the family. This teacher told the researcher that despite her father's occupation (taxi driver which in Portugal is associated with a low socio-cultural status) he maintained a strong interest and concern for general cultural matters. She is a single woman who has lived for alternative periods of her life in the town where she was born and brought up, and in Lisbon. She has had no job other than teaching. She took her higher academic studies in the University of Lisbon where she obtained a Licence in Biology in 1960. Later on, in 1965, she obtained a Diploma in Pedagogical Sciences (General Psychology, Educational Psychology, History of Education, Pedagogy, Health and Education) in the University of Lisbon. She undertook her initial training for teaching in 'liceus' (Natural Sciences) in Coimbra in 1969, following the traditional training scheme.¹

She has nineteen years of teaching practice in state schools all of them 'liceus' and now comprehensive secondary schools. Throughout her professional life she has taught subjects like Geology, Biology, Human Biology, Ecology, Environmental Science. She was head of department and deputy head of department both for one year. She was also a member of the Pedagogical Council⁵ of the school for five years and a member of the Directory Council⁵ of the school for two years.

Her deep interest in the new methodologies of science teaching began with her becoming involved in a pilot experiment on Natural Sciences for the last two years of secondary school. She was one of the teachers who led that experiment in the country for the last three years of its existence.

From 1976 onwards, she has been a teacher trainer of GTEB - Gulbenkian Foundation in-service teacher's training courses.⁴ To be prepared for such a task she attended the GTEB's courses for teacher trainers. She has attended many courses, conferences and seminars on educational subjects in Portugal and abroad, one of them a GTEB course⁴ (which she attended before becoming one of the trainers of such courses). Her publications are two textbooks on Biology for the 10th year of schooling, which she wrote in collaboration with other teachers. She possesses a good knowledge of educational psychology and a good knowledge of both theory and practice of science education. She has a very good mastery of the new methods of teaching Biology and related fields.

TEACHER X_5 (5)

Female, 28 years of age, she was born in Lisbon where she has spent all of her life. She took her primary education in a private school, she then entered a 'liceu' to take her secondary education but she went back to a private school for the last two years of her secondary education. She was brought up in a non-catholic family, her father being a builder and her mother being a housewife all of her life. There was a discrepancy between a reasonably high socio-economic level and a low cultural level within her family. She is a single young woman who has always lived in her parents' home. She has had no job other than teaching. She took her higher academic studies in the University of Lisbon where she obtained a Licence in Biology in 1979. That degree already included the study of a number of subjects on education and one-year teacher training in a school, for it corresponds to the new teacher training scheme.² At school-level she was supervised by a member of GTEB.³ Her initial training was for teaching in 'liceus' (Natural Sciences).

She has three years of teaching practice, the first

of them in a private school and also for a short period of time in a 'liceu' and the other two in state schools, already comprehensive secondary schools. She has taught subjects like Biology, Human Biology, Ecology. She has been head of department for one year and a member of the Pedagogical Council⁵ of the school for one year too. So far she has attended only a few short courses on educational subjects. She possesses some knowledge of both theory and practice of science education. She has a reasonable mastery of the new methods of teaching Biology and related fields.

TEACHER X_1 (1)

Female, 49 years of age, she was born in a town in the country where she spent her childhood and adolescence. She took her primary education in a private school; her secondary education was also taken in a private school except for the two last years which were taken in a 'liceu'. She was brought up in a non-practicing catholic family, her father being a small entrepreneur in commerce and her mother a housewife during all her life.

She is married to a commercial manager with secondary education and she has six grown-up children, one of them already married. She has always lived in Lisbon. She has had no job other than teaching. She took her higher academic studies in the University of Lisbon where she obtained a Licence in Biology in 1954. Later on, in 1956 she obtained a Diploma in Pedagogical Sciences (General Psychology, Educational Psychology, History of Education, Pedagogy, Health and Education) in the University of Lisbon. She undertook her initial training for teaching in 'liceus' (Natural Sciences) in Lisbon in 1958-1960, following the traditional training scheme.¹

She has 25 years of teaching practice, the first two of them in a private school. After that she has always taught in state schools, all of them 'liceus' and now

comprehensive secondary schools. Throughout her professional life she has taught subjects like Geology, Biology, Human Biology, Ecology. She was a teacher trainer at school level for six years of the new training scheme.² She has also been head of department for three years, a member of the Pedagogic Council of the school⁵ for three years and a member of the Directory Council of the school for one year.⁵ She was involved in a pilot experiment of Natural Sciences for the last two years of secondary school; she was actually one of the teachers who led that experiment in Lisbon for the last two years of its existence. She has attended several courses, conferences and seminars on educational subjects in Portugal and abroad, one of them a GTEB course.⁴ Her publications are two textbooks on Biology for the 10th year of schooling, which she wrote in collaboration with other teachers. She possesses a fair knowledge of both theory and practice of science education and she has some mastery of the new methods of teaching Biology and related fields.

TEACHER X₄ (4)

Female, 29 years of age, she was born in Lisbon where she has spent all of her life. She took her primary education in a state school and her secondary education in a 'liceu'. She was brought up in a non-practicing catholic family, her father being a shop assistant and her mother being a housewife all of her life. She is married to an engineer who became a secondary school teacher; she has a small child and so far has lived in Lisbon in her parents' home. Before she started teaching she had another job for four years in a state service, where she carried out a kind of bureaucratic work. She took her higher academic studies in the University of Lisbon where she obtained a Licence in Biology in 1978. She took her initial training for teaching in 'Liceus' (Natural Sciences) in Lisbon in 1979-1980, following the traditional training scheme.¹

She has one year of teaching practice in state schools, already comprehensive secondary schools. She has taught subjects like Biology, Human Biology, Ecology, Human Physiology. So far she has attended only a few short courses on educational subjects. She possesses some knowledge of both theory and practice of science education. She does not as yet have a good mastery of the new methods of the teaching of Biology and related fields.

TEACHER Z₃ (10)

Female, 44 years old, she was born in a small town in the country, where she spent her childhood and where she took her primary education in a state school. She was sent to Lisbon to a well known catholic private boarding school, where she took all of her secondary education. She was brought up in a well-off catholic family of traditionally farm owners, her father being a veterinary surgeon with a higher degree and her mother a housewife all of her life. The economic and socio-cultural level of her family was definitely high. She is a single woman who has lived in several towns in the country and also in Lisbon, where she has been settled for many years. She has had no job other than teaching. She took her higher academic studies in the University of Lisbon and Coimbra where she obtained a Licence in Biology in 1965. Later on in 1972, she obtained a Diploma in Pedagogical Sciences (General Psychology, Educational Psychology, History of Education, Pedagogy, Health and Education) in the University of Lisbon. She undertook her initial training for teaching in 'liceus' (Natural Sciences) in Lisbon in 1972-1973, following the traditional training scheme.¹

She has 15 years of teaching practice in state schools, including preparatory schools, technical schools, 'liceus' and comprehensive secondary schools. Throughout her professional life she has taught subjects like Mathematics,

Physics and Chemistry, Geography, Geology, Biology, Human Biology, Ecology. She was a director of laboratory for one year.

She has attended a few courses on educational subjects, one of them a GTEB course.⁴ She possesses a fair knowledge of both theory and practice of science education and has some mastery of the new methods of teaching Biology and related fields.

TEACHER X₆ (6)

Female, 31 years of age, she was born in Angola but has spent all of her life in Lisbon. Her primary and secondary education were both taken in a private school. She was brought up in a catholic family. Her father who came from a low social class was self-educated and self-made man who owned a large enterprise. He died when she was still a girl. Her mother who was a housewife all of her life came from a higher social class although she was culturally inferior to her husband. There was a discrepancy between a very high socio-economic level and a somewhat low cultural level within her family. She is married to a husband who is still a student of engineering employed in a large enterprise, and she has two small children. She has always lived in Lisbon except for a small stay in Angola. She has had no job other than teaching. She took her higher academic studies in the University of Lisbon where she obtained a Licence in Biology in 1976. That degree included the study of a number of subjects on education and a one-year teacher training in a school as it corresponds to the new teacher training scheme.² Her initial training was for teaching in 'liceus' (Natural Sciences).

She has three years of teaching practice in state schools all of them 'liceus' and now comprehensive secondary schools. She has taught subjects like Biology, Human

Biology, Ecology, Environmental Science. So far she has attended only a few short courses on educational subjects. She possesses some knowledge of both theory and practice of science education. She does not as yet have a good mastery of the new methods of teaching Biology and related fields.

TEACHER Z₄ (11)

Female, 52 years old, she was born in a town in the country where she spent her childhood and where she took her primary education in a state school. Her secondary education was taken in a 'liceu' in the same town. She was brought up in a catholic family of traditionally working owners of small farms who raised their socio-economic level by becoming medium sized entrepreneurs. There was a discrepancy between a reasonably high socio-economic level and a low cultural level within her family. She is a widow of a country doctor with an adult daughter. She lived for some years in a small town and later on she moved to a larger town also in the country, where she is now settled. She spent, however, a short period of her life in two big cities. She has had no job other than teaching. She took her higher academic studies in the University of Lisbon where she obtained a Licence in Biology in 1953. Also in 1953, she obtained a Diploma in Pedagogical Sciences (General Psychology, Educational Psychology, History of Education, Pedagogy, Health and Education). She took her initial training for teaching in technical schools (Natural Sciences and Physics and Chemistry) in Lisbon in 1969, following the traditional training scheme.¹

She has twenty three years of teaching practice, the first five of them in a private school. After that she has always taught in state schools all of them technical schools and now comprehensive secondary schools. Throughout her professional life she has taught subjects like Mathematics, Physics and Chemistry, Geography, Biology, Human Biology,

Ecology. She was a deputy head teacher for one year, and she has been head of department for seven years and member of the Pedagogical Council⁵ of the school for seven years. She has attended a number of short courses on educational subjects, and also a one-year course on T.V. She possesses a fair knowledge of both theory and practice of science education but she does not as yet have a good mastery of the new methods of teaching Biology and related fields.

TEACHER Z₁ (8)

Female, 25 years of age, she was born in a small town in the country where she spent her childhood and where she took a first period of her primary education in a state school. Later on her parents moved to a larger town where she completed her primary education, firstly in a private school and afterwards in a state school. Her secondary education took place in a 'liceu'. She was brought up in a middle class catholic family, her father being a country doctor (who died when she was still a young girl) and her mother a secondary school teacher, both of them having come from families of traditionally working owners of small farms who, in some cases, raised their socio-economic level by becoming medium-sized entrepreneurs. She is a single woman who, after obtaining her degree, came back to live in her parents' house in the town where she had lived before. She has had no job other than teaching. She took her higher academic studies in the University of Porto where she obtained a Licence in Biology in 1978. That degree included the study of a number of subjects on education and one-year teacher training in a school, for it corresponds to the new teacher training scheme.² Her initial training was for teaching in 'liceus' (Natural Sciences).

She has three years of teaching practice in state schools all of them comprehensive secondary schools. She has taught subjects like Biology, Human Biology, Ecology, Environmental Science. She has been deputy head of department for one year.

So far she has attended only a few short courses on educational subjects. She possesses some knowledge of both theory and practice of science education although she does not as yet have a good mastery of the new methods of teaching Biology and related fields.

NOTES:

1. Traditional training scheme - traditional way of training secondary school teachers still currently existing in Portugal: it is a school-based type of training not linked to the university.
2. New training scheme - a quite recent way of training teachers with no more than ten years of existence. The Licence in any scientific field itself includes the study of a number of subjects on education and a one-year training in a school; such a training scheme is linked to the university.
3. G.T.E.B. - Grupo de Trabalho para o Ensino da Biologia (Working Group for the Teaching of Biology): a group devoted to educational research which started in 1971 and which has been supported by the Gulbenkian Foundation. Its main field of work has been teacher training and curriculum development. Through its activities G.T.E.B. has had the most crucial influence in changing science education in Portugal. An important number of publications have been made by its members.
4. G.T.E.B.'s Courses - In-service teachers' courses on the Philosophy and Methodology of Science and the Methodology and Organization of Teaching. These have included courses for teachers and courses for trainers of teachers and they have made an important contribution to the introduction of new methods of teaching and new scientific contents as well in science education in Portugal. Their unique characteristics have made them an outstanding innovation judged either by national or international standards. Some idea of this work can be gained by

reading the paper: DOMINGOS, A.M., "Changing Science Education through In-service Teacher's Courses" in *Associateship Report*, University of London Institute of Education, London, 1979.

5. After 1974 the administration of the school was radically changed. The Pedagogic Council consisting of the elected heads of each department and the elected president of the directory council is responsible for all pedagogic practice. The Directory Council is an elected executive body which replaced the Head and Deputy teachers.

Analysis of teacher's characteristics

The analysis of differences and similarities between teachers and their relation with the competence they showed when we carried out the quantitative and qualitative assessments in Chapter four, points to some main characteristics of a teacher capable of producing a higher competence with respect to the appropriate level of conceptual demand and also with respect to assisting pupils to attain that level.

The most important characteristics appear to be the extra-official qualifications, their experience as teacher trainers, their contribution in curriculum development, their publications and the knowledge the teachers possess of the sciences of education and their understanding of new methods of science teaching. The age of the teacher and the type and area of the school where they teach appear to have some relation. Family background and years of practice appear not to have a clear relation with the teacher's competence.

This definitely points to efficient *teacher training* as the important factor in the improvement of science education. Such training should include the study of the sociology of education.

APPENDIX III

INSTRUMENTS

The instruments used to carry out the empirical study are in this appendix and they are:

- (a) Questionnaire to teachers*
- (b) Questionnaire to pupils*
- (c) Sheet to plan and correct the teachers' tests*
- (d) Table to register the classification made by each teacher of A/U competencies in different tests*
- (e) Table to register the classification made by different teachers of A/U competencies in one test*
- (f) Table to register marks given by one teacher to answers of different teachers' pupils*
- (g) Table to register marks given by different teachers to pupils' answers to questions of one test*
- (h) Table to register marks of pupils to answers to questions testing selected objectives*

A filled-in example of each one of these instruments is shown.

QUESTIONNAIRE TO TEACHERS

Code number of the pupil _____

Name _____ Number _____

Class _____ Year _____ Date of Birth _____

School _____

Address _____

Father: Name _____

Address _____

Occupation _____

Educational Qualification _____

Mother: Name _____

Address _____

Occupation _____

Educational Qualification _____

Person in charge of education Name _____

Address _____

Occupation _____

Educational Qualification _____

Is the pupil repeating this or another school year? _____

MARKS

COMPETENCIES TERMS	I - ACQUISITION AND COMPREHENSION OF KNOWLEDGE (Knowledge and lower level of comprehension)	II - USE OF LEARNING TO NEW SITUATIONS (Higher level of comprehension, application, evaluation, etc.)	GLOBAL
1st Term	29/60 — 27/60 (L)	20/40 — 12/40 (L)	49/100 — 39/100 (2)
2nd Term	32/60 — 46/60 (A)	5/40 — 8/40 (L)	37/100 — 54/100 (2)
3rd Term	35/50 — 39/50 (A)	24/50 — 19/50 (L)	59/100 — 58/100 (3)

OBSERVATIONS:

*

Marks are indicated in each cell according to order in time of tests. The level in A and U competencies and global achievement assigned by the end of the term is in brackets (L - low; A - average; H - high; 1 - 0%-24%; 2 - 25%-49%; 3 - 50%-74%; 4 - 75%-89%; 5 - 90%-100%).

QUESTIONNAIRE TO PUPILS¹

(Translation)

(In questions accompanied by blank squares make a cross in front of the appropriate answer; for each question use as many squares as appropriate)

1. Date of birth _____ 2. Sex: Male ☐ Female ☐
3. Brothers and/or sisters:

Age	Studies possessed

4. What type of primary school did you attend?

State school ☐

Private school ☐

5. If you have repeated one or more years, say which (write the number of years you repeated in the square):

1st ☐ 2nd ☐ 3rd ☐ 4th ☐ 5th ☐

6th ☐ 7th ☐ 8th ☐ 9th ☐ 10th ☐ 11th ☐

6. Father:

6.1. Do you live with your father? _____ Yes ☐ No ☐

If not: How long ago _____

Is he deceased? _____ Yes ☐ No ☐

Is he an emigrant? _____ Yes ☐ No ☐

- 6.2. Father's age:

up to 40 years ☐ from 40-50 years ☐ more than 50 years ☐

- 6.3. Father's qualifications (underline 'Liceu' or Technical School as appropriate):

Cannot read or write _____ ☐

Did not go to Primary School, but can read & write _____ ☐

Completed Primary School (3rd or 4th year) _____ ☐

Attended some years of a secondary school (5th-9th year) ('Liceu' or Technical School) _____ ☐

Took the 9th year exams ('Liceu' or Technical School) _____ ☐

Took 11th year exams ('Liceu' or Technical School) _____ ☐

Completed a Medium-level course (Industrial Institute, Commercial Institute, Schools of Kindergarten Teachers, Schools of Primary School Teachers, Nurses' Schools, etc.) or some years of a university degree _____ ☐

Obtained a university degree _____ ☐

Name of course if any _____

6.4. Father's occupation:

Manual _____ ☐ or Non-Manual _____ ☐

Self-employed _____ ☐ or Employed by someone else _____ ☐

Supervisory _____ ☐ or Non-supervisory _____ ☐

Specialised _____ ☐ or Non-Specialised _____ ☐

If an entrepreneur or a manager (commercial, industrial or agricultural):

Type of commerce or industry or agricultural exploitation _____

Scale of enterprise*: Small ☐ Medium ☐ Large ☐

Name of Occupation _____

7. Mother:

7.1. Do you live with your mother? _____ Yes ☐ No ☐

If not: How long ago _____

Is she deceased? _____ Yes ☐ No ☐

Is she an immigrant? _____ Yes ☐ No ☐

7.2. Mother's age:

up to 40 years ☐ from 40-50 years ☐ more than 50 ☐

7.3. Mother's educational qualification (underline 'Liceu' or Technical School as appropriate):

Cannot read or write _____ ☐

Did not go to primary school, but can read and write _____ ☐

Completed primary school (3rd or 4th year) _____ ☐

Attended some years of a secondary school (5th-9th years) ('Liceu' or Technical School) _____ ☐

Took 9th year exams ('Liceu' or Technical School) _____ ☐

Took 11th year exams ('Liceu' or Technical School) _____ ☐

Completed a Medium-Level course (Industrial Institute, Commercial Institute, Schools of Kindergarten Teachers, Schools of Primary School Teachers, Nurses' Schools, etc.) or some years of a university degree _____ ☐

Obtained a university degree _____ ☐

Name of course if any _____

7.4. Mother's Occupation:

Manual _____ ☐ or Non-Manual _____ ☐

Self-employed _____ ☐ or Employed by someone else _____ ☐

Supervisory _____ ☐ or Non-Supervisory _____ ☐

Specialised _____ ☐ or Non-Specialised _____ ☐

* Small: 1-10 employees Medium: 10-50 employees Large: over 50 employees

If an entrepreneur or a manager (commercial, industrial or agricultural):

Type of commerce or industry or agricultural exploitation _____

Scale of enterprise: Small ☐ Medium ☐ Large ☐

Name of Occupation _____

8. Person in charge of education:
(to be filled in only in case he/she lives with the student and is neither his/her father nor his/her mother)

8.1. If a relative, what? _____

8.2. For how long have you lived with him/her? _____

8.3. Age: up to 40 ☐ from 40 to 50 ☐ more than 50 ☐

8.4. Educational qualification (underline 'Liceu' or Technical School as appropriate):

Cannot read or write _____ ☐

Did not go to Primary School, but can read & write _____ ☐

Completed Primary School (3rd or 4th year) _____ ☐

Attended some years of a secondary School (5th-9th years) ('Liceu' or Technical School) _____ ☐

Took 9th year exams ('Liceu' or Technical School) _____ ☐

Took 11th year exams ('Liceu' or Technical School) _____ ☐

Completed a Medium-level course (Industrial Institute, etc.) _____ ☐

Obtained a university degree _____ ☐

Name of course if any _____ ☐

8.5. Occupation:

Manual _____ ☐ or Non-manual _____ ☐

Self-employed _____ ☐ or Employed by someone else _____ ☐

Supervisory _____ ☐ or Non-Supervisory _____ ☐

Specialised _____ ☐ or Non-Specialised _____ ☐

If an entrepreneur or a manager: Type of enterprise _____

Scale of enterprise: Small ☐ Medium ☐ Large ☐

Name of Occupation _____

¹ Clearly it was not to be expected that pupils between 12 and 17 years would be able to provide with great accuracy information about the educational level and occupational position of both parents. The teacher helped the pupils to fill in this part of the questionnaire by explaining in greater detail what was required. Where information was not provided and where there was some reason to doubt the information the researcher formally got in touch with the family. In this way the researcher got in touch with more than three hundred out of the 1.320 families in the sample; no light undertaking.

X₇ 8 A5

TEST- Planning, results, interpretation

Year: 8 Class: A Date: 23/5/81 Date of devdution: 30/5/81



MATRIX OF OBJECTIVES-CONTENTS: Question number (percentage)										
Contents	ACQUISITION				USE					TOTAL OF PARTIAL SCORES CONTENTS %
	Knows Terms	Knows Facts	Under-stands concepts (low)		Inter-pret data	Under-stands concepts (high)	Applies concepts	States problems	States hypo-theses	
Photosynthesis and Respiration	1.1. (3) 1.2. (3)	5.1. (4) 5.2. (2)	5.3. (4) 6. (3)							19
Flows of matter and energy in food chains		7.1. (3) 7.2. (3)					7.4. (8) 9. (10) 10. (10)			34
Flows of matter and energy in the Ecosphere		2. (10) 3.1. (4) 3.2. (4)	3.2.1. (2) 3.2.2. (2)			4. (3)				28
Ecological balance					8.1. (5) 8.2.1. (8)	8.2.2. (3) 8.2.3. (3)				19
TOTAL OF PARTIAL SCORES COMPETENCIES %	6	33	11		13	9	28			100
	50				50					

RESULTS	Very good (90-100)	0	Good (75-89)	0	
Pass (50-74)	18	Weak (25-49)	7	Very weak (0-24)	1

OBSERVATIONS	
Incorrections relative to test's elaboration	3.3 - incorrectly stated; 5.1. - insufficiently explicit
Subjects in which learning failed	concept of respiration
Competencies in which learning failed	Interpretation
Pupils who need attention and in what	
Paula (n°20) and Lucinda (n°26) show difficulties in both A and U. Paula (n°16) and Marta (n°18) even though performing satisfactorily in A show great difficulties in U.	
Others Pupils in general show difficulties in U.	

CLASS MATRIX - Results																													
Competency			ACQUISITION															USE										Σ	
Question	1.1	1.2	2	3.1	3.2	3.3	5.1	5.2	5.3	6	7.1	7.2	7.3	Σ	4	7.4	8.1	8.2.1	8.2.2	8.2.3	9	10	Σ	11	12	13			
No Name Score	3	3	10	4	2	2	4	4	2	4	3	3	3	3	50	3	8	5	8	3	3	10	10	50	10	10	10		
1 Cristina Monteiro	3	3	6	0	1	2	0	4	2	4	0	3	3	3	34	0	0	5	4	3	3	0	0	15	4	4	4		
2 Cristina Correia	3	3	6	4	1	0	0	0	0	3	0	3	0	3	26	0	0	4	8	3	3	0	3	21	4	4	4		
3 Elisabete	3	3	10	0	2	2	0	4	2	3	0	3	1	3	36	0	0	4	5	3	3	0	3	18	5	5	5		
4 Eva	3	3	10	0	1	2	2	1	0	3	3	3	3	3	33	0	0	4	0	3	0	2	4	13	4	4	4		
5 Francisca	3	3	10	4	1	0	2	0	0	3	0	3	2	0	30	0	0	4	6	3	3	10	3	29	5	5	5		
6 João Paulo	3	3	10	4	1	0	2	2	0	4	0	3	2	2	36	3	0	3	6	0	0	0	6	18	5	5	5		
7 Joaquim António	3	2	6	1	2	2	4	2	4	0	3	0	2	3	31	3	0	3	8	3	0	6	0	23	5	5	5		
8 Joaquim José	3	3	10	4	2	0	4	0	2	4	0	3	1	3	39	3	2	0	0	3	3	10	1	21	6	6	6		
9 João Joaquim	3	3	10	4	1	0	0	4	2	3	3	0	3	0	36	0	2	3	8	3	3	0	0	19	5	5	5		
10 João Paulo	3	3	10	4	1	2	1	2	0	3	0	3	3	3	38	0	0	3	0	3	3	0	2	11	4	4	4		
11 Luís Miguel	3	3	8	4	1	0	1	4	2	3	3	3	2	3	40	0	8	4	8	2	0	5	6	33	7	7	7		
12 Margarida	3	3	10	0	1	0	0	2	0	3	3	2	3	3	33	3	0	0	6	3	3	3	3	21	5	5	5		
13 Glória	3	3	10	2	1	0	0	4	2	3	0	0	3	2	33	3	0	5	4	3	0	0	6	21	5	5	5		
14 Luísa	3	3	10	4	2	2	2	4	2	3	0	3	3	3	44	0	0	4	6	3	3	0	0	16	6	6	6		
15 Mafalda	3	3	10	4	1	2	0	0	2	2	3	3	3	3	39	0	0	5	6	3	3	10	3	30	6	6	6		
16 Paula	3	3	8	0	1	0	3	0	2	3	0	3	3	2	31	3	1	5	1	1	1	1	1	8	3	3	3		
17 Mário	0	2	10	0	1	1	2	0	0	4	0	3	3	0	25	0	8	3	5	3	0	6	0	25	5	5	5		
18 Marta	3	3	4	4	1	2	4	0	2	3	0	0	3	3	32	0	2	5	0	0	0	0	0	7	3	3	3		
19 Paula Pinto	3	3	10	4	1	2	1	1	2	3	3	3	3	3	41	0	0	5	6	0	3	0	6	20	6	6	6		
20 Paula Costa	3	3	8	0	1	0	0	1	1	3	0	0	3	1	21	0	1	3	0	0	0	1	3	2	4	4	4		
21 Paulo Filipe	3	2	8	0	1	0	0	0	2	3	3	0	3	3	28	3	0	5	8	3	0	10	4	33	6	6	6		
22 Paulo Jorge	0	0	10	4	2	0	2	4	2	3	0	3	3	3	36	3	2	2	4	3	3	3	6	26	6	6	6		
23 Rui	3	3	10	4	2	0	2	0	0	3	0	0	3	3	33	3	0	4	6	3	3	1	6	25	5	5	5		
24 Teresa	3	3	8	4	1	2	0	0	2	3	0	3	3	3	35	0	1	5	5	3	0	2	0	15	5	5	5		
25 Alexandra	3	3	10	4	1	0	2	0	0	3	0	3	3	3	35	0	0	3	6	3	3	6	3	24	5	5	5		
26 Lucinda	3	3	10	0	1	2	0	0	0	3	0	0	0	1	22	0	0	0	0	3	3	1	6	28					
27																													
28																													
29																													
Total of correct answers																													

* Questions to test the selected objectives

Figure III.1 - Front and back pages of sheet used by teachers to plan and correct the test: a filled-in example

TEACHER: *Name*
Z₂

COMPETENCIES TESTS	I ACQUISITION AND COMPREHENSION OF KNOWLEDGE (Knowledge and lower level of comprehension)										II USE OF LEARNING TO NEW SITUATIONS (Higher level of comprehension, application, evaluation, etc.)									
X ₁ 8 C 7	I-1	II-1	II-2	II-3	III-1	III-C					I-2	I-3	I-4	II-4	III-2	III-3	II-4	II-a		
X ₁ 10 A 7	I-1	I-4	I-5	III-1	III-2	III-3	IV-1	IV-2			I-2	I-3	II-1	II-2	II-3	IV-2				
X ₂ 9 A G 7	I-1 II-2	I-3 II-3	I-4	II-1	II-5	III-1	III-3	IV-1			I-2 III-2	I-5 IV-3	II-2	II-3	II-4	II-6	II-7	II-2		
X ₂ 10 A 6	1.2 6.5	2.1	2.2	2.3	4.	5.1	5.2	6.4			1.1	3.1	3.2	3.3	3.4	6.1	6.2	6.3		
X ₃ 7 A 5	1.2	1.5	1.6	2.1a	2.2	2.6a	2.6b				1.1	1.3	1.4	2.1b	2.3	2.4	2.5			
X ₃ 11 C 4	1.1 2.3b	1.2	1.3	1.4	1.5	2.1a	2.1b	2.3a			1.6 3.1	2.2 3.1.5	2.4 3.1.6	2.5 3.2	2.6 3.3	3.1.1 4.	3.1.2	3.1.3		
X ₄ 7 H J 4	2.1 —	2.2 6.8	4.1 7.1	4.2 7.2	5.1 7.3	—	6.1	6.2			1 6.7	2.3	3.	5.2	6.3	6.4	6.5	6.6		
X ₄ 7 B 6 4	4.1	4.2	5.4.1	5.4.2							1 5.4.3	2	3	4.3.1	4.3.2	5.1	5.2	5.3		
X ₅ 7 B F 3	1.1 7.	1.4 8.	1.5 9.2	2.	3.1	3.2	4.1	4.2			1.2	1.3	5.1	5.2	6.1	6.2	9.1			
X ₅ 9 A D E 2	2 12	3	6.1	6.2	6.4	7.	8.	11.5			1 11.3	4. 11.4	5	6.3	9	10	11.1	11.2		
X ₆ 8 4 th 8 th	2.1 8.2	2.2	3.1	3.2	5.	7.1	7.2	8.1			1.1	1.2	2.3	4.1	4.2	6.	7.3	8.3		
X ₆ 8 9 th 11 th	2. 8.4	3.1	3.2	3.3	7.1	8.1	8.2	8.3			1.1 7.2	1.2	3.4	4.1	4.2	5.1	5.2	6.		
X ₇ 7 A B E H 7	1.1 6.2	1.2 8.1	1.3 9.2	1.4 8.3	2.2	2.3	4.3	6.1			2.1 7.1	3. 4.2	4.1 7.3	4.2 9.1	4.4 9.2	4.5 9.3	5.	6.3		
X ₇ 8 A E F 5	1.1 5.2	1.2 7.1	2.	3.1	3.2.1	3.2.2	3.3	5.1			4. 8.2.2	5.3 8.2.3	6. 9.	7.2 10.	7.3	7.4	8.1	8.2.1		
Z ₁ 8 C E H 4		I-c	I-d	I-e	II-a	III-b	III-c				I-a	I-f	II-a	II-b	I-b					
Z ₁ 9 A 4	I-b	I-d	I-e	II-a	II-b	II-c	I-d	III			I-a	I-e	II-e							
Z ₂ 10 F 4	1.1	1.2	2.3	4.1	4.2	5.	10	9.			1.3	2.1	2.2	3.1	3.2	8				
Z ₂ 10 I 5	1.1	1.2	1.3	1.4	2.	3.	6.	7.1			4.	5.	7.2	8.1	8.2	8.3				
Z ₃ 7 L N O P 5 QRS	— III-8	I-3 II-9	III-1 III-10	III-2	III-3	III-4	III-5	III-6			I-1	I-2.1	I-2.2	I-4	II	III-7				
Z ₃ 7 L N O P 6 QRS	1.3 6.1	2.1	2.2	3.	5.1	5.2	5.3	5.4			1.1	1.2	4.	6.2	6.3	6.4	6.5	6.6		
Z ₄ 9 G I 4	I-e	I-d	II-b	III-a	III-b						I-a	I-b	II-a	II-c	II-d					
Z ₄ 9 F G 5	1.1	1.2	1.3	1.4	1.5	2.3	4.1				2.1 5.	2.2	3.1	3.2	3.3	3.4	4.2	4.3		

Figure III.2 - Categories of competencies required in tests administered by different teachers and classified by one teacher: a filled-in example of the table used by each teacher

TEST: X_2 9A67

TEACHERS QUESTIONS	TEACHERS												TOTAL	A	U
	X_1	X_2	X_3	X_4	X_5	X_6	X_7	Z_1	Z_2	Z_3	Z_4	X_2^*			
I.1.	A	A	A	A	A	A	A	A	A	A	A	A	11	0	
I.2.	A	A	A	A	A	A	U	A	U	U	A	A	8	3	
I.3.	A	U	A	A	U	A	A	A	A	A	A	U	9	2	
I.4.	U	A	A	A	A	A	U	A	A	A	A	A	9	2	
I.5.	U	U	U	U	A	U	U	U	U	U	U	U	1	10	
II.1.	A	A	A	A	A	A	A	A	A	A	A	A	11	0	
II.2.	U	A	A	A	U	A	U	A	U	A	A	A	7	4	
II.3.	U	U	U	U	U	U	U	U	U	U	U	U	0	11	
II.4.	U	U	U	U	U	U	A	U	U	U	U	U	1	10	
II.5.	U	U	U	U	U	A	A	U	A	U	A	U	4	7	
II.6.	U	U	U	U	A	U	U	U	U	U	A	U	2	9	
III.1.	A	A	A	A	A	A	A	A	A	A	A	A	11	0	
III.2.1.	U	U	U	A	U	U	U	U	U	U	U	U	1	10	
III.2.2.	U	U	U	U	U	U	U	U	U	U	U	U	0	11	
III.2.3.	U	U	U	U	A	U	U	U	U	U	U	U	1	10	
III.3.	A	A	A	A	A	A	A	A	A	A	A	A	11	0	
IV.1.	A	A	A	A	A	A	A	A	A	A	A	A	11	0	
IV.2.	A	A	A	A	A	A	A	A	A	A	A	A	11	0	
IV.3.1.	U	U	U	U	A	U	A	U	U	A	A	U	4	7	
IV.3.2.	U	U	A	A	A	U	A	A	A	A	A	U	8	3	
TOTAL	A	8	9	11	12	13	11	11	10	11	14	9			
	U	12	11	9	8	7	9	9	10	9	6	4			

* Teacher X_2 's classification of questions when she gave the test to her pupils

Figure III.3 - Teachers' classification of categories of competencies required in one test administered by one teacher: a filled-in example of the table used for each test.

COMPETENCIES TESTS, QUESTIONS, PUPILS MARKS	I ACQUISITION AND COMPREHENSION OF KNOWLEDGE (Knowledge and Power level of comprehension)												II USE OF LEARNING TO NEW SITUATIONS (Higher level of comprehension, application, evaluation, etc.)											
	X ₃ 7 A 5																							
TEST	1.2.												2.6. a)											
QUESTIONS																								
PUPILS	8	13	18	19	20	21	22	26	11	13	14	15	20	22	24	26	11	12	15	17	22	23	25	27
MARKS	8	10	5	0	0	2	2	10	0	9	0	0	5	5	8	10	0	8	0	5	0	0	8	5
TEST	X ₄ 7 J 4																							
QUESTIONS	3.												4.1.											
PUPILS	3	5	9	13	18	21	26	30	7	9	13	17	18	19	28	31	1	10	13	15	19	21	24	29
MARKS	10	7	5	2	5	3	5	2	5	10	3	5	10	5	0	10	10	5	10	5	10	5	10	5
TEST	X ₇ 7 A 6*																							
QUESTIONS	3.4. (3)												5.2. (10)											
PUPILS	1	3	8	16	19	24	27	31	4	7	12	14	18	23	28	30	1	3	4	5	15	21	28	30
MARKS	2	0	3	2	0	3	2	3	3	2	0	1	3	1	3	0	10	0	3	0	5	8	3	5
TEST	X ₁ 8 C 7																							
QUESTIONS	I.1.												I.4.											
PUPILS	2	7	11	14	23	25	26	30	2	3	12	13	15	17	19	27	1	2	4	5	6	9	17	24
MARKS	10	0	10	0	0	0	2	2	0	8	2	8	8	10	0	3	0	8	10	8	0	10	10	0
TEST	X ₆ 8 4 th 5																							
QUESTIONS	2.1.												2.2.											
PUPILS	1	2	3	5	16	28	30	32	8	10	14	15	21	24	26	30	5	7	11	13	21	26	30	31
MARKS	10	10	2	8	6	5	6	0	2	0	0	0	8	0	8	0	0	7	0	5	0	5	0	4
TEST	X ₃ 8 A 5*																							
QUESTIONS	5.1. (4)												7.2. (3)											
PUPILS	4	6	7	11	16	20	24	29	2	6	7	8	9	12	22	29	5	7	8	15	17	22	23	24
MARKS	4	0	2	2	4	0	4	0	3	1	2	0	1	2	3	0	0	6	8	4	6	0	8	4
TEST	X ₇ 8 A 5 (cont.)*																							
QUESTIONS	3.3. (4)												7.3. (3)											
PUPILS	5	9	10	11	12	20	25	27	3	6	7	11	15	18	19	21	8	9	13	15	16	19	24	27
MARKS	2	4	0	1	1	4	2	0	3	0	2	3	2	2	0	3	3	0	0	5	4	3	2	5
TEST	Z ₁ 8 G 5																							
QUESTIONS	I a)												I b)											
PUPILS	1	3	5	11	12	15	21	26	3	10	15	19	21	22	23	24	1	7	9	11	16	17	21	24
MARKS	5	10	10	10	8	10	8	10	0	10	0	8	8	8	0	5	10	10	0	0	0	0	10	2
TEST																								
QUESTIONS																								
PUPILS																								
MARKS																								
TEST																								
QUESTIONS																								
PUPILS																								
MARKS																								
TEST																								
QUESTIONS																								
PUPILS																								
MARKS																								

* Tests of the teacher who is marking

Figure III.4 - Marks to pupils' answers in tests administered by different teachers and marked by one teacher: sample of (a) tests, (b) questions, (c) pupils (filled-in example)

TEST: $X_3 \neq A5$

TEACHERS PUPILS												
	X_1	X_2	X_3	X_4	X_5	X_6	X_7	Z_1	Z_2	Z_3	Z_4	
1.2. (10)												
1	8		10	10	10		8	10		6		
2	13		0	10	10		10	0		0		
3	18		8	8	10		5	8		1		
4	19		5	5	2		0	5		0		
5	20		0	5	8		0	0		0		
6	21		10	5	2		2	10		0		
7	22		8	5	4		2	10		0		
8	26		8	10	8		10	10		0		
2.6.a) (5)												
9	11		6	2	0		0	0		0		
10	13		10	8	8		9	9		9		
11	14		0	0	0		0	0		0		
12	15		0	0	0		0	10		0		
13	20		6	10	10		5	10		10		
14	22		8	10	10		5	10		10		
15	24		0	8	6		8	10		9		
16	26		10	8	10		10	10		10		
1.3. (10)												
17	11		0	2	0		0	0		0		
18	12		10	8	8		8	0		6		
19	15		10	7	6		0	10		2		
20	17		8	0	4		5	10		2		
21	22		5	4	4		0	0		0		
22	23		0	0	4		0	0		0		
23	25		5	4	6		8	10		2		
24	27		8	6	8		5	5		2		
2.4. (10)												
25	13		4	4	4		4	7		2		
26	14		5	4	4		4	7		2		
27	15		5	4	4		2	7		0		
28	18		0	8	2		0	0		3		
29	23		4	7	4		4	7		2		
30	24		0	0	0		0	0		0		
31	25		8	6	8		3	7		8		
32	27		8	4	8		3	10		3		

* Teacher who gave the test

Figure III.5 - Teachers' marking of pupils' answers to some questions of one test administered by one teacher: filled-in example

[illegible]

APPENDIX IV

SAMPLE OF TESTS GIVEN BY
TEACHERS TO THEIR PUPILS

Tests were randomly selected from those used to evaluate the teacher's pedagogic practice (see Chapter four). They are separated according to the two sections of the school, middle and upper school. Only one test of each teacher was selected, except when a teacher taught both middle and upper school in which case two tests were selected, one for each section of the school. The selection also followed the criteria of showing at least two tests for each subject and/or year.

We have retained the exact format of the test paper used by each teacher.

Each question is marked A or U, first according to the teacher who gave the test and then, in brackets, by teacher X_7 (see reasons for this procedure in Chapter four).

The inclusion of this sample of tests has as its main purpose: (a) to give additional information to characterize each teacher's pedagogical practice; (b) to show examples of what is meant by A and U questions and therefore A and U competencies; (c) to give an idea of the syllabuses for each subject in each year.

APPENDIX VI

MEASURES OF SELECTED OBJECTIVES

In Chapter three we described that part of the empirical study which aimed at finding patterns in different types of competencies. In order not to overburden the text with excessive amount of tables and graphs, we only presented in that chapter the measures taken for selected objectives of the classes of 7th year of teacher X_7 . In this appendix we present all other data directly related to Chapter three, i.e. the data which refer to Teacher X_7 , Year 8, Teacher X_3 Year 7 and Teacher X_7 , Year 11: (a) tables with set of objectives assessed and respective questions in the tests; (b) summary statistics; (c) graphs.

Teacher - 7
Year - 8
Classes - A,E,F

Teacher - 3
Year - 7
Classes - A

OBJECTIVES		TESTS (DATES) AND QUESTIONS						
		2nd TERM					3rd TERM	
		January 1981	January 1981 (Diagnostic)	February 1981	March 1981	April 1981	May 1981	June 1981
A	G.O. - Knows terms S.O. - Defines the term Terms: a) <i>Biomass</i> b) <i>Biome</i>	-	1.1	-	3	1.1	1.2	1.4
1st		-	1.4	-	-	1.3	1.1	1.3
2nd								
A	G.O. - Knows facts S.O. - Identifies important events or phenomena Fact a) <i>The energy flows in the Ecosphere</i> S.O. - Describes important events or phenomena Fact b) <i>In the cycle of matter "green" plants perform the role of transforming inorganic matter into organic matter</i>	-	4	-	-	3.1	7.3	3.2
3rd								
4th		-	2.2	-	-	3.2	3.1	3.1
U	G.O. - Applies concepts to new situations Concept a) <i>Photosynthesis</i> S.O. - Presents a justification for a given event or procedure	-	-	3.1; 4	-	6	-	-
5th								
a)		-	-	-	4	-	-	-
b)	S.O. - Solves problems using the concept	-	-	-	-	-	-	-
6th	Concept b) <i>Relationships among producers and consumers</i>							
a)	S.O. - Makes a prediction using the concept	-	-	-	-	-	-	6
b)	S.O. - Presents a justification for a given event or procedure	-	-	-	-	7	9	-
c)	S.O. - Solves problems using the concept	-	-	-	-	-	10	7
U	G.O. - Interprets data							
7th								
a)	S.O. - Relates data expressed in graphs, tables, etc.	-	-	6.1	-	9.2	-	8.1+8.2
b)	S.O. - Describes the trend of a curve in a graph	-	-	-	-	9.4	8.2.1	-
c)	S.O. - Draws conclusions from data	B.3	-	-	-	9.5	-	8.3+8.4

G.O. - General Objective
S.O. - Specific Objective

OBJECTIVES		TESTS (DATES) AND QUESTIONS				
		2nd TERM			3rd TERM	
		January 1981 (Diagnostic)	February 1981	March 1981	May 1981	June 1981
A	G.O. - Knows terms S.O. - Defines the term Terms: a) <i>Producer</i>	1.3	-	2.5	2.1	4
1st						
A	G.O. - Knows facts S.O. - Identifies important events or phenomena Fact a) <i>'Green' plants are the first living things of a food chain</i> S.O. - Points out the fact underlying a given phenomenon Fact b) <i>'Green' plants change inorganic matter into organic matter</i>	3	-	2.3	2.2	-
2nd						
3rd		6	-	2.4	1.6	-
U	G.O. - Interprets Data					
4th						
a)	S.O. - Relates data expressed in graphs, tables, etc.	-	4.4	3.2;3.4	3.4;1.3	1.2.1 + 1.2.2
b)	S.O. - Describes the trend of a curve in a graph	-	-	3.5	3.5	-
c)	S.O. - Draws conclusions from data	-	4.1	1.4;3.6	1.4	1.2.3
d)	S.O. - Points out the data on which a conclusion is based	-	1.1+1.2	1.5;3.3	3.6	-

Figure VI.1 - Objectives assessed: questions in different tests

Teacher - 3
Year - 11
Class - C

OBJECTIVES		TESTS (DATES) AND QUESTIONS					
		1st TERM	2nd TERM			3rd TERM	
		November 1980	January 1981 (Diagnostic)	February 1981	March 1981	May 1981	June 1981
A	G.O. - Knows terms S.O. - Defines the term Terms: a) <i>Glycaemia</i> b) <i>Trophic hormone</i>	-	1.8	-	IV.2	1.5	IV.5
1st		-	1.7	-	-	2.1 a)	IV.6
2nd							
A	G.O. - Knows facts S.O. - Identifies important events or phenomena Fact a) <i>An endocrine gland is intensely supplied with capillaries</i>	-	6	-	III.2	2.2	-
3rd							
4th	S.O. - Points out the fact underlying a given phenomenon Fact b) <i>Glands and muscles are the effectors of the human body controlled by the nervous system</i>	-	2	-	-	2.3	IV.4
U	G.O. - Applies concepts to new situations Concept a) <i>Feedback</i>						
5th	S.O. - Explains events or phenomena using the concept	3.3	-	5.3	I.1.2	1.6	I.2
6th	Concept b) <i>Homeostatic mechanism</i>						
a)	S.O. - Explains events or phenomena using the concept	3.2	-	1.5	II.3	4	-
c)	S.O. - Makes a prediction using the concept	-	-	-	-	-	II.2
U	G.O. - Interprets data						
7th	S.O. - Draws conclusions from data	-	-	6.4	-	2.5; 2.4	-
b)							
c)	S.O. - Points out the data on which a conclusion is based	-	-	6.2	-	3.2+3.3	-
e)	S.O. - Explains a given phenomenon using the diagram	-	-	-	-	-	III.5
f)	S.O. - Relates data expressed in graphs, tables, etc.	2.2	-	-	IV.1; IV.3	-	-

Teacher - 3
Year - 11
Class - D

OBJECTIVES		TESTS (DATES) AND QUESTIONS					
		1st TERM	2nd TERM			3rd TERM	
		November 1980	January 1981 (Diagnostic)	February 1981	March 1981	May 1981	June 1981
A	G.O. - Knows terms S.O. - Defines the term Terms: a) <i>Glycaemia</i> b) <i>Trophic hormone</i>	-	1.8	-	II.5	1.1	IV.5
1st		-	1.7	-	-	2.5	IV.6
2nd							
A	G.O. - Knows facts S.O. - Identifies important events or phenomena Fact a) <i>An endocrine gland is intensely supplied with capillaries</i>	-	6	-	II.4	2.6	-
3rd							
4th	S.O. - Points out the fact underlying a given phenomenon Fact b) <i>Glands and muscles are the effectors of the human body controlled by the nervous system</i>	-	2	-	-	2.7a)	IV.4
U	G.O. - Applies concepts to new situations Concept a) <i>Feedback</i>						
5th	S.O. - Explains events or phenomena using the concept	3.4	-	1.1; 5.1	I.1.2	1.4	I.3
6th	Concept b) <i>Homeostatic mechanism</i>						
a)	S.O. - Explains events or phenomena using the concept	3.2	-	6.4	II.8, 1.1.1	4	III.1
c)	S.O. - Makes a prediction using the concept	-	-	-	-	3.3	-
U	G.O. - Interprets data						
7th	S.O. - Draws conclusions from data	-	-	-	II.1	1.3a)	II.1.2.
b)							
c)	S.O. - Points out the data on which a conclusion is based	-	-	6.2	-	1.3b)	-
d)	S.O. - Makes a prediction	-	-	6.3	-	-	-
f)	S.O. - Relates data expressed in graphs, tables, etc.	-	-	6.1	-	-	I :1.1+ 1.2+1.4+ 1.5

Figure VI.1 (cont.)

Teacher - 3
Year - 11
Class - E

OBJECTIVES		TESTS (DATES) AND QUESTIONS					
		1st TERM	2nd TERM			3rd TERM	
		November 1980	January 1981 (Diagnostic)	February 1981	March 1981	May 1981	June 1981
A	G.O. - Knows terms						
1st	S.O. - Defines the term						
2nd	Terms a) <i>Glycaemia</i>	-	1.8	-	II.4	2.1	IV.4
	b) <i>Tropic hormone</i>	-	1.7	-	-	2.3	IV.5
A	G.O. - Knows facts						
3rd	S.O. - Identifies important events or phenomena						
	Fact a) <i>An endocrine gland is intensely supplied with capillaries</i>	-	6	-	II.6	2.6	-
4th	S.O. - Points out the fact underlying a given phenomenon						
	Fact b) <i>Glands and muscles are the effectors of the human body controlled by the nervous system</i>	-	2	-	-	2.7a)	IV.3
U	G.O. - Applies concepts to new situations						
5th	Concept a) <i>Feedback</i>						
6th	S.O. - Explains events or phenomena using the concept	-	-	1.1;5.1	I.2.2.; II.9	2.4	I.3
a)	S.O. - Explains events or phenomena using the concept	-	-	6.3	I.2.1.	-	-
b)	S.O. - Solves problems using the concept	-	-	-	-	-	III.1.3
c)	S.O. - Makes a prediction using the concept	-	-	-	-	3	I.1.1
U	G.O. - Interprets Data						
7th	S.O. - Describes the trend of a curve in a graph	3.2	-	-	-	1.1	I.1.2; II.1
b)	S.O. - Draws conclusions from data	-	-	6.2	II.1	1.2	III.1.1
c)	S.O. - Points out the data on which a conclusion is based	-	-	-	II.3	-	-
f)	S.O. - Relates data expressed in graphs, tables, etc.	-	-	6.1	-	-	-

Teacher - 3
Year - 11
Class - F

OBJECTIVES		TESTS (DATES) AND QUESTIONS					
		1st TERM	2nd TERM			3rd TERM	
		November 1980	January 1981 (Diagnostic)	February 1981	March 1981	May 1981	June 1981
A	G.O. - Knows terms						
1st	S.O. - Defines the term						
2nd	Terms a) <i>Glycaemia</i>	-	1.8	-	II.4	1.1	IV.4
	b) <i>Trophic hormone</i>	-	1.7	-	-	2.5	IV.5
A	G.O. - Knows facts						
3rd	S.O. - Identifies important events or phenomena						
	Fact a) <i>An endocrine gland is intensely supplied with capillaries</i>	-	6	-	II.6	2.6	-
4th	S.O. - Points out the fact underlying a given phenomenon						
	Fact b) <i>Glands and muscles are the effectors of the human body controlled by the nervous system</i>	-	2	-	-	2.7a)	IV.3
U	G.O. - Applies concepts to new situations						
5th	Concept a) <i>Feedback</i>						
6th	S.O. - Explains events or phenomena using the concept	3.4	-	1.1;5.1	I.2.2.; II.9	1.4	I.3
a)	S.O. - Explains events or phenomena using the concept	3.2	-	6.4	I.2.1.	4	I.1.2.
c)	S.O. - Makes a prediction using the concept	-	-	-	-	3.3	-
U	G.O. - Interprets data						
7th	S.O. - Draws conclusions from data	-	-	-	II.1	1.3a)	IV.1
b)	S.O. - Points out the data on which a conclusion is based	-	-	6.2	II.3	1.3b)	-
d)	S.O. - Makes a prediction	-	-	6.3	-	-	-
e)	S.O. - Explains a given phenomenon using the diagram	-	-	-	-	-	III.1
f)	S.O. - Relates data expressed in graphs, tables, etc.	-	-	6.1	-	-	I.1.1.

Figure VI.1 (cont.)

Teacher - 3
Year - 11
Class - G

OBJECTIVES		TESTS (DATES) AND QUESTIONS					
		1st TERM	2nd TERM			3rd TERM	
		November 1980	January 1981 (Diagnostic)	February 1981	March 1981	May 1981	June 1981
A	G.O. - Knows terms						
1st	S.O. - Defines the term	-	1.8	-	-	1.1	IV.3
2nd	Terms: a) <i>Glycaemia</i> b) <i>Trophic hormone</i>	-	1.7	-	-	2.5	IV.4
A	G.O. - Knows facts						
3rd	S.O. - Identifies important events or phenomena Fact a) <i>An endocrine gland is intensely supplied with capillaries</i>	-	6	-	III.2	2.6	-
4th	S.O. - Points out the fact underlying a given phenomenon Fact b) <i>Glands and muscles are the effectors of the human body controlled by the nervous system</i>	-	2	-	-	2.7a)	IV.2
U	G.O. - Applies concepts to new situations						
5th	Concept a) <i>Feedback</i>	3.3	-	5.2	I.1.1	1.4	I.2
6th	S.O. - Explains events or phenomena using the concept						
a)	Concept b) <i>Homeostatic mechanism</i>	3.2	-	1.5	I.2	4	I.1.1.
c)	S.O. - Explains events or phenomena using the concept	-	-	-	-	3.3	-
U	S.O. - Makes a prediction using the concept	-	-	-	-	3.3	-
U	G.O. - Interprets data						
7th	S.O. - Draws conclusions from data	-	-	6.4	II.1	1.3a)	III.1
b)	S.O. - Points out the data on which a conclusion is based	-	-	6.2	-	1.3b)	-
c)	S.O. - Explains a given phenomenon using the diagram	-	-	-	I.4	-	-
d)	S.O. - Relates data expressed in graphs, tables, etc.	2.2	-	-	-	-	-

Figure VI.1 (cont.)

SUMMARY STATISTICS

[illegible]

HISTOGRAMS

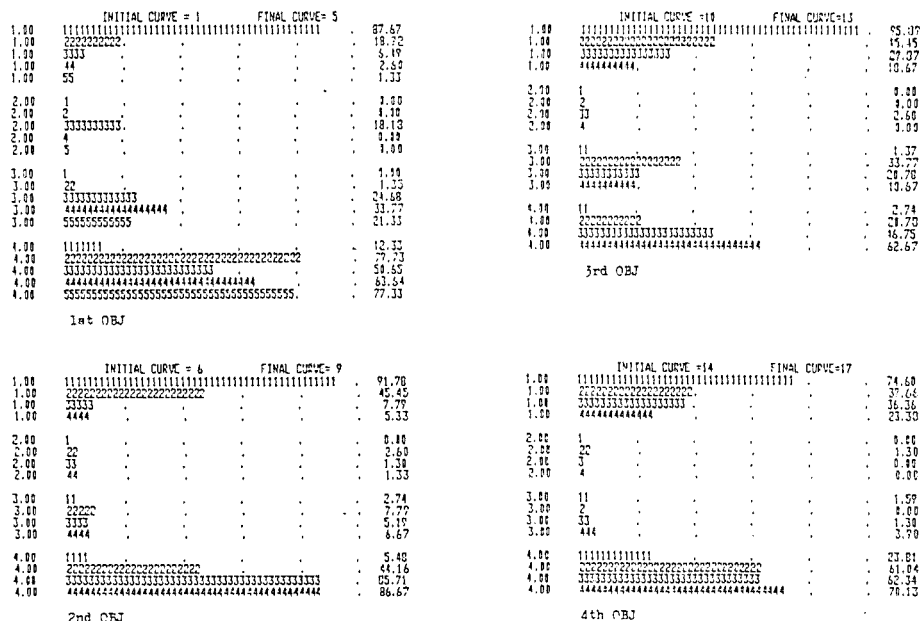


Figure VI.2 - Evolution of learning in different types of competencies: Results of Teacher X₇, Year 8, Classes A, E, F

[illegible]

Figure VI.2 (cont.)

SUMMARY STATISTICS

	1st OBJ				2nd OBJ				3rd OBJ				4th OBJ b)				4th OBJ c)				4th OBJ d)			
VALUE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22		
Z	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Z	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Z	1	19	38.46	4.48	3.25	87.58	11.54	3	95.33	19.23	4.48	15.38	8.88	2	53.00	13	23.88	72.00	23.69	0	18.46	14	15	
Z	2	16.67	7.69	4.48	11.54	0.88	3.85	0.88	9.00	0.88	0.88	19.23	28.00	15.38	0.88	26.92	4.00	19.23	7.69	7.69	19.23	12.40		
Z	3	4.17	11.54	12.40	7.69	4.17	11.54	0.88	0.88	1.00	0.88	16.15	36.88	19.23	0.88	26.92	12.00	38.46	38.77	26.92	15.38	12.40		
Z	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Z	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
VALUE	JAN 1	MAR 2	MAY 3	JUN 4	JAN 5	MAR 6	MAY 7	JAN 8	MAR 9	MAY 10	MAR 11	MAY 12	FEB 13	MAR 14	MAR 15	MAY 16	JUN 17	FEB 18	MAR 19	MAR 20	MAY 21			
MEAN	24	26	25	24	24	26	24	26	24	26	24	26	26	26	26	26	26	26	26	26	26			
STAND DEV	1.25	2.58	1.68	3.58	1.33	3.46	3.44	1.33	3.42	3.88	2.69	2.84	2.00	2.50	2.50	1.64	2.54	3.54	2.42	1.85	1.84			
STAND BEV	1.53	1.37	1.75	1.86	1.92	1.83	1.99	1.61	1.51	1.51	1.77	1.94	1.17	1.53	1.10	1.11	1.87	1.65	1.27	1.09	1.18			
STAND BEV	2.88	2.18	2.36	2.48	2.41	2.41	2.48	2.49	2.49	2.49	2.49	2.49	2.49	2.49	2.49	2.49	2.49	2.49	2.49	2.49	2.49			
STAND BEV	3.39	1.91	5.36	1.91	4.01	1.32	3.47	19.84	44	20.34	-72	-86	-1.16	-2.80	-1.29	9.00	-1.16	-9.1	-64	-63	-94			

Figure VI.3 - *Evolution of learning in different types of competencies: Results of Teacher X₃, Year 7, Class A*

	←4th OBJ				←4th OBJ a)+b)+c)+d)+						
VALUE	22	23	24	25	26	27	28	29	30	31	
% COL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
% COL	17	36.77	7.57	12.00	19	5	2	4	8	7	
% COL	45.38				48.00	23.19	7.57	15.38	15.38	26.92	
% COL	1	0.00	0.00	0.00	8.00	23.68	59.34	11	42.31	19.23	
% COL	3.65				2						
% COL	5	0.00	0.00	0.00	5	5	2	11	14	8	
% COL	19.23				28.00	17.23	26.92	42.31	38.46	36.77	
% COL	4	3	19.23	24	86.00	9	4	1	3.65	3.68	
% COL	11.54	17.23	92.31	22	32.98	34.62	15.38	1.00	3.65	23.68	
VALUE	FEB 22	MAR 23	MAR 24	MAY 25	MAY 26	JUN 27	FEB 28	MAR 29	MAY 30	JUN 31	
TOT MISSING	0	0	0	0	0	0	0	0	0	0	
MEAN	1.77	3.00	3.77	3.64	25	24	25	26	26	26	
STAND DEV	1.14	1.41	1.32	0.99	1.33	1.24	0.8	0.9	1.14	1.14	
SPEARMAN	0.74	0.42	0.30	0.24	0.24	0.16	0.28	0.44	0.27	0.27	
KURTOSIS	-1.4	-1.31	0.88	3.47	1.72	-1.47	-0.6	-0.5	-0.9	-1.36	

HISTOGRAMS

[illegible]

1st OBJ

[illegible]

2nd OBJ

	INITIAL CURVE = 8	FINAL CURVE = 10
1.00		
1.00	2022222222	
1.00	333	
2.00	1	
2.00	2	
2.00	5	
3.00	1	
3.00	2	
3.00	4	

111

```

      3rd OBJ

              INITIAL CURVE=I1                FINAL CURVE=I2

1.00   I1I1I1I1I1 .           .           .           .
1.00   ZZZZ               .           .           .

2.00   I1I1I1I1I1I1         .           .           .
2.00   ZZZZZZZZZZZZ        .           .           .

3.00   I1I1I1I1I1I1I1I1I1I1 .           .           .
3.00   ZZZZZZZZZZZZZZZZZ .           .           .

4.00   I1I1I1I1I1I1         .           .           .
4.00   ZZZZZZZZZZZZZZZZZ .           .           .

```

4th OBJ b)

```

1.00          INITIAL CURVE #13          FINAL CURVE #17
1.00          111111111111111111111111
1.00          222222222222222222222222
1.00          33333333333333
1.00          4444444444444444444444444444444444
1.00          55555555555555
2.00          111111111111111111111111
2.00          2
2.00          3333333333333333
2.00          4444
2.00          55555555555555
2.00          .
3.00          111111111111111111111111
3.00          2
3.00          3333333333333333
3.00          44444444
3.00          5555555555555555555555
4.00          111111111111111111111111
4.00          222222222222222222222222
4.00          3333333333333333
4.00          44444444
4.00          5555555555555555555555

```

4th OBJ c)

[illegible]

4th OBJ d)

[illegible]

1111111111

[illegible]

4th OBJ a)

[illegible]

4th CBJ a)+b)+c)+d)

Figure VI.3 (cont.)

SUMMARY STATISTICS

	1st OBJ					2nd OBJ					3rd OBJ					4th OBJ				
VALUE	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
X COL	8.48	3.08	8.88	8.88	8.88	8.88	8.88	8.88	8.88	8.88	8.88	8.88	8.88	8.88	8.88	8.88	8.88	8.88	8.88	8.88
Y COL	88.41	2.93	4.17	5.13	1189.30	15.10	6.34	25.12	13.38	12.58	79.34	15.94	11.11	11.11	11.11	11.11	11.11	11.11	11.11	11.11
X COL	1.65	5.21	.93	4.08	8.00	5.83	8.30	.33	0.88	4.00	.03	13.32	0	0	0	0	0	0	0	0
Y COL	.93	5.25	23.33	9.40	1.89	18.00	13.33	0	0	0	0	8.23	9.33	29.91	13.33	13.33	13.33	13.33	13.33	13.33
VALUE	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
X COL	9.29	38.46	71.07	85.47	0.18	69.17	79.49	14.35	26.32	87.50	11.57	13.33	58.97	13.33	13.33	13.33	13.33	13.33	13.33	13.33
Y COL	11	33	35	100	1	83	93	17	101	132	14	16	59	13	13	13	13	13	13	13
VALUE	JAN 1	MAR 21	MAY 31	JUN 30	JAN 1	MAR 21	MAY 31	JUN 30	JAN 1	MAR 21	MAY 31	JUN 30	JAN 1	MAR 21	MAY 31	JUN 30	JAN 1	MAR 21	MAY 31	JUN 30
TOT. PUPILS	121	96	117	121	120	117	121	117	121	124	121	120	117	121	124	121	120	117	121	124
MISSING	2	27	3	5	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
MEAN	1.31	3.77	3.63	3.75	1.00	3.33	3.66	1.43	3.59	3.63	1.52	1.70	3.37	3.66	3.66	3.66	3.66	3.66	3.66	3.66
STAND. DEV.	.20	.64	.71	.71	.80	1.12	.39	1.35	1.34	1.30	1.26	1.09	1.37	1.35	1.35	1.35	1.35	1.35	1.35	1.35
SKEWNESS	2.64	-2.98	-2.30	-1.16	1.88	-1.34	-2.55	2.40	-2.27	1.64	1.24	1.09	1.27	1.35	1.35	1.35	1.35	1.35	1.35	1.35
KURTOSIS	5.12	7.72	5.31	9.19	1.11	5.55	1.11	5.55	2.47	3.14	.72	-1.57	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14

HISTOGRAMS

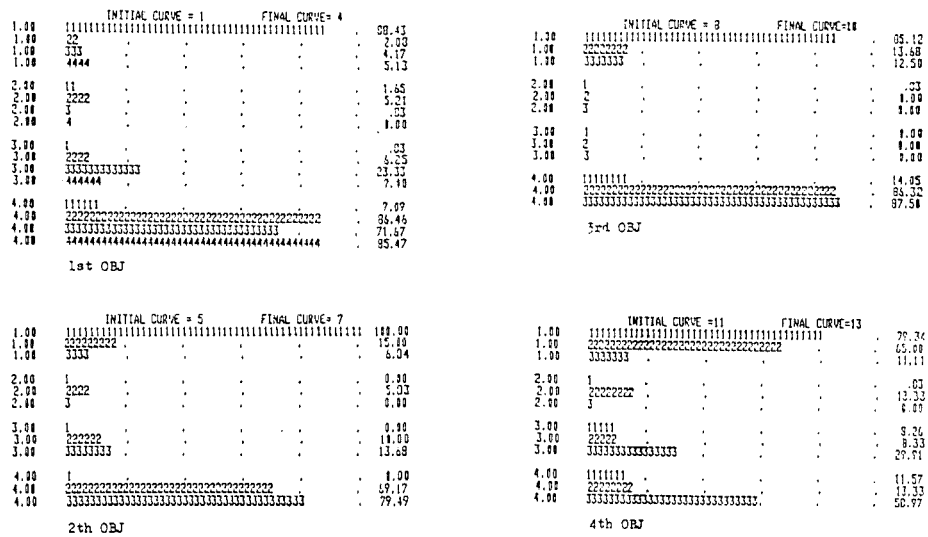


Figure VI.4 - Evolution of learning in different types of competencies: Results of teacher X₃, Year 11, Classes C, D, E, F, G (First four objectives)

SUMMARY STATISTICS

	5th OBJ					6th OBJ					7th OBJ b)					7th OBJ c)					7th OBJ e)					7th OBJ f)				
VALUE	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
X COL	8.88	8.88	8.88	8.88	8.88	8.88	8.88	8.88	8.88	8.88	8.88	8.88	8.88	8.88	8.88	8.88	8.88	8.88	8.88	8.88	8.88	8.88	8.88	8.88	8.88	8.88	8.88	8.88	8.88	8.88
Y COL	7.69	46.15	68.88	69.23	33.33	11.54	11.54	4.00	42.31	16.67	46.15	57.69	19.23	9	34.62	34.62	41.67	0	44.98	36.80	11.54	11.54	11.54	11.54	11.54	11.54	11.54	11.54	11.54	11.54
X COL	23.68	15.38	4.00	8.88	12.50	34.62	19.23	12.88	11.54	8.33	7.69	15.38	23.68	11.54	11.54	16.67	3.85	28.88	4.00	11.54	11.54	11.54	11.54	11.54	11.54	11.54	11.54	11.54	11.54	11.54
Y COL	42.31	11.54	12.88	11.54	12.50	26.92	26.92	40.00	26.92	8.33	38.77	19.23	46.15	15.38	19.23	0.00	11.54	28.88	12.88	11.54	11.54	11.54	11.54	11.54	11.54	11.54	11.54	11.54	11.54	11.54
VALUE	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
X COL	26.92	26.92	24.88	19.23	41.67	26.92	42.31	44.00	19.23	66.67	15.30	7.69	11.54	38.46	34.62	41.67	84.62	16.88	42.88	11.54	11.54	11.54	11.54	11.54	11.54	11.54	11.54	11.54	11.54	11.54
Y COL	26	26	25	26	24	26	26	25	26	24	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26
TOT. PUPILS	26	26	25	26	24	26	26	25	26	24	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26
MISSING	8	8	1	8	2	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
MEAN	2.88	2.19	2.88	1.81	2.63	2.69	3.88	3.24	2.23	3.25	2.15	1.77	2.58	2.58	2.54	2.42	3.81	2.88	2.72	2.88	2.88	2.88	2.88	2.88	2.88	2.88	2.88	2.88	2.88	2.88
STAND. DEV.	.91	1.38	1.32	1.27	1.35	1.81	1.86	.93	1.21	1.19	1.15	1.83	.95	1.33	1.30	1.41	.49	1.15	1.48	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38
SKEWNESS	-.42	-.42	-.42	-.42	-.42	-.42	-.42	-.42	-.42	-.42	-.42	-.42	-.42	-.42	-.42	-.42	-.42	-.42	-.42	-.42	-.42	-.42	-.42	-.42	-.42	-.42	-.42	-.42	-.42	-.42
KURTOSIS	-1.33	-1.33	-1.33	-1.33	-1.33	-1.33	-1.33	-1.33	-1.33	-1.33	-1.33	-1.33	-1.33	-1.33	-1.33	-1.33	-1.33	-1.33	-1.33	-1.33	-1.33	-1.33	-1.33	-1.33	-1.33	-1.33	-1.33	-1.33	-1.33	-1.33

Figure VI.5 - Evolution of learning in different types of competencies: Results of teacher X₃, Year 11, Class C

	← 7th OBJ b)+c)+e)+f) →					
VALUE	20	21	22	23	24	
% COL	0.00	0.00	0.00	0.00	0.00	
% COL	0	34.5	6	23.06	42.31	
% COL	3.85	19.23	7.67	34.62	15.38	
% COL	11.54	23.0	38.46	42.31	0.00	
% COL	84.62	23.08	23.08	0.00	42.31	
VALUE	NOV 26	PEB 21	MAR 22	MAY 23	JUN 24	
MISSING	0	0	0	0	0	
MEAN	3.81	49	1.24	2.19	2.42	
STAND. DE	1.29	1.17	0.99	0.99	1.43	
KURTOSIS	-2.52	16	25	-3.36		
KURTOSIS	5.55	-1.47	-1.41	-1.34	-1.84	

HISTOGRAMS

	INITIAL CURVE = 1	FINAL CURVE = 5
1.00	11111	7.69
1.00	22222222222222222222	46.15
1.00	3333333333333333333333	68.00
1.00	44444444444444444444444444	89.23
1.00	5555555555555555	33.33
2.00	111111111111	23.08
2.00	22222222	15.30
2.00	333	4.18
2.00	4	1.00
2.00	555555	12.50
3.00	111111111111111111111111	42.31
3.00	222222	11.54
3.00	333333	12.10
3.00	444444	11.54
3.00	555555	12.50
4.00	1111111111111111	26.93
4.00	2222222222222222	25.72
4.00	33333333333333	24.10
4.00	4444444444	19.23
4.00	55555555555555555555	41.67

5th OBJ

[illegible]

6th OBJ

[illegible]

7th OBJ b)

	INITIAL CURVE =14	FINAL CURVE=15
1.00	11111111111111111111	34.62
1.00	23232323232323232323	34.62
2.00	1111111	11.54
2.00	2222222	11.54
3.00	1111111111	15.30
3.00	2222222222	19.23
4.00	11111111111111111111	38.46
4.00	22222222222222222222	34.62

7th OBJ c)

[illegible]

7th Oct 5)

[illegible]

7th OBJ b)+c)+e)+f)

Figure VI.5 (cont.)

SUMMARY STATISTICS

5th OBJ										6th OBJ										7th OBJ b)										7th OBJ c)										7th d)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
VALUE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	525	526	527	528	529	530	531	532	533	534	535	536	537	538	539	540	541	542	543	544	545	546	547	548	549	550	551	552	553	554	555	556	557	558	559	560	561	562	563	564	565	566	567	568	569	570	571	572	573	574	575	576	577	578	579	580	581	582	583	584	585	586	587	588	589	590	591	592	593	594	595	596	597	598	599	600	601	602	603	604	605	606	607	608	609	610	611	612	613	614	615	616	617	618	619	620	621	622	623	624	625	626	627	628	629	630	631	632	633	634	635	636	637	638	639	640	641	642	643	644	645	646	647	648	649	650	651	652	653	654	655	656	657	658	659	660	661	662	663	664	665	666	667	668	669	670	671	672	673	674	675	676	677	678	679	680	681	682	683	684	685	686	687	688	689	690	691	692	693	694	695	696	697	698	699	700	701	702	703	704	705	706	707	708	709	710	711	712	713	714	715	716	717	718	719	720	721	722	723	724	725	726	727	728	729	730	731	732	733	734	735	736	737	738	739	740	741	742	743	744	745	746	747	748	749	750	751	752	753	754	755	756	757	758	759	760	761	762	763	764	765	766	767	768	769	770	771	772	773	774	775	776	777	778	779	780	781	782	783	784	785	786	787	788	789	790	791	792	793	794	795	796	797	798	799	800	801	802	803	804	805	806	807	808	809	810	811	812	813	814	815	816	817	818	819	820	821	822	823	824	825	826	827	828	829	830	831	832	833	834	835	836	837	838	839	840	841	842	843	844	845	846	847	848	849	850	851	852	853	854	855	856	857	858	859	860	861	862	863	864	865	866	867	868	869	870	871	872	873	874	875	876	877	878	879	880	881	882	883	884	885	886	887	888	889	890	891	892	893	894	895	896	897	898	899	900	901	902	903	904	905	906	907	908	909	910	911	912	913	914	915	916	917	918	919	920	921	922	923	924	925	926	927	928	929	930	931	932	933	934	935	936	937	938	939	940	941	942	943	944	945	946	947	948	949	950	951	952	953	954	955	956	957	958	959	960	961	962	963	964	965	966	967	968	969	970	971	972	973	974	975	976	977	978	979	980	981	982	983	984	985	986	987	988	989	990	991	992	993	994	995	996	997	998	999	1000	1001	1002	1003	1004	1005	1006	1007	1008	1009	1010	1011	1012	1013	1014	1015	1016	1017	1018	1019	1020	1021	1022	1023	1024	1025	1026	1027	1028	1029	1030	1031	1032	1033	1034	1035	1036	1037	1038	1039	1040	1041	1042	1043	1044	1045	1046	1047	1048	1049	1050	1051	1052	1053	1054	1055	1056	1057	1058	1059	1060	1061	1062	1063	1064	1065	1066	1067	1068	1069	1070	1071	1072	1073	1074	1075	1076	1077	1078	1079	1080	1081	1082	1083	1084	1085	1086	1087	1088	1089	1090	1091	1092	1093	1094	1095	1096	1097	1098	1099	1100	1101	1102	1103	1104	1105	1106	1107	1108	1109	1110	1111	1112	1113	1114	1115	1116	1117	1118	1119	1120	1121	1122	1123	1124	1125	1126	1127	1128	1129	1130	1131	1132	1133	1134	1135	1136	1137	1138	1139	1140	1141	1142	1143	1144	1145	1146	1147	1148	1149	1150	1151	1152	1153	1154	1155	1156	1157	1158	1159	1160	1161	1162	1163	1164	1165	1166	1167	1168	1169	1170	1171	1172	1173	1174	1175	1176	1177	1178	1179	1180	1181	1182	1183	1184	1185	1186	1187	1188	1189	1190	1191	1192	1193	1194	1195	1196	1197	1198	1199	1200	1201	1202	1203	1204	1205	1206	1207	1208	1209	1210	1211	1212	1213	1214	1215	1216	1217	1218	1219	1220	1221	1222	1223	1224	1225	1226	1227	1228	1229	1230	1231	1232	1233	1234	1235	1236	1237	1238	1239	1240	1241	1242	1243	1244	1245	1246	1247	1248	1249	1250	1251	1252	1253	1254	1255	1256	1257	1258	1259	1260	1261	1262	1263	1264	1265	1266	1267	1268	1269	1270	1271	1272	1273	1274	1275	1276	1277	1278	1279	1280	1281	1282	1283	1284	1285	1286	1287	1288	1289	1290	1291	1292	1293	1294	1295	1296	1297	1298	1299	1300	1301	1302	1303	1304	1305	1306	1307	1308	1309	1310	1311	1312	1313	1314	1315	1316	1317	1318	1319	1320	1321	1322	1323	1324	1325	1326	1327	1328	1329	1330	1331	1332	1333	1334	1335	1336	1337	1338	1339	1340	1341	1342	1343	1344	1345	1346	1347	1348	1349	1350	1351	1352	1353	1354	1355	1356	1357	1358	1359	1360	1361	1362	1363	1364	1365	1366	1367	1368	1369	1370	1371	1372	1373	1374	1375	1376	1377	1378	1379	1380	1381	1382	1383	1384	1385	1386	1387	1388	1389	1390	1391	1392	1393	1394	1395	1396	1397	1398	1399	1400	1401	1402	1403	1404	1405	1406	1407	1408	1409	1410	1411	1412	1413	1414	1415	1416	1417	1418	1419	1420	1421	1422	1423	1424	1425	1426	1427	1428	1429	1430	1431	1432	1433	1434	1435	1436	1437	1438	1439	1440	1441	1442	1443	1444	1445	1446	1447	1448	1449	1450	1451	1452	1453	1454	1455	1456	1457	1458	1459	1460	1461	1462	1463	1464	1465	1466	1467	1468	1469	1470	1471	1472	1473	1474	1475	1476	1477	1478	1479	1480	1481	1482	1483	1484	1485	1486	1487	1488	1489	1490	149

HISTOGRAMS

[illegible]

Figure VI.6 - Evolution of learning in different types of competencies: Results of teacher X₃, Year 11, Class D

SUMMARY STATISTICS

[illegible]

HISTOGRAMS

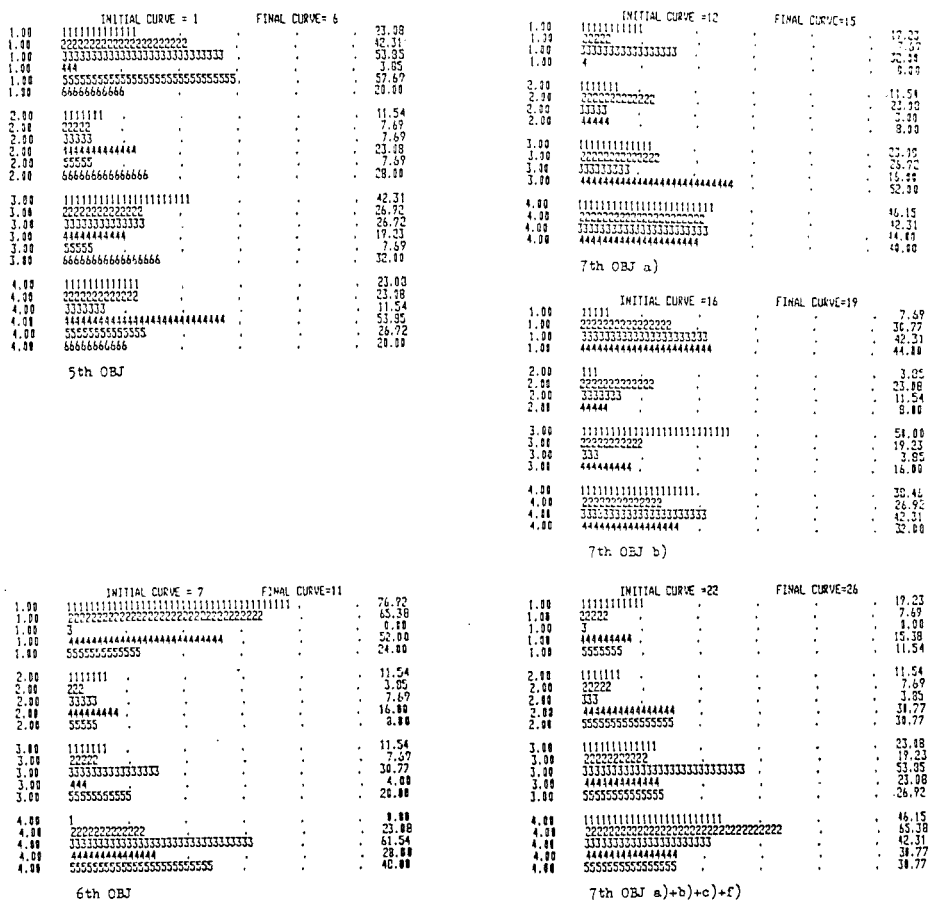


Figure VI.7 - Evolution of learning in different types of competencies: Results of teacher X_3 , Year 11, Class E

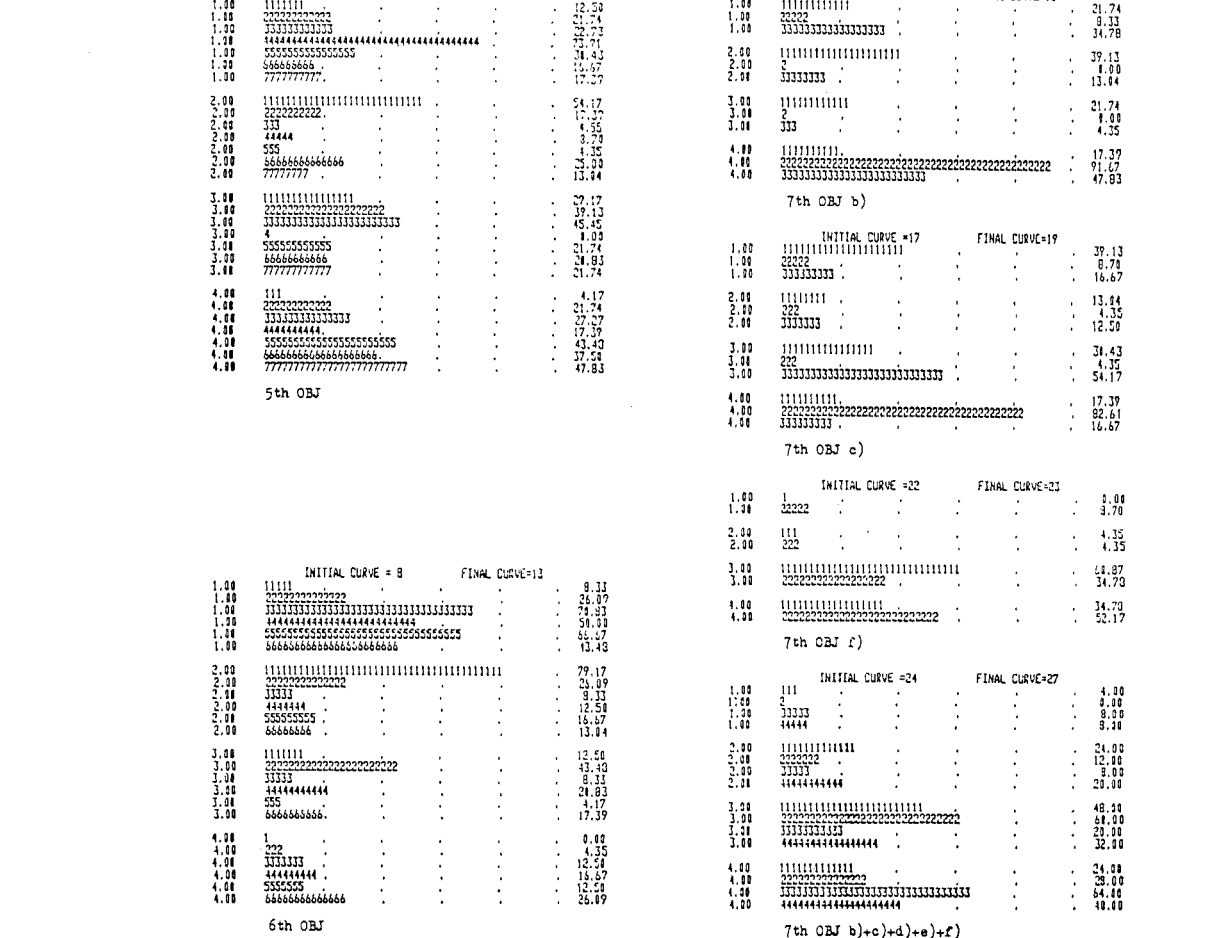
5th OBJ 5th OBJ 7th OBJ b) 7th OBJ c)

```

7th d)& e)→ 7th OBJ f)→ ←7th OBJ b)+c)+d)+e)+f)
=====
VALUE      31  21  22  21  24  25  26  27
=====
1  0  0  0  0  0  0  0
Z COL  0.00  0.00  0.00  0.00  0.00  0.00  0.00  0.00
=====
1  7  4  6  2  1  0  2  2
Z COL  30.43  17.37  0.38  0.78  4.00  0.00  8.00  8.00
=====
2  2  1  1  1  6  3  2  5
Z COL  8.70  4.35  4.35  4.35  24.00  12.00  8.00  20.00
=====
3  3  10  14  8  10  15  5  8
Z COL  13.04  43.40  60.37  34.70  48.10  60.00  20.00  32.00
=====
4  11  8  9  12  6  7  16  10
Z COL  47.03  34.70  34.70  52.17  24.00  28.00  64.00  40.00
=====
VALUE      FEB 01  JUN 01  FEB 01  JUN 01  FEB 01  MAR 01  MAY 01  JUN 01
=====
TOT SUPPLS:  23  23  23  23  25  25  25  25
MISSING:      2  2  2  2  4  4  4  4
MEAN:         2.78  2.96  3.10  3.10  2.72  3.16  3.40  3.14
STAND. DEV:   1.33  1.37  1.56  1.73  1.81  1.62  1.96  1.98
SKEWNESS:     -1.37  -.84  -.62  -1.34  -1.33  -1.10  -1.45  -1.63
KURTOSIS:     -1.62  -1.45  -1.62  1.92  -1.40  -1.45  -1.94  -1.68

```

INITIAL CURVE = 1 FINAL CURVE = 7 INITIAL CURVE = 14 FINAL CURVE = 16



SUMMARY STATISTICS

5th OBJ										6th OBJ										7th OBJ b)										7th OBJ c)+7th e)+7th f)									
=====																																							
VALUE	x	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36		
Z COL	x	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
Z COL	x	13.64	17.39	19.85	4.76	39.13	8.78	34.78	47.62	52.38	38.11	26.69	47.83	42.86	0.00	56.52	8.78	9.52	38.10	4.35	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
Z COL	x	17.39	4.35	0.00	9.52	4.35	30.43	17.39	9.52	0.00	14.29	0.00	21.74	4.76	0.00	0.00	4.35	14.29	4.76	0.00	0.00	4.35	14.29	4.76	0.00	0.00	4.35	14.29	4.76	0.00	0.00	4.35	14.29	4.76	0.00	0.00			
Z COL	x	21.74	21.74	38.10	42.86	26.69	39.13	26.69	20.57	19.85	9.52	13.04	13.04	29.57	0.00	13.04	30.43	42.86	23.81	4.35	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
Z COL	x	47.83	56.52	42.86	38.43	21.74	21.74	14.29	28.57	39.10	14.87	17.39	23.81	180.00	30.43	56.52	33.33	33.33	91.38	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
VALUE	x	NOV 11	FEB 21	MAR 31	MAY 4	JUN 5	NOV 6	FEB 7	MAR 8	MAY 9	MAY 10	JUN 11	FEB 12	MAR 13	MAY 14	JUN 15	FEB 16	MAY 17	MAR 18	NOV 19																			
TOT.PUPILS:		23	23	21	21	21	23	21	21	21	21	23	23	21	21	23	23	21	21	23																			
MISSING :		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																			
MEAN :		3.04	3.17	3.05	3.24	2.48	2.74	2.35	2.10	2.24	2.48	3.89	2.80	2.33	4.00	2.17	3.35	3.80	2.52	3.81																			
STAND.DEV :		1.11	1.15	1.12	0.83	1.31	0.72	1.19	1.18	1.37	1.36	1.31	1.17	1.20	0.80	1.40	0.93	0.75	1.33	0.85																			
SKEWNESS :		-0.70	-1.07	-0.96	-1.00	-1.19	-1.12	-0.99	-1.02	-0.85	-0.99	-0.70	-0.89	-0.89	-0.55	-0.30	-1.42	-0.72	-1.12	-0.89																			
KURTOSIS :		-0.90	-0.39	-0.39	-0.62	-1.69	-0.76	-1.47	-1.43	-1.75	-1.77	-1.01	-1.01	-1.01	-1.66	-0.55	-1.73	-1.14	-0.20	-1.70	14.88																		

7th OBJ b)+c)+e)+f)									
=====									
VALUE	x	201	211	221	231	241			
Z COL	x	0.00	0.00	0.00	0.00	0.00			
Z COL	x	4.35	8.78	26.69	0.00	56.52			
Z COL	x	0.00	43.48	30.43	8.76	0.00			
Z COL	x	4.35	26.69	21.74	21.74	13.04			
Z COL	x	0.00	0.00	0.00	0.00	0.00			
VALUE	x	NOV 201	FEB 211	MAR 221	MAY 231	JUN 241			
TOT.PUPILS:		23	23	22	23	23			
MISSING :		0	0	0	0	0			
MEAN :		3.02	2.61	2.39	3.61	2.17			
STAND.DEV :		0.65	0.74	1.12	0.66	1.40			
SKEWNESS :		-3.09	-1.0	-1.6	-1.40	38			
KURTOSIS :		14.98	-98	-1.27	-79	-1.73			

HISTOGRAMS

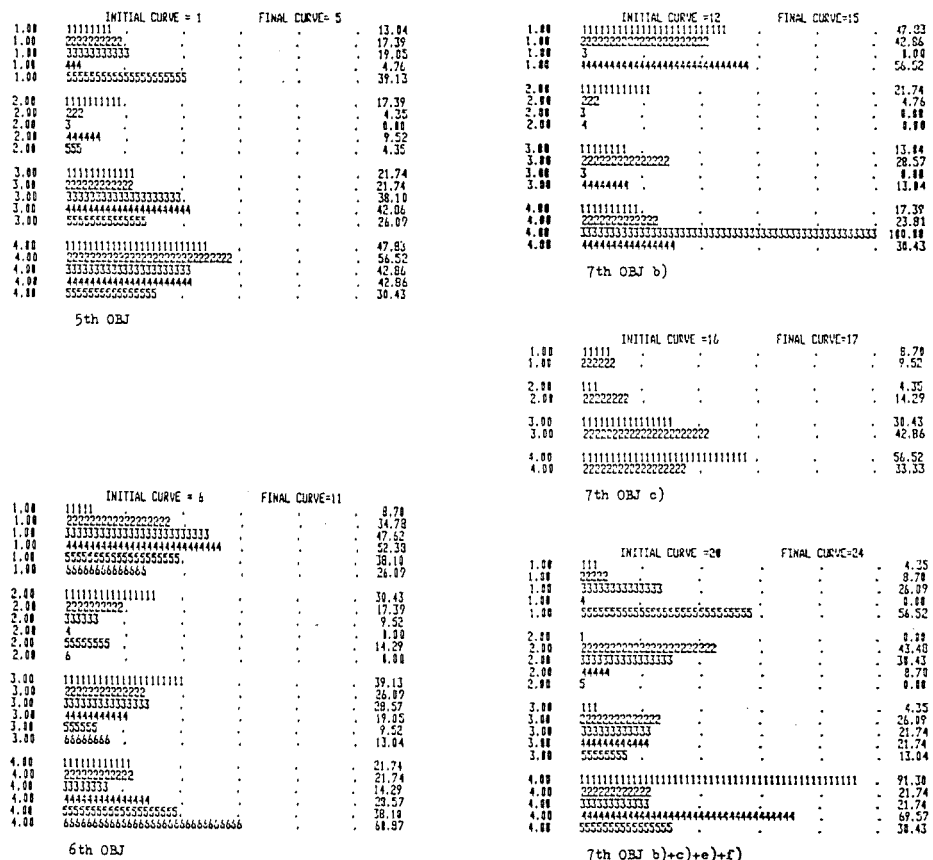


Figure VI.9 - Evolution of learning in different types of competencies: Results of teacher X₃, Year 11, Class G

APPENDIX VII

MEASURES OF TEACHERS

In Chapter four we described that part of the empirical study which aimed at characterizing the teacher's pedagogical practice. In that chapter we only presented summaries of the measures we took. In this appendix we are only presenting a few tables related to these measures in order not to overburden the appendices with excessive material. The reader can use the base data presented in Appendix X to obtain the whole treatment we carried out.

TEACHERS REFERENCE		X_1	X_2	X_3	X_4	X_5	X_6	X_7	Z_1	Z_2	Z_3	Z_4
1st MEASURE	Mean	.53	.54	.56	.54	.51	.54	.54	.46	.53	.52	.47
	Teachers X_3+X_7	.63	.64	.83	.64	.63	.70	.83	.50	.70	.67	.58
	Teacher X_3	.74	.74	1.00	.74	.74	.77	.83	.61	.80	.75	.67
	Teacher X_7	.68	.70	.83	.70	.69	.82	1.00	.56	.76	.76	.66
2nd MEASURE	Mean	.64	.64	.66	.62	.59	.67	.64	.63	.64	.64	.64
	Teachers X_3+X_7	.69	.68	.80	.68	.62	.74	.80	.66	.68	.71	.70
	Teacher X_3	.80	.82	1.00	.81	.74	.84	.80	.78	.81	.81	.79
	Teacher X_7	.78	.74	.80	.75	.71	.84	1.00	.74	.74	.82	.81

Figure VII.1 - Global Reliability of Teacher taking different references (1st and 2nd evaluations)

1st EVALUATION

Mean Teacher as reference

	*TEACH.	1TEACH.	2TEACH.	3TEACH.	4TEACH.	5TEACH.	6TEACH.	7TEACH.	8TEACH.	9TEACH.	10TEACH.	11TEACH.
NO OBS	22.00	22.00	22.00	17.00	22.00	18.00	22.00	19.00	22.00	22.00	17.00	
MEAN VAL	.53	.54	.56	.54	.51	.54	.54	.46	.53	.52	.47	
STD	.14	.13	.13	.14	.11	.13	.12	.15	.13	.13	.12	
SKWENESS	-.76	-.58	-.49	-.93	-.93	-.84	-.53	-.21	-.71	-.99	-.16	
KURTOSIS	-.16	-.42	-1.18	.36	-.96	-.59	-1.30	-.74	-.42	.25	-.78	

Teachers X_3 and X_7 as reference

	*TEACH.	1TEACH.	2TEACH.	3TEACH.	4TEACH.	5TEACH.	6TEACH.	7TEACH.	8TEACH.	9TEACH.	10TEACH.	11TEACH.
TEACH. 1	1.00	.81	.57	.54	.56	.70	.57	.54	.68	.59	.43	
TEACH. 2	.81	1.00	.63	.78	.65	.79	.63	.78	.60	.63	.58	
TEACH. 3	.57	.63	1.00	.49	.67	.81	1.00	.37	.75	.62	.70	
TEACH. 4	.54	.78	.49	1.00	.49	.38	.49	.66	.26	.43	.33	
TEACH. 5	.56	.65	.67	.49	1.00	.74	.67	.57	.54	.47	.42	
TEACH. 6	.70	.79	.81	.38	.74	1.00	.81	.51	.79	.77	.63	
TEACH. 7	.57	.63	1.00	.49	.67	.81	1.00	.37	.75	.62	.70	
TEACH. 8	.54	.78	.37	.66	.57	.51	.37	1.00	.33	.36	.51	
TEACH. 9	.68	.60	.75	.26	.54	.79	.75	.33	1.00	.49	.55	
TEACH. 10	.59	.63	.62	.43	.47	.77	.62	.36	.49	1.00	.63	
TEACH. 11	.43	.58	.70	.33	.42	.63	.70	.51	.55	.63	1.00	
NO OBS	22.00	22.00	22.00	17.00	22.00	18.00	22.00	19.00	22.00	22.00	17.00	
MEAN VAL	.63	.64	.83	.64	.63	.70	.83	.50	.70	.67	.58	
STD	.18	.14	.16	.18	.13	.19	.16	.19	.18	.16	.17	
SKWENESS	-.64	-.71	-1.63	-.41	-.26	-.78	-1.63	.01	-.44	-.66	-.22	
KURTOSIS	-.21	-.67	3.02	-1.13	-.09	-.62	3.02	-.90	-.38	-.14	-.77	

2nd EVALUATION

Mean Teacher as reference

	*TEACH.	1TEACH.	2TEACH.	3TEACH.	4TEACH.	5TEACH.	6TEACH.	7TEACH.	8TEACH.	9TEACH.	10TEACH.	11TEACH.
NO OBS	22.00	22.00	22.00	17.00	22.00	19.00	22.00	19.00	22.00	22.00	17.00	
MEAN VAL	.64	.64	.66	.62	.59	.67	.64	.63	.64	.64	.64	
STD	.11	.11	.10	.10	.14	.10	.10	.10	.09	.10	.10	
SKWENESS	-.13	-.25	.09	.13	-.39	-.12	.03	-.35	-.53	-.23	.23	
KURTOSIS	-.77	-.46	-.92	-.72	.41	-1.17	-.52	-1.03	-.57	-.53	-.45	

Teachers X_3 and X_7 as reference

	*TEACH.	1TEACH.	2TEACH.	3TEACH.	4TEACH.	5TEACH.	6TEACH.	7TEACH.	8TEACH.	9TEACH.	10TEACH.	11TEACH.
TEACH. 1	1.00	.62	.77	.63	.51	.76	.77	.56	.73	.65	.60	
TEACH. 2	.62	1.00	.72	.29	.72	.37	.72	.74	.66	.55	.65	
TEACH. 3	.77	.72	1.00	.57	.66	.80	1.00	.58	.70	.62	.77	
TEACH. 4	.63	.29	.57	1.00	.51	.45	.57	.28	.52	.33	.52	
TEACH. 5	.51	.72	.66	.51	1.00	.67	.66	.57	.55	.45	.52	
TEACH. 6	.76	.87	.80	.45	.67	1.00	.80	.74	.78	.66	.68	
TEACH. 7	.77	.72	1.00	.57	.66	.80	1.00	.58	.70	.62	.77	
TEACH. 8	.56	.74	.58	.28	.57	.74	.58	1.00	.59	.50	.47	
TEACH. 9	.73	.66	.70	.52	.55	.78	.70	.59	1.00	.73	.72	
TEACH. 10	.65	.55	.62	.33	.45	.66	.62	.50	.73	1.00	.65	
TEACH. 11	.60	.65	.77	.52	.52	.68	.77	.47	.72	.65	1.00	
NO OBS	22.00	22.00	22.00	17.00	22.00	19.00	22.00	19.00	22.00	22.00	17.00	
MEAN VAL	.69	.68	.80	.68	.62	.74	.80	.65	.68	.71	.70	
STD	.13	.16	.11	.11	.19	.13	.11	.13	.10	.10	.13	
SKWENESS	.16	.06	-.14	.57	-.82	.24	-.14	-.19	.18	.30	.21	
KURTOSIS	-.60	-.69	-1.24	-.06	.95	-1.20	-1.24	-.97	-.99	-.49	-1.21	

Figure VII.2 - Measure of teacher's reliability in classifying test questions based on selectivity of a question and taking Mean Teacher and Teachers X_3 and X_7 as references

1st EVALUATION

	*TEACH.	1TEACH.	2TEACH.	3TEACH.	4TEACH.	5TEACH.	6TEACH.	7TEACH.	8TEACH.	9TEACH.	10TEACH.	11TEACH.
1TEACH. 1 *	1.00	-.07	.11	.23	.07	.12	-.39	-.37	.08	-.25	-.29	
1TEACH. 2 *	-.07	1.00	-.12	.18	.10	-.03	-.23	-.22	-.17	-.24	-.36	
1TEACH. 3 *	.11	-.12	1.00	.14	-.05	-.04	-.14	-.30	-.23	-.23	-.20	
1TEACH. 4 *	.23	.18	.14	1.00	.13	.11	-.33	-.34	-.24	-.39	-.38	
1TEACH. 5 *	.07	.10	-.05	.13	1.00	.01	-.30	-.29	-.20	-.23	-.38	
1TEACH. 6 *	.12	-.03	-.04	.11	.01	1.00	-.27	-.32	-.24	-.26	-.23	
1TEACH. 7 *	-.39	-.23	-.14	-.33	-.30	-.27	1.00	.11	.02	.17	.17	
1TEACH. 8 *	-.37	-.22	-.30	-.34	-.28	-.32	.11	1.00	.09	.09	.29	
1TEACH. 9 *	-.08	-.17	-.23	-.24	-.20	-.24	.02	.09	1.00	-.02	.05	
1TEACH. 10 *	-.25	-.24	-.23	-.39	-.23	-.26	.17	.09	-.02	1.00	.15	
1TEACH. 11 *	-.29	-.36	-.20	-.38	-.38	-.23	.17	.29	.05	.15	1.00	

	*NO OBS	*331.00	*331.00	*290.00	*305.00	*250.00	*332.00	*305.00	*332.00	*306.00	*291.00
MEAN VAL *	.16	-.14	.13	-.07	-.23	.15	.19	-.07	.15	-.25	-.05
STD *	.28	.95	.85	.80	.94	.94	.89	.91	.90	.90	.92
SKENNESS *	-.37	-.44	-.05	-.35	-.24	-.25	-.14	-.57	-.07	-.66	-.76
KURTOSIS *	.60	.55	.99	-.06	.99	1.49	1.51	.21	.50	.68	.98

2nd EVALUATION

	*TEACH.	1TEACH.	2TEACH.	3TEACH.	4TEACH.	5TEACH.	6TEACH.	7TEACH.	8TEACH.	9TEACH.	10TEACH.	11TEACH.
1TEACH. 1 *	1.00	-.19	-.09	-.15	-.02	-.06	-.09	-.10	-.02	-.18	-.13	
1TEACH. 2 *	-.19	1.00	-.04	-.10	-.16	.04	-.25	.03	-.02	-.11	-.10	
1TEACH. 3 *	-.09	-.04	1.00	.02	-.15	-.03	-.11	-.11	-.09	-.08	-.12	
1TEACH. 4 *	-.15	-.10	.02	1.00	-.03	-.15	-.17	-.11	-.17	-.14	-.22	
1TEACH. 5 *	-.02	-.16	-.15	-.03	1.00	-.25	-.15	-.15	-.15	-.19	-.24	
1TEACH. 6 *	-.06	.04	-.03	-.15	-.25	1.00	.06	-.08	-.17	.03	-.07	
1TEACH. 7 *	-.09	-.25	-.11	-.17	-.15	.06	1.00	-.21	-.19	.08	.06	
1TEACH. 8 *	-.10	.03	-.11	-.11	-.15	-.08	-.21	1.00	-.06	-.23	-.19	
1TEACH. 9 *	-.02	-.02	-.09	-.17	-.15	-.17	-.12	-.06	1.00	-.09	-.06	
1TEACH. 10 *	-.18	-.11	-.08	-.14	-.19	.03	.08	-.23	-.09	1.00	-.10	
1TEACH. 11 *	-.13	-.10	-.12	-.22	-.24	-.07	.06	-.10	-.06	-.10	1.00	

	*NO OBS	*484.00	*484.00	*484.00	*403.00	*484.00	*431.00	*484.00	*434.00	*484.00	*484.00	*403.00
MEAN VAL *	.03	-.11	-.08	.01	.01	.06	.12	.05	-.15	-.02	.10	
STD *	.64	.62	.54	.78	.80	.51	.65	.73	.64	.66	.74	
SKENNESS *	-.59	-.81	-1.09	-.33	-.41	.30	.91	.03	-1.10	-.47	.15	
KURTOSIS *	5.12	5.66	4.63	5.79	4.54	3.02	4.81	6.69	4.96	6.33	6.93	

Figure VII.3 - Measures of teachers' reliability in classifying test questions, after normalization with STD

A QUESTIONS

Normalization by mean

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=====
I      *TEACH. 1TEACH. 2ITEACH. 3ITEACH. 4ITEACH. 5ITEACH. 6ITEACH. 7ITEACH. 8ITEACH. 9ITEACH.10ITEACH.11I
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I NO OBS *144.00 I144.00 I112.00 I112.00 I128.00 I112.00 I128.00 I144.00 I112.00 I112.00 I112.00 I
I MEAN VAL * -.02 I -.02 I .01 I .02 I -.03 I .07 I -.15 I .13 I .01 I -.04 I .01 I
I STD * .47 I .44 I .50 I .44 I .51 I .56 I .50 I .70 I .34 I .38 I .48 I
I SKEWNESS * 1.73 I 1.14 I 2.98 I 2.55 I .86 I 2.72 I 1.52 I 3.23 I .01 I -.96 I 1.88 I
I KURTOSIS * 12.94 I 6.10 I 20.55 I 19.36 I 6.06 I 13.26 I 11.22 I 18.10 I 3.31 I 2.32 I 13.32 I
=====

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Normalization by STD

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=====
I      *TEACH. 1TEACH. 2ITEACH. 3ITEACH. 4ITEACH. 5ITEACH. 6ITEACH. 7ITEACH. 8ITEACH. 9ITEACH.10ITEACH.11I
=====

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=====
I NO OBS *144.00 I144.00 I112.00 I112.00 I128.00 I112.00 I128.00 I144.00 I112.00 I112.00 I112.00 I
I MEAN VAL * .03 I -.01 I -.07 I .04 I .04 I .09 I -.28 I .17 I -.04 I .08 I -.08 I
I STD * .82 I .92 I .80 I .80 I .93 I .68 I .81 I .92 I .86 I .78 I .96 I
I SKEWNESS * -.08 I -.02 I -.23 I -.58 I -.06 I -.95 I .01 I -.19 I .07 I -.54 I .10 I
I KURTOSIS * -.92 I -1.52 I .11 I .09 I -1.19 I .02 I -.32 I -.41 I -1.63 I .40 I -1.35 I
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U QUESTIONS

Normalization by mean

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I      *TEACH. 1TEACH. 2ITEACH. 3ITEACH. 4ITEACH. 5ITEACH. 6ITEACH. 7ITEACH. 8ITEACH. 9ITEACH.10ITEACH.11I
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I NO OBS *144.00 I144.00 I112.00 I112.00 I128.00 I112.00 I128.00 I144.00 I112.00 I112.00 I112.00 I
I MEAN VAL * -.09 I -.12 I -.25 I .05 I -.01 I .26 I -.28 I .14 I .04 I .18 I .15 I
I STD * .54 I .46 I .61 I .79 I .78 I .66 I .51 I .61 I .45 I .81 I .59 I
I SKEWNESS * .23 I -.10 I .83 I 2.86 I 2.66 I 1.70 I -.15 I .24 I .24 I 1.79 I 1.60 I
I KURTOSIS * .84 I .61 I 1.75 I 14.95 I 13.46 I 4.65 I -.89 I .97 I 1.34 I 4.33 I 5.98 I
=====

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Normalization by STD

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=====
I      *TEACH. 1TEACH. 2ITEACH. 3ITEACH. 4ITEACH. 5ITEACH. 6ITEACH. 7ITEACH. 8ITEACH. 9ITEACH.10ITEACH.11I
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=====
I NO OBS *144.00 I144.00 I112.00 I112.00 I128.00 I112.00 I128.00 I144.00 I112.00 I112.00 I112.00 I
I MEAN VAL * -.09 I -.17 I -.37 I .08 I -.13 I .33 I -.30 I .36 I -.01 I .19 I .24 I
I STD * .82 I .87 I .90 I .82 I .97 I .88 I .87 I .89 I .78 I .98 I .89 I
I SKEWNESS * .10 I .25 I .38 I .03 I .17 I -.60 I .33 I -.39 I .02 I -.35 I -.34 I
I KURTOSIS * -1.05 I -1.19 I -.89 I -.40 I -.98 I -.72 I -.85 I -.63 I -1.33 I -.95 I -1.15 I
=====

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Figure VII.4 - Measures of teachers' degree of agreement in marking pupils' answers in A and U competencies (normalization by mean and by standard deviation)

APPENDIX VIII

SUMMARY STATISTICS AND MATRICES
OF CORRELATIONS OF SOCIOLOGICAL
VARIABLES AND ACHIEVEMENT

The data presented in this appendix are referred to in Chapter five and correspond to a primary treatment of the results we obtained of the relation between sociological variables and achievement. They are also referred to in many other chapters. Their inclusion in the thesis serves the purpose of allowing for both a better understanding of the text and a first insight into the sample and the primary relationships within this sample.

The appendix is organized in the following way: First results for the whole of middle and upper schools are presented; these are followed by the results for each teacher in each section of the school. In each case the summary statistics precedes the matrix of correlations.

Each table is organised as follows:

Summary statistics - each column refers to achievement and sociological variables and each row to categories within each variable (see in Chapter two the meaning of each category); at the bottom of each column is indicated, for the respective variable, the total number of pupils, the number of missing pupils, the mean of the column and the standard deviation, skewness and kurtosis.

Matrix of correlations - each column and each row refers to achievement and sociological variables. The total number of cases for each variable is indicated at the bottom of each column.

MIDDLE SCHOOL ALL PUPILS

SUMMARY STATISTICS

	*3RD ACQ	3RD USE	3RD GLO	AGE	GENDER	SIBLINGS	SIB.POS.	PRIM.SCH	REPEAT.	LIVING	F.' AGE	F.' QUAL	F.' OCC.	M.' AGE	M.' QUAL	M.' OCC.	SCH.AREA	TEACHER	SCH.TYPE	F.SCHOOL	M.SCHOOL
1	33	102	33	0	522	146	501	725	794	1021	213	64	0	426	127	570	619	174	474	296	240
Z COL	3.12	9.63	3.12	0.00	49.29	13.79	47.35	73.53	74.98	96.50	20.34	6.09	0.00	40.34	11.99	54.58	58.45	16.43	44.76	64.77	75.47
2	205	499	335	24	537	485	176	261	265	1	646	530	128	519	614	46	440	113	216	161	78
Z COL	19.36	47.12	31.63	2.28	50.71	45.80	16.64	26.47	25.02	.09	61.70	50.43	12.18	49.15	57.98	4.34	41.55	10.67	20.40	35.23	24.53
3	463	382	551	210	0	243	381	0	0	36	188	112	129	111	73	83	0	117	369	0	0
Z COL	43.72	36.07	52.03	19.98	0.00	22.95	36.01	0.00	0.00	3.40	17.96	10.66	12.27	10.51	6.89	7.84	0.00	11.05	34.84	0.00	0.00
4	358	76	140	302	0	99	0	0	0	0	0	91	0	0	74	48	0	153	0	0	0
Z COL	33.81	7.18	13.22	28.73	0.00	9.35	0.00	0.00	0.00	0.00	0.00	8.66	0.00	0.00	6.99	4.53	0.00	14.45	0.00	0.00	0.00
5	0	0	0	224	0	38	0	0	0	0	0	73	191	0	89	23	0	84	0	0	0
Z COL	0.00	0.00	0.00	21.31	0.00	3.59	0.00	0.00	0.00	0.00	0.00	6.95	18.17	0.00	8.40	2.17	0.00	7.93	0.00	0.00	0.00
6	0	0	0	111	0	27	0	0	0	0	0	55	122	0	22	80	0	29	0	0	0
Z COL	0.00	0.00	0.00	10.56	0.00	2.55	0.00	0.00	0.00	0.00	0.00	5.23	11.61	0.00	2.08	7.55	0.00	2.74	0.00	0.00	0.00
7	0	0	0	87	0	14	0	0	0	0	0	126	174	0	60	70	0	63	0	0	0
Z COL	0.00	0.00	0.00	8.28	0.00	1.32	0.00	0.00	0.00	0.00	0.00	11.99	16.56	0.00	5.67	6.61	0.00	5.95	0.00	0.00	0.00
8	0	0	0	62	0	4	0	0	0	0	0	0	90	0	0	37	0	0	0	0	0
Z COL	0.00	0.00	0.00	5.90	0.00	.38	0.00	0.00	0.00	0.00	0.00	0.00	8.56	0.00	0.00	3.49	0.00	0.00	0.00	0.00	0.00
9	0	0	0	18	0	1	0	0	0	0	0	0	0	0	0	24	0	113	0	0	0
Z COL	0.00	0.00	0.00	1.71	0.00	.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.27	0.00	10.67	0.00	0.00	0.00
10	0	0	0	10	0	0	0	0	0	0	0	0	84	0	0	17	0	26	0	0	0
Z COL	0.00	0.00	0.00	.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.99	0.00	0.00	1.61	0.00	2.46	0.00	0.00	0.00
11	0	0	0	2	0	1	0	0	0	0	0	0	12	0	0	32	0	187	0	0	0
Z COL	0.00	0.00	0.00	.19	0.00	.09	0.00	0.00	0.00	0.00	0.00	0.00	1.14	0.00	0.00	3.02	0.00	17.66	0.00	0.00	0.00
12	0	0	0	1	0	1	0	0	0	0	0	0	121	0	0	21	0	0	0	0	0
Z COL	0.00	0.00	0.00	.10	0.00	.09	0.00	0.00	0.00	0.00	0.00	0.00	11.51	0.00	0.00	1.98	0.00	0.00	0.00	0.00	0.00
	*3RD ACQ	3RD USE	3RD GLO	AGE	GENDER	SIBLINGS	SIB.POS.	PRIM.SCH	REPEAT.	LIVING	F.' AGE	F.' QUAL	F.' OCC.	M.' AGE	M.' QUAL	M.' OCC.	SCH.AREA	TEACHER	SCH.TYPE	F.SCHOOL	M.SCHOOL
TOTAL COL:	1059	1059	1059	1051	1059	1059	1058	986	1059	1058	1047	1051	1051	1056	1059	1059	1059	1059	1059	457	318
MISSING :	0	0	0	0	0	0	1	73	0	1	12	0	0	3	0	0	0	0	0	602	741
MEAN :	3.08	2.41	2.75	4.83	1.51	2.60	1.89	1.26	1.25	1.07	1.98	3.24	6.37	1.70	2.71	3.29	1.42	5.41	1.90	1.35	1.25
STAND.DEV:	.81	.76	.72	1.69	.50	1.34	.91	.44	.43	.36	.62	1.86	3.05	.65	1.57	3.17	.49	3.60	.87	.48	.43
SKENNESS :	-.51	.15	-.11	.91	-.03	1.04	.23	1.07	1.15	5.10	.01	.98	.37	.38	1.44	1.20	.34	.39	.19	.62	1.18
KURTOSIS :	-.41	-.31	-.27	.57	-2.00	5.61	-1.74	-.86	-.67	24.07	-.39	-.43	-.74	-.73	1.15	.25	-1.88	-1.32	-1.70	-1.62	-.60

Figure VIII.1

MIDDLE SCHOOL ALL PUPILS

MATRIX OF CORRELATIONS

	*3RD ACQ	3RD USE	3RD GLO	AGE	GENDER	SIBLINGS	SIB.POS.	PRIM.SCH	REPEAT.	LIVING	F.' AGE	F.' QUAL	F.'OCC.	M.'AGE	M.'QUAL	M.'OCC.	SCH.AREA	TEACHER	SCH.TYPE	F.SCHOOL	M.SCHOOL
3RD ACQ	1.00	.44	.75	-.21	-.07	-.03	.01	.03	-.10	.05	-.01	.07	.02	-.01	.05	.00	-.11	.03	-.17	-.02	-.02
3RD USE	.44	1.00	.70	-.14	-.11	-.03	-.04	.05	-.01	-.01	-.04	.10	.08	-.05	.09	.05	.04	-.16	-.02	-.01	.00
3RD GLO	.75	.70	1.00	-.18	-.10	-.00	-.02	.04	-.07	.02	-.02	.08	.02	-.03	.06	.03	-.04	-.09	-.00	-.02	-.00
AGE	-.21	-.14	-.18	1.00	.02	.04	.01	-.14	.51	.05	.15	-.28	-.23	.17	-.27	-.23	.36	-.30	-.34	.02	.01
GENDER	-.07	-.11	-.10	.02	1.00	-.04	.04	.06	.05	-.04	.03	.02	.04	.01	.02	.02	-.14	.12	.05	.01	.05
SIBLINGS	-.03	-.03	-.00	.04	-.04	1.00	.28	-.06	-.01	-.03	.20	.12	.15	.21	.08	-.06	-.03	.06	-.03	-.07	-.05
SIB.POS.	.01	-.04	-.02	.01	.04	.28	1.00	-.03	.00	.01	.37	.04	.02	.38	-.01	-.05	-.00	.04	-.00	-.01	-.02
PRIM.SCH	.03	.05	.04	-.14	.06	-.06	-.03	1.00	-.17	.01	.02	.40	.39	-.03	.36	.23	-.41	.16	.45	-.06	-.02
REPEAT.	-.10	-.01	-.07	.51	.05	-.01	.00	-.17	1.00	.02	.06	-.25	-.21	.07	-.23	-.23	.40	-.26	-.28	.00	.00
LIVING	.05	-.01	.02	.05	-.04	-.03	.01	.01	.02	1.00	.02	-.02	-.06	.04	-.03	-.02	.05	-.05	-.06	-.02	-.00
F.' AGE	-.01	-.04	-.02	.15	.03	.20	.37	.02	.06	.02	1.00	.00	.03	.62	-.01	-.09	-.01	-.01	.00	.03	-.05
F.' QUAL	.07	.10	.08	-.28	.02	.12	.04	.40	-.25	-.02	.00	1.00	.77	-.04	.76	.45	-.44	.21	.43	-.13	-.12
F.'OCC.	.02	.08	.02	-.23	.04	.15	.02	.39	-.21	-.06	.03	.77	1.00	-.04	.65	.42	-.41	.21	.40	-.11	-.09
M.'AGE	-.01	-.05	-.03	.17	.01	.21	.38	-.03	.07	.04	.62	-.04	-.04	1.00	-.07	-.13	.01	-.00	-.07	.03	-.06
M.'QUAL	.05	.09	.06	-.27	.02	.08	-.01	.36	-.23	-.03	-.01	.76	.65	-.07	1.00	.64	-.41	.18	.42	-.18	-.14
M.'OCC.	.00	.05	.03	-.23	.02	-.06	-.05	.23	-.23	-.02	-.09	.45	.42	-.13	.64	1.00	-.33	.19	.35	-.07	-.04
SCH.AREA	-.11	.04	-.04	.36	-.14	-.03	-.00	-.41	.40	.05	-.01	-.44	-.41	.01	-.41	-.33	1.00	-.73	-.53	.00	.01
TEACHER	.03	-.16	-.09	-.30	.12	.06	.04	.16	-.26	-.05	-.01	.21	.21	-.00	.18	.19	-.73	1.00	.10	.04	-.02
SCH.TYPE	-.17	-.02	-.00	-.34	.05	-.03	-.00	.45	-.28	-.06	.00	.43	.40	-.07	.42	.35	-.53	.10	1.00	-.10	.01
F.SCHOOL	-.02	-.01	-.02	.02	.01	-.07	-.01	-.06	.00	-.02	.03	-.13	-.11	.03	-.18	-.07	.00	.04	-.10	1.00	.28
M.SCHOOL	-.02	.00	-.00	.01	.05	-.05	-.02	-.02	.00	-.00	-.05	-.12	-.09	-.06	-.14	-.04	.01	-.02	.01	.28	1.00
*3RD ACQ	1059	1059	1059	1059	1059	1059	1058	986	1059	1058	1047	1051	1051	1056	1059	1059	1059	1059	1059	457	318

Figure VIII.1 (cont.)

UPPER SCHOOL ALL PUPILS

SUMMARY STATISTICS

	*3RD ABU	*3RD USE	*3RD GLO	AGE	SEX	*SIBLINGS	*SIB.POS.	*PRIM.SCH	*REPEAT.	*LIVING	*F.' AGE	*F.' QUAL	*F.' OCCUP	*M.' AGE	*M.' QUAL	*M.' OCCUP	*SCH.AREA	*TEACHER	*SCH.TYPE	*F.SCHOOL	*M.SCHOOL
1	9	39	13	0	108	54	142	112	239	249	27	13	0	74	21	102	151	0	0	99	99
% COL	3.45	14.94	4.98	0.00	41.38	20.69	54.41	48.07	91.57	95.40	10.63	5.06	0.00	28.68	8.08	39.23	57.85	0.00	0.00	65.13	74.38
2	59	124	105	0	153	115	44	121	22	0	164	92	16	151	118	12	110	0	0	53	31
% COL	22.61	47.51	40.23	0.00	58.62	44.06	16.86	51.93	8.43	0.00	64.57	35.00	6.25	58.53	45.38	4.62	42.15	0.00	0.00	34.87	25.62
3	142	89	122	0	0	46	75	0	0	12	63	30	29	33	25	26	0	0	261	0	0
% COL	54.41	34.10	46.74	0.00	0.00	17.62	28.74	0.00	0.00	4.60	24.80	11.67	11.33	12.79	9.62	10.00	0.00	0.00	100.00	0.00	0.00
4	51	9	21	0	0	22	0	0	0	0	0	33	0	0	33	7	0	0	0	0	0
% COL	19.54	3.45	8.05	0.00	0.00	8.43	0.00	0.00	0.00	0.00	0.00	12.84	0.00	0.00	12.69	2.69	0.00	0.00	0.00	0.00	0.00
5	0	0	0	11	0	10	0	0	0	0	0	17	20	0	27	7	0	0	0	0	0
% COL	0.00	0.00	0.00	4.25	0.00	3.83	0.00	0.00	0.00	0.00	0.00	6.61	7.81	0.00	10.38	2.69	0.00	0.00	0.00	0.00	0.00
6	0	0	0	74	0	9	0	0	0	0	0	19	27	0	6	27	0	27	0	0	0
% COL	0.00	0.00	0.00	28.57	0.00	3.45	0.00	0.00	0.00	0.00	0.00	7.39	10.55	0.00	2.31	10.38	0.00	10.34	0.00	0.00	0.00
7	0	0	0	97	0	4	0	0	0	0	0	53	44	0	30	20	0	0	0	0	0
% COL	0.00	0.00	0.00	37.45	0.00	1.53	0.00	0.00	0.00	0.00	0.00	20.62	17.19	0.00	11.54	7.69	0.00	0.00	0.00	0.00	0.00
8	0	0	0	50	0	1	0	0	0	0	0	0	32	0	0	16	0	110	0	0	0
% COL	0.00	0.00	0.00	19.31	0.00	.38	0.00	0.00	0.00	0.00	0.00	0.00	12.50	0.00	0.00	6.15	0.00	42.15	0.00	0.00	0.00
9	0	0	0	23	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0
% COL	0.00	0.00	0.00	8.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.46	0.00	0.00	0.00	0.00	0.00
10	0	0	0	4	0	0	0	0	0	0	0	0	36	0	0	8	0	124	0	0	0
% COL	0.00	0.00	0.00	1.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.06	0.00	0.00	3.08	0.00	47.51	0.00	0.00	0.00
11	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	19	0	0	0	0	0
% COL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.73	0.00	0.00	7.31	0.00	0.00	0.00	0.00	0.00
12	0	0	0	0	0	0	0	0	0	0	0	0	45	0	0	7	0	0	0	0	0
% COL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.58	0.00	0.00	2.69	0.00	0.00	0.00	0.00	0.00
	*3RD ABU	*3RD USE	*3RD GLO	AGE	SEX	*SIBLINGS	*SIB.POS.	*PRIM.SCH	*REPEAT.	*LIVING	*F.' AGE	*F.' QUAL	*F.' OCCUP	*M.' AGE	*M.' QUAL	*M.' OCCUP	*SCH.AREA	*TEACHER	*SCH.TYPE	*F.SCHOOL	*M.SCHOOL
TOTAL COL:	261	261	261	259	261	261	261	233	261	261	254	257	256	258	260	260	261	261	261	152	121
MISSING :	0	0	0	2	0	0	0	28	0	0	7	4	5	3	1	1	0	0	0	109	140
MEAN :	2.90	2.26	2.50	7.05	1.59	2.49	1.74	1.77	1.00	1.09	2.14	3.05	7.51	1.84	3.25	4.43	1.42	8.74	3.00	1.35	1.26
STAND.DEV:	.74	.75	.71	1.07	.49	1.30	.88	.50	.28	.42	.58	2.05	3.13	.63	1.82	3.62	.49	1.33	0.00	.48	.44
SKEWNESS :	-.35	.03	-.02	.44	-.35	1.42	.52	-.08	2.99	4.34	-.02	.44	-.10	.13	.89	.61	.32	-.58	0.00	.64	1.12
KURTOSIS :	-.07	-.46	-.26	-.14	-1.88	2.03	-1.49	-1.99	6.96	16.88	-.18	-1.32	1.01	-.53	-.42	-1.00	-1.90	-.69	0.00	-1.60	-.75

Figure VIII.2

UPPER SCHOOL ALL PUPILS

MATRIX OF CORRELATIONS

	*3RD AQU	*3RD USE	*3RD GLO	AGE	SEX	*SIBLINGS	*SIB.POS.	*PRIM.SCH	*REPEAT.	*LIVING	*F.' AGE	*F.' QUAL	*F.'OCCUP	*M.'AGE	*M.'QUAL	*M.'OCCUP	*SCH.AREA	*TEACHER	*F.SCHOOL	*M.SCHOOL
*3RD AQU	1.00	.61	.75	-.20	-.04	-.03	-.02	.14	-.05	-.12	-.01	.25	.27	-.10	.27	.25	-.23	.01	-.04	-.03
*3RD USE	.61	1.00	.76	-.20	-.09	.00	.06	.16	-.16	-.03	-.05	.31	.27	-.12	.26	.20	-.17	-.01	-.05	-.01
*3RD GLO	.75	.76	1.00	-.20	-.07	-.00	.04	.16	-.09	-.02	.00	.31	.30	-.05	.29	.26	-.24	.02	-.06	-.00
AGE	-.20	-.20	-.20	1.00	-.06	.06	-.04	-.08	.26	.09	.07	-.10	-.04	.08	-.13	-.03	-.12	.43	.03	.11
SEX	-.04	-.09	-.07	-.06	1.00	-.00	.04	.03	-.11	-.08	-.07	-.02	-.01	-.02	-.09	-.11	.06	-.05	-.02	.01
*SIBLINGS	-.03	.08	-.00	.06	-.08	1.00	.36	-.00	-.11	-.13	.21	.28	.27	.19	.20	-.04	-.05	.03	-.15	-.16
*POSITION	-.02	.06	.04	-.04	.04	.36	1.00	-.01	-.02	-.02	.33	.11	.07	.33	.06	-.04	-.03	.04	-.13	-.13
*PRIM.SCH	.14	.16	.16	-.08	.03	-.00	-.01	1.00	.03	-.08	.00	.36	.32	-.01	.36	.17	-.28	.12	-.02	-.07
*REPEATS	-.05	-.16	-.09	.26	-.11	-.11	-.02	.03	1.00	-.00	.12	.01	.07	.06	.06	.05	-.04	.12	.03	-.02
*LIVING	-.12	-.03	-.02	.09	-.08	-.13	-.02	-.08	-.00	1.00	.00	-.05	-.11	-.01	-.10	-.10	.03	-.01	-.01	.03
*F.' AGE	-.01	-.05	.00	.07	-.07	.21	.33	.00	.12	.00	1.00	-.04	.03	.60	-.00	-.06	-.14	.12	.07	-.02
*F.' QUAL	.25	.31	.31	-.10	-.02	.28	.11	.36	.01	-.05	-.04	1.00	.75	-.03	.73	.29	-.36	.07	-.19	-.27
*F.'OCCUP	.27	.27	.30	-.04	-.01	.27	.07	.32	.07	-.11	.03	.75	1.00	.00	.59	.26	-.22	.01	-.11	-.18
*M.'AGE	-.10	-.12	-.05	.08	-.02	.19	.33	-.01	.06	-.01	.60	-.03	.00	1.00	-.01	-.08	-.17	.12	-.01	-.09
*M.'QUAL	.27	.26	.29	-.13	-.09	.20	.06	.36	.06	-.10	-.00	.73	.59	-.01	1.00	.52	-.21	-.03	-.22	-.23
*M.'OCCUP	.25	.20	.26	-.03	-.11	-.04	-.04	.17	.05	-.10	-.06	.29	.26	-.08	.52	1.00	-.24	.01	-.07	-.06
*SCH.AREA	-.23	-.17	-.24	-.12	.06	-.05	-.03	-.28	-.04	.03	-.14	-.36	-.22	-.17	-.21	-.24	1.00	-.48	.11	-.03
*TEACHER	.01	-.01	.02	.43	-.05	.03	.04	.12	.12	-.01	.12	.07	.01	.12	-.03	.01	-.48	1.00	-.03	.02
*F.SCHOOL	-.04	-.05	-.06	.03	-.02	-.15	-.13	-.02	.03	-.01	.07	-.19	-.11	-.01	-.22	-.07	.11	-.03	1.00	.22
*M.SCHOOL	-.03	-.01	-.00	.11	.01	-.16	-.13	-.07	-.02	.03	-.02	-.27	-.18	-.09	-.23	-.06	-.03	.02	.22	1.00
*N.CASES	261	261	261	261	261	261	261	233	261	261	254	257	256	258	260	260	261	261	152	121

Figure VIII.2 (cont.)

MIDDLE SCHOOL TEACHER 01

SUMMARY STATISTICS

	*3RD ACQ	3RD USE	3RD GLO	AGE	GENDER	SIBLINGS	SIB.POS.	PRIM.SCH	REPEAT.	LIVING	F.' AGE	F.' QUAL	F.' OCC.	M.' AGE	M.' QUAL	M.' OCC.	F.SCHOOL	M.SCHOOL
1	0	5	1	0	10	2	16	9	27	29	5	0	0	11	1	11	11	11
Z COL	0.00	17.24	3.45	0.00	34.48	6.90	55.17	32.14	93.10	100.00	17.24	0.00	0.00	37.93	3.45	37.93	61.11	64.71
2	8	11	9	0	19	14	6	19	2	0	21	11	0	17	11	0	7	6
Z COL	27.59	37.93	31.03	0.00	65.52	48.28	20.69	67.86	6.90	0.00	72.41	37.93	0.00	58.62	37.93	0.00	38.89	35.29
3	17	13	18	0	0	7	7	0	0	0	3	3	5	1	4	4	0	0
Z COL	58.62	44.83	62.07	0.00	0.00	24.14	24.14	0.00	0.00	0.00	10.34	10.34	17.24	3.45	13.79	13.79	0.00	0.00
4	4	0	1	25	0	4	0	0	0	0	0	5	0	0	4	1	0	0
Z COL	13.79	0.00	3.45	89.29	0.00	13.79	0.00	0.00	0.00	0.00	0.00	17.24	0.00	0.00	13.79	3.45	0.00	0.00
5	0	0	0	3	0	1	0	0	0	0	0	1	5	0	4	1	0	0
Z COL	0.00	0.00	0.00	10.71	0.00	3.45	0.00	0.00	0.00	0.00	0.00	3.45	17.24	0.00	13.79	3.45	0.00	0.00
6	0	0	0	0	0	0	0	0	0	0	0	4	3	0	2	4	0	0
Z COL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.79	10.34	0.00	6.90	13.79	0.00	0.00
7	0	0	0	0	0	1	0	0	0	0	0	5	1	0	3	2	0	0
Z COL	0.00	0.00	0.00	0.00	0.00	3.45	0.00	0.00	0.00	0.00	0.00	17.24	3.45	0.00	10.34	6.90	0.00	0.00
8	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	2	0	0
Z COL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.34	0.00	0.00	6.90	0.00	0.00
9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Z COL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.45	0.00	0.00
10	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	2	0	0
Z COL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.79	0.00	0.00	6.90	0.00	0.00
11	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	1	0	0
Z COL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.90	0.00	0.00	3.45	0.00	0.00
12	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0
Z COL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.69	0.00	0.00	0.00	0.00	0.00
TOTAL COL:	29	29	29	28	29	29	29	28	29	29	29	29	29	29	29	29	18	17
MISSING :	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	11	12
MEAN :	2.86	2.28	2.66	4.11	1.66	2.72	1.69	1.68	1.07	1.00	1.93	3.97	7.69	1.66	3.59	4.34	1.39	1.35
STAND.DEV:	.64	.75	.61	.31	.48	1.25	.85	.48	.26	0.00	.53	1.97	3.33	.55	1.80	3.34	.50	.49
SKENNESS :	.11	-.49	-.61	2.54	-.65	1.54	.63	-.76	3.40	0.00	-.09	.42	-.02	.01	.60	.48	.46	.62
KURTOSIS :	-.54	-1.04	.31	4.45	-1.57	2.95	-1.27	-1.42	9.57	0.00	.60	-1.39	-1.45	-.80	-.88	-1.11	-1.79	-1.62

Figure VIII.3

MIDDLE SCHOOL TEACHER 01

MATRIX OF CORRELATIONS

	*3RD ACQ	3RD USE	3RD GLO	AGE	GENDER	SIBLINGS	SIB.POS.	PRIM.SCH	REPEAT.	F.' AGE	F.' QUAL	F.'OCC.	M.'AGE	M.'QUAL	M.'OCC.	F.SCHOOL	M.SCHOOL
*3RD ACQ	1.00	.60	.78	.26	.07	.08	-.21	.24	.06	.18	.45	.36	.06	.44	.02	-.00	-.31
3RD USE	.60	1.00	.76	-.04	-.02	-.11	-.08	-.02	-.10	.14	.32	.16	-.02	.25	.03	.02	-.01
3RD GLO	.78	.76	1.00	.12	.07	.01	-.21	.01	-.07	.14	.26	.20	-.05	.25	-.09	.13	-.07
AGE	.26	-.04	.12	1.00	-.12	.06	.19	.34	.35	.32	.09	.12	.29	.21	-.06	.18	-.09
GENDER	.07	-.02	.07	-.12	1.00	.13	-.18	.13	-.09	.18	.17	.15	.21	.08	-.17	-.02	-.04
SIBLINGS	.08	-.11	.01	.06	.13	1.00	.15	.35	.73	.13	.07	.35	.12	.36	-.17	.10	-.19
SIB.POS.	-.21	-.08	-.21	.19	-.18	.15	1.00	.30	.10	.27	-.13	-.14	.14	.03	.20	.00	.01
PRIM.SCH	.24	-.02	.01	.34	.13	.35	.30	1.00	.19	.48	.53	.60	.39	.58	.32	-.03	-.01
REPEAT.	.06	-.10	-.07	.35	-.09	.73	.10	.19	1.00	.04	.15	.28	.17	.29	-.29	.06	-.24
F.' AGE	.18	.14	.14	.32	.18	.13	.27	.48	.04	1.00	.20	.30	.53	.38	.11	.07	-.06
F.' QUAL	.45	.32	.26	.09	.17	.07	-.13	.53	.15	.20	1.00	.77	.12	.65	.26	-.03	-.30
F.'OCC.	.36	.16	.20	.12	.15	.35	-.14	.60	.28	.30	.77	1.00	.22	.69	.29	.17	-.33
M.'AGE	.06	-.02	-.05	.29	.21	.12	.14	.39	.17	.53	.12	.22	1.00	.28	.07	.01	-.13
M.'QUAL	.44	.25	.25	.21	.08	.36	.03	.58	.29	.38	.65	.69	.28	1.00	.53	-.12	-.15
M.'OCC.	.02	.03	-.09	-.06	-.17	-.17	.20	.32	-.29	.11	.26	.29	.07	.53	1.00	-.16	.08
F.SCHOOL	-.00	.02	.13	.18	-.02	.10	.08	-.03	.06	.07	-.03	.17	.01	-.12	-.16	1.00	.18
M.SCHOOL	-.31	-.01	-.07	-.09	-.04	-.19	.01	-.01	-.24	-.06	-.30	-.33	-.13	-.15	.08	.18	1.00
*3RD ACQ	29	29	29	29	29	29	29	28	29	29	29	29	29	29	29	18	17

Figure VIII.3 (cont.)

MIDDLE SCHOOL TEACHER 02

SUMMARY STATISTICS

	*3RD ACQ	*3RD USE	*3RD GLO	AGE	GENDER	SIBLINGS	SIB.POS.	PRIM.SCH	REPEAT.	LIVING	F.' AGE	F.' QUAL	F.' OCC.	M.' AGE	M.' QUAL	M.' OCC.	F.SCHOOL	M.SCHOOL
1	7	23	8	0	64	18	59	63	113	111	18	0	0	43	3	46	54	50
% COL	6.19	20.35	7.08	0.00	56.64	15.93	52.21	55.75	100.00	98.23	15.93	0.00	0.00	38.39	2.65	40.71	75.00	80.65
2	37	65	63	0	49	53	13	50	0	0	63	41	1	52	48	0	18	12
% COL	32.74	57.52	55.75	0.00	43.36	46.90	11.50	44.25	0.00	0.00	55.75	36.28	.88	46.43	42.48	0.00	25.00	19.35
3	59	22	38	0	0	20	41	0	0	2	32	14	15	17	12	5	0	0
% COL	52.21	19.47	33.63	0.00	0.00	17.70	36.28	0.00	0.00	1.77	28.32	12.39	13.27	15.18	10.62	4.42	0.00	0.00
4	10	3	4	22	0	13	0	0	0	0	0	11	0	0	14	4	0	0
% COL	8.85	2.65	3.54	20.00	0.00	11.50	0.00	0.00	0.00	0.00	0.00	9.73	0.00	0.00	12.39	3.54	0.00	0.00
5	0	0	0	70	0	2	0	0	0	0	0	6	7	0	13	2	0	0
% COL	0.00	0.00	0.00	63.64	0.00	1.77	0.00	0.00	0.00	0.00	0.00	5.31	6.19	0.00	11.50	1.77	0.00	0.00
6	0	0	0	10	0	5	0	0	0	0	0	12	14	0	7	14	0	0
% COL	0.00	0.00	0.00	9.09	0.00	4.42	0.00	0.00	0.00	0.00	0.00	10.62	12.39	0.00	6.19	12.39	0.00	0.00
7	0	0	0	7	0	2	0	0	0	0	0	29	15	0	16	9	0	0
% COL	0.00	0.00	0.00	6.36	0.00	1.77	0.00	0.00	0.00	0.00	0.00	25.66	13.27	0.00	14.16	7.96	0.00	0.00
8	0	0	0	1	0	0	0	0	0	0	0	0	16	0	0	9	0	0
% COL	0.00	0.00	0.00	.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.16	0.00	0.00	7.96	0.00	0.00
9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0
% COL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.42	0.00	0.00
10	0	0	0	0	0	0	0	0	0	0	0	0	17	0	0	4	0	0
% COL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.04	0.00	0.00	3.54	0.00	0.00
11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0
% COL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.08	0.00	0.00
12	0	0	0	0	0	0	0	0	0	0	0	0	28	0	0	7	0	0
% COL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24.78	0.00	0.00	6.19	0.00	0.00
	*3RD ACQ	*3RD USE	*3RD GLO	AGE	GENDER	SIBLINGS	SIB.POS.	PRIM.SCH	REPEAT.	LIVING	F.' AGE	F.' QUAL	F.' OCC.	M.' AGE	M.' QUAL	M.' OCC.	F.SCHOOL	M.SCHOOL
TOTAL COL:	113	113	113	110	113	113	113	113	113	113	113	113	113	112	113	113	72	62
MISSING :	0	0	0	3	0	0	0	0	0	0	0	0	0	1	0	0	41	51
MEAN :	2.64	2.04	2.34	5.05	1.43	2.57	1.84	1.44	1.00	1.04	2.12	4.19	0.01	1.77	3.63	4.98	1.25	1.19
STAND.DEV:	.73	.71	.66	.79	.50	1.34	.93	.50	0.00	.26	.66	2.09	3.08	.70	1.89	3.90	.44	.40
SKENNESS :	-.28	.30	.25	1.13	.27	1.36	.32	.23	0.00	7.32	-.13	.26	-.16	.35	.63	.36	1.15	1.55
KURTOSIS :	-.13	.14	.00	1.95	-1.93	1.74	-1.76	-1.95	0.00	51.52	-.69	-1.62	-1.10	-.91	-1.01	-1.29	-.67	.41

Figure VIII.3 (cont.)

MIDDLE SCHOOL TEACHER 02

MATRIX OF CORRELATIONS

	*3RD ACQ	3RD USE	3RD GLO	AGE	GENDER	SIBLINGS	SIB.POS.	PRIM.SCH	LIVING	F.' AGE	F.' QUAL	F.'OCC.	M.'AGE	M.'QUAL	M.'OCC.	F.SCHOOL	M.SCHOOL
*3RD ACQ	1.00	.61	.73	-.23	.02	-.28	.16	.05	.07	.08	.18	.07	.06	.24	.26	.03	-.06
3RD USE	.61	1.00	.72	-.18	.05	-.15	.15	.17	-.01	.01	.21	.10	.09	.22	.18	.12	.06
3RD GLO	.73	.72	1.00	-.21	-.04	-.19	.17	.11	.03	.11	.14	.07	.07	.23	.20	.08	.02
AGE	-.23	-.18	-.21	1.00	-.14	.16	-.06	.05	-.11	-.15	-.07	.03	-.04	-.09	-.07	-.10	.02
GENDER	.02	.05	-.04	-.14	1.00	-.18	-.04	-.06	-.12	-.03	-.03	.04	.01	.07	.05	-.02	.10
SIBLINGS	-.28	-.15	-.19	.16	-.18	1.00	.27	-.02	-.11	.00	.18	.18	.11	.09	-.13	-.13	-.08
SIB.POS.	.16	.15	.17	-.06	-.04	.27	1.00	-.10	.02	.37	.13	.10	.26	.09	-.10	.14	-.02
PRIM.SCH	.05	.17	.11	.05	-.06	-.02	-.10	1.00	.15	-.09	.25	.23	-.09	.18	.05	.01	-.05
LIVING	.07	-.01	.03	-.11	-.12	-.11	.02	.15	1.00	.08	.02	-.03	.05	-.04	-.05	-.09	-.04
F.' AGE	.08	.01	.11	-.15	-.03	.00	.37	-.09	.08	1.00	-.10	-.01	.50	-.07	-.19	.13	-.20
F.' QUAL	.18	.21	.14	-.07	-.03	.18	.13	.25	.02	-.10	1.00	.76	-.11	.71	.40	-.11	-.18
F.'OCC.	.07	.10	.07	.03	.04	.18	.10	.23	-.03	-.01	.76	1.00	-.13	.65	.44	-.15	-.12
M.'AGE	.06	.09	.07	-.04	.01	.11	.26	-.09	.05	.50	-.11	-.13	1.00	-.11	-.06	.10	-.15
M.'QUAL	.24	.22	.23	-.09	.07	.09	.09	.18	-.04	-.07	.71	.65	-.11	1.00	.69	-.06	-.20
M.'OCC.	.26	.18	.20	-.07	.05	-.13	-.10	.05	-.05	-.19	.40	.44	-.06	.69	1.00	-.03	-.11
F.SCHOOL	.03	.12	.08	-.10	-.02	-.13	.14	.01	-.09	.13	-.11	-.15	.10	-.06	-.03	1.00	.35
M.SCHOOL	-.06	.06	.02	.02	.10	-.08	-.02	-.05	-.04	-.20	-.18	-.12	-.15	-.20	-.11	.35	1.00
*3RD ACQ	113	113	113	113	113	113	113	113	113	113	113	113	112	113	113	72	62

Figure VIII.3 (cont.)

MIDDLE SCHOOL TEACHER 03

SUMMARY STATISTICS

	*1ST ACQ	*1ST USE	*1ST GLO	*2ND ACQ	*2ND USE	*2ND GLO	*3RD ACQ	*3RD USE	*3RD GLO	AGE	GENDER	SIBLINGS	SIB.POS.	PRIM.SCH	REPEAT.	LIVING	IF.' AGE	IF.' QUAL	IF.'OCC.	M.'AGE	M.'QUAL	M.'OCC.	IF.SCHOOL	M.SCHOOL
1	2	1	1	0	1	1	0	2	0	0	11	2	11	7	20	25	5	0	0	12	0	10	15	12
Z COL	7.69	3.85	3.85	0.00	3.85	3.85	0.00	7.69	0.00	0.00	42.31	7.69	42.31	29.17	76.92	96.15	19.23	0.00	0.00	46.15	0.00	38.46	83.33	85.71
2	10	3	6	8	7	6	1	11	6	7	15	18	4	17	6	0	16	8	0	12	12	0	3	2
Z COL	38.46	11.54	23.08	30.77	26.92	23.08	3.85	42.31	23.08	26.92	57.69	69.23	15.38	70.83	23.08	0.00	61.54	30.77	0.00	46.15	46.15	0.00	16.67	14.29
3	10	14	15	16	16	19	10	12	16	15	0	5	11	0	0	1	5	1	1	2	4	0	0	0
Z COL	38.46	53.85	57.69	61.54	61.54	73.08	38.46	46.15	61.54	57.69	0.00	19.23	42.31	0.00	0.00	3.85	19.23	3.85	3.85	7.69	15.38	0.00	0.00	0.00
4	4	8	4	2	2	0	15	1	4	4	0	0	0	0	0	0	0	6	0	0	5	2	0	0
Z COL	15.38	30.77	15.38	7.69	7.69	0.00	57.69	3.85	15.38	15.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.08	0.00	0.00	19.23	7.69	0.00	0.00
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0
Z COL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.69	7.69	0.00	0.00	0.00	0.00	0.00
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	5	0	0	5	0	0
Z COL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.38	19.23	0.00	0.00	19.23	0.00	0.00
7	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	5	7	0	5	4	0	0
Z COL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.85	0.00	0.00	0.00	0.00	0.00	19.23	26.92	0.00	19.23	15.38	0.00	0.00
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
Z COL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.85	0.00	0.00	0.00	0.00	0.00
9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Z COL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	1	0	0
Z COL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.23	0.00	0.00	3.85	0.00	0.00
11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0
Z COL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.85	0.00	0.00	3.85	0.00	0.00
12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	3	0	0
Z COL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.38	0.00	0.00	11.54	0.00	0.00
	*1ST ACQ	*1ST USE	*1ST GLO	*2ND ACQ	*2ND USE	*2ND GLO	*3RD ACQ	*3RD USE	*3RD GLO	AGE	GENDER	SIBLINGS	SIB.POS.	PRIM.SCH	REPEAT.	LIVING	IF.' AGE	IF.' QUAL	IF.'OCC.	M.'AGE	M.'QUAL	M.'OCC.	IF.SCHOOL	M.SCHOOL
TOTAL COL:	26	26	26	26	26	26	26	26	26	26	26	26	26	24	26	26	26	26	26	26	26	18	14	
MISSING :	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	12
MEAN :	2.62	3.12	2.85	2.77	2.73	2.69	3.54	2.46	2.92	2.88	1.58	2.31	2.00	1.71	1.23	1.08	2.00	4.31	8.04	1.62	3.50	5.12	1.17	1.14
STAND.DEV:	.85	.77	.73	.59	.67	.55	.58	.71	.63	.65	.50	1.09	.94	.46	.43	.39	.63	1.93	2.55	.64	1.90	3.95	.38	.36
SKENNESS :	.03	-.74	-.39	.06	-.48	-1.55	-.77	-.21	.05	.11	-.31	3.18	0.00	-.92	1.28	4.80	0.00	.10	.19	.50	1.03	.42	1.79	2.04
KURTOSIS :	-.64	.50	.16	-.40	.42	1.46	-.41	-.28	-.39	-.60	-1.90	11.66	-1.82	-1.16	-.37	21.04	-.40	-1.44	-1.00	-.65	-.42	-1.05	1.20	2.17

Figure VIII.3 (cont.)

MATRIX OF CORRELATIONS

	*1ST ACQ	*1ST USE	*1ST GLO	*2ND ACQ	*2ND USE	*2ND GLO	*3RD ACQ	*3RD USE	*3RD GLO	AGE	GENDER	*SIBLINGS	*SIB.POS.	*PRIM.SCH	*REPEAT.	*LIVING	*F.' AGE	*F.' QUAL	*F.' OCC.	*M.' AGE	*M.' QUAL	*M.' OCC.	*F.SCHOOL	*M.SCHOOL
*1ST ACQ	1.00	.50	.86	.14	.37	.42	.35	.44	.32	-.08	.07	-.08	-.15	-.04	-.08	.33	.00	-.10	.05	-.06	-.20	-.23	.18	.11
*1ST USE	.50	1.00	.75	.06	.06	.09	-.06	.05	.10	-.05	-.18	-.33	-.22	.05	-.08	.24	.17	-.02	-.10	-.15	.04	.19	.18	.13
*1ST GLO	.86	.75	1.00	.19	.40	.38	.30	.38	.41	-.21	-.08	-.24	-.23	.05	-.14	.32	.00	.12	.09	-.05	.06	.05	.21	.17
*2ND ACQ	.14	.06	.19	1.00	.45	.64	.50	.46	.38	.35	-.21	-.14	-.44	-.12	.38	.08	0.00	.03	-.08	-.03	.04	.21	.05	.08
*2ND USE	.37	.06	.40	.45	1.00	.75	.80	.70	.71	-.26	.24	.01	-.32	-.00	.09	-.22	-.09	-.09	-.15	.12	-.08	.04	.08	.24
*2ND GLO	.42	.09	.38	.64	.75	1.00	.66	.48	.51	.12	-.06	.03	-.47	-.17	.31	.11	-.12	-.13	-.08	.11	-.19	-.07	.16	.08
*3RD ACQ	.35	-.06	.30	.50	.80	.66	1.00	.83	.67	-.15	.13	.11	-.29	.08	.12	-.19	.00	-.01	.04	.15	-.11	-.10	-.04	-.08
*3RD USE	.44	.05	.38	.46	.70	.48	.83	1.00	.72	.03	.23	.17	-.24	.25	.16	-.13	-.09	.07	.10	-.03	.06	-.07	-.00	-.03
*3RD GLO	.32	.10	.41	.38	.71	.51	.67	.72	1.00	-.22	.15	.04	-.34	.06	-.08	-.30	.00	.25	.18	.02	.23	.16	.16	-.05
AGE	-.08	-.05	-.21	.35	-.26	.12	-.15	.03	-.22	1.00	-.28	.28	-.07	-.12	.67	.35	.00	-.07	-.09	-.01	-.18	-.32	.07	-.11
GENDER	.07	-.18	-.08	-.21	.24	-.06	.13	.23	.15	-.28	1.00	.03	.34	.14	.10	-.23	-.13	-.03	.11	-.28	.15	-.04	-.33	-.00
*SIBLINGS	-.08	-.33	-.24	-.14	.01	.03	.11	.17	.04	.28	.03	1.00	.16	.27	.36	-.06	.23	.12	.21	.24	.15	-.23	-.25	-.29
*SIB.POS.	-.15	-.22	-.23	-.44	-.32	-.47	-.29	-.24	-.34	-.07	.34	.16	1.00	.23	-.00	.22	.27	.15	.07	.27	.00	-.32	-.33	.02
*PRIM.SCH	-.04	.05	.05	-.12	-.00	-.17	.08	.25	.06	-.12	.14	.27	.23	1.00	.09	.13	.14	.41	.31	.15	.35	.12	-.42	-.22
*REPEAT.	-.08	-.08	-.14	.38	.09	.31	.12	.16	-.08	.67	.10	.36	-.00	.09	1.00	.37	.15	-.04	-.00	.04	-.00	-.22	-.16	-.17
*LIVING	.33	.24	.32	.08	-.22	.11	-.19	-.13	-.30	.35	-.23	-.06	.22	.13	.37	1.00	-.00	.18	.17	.12	.05	-.22	-.10	-.12
*F.' AGE	.00	.17	.00	0.00	-.09	-.12	.00	-.09	.00	.00	-.13	.23	.27	.14	.15	-.00	1.00	.00	.04	.50	.03	-.09	-.17	.02
*F.' QUAL	-.10	-.02	.12	.03	-.09	-.13	-.01	.07	.25	-.07	-.03	.12	.15	.41	-.04	.18	.00	1.00	.79	-.09	.75	.48	-.31	-.22
*F.' OCC.	.05	-.10	.09	-.08	-.15	-.08	.04	.10	.18	-.09	.11	.21	.07	.31	-.00	.17	.04	.79	1.00	-.22	.66	.27	-.37	-.45
*M.' AGE	-.06	-.15	-.05	-.03	.12	.11	.15	-.03	.02	-.01	-.28	.24	.27	.15	.04	.12	.50	-.09	-.22	1.00	-.13	-.31	.12	.11
*M.' QUAL	-.20	.04	.06	.04	-.08	-.19	-.11	.06	.23	-.18	.15	.15	.00	.35	-.00	.05	.03	.75	.66	-.13	1.00	.70	-.33	-.20
*M.' OCC.	-.23	.19	.05	.21	.04	-.07	-.10	-.07	.16	-.32	-.04	-.23	-.32	.12	-.22	-.22	-.09	.48	.27	-.31	.70	1.00	-.10	.08
*F.SCHOOL	.18	.18	.21	.05	.08	.16	-.04	-.00	.16	.07	-.33	-.25	-.33	-.42	-.16	-.10	-.17	-.31	-.37	.12	-.33	-.10	1.00	.38
*M.SCHOOL	.11	.13	.17	.08	.24	.08	-.08	-.03	-.05	-.11	-.08	-.29	.02	-.22	-.17	-.12	.02	-.22	-.45	.11	-.20	.08	.38	1.00
*M.CASES	26	26	26	26	26	26	26	26	26	26	26	26	26	24	26	26	26	26	26	26	26	18	14	

Figure VIII.3 (cont.)

MIDDLE SCHOOL TEACHER 04

SUMMARY STATISTICS

	3RD ACQ	3RD USE	3RD GLO	AGE	GENDER	SIBLINGS	SIB.POS.	PRIM.SCH	REPEAT.	LIVING	F.' AGE	F.' QUAL	F.' OCC.	M.' AGE	M.' QUAL	M.' OCC.	F.SCHOOL	M.SCHOOL
1	1	10	1	0	33	18	41	40	71	82	25	1	0	45	2	31	42	32
X COL	1.19	11.90	1.19	0.00	39.29	21.43	48.81	50.63	84.52	97.62	30.12	1.20	0.00	53.57	2.38	36.90	71.19	71.11
2	12	40	25	2	51	35	14	39	13	0	48	23	2	34	37	0	17	13
X COL	14.29	47.62	29.76	2.38	60.71	41.67	16.67	49.37	15.48	0.00	57.83	27.71	2.41	40.48	44.05	0.00	28.01	28.89
3	57	30	51	57	0	15	29	0	0	2	10	10	7	5	7	11	0	0
X COL	67.86	35.71	60.71	67.86	0.00	17.86	34.52	0.00	0.00	2.38	12.05	12.05	8.43	5.95	8.33	13.10	0.00	0.00
4	14	4	7	25	0	8	0	0	0	0	0	12	0	0	11	6	0	0
X COL	16.67	4.76	8.33	29.76	0.00	9.52	0.00	0.00	0.00	0.00	0.00	14.46	0.00	0.00	13.10	7.14	0.00	0.00
5	0	0	0	0	0	3	0	0	0	0	0	10	13	0	19	3	0	0
X COL	0.00	0.00	0.00	0.00	0.00	3.57	0.00	0.00	0.00	0.00	0.00	12.05	15.66	0.00	22.62	3.57	0.00	0.00
6	0	0	0	0	0	3	0	0	0	0	0	4	14	0	3	16	0	0
X COL	0.00	0.00	0.00	0.00	0.00	3.57	0.00	0.00	0.00	0.00	0.00	4.82	16.87	0.00	3.57	19.05	0.00	0.00
7	0	0	0	0	0	1	0	0	0	0	0	23	13	0	5	3	0	0
X COL	0.00	0.00	0.00	0.00	0.00	1.19	0.00	0.00	0.00	0.00	0.00	27.71	15.66	0.00	5.95	3.57	0.00	0.00
8	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	5	0	0
X COL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.84	0.00	0.00	5.95	0.00	0.00
9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
X COL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.38	0.00	0.00
10	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0
X COL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.41	0.00	0.00	2.38	0.00	0.00
11	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0
X COL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.20	0.00	0.00	1.19	0.00	0.00
12	0	0	0	0	0	1	0	0	0	0	0	0	22	0	0	4	0	0
X COL	0.00	0.00	0.00	0.00	0.00	1.19	0.00	0.00	0.00	0.00	0.00	0.00	26.51	0.00	0.00	4.76	0.00	0.00
	3RD ACQ	3RD USE	3RD GLO	AGE	GENDER	SIBLINGS	SIB.POS.	PRIM.SCH	REPEAT.	LIVING	F.' AGE	F.' QUAL	F.' OCC.	M.' AGE	M.' QUAL	M.' OCC.	F.SCHOOL	M.SCHOOL
TOTAL COL:	84	84	84	84	84	84	84	79	84	84	83	83	83	84	84	84	59	45
MISSING :	0	0	0	0	0	0	0	5	0	0	1	1	1	0	0	0	25	39
MEAN :	3.00	2.33	2.76	3.27	1.61	2.58	1.86	1.49	1.15	1.05	1.82	4.34	7.61	1.52	3.44	4.25	1.29	1.29
STAND.DEV:	.60	.75	.61	.50	.49	1.69	.91	.50	.36	.31	.63	2.02	3.10	.61	1.64	3.27	.46	.46
SKEWNESS :	-.33	.06	-.13	.42	-.44	2.59	.28	.03	1.91	6.25	.15	.15	.24	.71	.58	.73	.94	.93
KURTOSIS :	.92	-.34	-.02	-.54	-1.81	10.38	-1.71	-2.00	1.64	37.02	-.55	-1.49	-1.11	-.47	-.84	-.38	-1.12	-1.13

Figure VIII.3 (cont.)

MIDDLE SCHOOL TEACHER 04

MATRIX OF CORRELATIONS

	*3RD ACQ	3RD USE	3RD GLO	AGE	GENDER	SIBLINGS	SIB.POS.	PRIM.SCH	REPEAT.	LIVING	F.' AGE	F.' QUAL	F.'OCC.	M.'AGE	M.'QUAL	M.'OCC.	F.SCHOOL	M.SCHOOL
3RD ACQ	1.00	.53	.72	.00	.16	.07	-.02	.02	.00	-.13	.22	.09	.10	.16	.11	.11	-.17	-.22
3RD USE	.53	1.00	.75	-.09	.07	.11	.11	.04	-.10	-.07	.16	.16	.23	.09	.24	.22	-.07	-.07
3RD GLO	.72	.75	1.00	-.14	.09	.15	.02	-.02	-.05	-.07	.33	.11	.17	.14	.23	.22	-.00	-.07
AGE	.00	-.09	-.14	1.00	.15	-.01	.17	-.09	.56	-.09	.04	-.14	-.14	.08	-.15	-.12	-.12	-.02
GENDER	.16	.07	.09	.15	1.00	-.21	-.02	-.02	.01	-.19	.05	-.23	-.20	-.03	-.13	.02	.12	.18
SIBLINGS	.07	.11	.15	-.01	-.21	1.00	.38	-.02	-.09	-.05	.37	.40	.42	.45	.33	-.00	-.05	-.30
SIB.POS.	-.02	.11	.02	.17	-.02	.38	1.00	-.00	-.11	-.06	.36	.19	.14	.31	.25	.16	-.06	-.06
PRIM.SCH	.02	.04	-.02	-.09	-.02	-.02	-.00	1.00	-.16	.00	.04	.28	.31	-.00	.28	.01	.03	-.11
REPEAT.	.00	-.10	-.05	.56	.01	-.09	-.11	-.16	1.00	-.07	.07	-.17	-.20	.01	-.20	-.19	.03	.05
LIVING	-.13	-.07	-.07	-.09	-.19	-.05	-.06	.00	-.07	1.00	-.10	.10	-.04	-.13	.01	.09	-.05	-.05
F.' AGE	.22	.16	.33	.04	.05	.37	.36	.04	.07	-.10	1.00	.12	.14	.66	.15	-.02	-.02	-.17
F.' QUAL	.09	.16	.11	-.14	-.23	.40	.19	.28	-.17	.10	.12	1.00	.86	.10	.85	.36	-.19	-.09
F.'OCC.	.10	.23	.17	-.14	-.20	.42	.14	.31	-.20	-.04	.14	.86	1.00	.14	.72	.28	-.12	-.13
M.'AGE	.16	.09	.14	.08	-.03	.45	.31	-.00	.01	-.13	.66	.10	.14	1.00	.12	-.12	-.16	-.28
M.'QUAL	.11	.24	.23	-.15	-.13	.33	.25	.28	-.20	.01	.15	.85	.72	.12	1.00	.50	-.24	-.08
M.'OCC.	.11	.22	.22	-.12	.02	-.08	.16	.01	-.19	.09	-.02	.36	.28	-.12	.50	1.00	-.06	.16
F.SCHOOL	-.17	-.07	-.00	-.12	.12	-.05	-.06	.03	.03	-.05	-.02	-.19	-.12	-.16	-.24	-.06	1.00	.53
M.SCHOOL	-.22	-.07	-.07	-.02	.18	-.30	-.06	-.11	.05	-.05	-.17	-.09	-.13	-.28	-.08	.16	.53	1.00
N.CASES	84	84	84	84	84	84	84	79	84	84	83	83	83	84	84	84	59	45

Figure VIII.3 (cont.)

MIDDLE SCHOOL TEACHER 95

SUMMARY STATISTICS

	*3RD ACQ	*3RD USE	*3RD GLO	AGE	GENDER	*SIBLINGS	*SIB.POS.	*PRIM.SCH	*REPEAT.	*LIVING	*F.' AGE	*F.' QUAL	*F.' OCC.	*M.' AGE	*M.' QUAL	*M.' OCC.	*F.SCHOOL	*M.SCHOOL
1	0	1	0	0	27	9	30	1	41	60	13	2	0	23	8	28	17	15
Z COL	0.00	1.59	0.00	0.00	42.86	14.29	47.62	8.33	65.00	95.24	20.97	3.28	0.00	36.51	12.70	44.44	60.71	75.00
2	2	43	11	0	36	25	16	11	22	0	34	31	1	34	35	0	11	5
Z COL	3.17	68.25	17.46	0.00	57.14	39.68	25.40	91.67	34.92	0.00	54.84	50.82	1.64	53.97	55.56	0.00	39.29	25.00
3	36	15	45	0	0	17	17	0	0	3	15	7	9	6	5	5	0	0
Z COL	57.14	23.81	71.43	0.00	0.00	26.98	26.98	0.00	0.00	4.76	24.19	11.48	14.75	9.52	7.94	7.94	0.00	0.00
4	25	4	7	0	0	6	0	0	0	0	0	6	0	0	7	4	0	0
Z COL	39.68	6.35	11.11	0.00	0.00	9.52	0.00	0.00	0.00	0.00	0.00	9.84	0.00	0.00	11.11	6.35	0.00	0.00
5	0	0	0	9	0	2	0	0	0	0	0	3	15	0	3	2	0	0
Z COL	0.00	0.00	0.00	14.29	0.00	3.17	0.00	0.00	0.00	0.00	0.00	4.92	24.59	0.00	4.76	3.17	0.00	0.00
6	0	0	0	21	0	2	0	0	0	0	0	5	7	0	2	10	0	0
Z COL	0.00	0.00	0.00	33.33	0.00	3.17	0.00	0.00	0.00	0.00	0.00	8.20	11.48	0.00	3.17	15.87	0.00	0.00
7	0	0	0	16	0	1	0	0	0	0	0	7	9	0	3	7	0	0
Z COL	0.00	0.00	0.00	25.40	0.00	1.59	0.00	0.00	0.00	0.00	0.00	11.48	14.75	0.00	4.76	11.11	0.00	0.00
8	0	0	0	13	0	1	0	0	0	0	0	0	4	0	0	4	0	0
Z COL	0.00	0.00	0.00	20.63	0.00	1.59	0.00	0.00	0.00	0.00	0.00	0.00	6.56	0.00	0.00	6.35	0.00	0.00
9	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Z COL	0.00	0.00	0.00	4.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.59	0.00	0.00
10	0	0	0	1	0	0	0	0	0	0	0	0	8	0	0	0	0	0
Z COL	0.00	0.00	0.00	1.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.11	0.00	0.00	0.00	0.00	0.00
11	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
Z COL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.64	0.00	0.00	0.00	0.00	0.00
12	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	2	0	0
Z COL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.48	0.00	0.00	3.17	0.00	0.00
	*3RD ACQ	*3RD USE	*3RD GLO	AGE	GENDER	*SIBLINGS	*SIB.POS.	*PRIM.SCH	*REPEAT.	*LIVING	*F.' AGE	*F.' QUAL	*F.' OCC.	*M.' AGE	*M.' QUAL	*M.' OCC.	*F.SCHOOL	*M.SCHOOL
TOTAL COL:	63	63	63	63	63	63	63	12	63	63	62	61	61	63	63	63	28	28
MISSING :	0	0	0	0	0	0	0	51	0	0	1	2	2	0	0	0	35	43
MEAN :	3.37	2.35	2.94	6.73	1.57	2.71	1.79	1.92	1.35	1.10	2.03	3.33	6.82	1.73	2.68	3.86	1.39	1.25
STAND.DEV:	.55	.63	.54	1.18	.50	1.44	.85	.29	.48	.43	.68	1.86	2.89	.63	1.53	3.05	.50	.44
SKENNESS :	-.04	1.18	-.06	.42	-.29	1.52	.40	-3.02	.63	4.25	-.04	.94	.42	.26	1.44	.66	.44	1.15
KURTOSIS :	-.88	.87	.48	-.35	-1.92	2.72	-1.46	7.89	-1.60	16.05	-.78	-.58	-.86	-.64	1.35	-.46	-1.81	-.67

Figure VIII.3 (cont.)

MIDDLE SCHOOL TEACHER 05

MATRIX OF CORRELATIONS

	*3RD ACQ	3RD USE	3RD GLO	AGE	GENDER	SIBLINGS	SIB.POS.	PRIM.SCH	REPEAT.	LIVING	F.' AGE	F.' QUAL	F.' OCC.	M.' AGE	M.' QUAL	M.' OCC.	F.SCHOOL	M.SCHOOL
3RD ACQ	1.00	.47	.58	-.09	-.13	.15	.06	.10	-.06	-.01	.10	.04	-.02	.10	-.19	.00	-.02	.10
3RD USE	.47	1.00	.64	-.09	-.03	.06	-.01	.11	.07	-.13	-.03	.21	.17	-.00	.07	.07	-.03	-.11
3RD GLO	.58	.64	1.00	-.13	-.10	.02	-.14	.23	-.10	-.11	-.13	.09	-.05	-.15	-.04	.14	-.11	.01
AGE	-.09	-.09	-.13	1.00	.21	-.25	-.30	-.18	.31	-.01	.03	-.02	.01	-.17	-.22	-.29	.21	.01
GENDER	-.13	-.03	-.10	.21	1.00	-.11	-.06	-.04	-.04	.04	.19	-.13	-.03	-.01	-.22	-.17	-.06	.31
SIBLINGS	.15	.06	.02	-.25	-.11	1.00	.40	.08	-.18	.20	.28	.38	.40	.39	.34	.04	-.25	-.08
SIB.POS.	.06	-.01	-.14	-.30	-.06	.40	1.00	.13	-.06	.23	.30	.36	.25	.53	.35	.05	-.18	-.21
PRIM.SCH	.10	.11	.23	-.18	-.04	.08	.13	1.00	-.13	.16	.20	.02	-.05	.17	.08	-.00	-.06	.01
REPEAT.	-.06	.07	-.10	.31	-.04	-.18	-.06	-.13	1.00	-.01	-.04	.03	.08	-.06	.04	-.06	.18	-.09
LIVING	-.01	-.13	-.11	-.01	.04	.20	.23	.16	-.01	1.00	.11	.03	.08	.46	.10	-.03	-.08	.16
F.' AGE	.10	-.03	-.13	.03	.19	.28	.30	.20	-.04	.11	1.00	.18	.21	.60	.11	.02	-.19	.03
F.' QUAL	.04	.21	.09	-.02	-.13	.38	.36	.02	.03	.03	.18	1.00	.71	.24	.73	.44	-.39	-.39
F.' OCC.	-.02	.17	-.05	.01	-.03	.40	.25	-.05	.08	.08	.21	.71	1.00	.15	.64	.23	-.32	-.28
M.' AGE	.10	-.08	-.15	-.17	-.01	.39	.53	.17	-.06	.46	.60	.24	.15	1.00	.26	.04	-.19	-.09
M.' QUAL	-.19	.07	-.04	-.22	-.22	.34	.35	.08	.04	.10	.11	.73	.64	.26	1.00	.51	-.30	-.44
M.' OCC.	.00	.07	.14	-.29	-.17	.04	.05	-.00	-.06	-.03	.02	.44	.23	.04	.51	1.00	-.15	-.07
F.SCHOOL	-.02	-.03	-.11	.21	-.06	-.25	-.18	-.06	.18	-.08	-.19	-.39	-.32	-.19	-.30	-.15	1.00	.16
M.SCHOOL	.10	-.11	.01	.01	.31	-.08	-.21	.01	-.09	.16	.03	-.39	-.28	-.09	-.44	-.07	.16	1.00
*3RD ACQ	3RD USE	3RD GLO	AGE	GENDER	SIBLINGS	SIB.POS.	PRIM.SCH	REPEAT.	LIVING	F.' AGE	F.' QUAL	F.' OCC.	M.' AGE	M.' QUAL	M.' OCC.	F.SCHOOL	M.SCHOOL	
N.CASES	63	63	63	63	63	63	12	63	63	62	61	61	63	63	63	28	28	29

Figure VIII.3 (cont.)

MIDDLE SCHOOL TEACHER 06

SUMMARY STATISTICS

	*3RD ACQ	3RD USE	3RD GLO	AGE	GENDER	SIBLINGS	SIB.POS.	PRIM.SCH	REPEAT.	LIVING	F.' AGE	F.' QUAL	F.' OCC.	M.' AGE	M.' QUAL	M.' OCC.	F.SCHOOL	M.SCHOOL
1	1	4	3	0	50	16	64	47	117	114	17	1	0	42	2	47	58	59
Z COL	.85	3.42	2.56	0.00	42.74	13.68	54.70	40.87	100.00	97.44	14.66	.85	0.00	36.21	1.71	40.17	68.24	76.62
2	15	32	19	0	67	58	14	68	0	0	79	31	3	66	38	1	27	18
Z COL	12.82	27.35	16.24	0.00	57.26	49.57	11.97	59.13	0.00	0.00	68.10	26.50	2.56	56.90	32.48	.85	31.76	23.38
3	57	57	65	23	0	27	39	0	0	3	20	6	8	8	14	8	0	0
Z COL	48.72	48.72	55.56	19.66	0.00	23.08	33.33	0.00	0.00	2.56	17.24	5.13	6.84	6.90	11.97	6.84	0.00	0.00
4	44	24	30	75	0	11	0	0	0	0	0	10	0	0	13	7	0	0
Z COL	37.61	20.51	25.64	64.10	0.00	9.40	0.00	0.00	0.00	0.00	0.00	8.55	0.00	0.00	11.11	5.98	0.00	0.00
5	0	0	0	17	0	2	0	0	0	0	0	19	7	0	29	1	0	0
Z COL	0.00	0.00	0.00	14.53	0.00	1.71	0.00	0.00	0.00	0.00	0.00	16.24	5.98	0.00	24.79	.85	0.00	0.00
6	0	0	0	2	0	0	0	0	0	0	0	9	12	0	4	11	0	0
Z COL	0.00	0.00	0.00	1.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.69	10.26	0.00	3.42	9.40	0.00	0.00
7	0	0	0	0	0	1	0	0	0	0	0	41	14	0	17	3	0	0
Z COL	0.00	0.00	0.00	0.00	0.00	.85	0.00	0.00	0.00	0.00	0.00	35.04	11.97	0.00	14.53	2.56	0.00	0.00
8	0	0	0	0	0	1	0	0	0	0	0	0	16	0	0	10	0	0
Z COL	0.00	0.00	0.00	0.00	0.00	.85	0.00	0.00	0.00	0.00	0.00	0.00	13.68	0.00	0.00	8.55	0.00	0.00
9	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	4	0	0
Z COL	0.00	0.00	0.00	0.00	0.00	.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.42	0.00	0.00
10	0	0	0	0	0	0	0	0	0	0	0	0	18	0	0	7	0	0
Z COL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.38	0.00	0.00	5.98	0.00	0.00
11	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	14	0	0
Z COL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.71	0.00	0.00	11.97	0.00	0.00
12	0	0	0	0	0	0	0	0	0	0	0	0	37	0	0	4	0	0
Z COL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	31.62	0.00	0.00	3.42	0.00	0.00
TOTAL COL:	117	117	117	117	117	117	117	115	117	117	116	117	117	116	117	117	85	77
MISSING :	0	0	0	0	0	0	0	2	0	0	1	0	0	1	0	0	32	40
MEAN :	3.23	2.86	3.04	3.98	1.57	2.49	1.79	1.59	1.00	1.05	2.83	4.76	8.62	1.71	3.93	4.97	1.32	1.23
STAND. DEV.:	.70	.78	.72	.64	.50	1.27	.92	.49	0.00	.32	.57	2.07	3.04	.59	1.81	4.00	.47	.43
SKEWNESS :	-.50	-.21	-.47	.41	-.29	2.32	.43	-.37	0.00	6.00	.01	-.26	-.44	.18	.33	.40	.78	1.26
KURTOSIS :	-.29	-.45	.16	.70	-1.91	8.21	-1.66	-1.86	0.00	34.03	.13	-1.51	-.89	-.59	-1.15	-1.41	-1.39	-.42

Figure VIII.3 (cont.)

MIDDLE SCHOOL TEACHER 06

MATRIX OF CORRELATIONS

	*3RD ACQ	*3RD USE	*3RD GLO	AGE	GENDER	SIBLINGS	SIB.POS.	PRIM.SCH	LIVING	F.' AGE	F.' QUAL	F.' OCC.	M.' AGE	M.' QUAL	M.' OCC.	F.SCHOOL	M.SCHOOL
*3RD ACQ	1.00	.52	.75	-.09	-.04	-.14	-.04	-.01	.10	.12	.09	.03	.02	.01	-.04	-.11	.19
*3RD USE	.52	1.00	.76	-.25	-.09	-.10	-.03	.01	.10	.07	-.05	.06	.04	.02	.07	.06	.18
*3RD GLO	.75	.76	1.00	-.13	-.02	-.10	-.03	-.01	.07	.17	.01	-.01	.05	-.02	-.03	-.01	.16
AGE	-.09	-.25	-.13	1.00	-.02	.18	.21	.11	.00	.19	-.07	.05	.08	-.16	-.01	.14	.11
GENDER	-.04	-.09	-.02	-.02	1.00	-.04	.10	.18	.03	-.05	.05	-.01	-.05	-.10	-.13	.06	.18
SIBLINGS	-.14	-.10	-.10	.18	-.04	1.00	.27	-.11	-.02	.24	.35	.37	.12	.25	.02	-.17	-.13
SIB.POS.	-.04	-.03	-.03	.21	.10	.27	1.00	.03	.10	.24	.16	.22	.38	.03	.08	-.00	-.06
PRIM.SCH	-.01	.01	-.01	.11	.18	-.11	.03	1.00	-.09	.05	.12	.15	-.06	.04	.05	.07	.08
LIVING	.10	.10	.07	.00	.03	-.02	.10	-.09	1.00	-.01	-.01	.06	-.01	.04	.07	.05	.08
F.' AGE	.12	.07	.17	.19	-.05	.24	.24	.05	-.01	1.00	-.00	.08	.52	-.04	-.08	-.04	-.00
F.' QUAL	.09	-.05	.01	-.07	.05	.35	.16	.12	-.01	-.00	1.00	.80	.02	.70	.34	-.19	-.06
F.' OCC.	.03	.06	-.01	.05	-.01	.37	.22	.15	.06	.08	.80	1.00	.04	.61	.37	-.15	.01
M.' AGE	.02	.04	.05	.08	-.05	.12	.38	-.06	-.01	.52	.02	.04	1.00	.05	-.05	.02	-.04
M.' QUAL	.01	.02	-.02	-.16	-.10	.25	.03	.04	-.04	-.04	.70	.61	.05	1.00	.60	-.17	-.10
M.' OCC.	-.04	.07	-.03	-.01	-.13	.02	.08	.05	.07	-.08	.34	.37	-.05	.60	1.00	-.04	-.07
F.SCHOOL	-.11	.06	-.01	.14	.06	-.17	-.00	.07	.05	-.04	-.19	-.15	.02	-.17	-.04	1.00	.18
M.SCHOOL	.19	.18	.16	.11	.18	-.13	-.06	.08	.08	-.00	-.06	.01	-.04	-.10	-.07	.18	1.00
*3RD ACQ	*3RD USE	*3RD GLO	AGE	GENDER	SIBLINGS	SIB.POS.	PRIM.SCH	LIVING	F.' AGE	F.' QUAL	F.' OCC.	M.' AGE	M.' QUAL	M.' OCC.	F.SCHOOL	M.SCHOOL	
N.CASES	117	117	117	117	117	117	115	117	116	117	117	116	117	117	85	77	

Figure VIII.3 (cont.)

MIDDLE SCHOOL TEACHER 37

SUMMARY STATISTICS

	*1ST ACQ	*1ST USE	*1ST GLO	*2ND ACQ	*2ND USE	*2ND GLO	*3RD ACQ	*3RD USE	*3RD GLO	AGE	GENDER	SIBLINGS	SIB.POS.	PRIM.SCH	REPEAT.	LIVING	IF.' AGE	IF.' QUAL	IF.' OCC.	M.'AGE	M.'QUAL	M.'OCC.	F.SCHOOL	M.SCHOOL
1	10	15	8	0	30	2	4	22	6	0	73	16	74	153	165	181	50	6	0	74	16	100	46	34
% COL	5.35	8.02	4.28	0.00	16.04	1.07	2.14	11.76	3.21	0.00	39.04	8.56	39.57	81.82	88.24	96.79	26.08	3.23	0.00	39.57	8.56	53.48	48.42	77.27
2	25	83	47	31	109	69	14	88	47	9	114	76	31	34	22	1	99	85	14	89	127	15	49	10
% COL	13.37	44.39	25.13	16.58	58.29	36.90	7.49	47.06	25.13	4.84	60.96	40.64	16.58	18.18	11.76	.53	53.23	45.70	7.53	47.59	67.91	8.02	51.58	22.73
3	81	78	110	121	45	107	69	69	107	58	0	52	82	0	0	5	37	37	25	24	9	16	0	0
% COL	43.32	41.71	58.82	64.71	24.06	57.22	36.90	36.90	57.22	31.18	0.00	27.81	43.85	0.00	0.00	2.67	19.89	19.89	13.44	12.83	4.81	8.56	0.00	0.00
4	71	11	22	35	3	9	100	8	27	73	0	23	0	0	0	0	0	15	0	0	10	9	0	0
% COL	37.97	5.88	11.76	18.72	1.60	4.81	53.48	4.28	14.44	39.25	0.00	12.30	0.00	0.00	0.00	0.00	0.00	8.06	0.00	0.00	5.35	4.81	0.00	0.00
5	0	0	0	0	0	0	0	0	0	27	0	12	0	0	0	0	0	21	36	0	11	6	0	0
% COL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.52	0.00	6.42	0.00	0.00	0.00	0.00	0.00	11.29	19.35	0.00	5.88	3.21	0.00	0.00
6	0	0	0	0	0	0	0	0	0	11	0	8	0	0	0	0	0	9	34	0	4	8	0	0
% COL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.91	0.00	4.28	0.00	0.00	0.00	0.00	0.00	4.84	18.28	0.00	2.14	4.28	0.00	0.00
7	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	13	24	0	10	13	0	0
% COL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.99	12.90	0.00	5.35	6.95	0.00	0.00
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23	0	0	3	0	0
% COL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.37	0.00	0.00	1.60	0.00	0.00
9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0
% COL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.28	0.00	0.00
10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0	0	1	0	0
% COL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.53	0.00	0.00	.53	0.00	0.00
11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	7	0	0
% COL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.61	0.00	0.00	3.74	0.00	0.00
12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	0	0	1	0	0
% COL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.99	0.00	0.00	.53	0.00	0.00
TOTAL COL:	187	187	187	187	187	187	187	187	187	186	187	187	187	187	187	187	186	186	186	187	187	95	44	
MISSING :	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	1	0	0	0	143	
MEAN :	3.14	2.45	2.78	3.02	2.11	2.66	3.42	2.34	2.83	3.98	1.61	2.80	2.94	1.18	1.12	1.06	1.93	3.21	6.28	1.73	2.60	3.09	1.52	1.23
STAND. DEV:	.84	.73	.70	.60	.67	.59	.72	.74	.71	1.13	.49	1.22	.91	.39	.32	.33	.68	1.63	2.70	.67	1.49	2.99	.50	.42
SKEWNESS :	-.81	-.91	-.41	-.01	.18	-.07	-1.16	.01	-.30	.79	-.45	.88	-.08	1.65	2.37	5.57	.09	1.03	.42	.38	1.80	1.32	-.06	1.30
KURTOSIS :	.10	-.29	.24	-.17	-.08	-.33	1.07	-.37	.06	.53	-1.80	.36	-1.79	.72	3.63	29.40	-.84	-.06	-.36	-.81	2.33	.57	-2.00	-.31

Figure VIII.3 (cont.)

MIDDLE SCHOOL TEACHER 07

MATRIX OF CORRELATIONS

	*1ST ACQ	*1ST USE	*1ST GLO	*2ND ACQ	*2ND USE	*2ND GLO	*3RD ACQ	*3RD USE	*3RD GLO	AGE	GENDER	*SIBLINGS	*SIB.POS.	*PRIM.SCH	*REPEAT.	*LIVING	*F.' AGE	*F.' QUAL	*F.'OCC.	*M.'AGE	*M.'QUAL	*M.'OCC.	*F.SCHOOL	*M.SCHOOL
*1ST ACQ	1.00	.40	.69	.38	.44	.43	.34	.32	.37	-.05	-.18	-.01	-.06	-.03	.04	-.03	-.14	.08	.01	-.19	.09	.05	-.10	-.06
*1ST USE	.40	1.00	.71	.40	.45	.43	.45	.46	.49	-.17	-.25	-.11	-.13	.03	-.09	-.07	-.14	.11	.05	-.07	.09	.06	.03	.04
*1ST GLO	.69	.71	1.00	.45	.54	.52	.49	.51	.53	-.19	-.28	-.08	-.09	.03	-.05	-.01	-.14	.12	.06	-.12	.12	.09	.02	.04
*2ND ACQ	.38	.40	.45	1.00	.57	.65	.59	.48	.58	-.22	-.12	-.03	-.07	-.06	.10	.05	-.10	.18	.08	-.07	.22	.12	-.05	-.03
*2ND USE	.44	.45	.54	.57	1.00	.68	.48	.57	.59	-.34	-.27	-.16	-.10	.00	-.04	.04	-.12	.22	.09	-.12	.15	.19	-.03	-.10
*2ND GLO	.43	.43	.52	.65	.68	1.00	.55	.51	.60	-.24	-.11	-.10	-.15	-.01	.02	.02	-.06	.19	.09	-.10	.17	.19	-.09	-.06
*3RD ACQ	.34	.45	.49	.59	.48	.55	1.00	.57	.76	-.30	-.19	-.06	-.12	.05	.04	.10	-.21	.09	.03	-.20	.14	.08	-.09	.02
*3RD USE	.32	.46	.51	.48	.57	.51	.57	1.00	.74	-.36	-.33	-.15	-.11	.01	-.01	.05	-.14	.24	.12	-.14	.17	.10	-.07	-.11
*3RD GLO	.37	.49	.53	.58	.59	.60	.76	.74	1.00	-.35	-.32	-.10	-.11	.02	.02	.04	-.18	.12	.02	-.14	.10	.12	-.07	-.04
AGE	-.05	-.17	-.19	-.22	-.34	-.24	-.30	-.36	-.35	1.00	.07	.11	.06	.00	.34	.06	.17	-.24	-.15	.11	-.19	-.18	.07	-.00
GENDER	-.18	-.25	-.28	-.12	-.27	-.11	-.19	-.33	-.32	.07	1.00	.12	.06	-.11	.09	-.02	.06	-.06	-.01	.09	-.05	.09	.01	-.12
*SIBLINGS	-.01	-.11	-.08	-.03	-.16	-.10	-.06	-.15	-.10	.11	.12	1.00	.21	-.24	.14	-.10	.20	-.06	-.02	.17	-.02	-.09	-.01	.08
*SIB.POS.	-.06	-.13	-.09	-.07	-.10	-.15	-.12	-.11	-.11	.06	.06	.21	1.00	-.05	.06	-.10	.46	-.14	-.13	.47	-.17	-.14	.04	.09
*PRIM.SCH	-.03	.03	.03	-.06	.00	-.01	.05	.01	.02	.00	-.11	-.24	-.05	1.00	-.09	.08	.01	.14	.21	.06	.10	-.02	-.10	-.05
*REPEAT.	.04	-.09	-.05	.10	-.04	.02	.04	-.01	.02	.34	.09	.14	.06	-.09	1.00	-.01	.09	-.09	-.06	.07	-.04	-.03	-.06	-.01
*LIVING	-.03	-.07	-.01	.05	.04	.02	.10	.05	.04	.06	-.02	-.10	-.10	.08	-.01	1.00	.01	.02	.03	.02	.04	.04	-.03	-.07
*F.' AGE	-.14	-.14	-.14	-.10	-.12	-.06	-.21	-.14	-.18	.17	.06	.20	.46	.01	.09	.01	1.00	.04	-.01	.71	-.05	-.11	.17	.04
*F.' QUAL	.08	.11	.12	.18	.22	.19	.09	.24	.12	-.24	-.06	-.06	-.14	.14	-.09	.02	.04	1.00	.77	-.05	.71	.39	-.12	-.15
*F.'OCC.	.01	.05	.06	.08	.09	.09	.03	.12	.02	-.15	-.01	-.02	-.13	.21	-.06	.03	-.01	.77	1.00	-.01	.61	.33	-.14	-.12
*M.'AGE	-.19	-.07	-.12	-.07	-.12	-.10	-.20	-.14	-.14	.11	.09	.17	.47	.06	.07	.02	.71	-.05	-.01	1.00	-.13	-.17	.15	.10
*M.'QUAL	.09	.09	.12	.22	.15	.17	.14	.17	.10	-.19	-.05	-.02	-.17	.10	-.04	.04	-.05	.71	.61	-.13	1.00	.64	-.30	-.23
*M.'OCC.	.05	.06	.09	.12	.19	.19	.08	.10	.12	-.18	.09	-.09	-.14	-.02	-.03	.04	-.11	.39	.33	-.17	.64	1.00	-.11	-.19
*F.SCHOOL	-.10	.03	.02	-.05	-.03	-.09	-.09	-.07	-.07	.07	.01	-.01	.04	-.10	-.06	-.03	.17	-.12	-.14	.15	-.30	-.11	1.00	.42
*M.SCHOOL	-.06	.04	.04	-.03	-.10	-.06	.02	-.11	-.04	-.00	-.12	.08	.09	-.05	-.01	-.07	.04	-.15	-.12	.10	-.23	-.19	.42	1.00
	*1ST ACQ	*1ST USE	*1ST GLO	*2ND ACQ	*2ND USE	*2ND GLO	*3RD ACQ	*3RD USE	*3RD GLO	AGE	GENDER	*SIBLINGS	*SIB.POS.	*PRIM.SCH	*REPEAT.	*LIVING	*F.' AGE	*F.' QUAL	*F.'OCC.	*M.'AGE	*M.'QUAL	*M.'OCC.	*F.SCHOOL	*M.SCHOOL
N.CASES	187	187	187	187	187	187	187	187	187	187	187	187	187	187	187	187	186	186	186	187	187	187	95	44

Figure VIII.3 (cont.)

MIDDLE SCHOOL TEACHER **

SUMMARY STATISTICS

	*3RD ACQ	3RD USE	3RD GLO	AGE	GENDER	SIBLINGS	SIB.POS.	PRIM.SCH	REPEAT.	LIVING	F.' AGE	F.' QUAL	F.'OCC.	M.'AGE	M.'QUAL	M.'OCC.	F.SCHOOL	M.SCHOOL
1	0	17	0	0	128	20	77	167	124	162	27	17	0	69	34	138	19	10
Σ COL	0.00	9.77	0.00	0.00	73.56	11.49	44.25	95.98	71.26	93.10	15.52	9.77	0.00	39.66	19.54	79.31	65.52	90.91
2	6	60	24	2	46	91	29	7	50	0	125	128	47	85	129	5	10	1
Σ COL	3.45	34.48	13.79	1.15	26.44	52.30	16.67	4.02	28.74	0.00	71.84	73.56	27.01	48.85	74.14	2.87	34.48	9.09
3	44	72	100	9	0	40	68	0	0	12	22	14	22	20	5	14	0	0
Σ COL	25.29	41.38	57.47	5.17	0.00	22.99	39.08	0.00	0.00	6.90	12.64	8.05	12.64	11.49	2.87	8.05	0.00	0.00
4	124	25	50	34	0	14	0	0	0	0	0	10	0	0	3	5	0	0
Σ COL	71.26	14.37	28.74	19.54	0.00	8.05	0.00	0.00	0.00	0.00	0.00	5.75	0.00	0.00	1.72	2.87	0.00	0.00
5	0	0	0	60	0	3	0	0	0	0	0	2	39	0	3	1	0	0
Σ COL	0.00	0.00	0.00	34.48	0.00	1.72	0.00	0.00	0.00	0.00	0.00	1.15	22.41	0.00	1.72	.57	0.00	0.00
6	0	0	0	37	0	2	0	0	0	0	0	2	17	0	0	3	0	0
Σ COL	0.00	0.00	0.00	21.26	0.00	1.15	0.00	0.00	0.00	0.00	0.00	1.15	9.77	0.00	0.00	1.72	0.00	0.00
7	0	0	0	19	0	3	0	0	0	0	0	1	37	0	0	6	0	0
Σ COL	0.00	0.00	0.00	10.92	0.00	1.72	0.00	0.00	0.00	0.00	0.00	.57	21.26	0.00	0.00	3.45	0.00	0.00
8	0	0	0	12	0	1	0	0	0	0	0	0	4	0	0	0	0	0
Σ COL	0.00	0.00	0.00	6.90	0.00	.57	0.00	0.00	0.00	0.00	0.00	0.00	2.30	0.00	0.00	0.00	0.00	0.00
9	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0
Σ COL	0.00	0.00	0.00	.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.15	0.00	0.00
10	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0
Σ COL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.30	0.00	0.00	0.00	0.00	0.00
11	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
Σ COL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.15	0.00	0.00	0.00	0.00	0.00
12	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
Σ COL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.15	0.00	0.00	0.00	0.00	0.00
TOTAL COL:	174	174	174	174	174	174	174	174	174	174	174	174	174	174	174	29	11	
MISSING :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	145	163
MEAN :	3.68	2.60	3.15	5.33	1.26	2.49	1.95	1.04	1.29	1.14	1.97	2.21	4.79	1.72	1.92	1.68	1.34	1.09
STAND.DEV:	.54	.85	.64	1.33	.44	1.19	.91	.20	.45	.51	.53	.89	2.37	.66	.67	1.63	.48	.30
SKEWNESS :	-1.42	-.10	-.14	.27	1.07	1.91	.10	4.68	.94	3.40	-.03	2.40	.52	.37	1.85	2.69	.65	2.85
KURTOSIS :	1.06	-.61	-.59	-.10	-.86	5.89	-1.79	19.90	-1.12	9.57	.55	7.96	-.12	-.76	7.53	6.80	-1.57	6.10

Figure VIII.3 (cont.)

MIDDLE SCHOOL TEACHER 08

MATRIX OF CORRELATIONS

	*3RD ACQ	3RD USE	3RD GLO	AGE	GENDER	SIBLINGS	SIB.POS.	PRIM.SCH	REPEAT.	ILIVING	F.' AGE	F.' QUAL	F.'OCC.	M.'AGE	M.'QUAL	M.'OCC.	F.SCHOOL	M.SCHOOL
*3RD ACQ	1.00	.15	.56	-.31	.04	-.01	.06	-.04	-.05	.12	-.01	.09	-.09	-.01	.01	-.05	-.01	.04
3RD USE	.15	1.00	.66	-.27	-.20	.10	-.09	.10	.01	-.06	-.14	.06	.09	-.18	.02	.01	-.16	-.05
3RD GLO	.56	.66	1.00	-.32	-.08	.10	-.07	-.00	-.03	.04	-.12	.08	.00	-.11	-.03	-.03	-.10	-.02
AGE	-.31	-.27	-.32	1.00	-.01	.00	-.04	-.03	.39	-.02	.24	-.11	-.03	.27	-.21	-.06	.06	.05
GENDER	.04	-.20	-.08	-.01	1.00	-.04	.02	.00	.02	-.01	.06	.04	.12	-.00	.17	.11	.04	-.04
SIBLINGS	-.01	.10	.10	.00	-.04	1.00	.21	-.06	-.01	-.02	.13	-.02	-.03	.11	-.20	-.06	.01	.09
SIB.POS.	.06	-.09	-.07	-.04	.02	.21	1.00	.01	.02	-.03	.37	.03	-.02	.36	-.04	-.03	-.02	.01
PRIM.SCH	-.04	.10	-.00	-.03	.00	-.06	.01	1.00	.06	-.06	-.04	-.01	.07	-.05	.11	-.00	-.05	-.01
REPEAT.	-.05	.01	-.03	.39	.02	-.01	.02	.06	1.00	-.07	.11	-.02	-.01	.12	-.11	-.18	-.04	-.04
ILIVING	.12	-.06	.04	-.02	-.01	-.02	-.03	-.06	-.07	1.00	-.07	-.16	-.25	-.06	-.07	-.05	-.00	-.02
F.' AGE	-.01	-.14	-.12	.24	.06	.13	.37	-.04	.11	-.07	1.00	-.05	.01	.65	-.10	-.13	-.01	.01
F.' QUAL	.09	.06	.08	-.11	.04	-.02	.03	-.01	-.02	-.16	-.05	1.00	.44	-.13	.34	.07	.09	.06
F.'OCC.	-.09	.09	.00	-.03	.12	-.03	-.02	.07	-.01	-.25	.01	.44	1.00	-.04	.29	.15	.01	-.06
M.'AGE	-.01	-.18	-.11	.27	-.00	.11	.36	-.05	.12	-.06	.65	-.13	-.04	1.00	-.29	-.20	-.04	.04
M.'QUAL	.01	.02	-.03	-.21	.17	-.20	-.04	.11	-.11	-.07	-.10	.34	.29	-.29	1.00	.49	.01	.19
M.'OCC.	-.05	.01	-.03	-.06	.11	-.06	-.03	-.00	-.10	-.05	-.13	.07	.15	-.20	.49	1.00	.02	.05
F.SCHOOL	-.01	-.16	-.10	.06	.04	.01	-.02	-.05	-.04	-.00	-.01	.09	.01	-.04	.01	.02	1.00	-.14
M.SCHOOL	.04	-.05	-.02	.05	-.04	.09	.01	-.01	-.04	-.02	.01	.06	-.06	.04	.19	.05	-.14	1.00
*3RD ACQ	174	174	174	174	174	174	174	174	174	174	174	174	174	174	174	174	29	11

Figure VIII.3 (cont.)

MIDDLE SCHOOL TEACHER 10

SUMMARY STATISTICS

	*3RD ACD	3RD USE	3RD GLO	AGE	GENDER	SIBLINGS	SIB.POS.	PRIM.SCH	REPEAT.	LIVING	F.' AGE	F.' QUAL	F.'OCC.	M.'AGE	M.'QUAL	M.'OCC.	F.SCHOOL	M.SCHOOL
1	18	5	8	0	84	28	81	127	93	150	44	14	0	81	28	77	28	15
Z COL	11.76	3.27	5.23	0.00	54.90	18.30	53.29	90.07	60.78	98.04	29.33	9.33	0.00	53.29	18.30	50.33	62.22	60.00
2	51	100	78	4	69	60	26	14	60	0	84	91	22	59	100	16	17	10
Z COL	33.33	65.36	50.98	2.63	45.10	44.44	17.11	9.93	39.22	0.00	56.00	60.67	14.67	38.82	65.36	10.46	37.78	40.00
3	63	43	57	48	0	31	45	0	0	3	22	17	24	12	12	14	0	0
Z COL	41.10	28.10	37.25	31.58	0.00	20.26	29.61	0.00	0.00	1.96	14.67	11.33	16.00	7.89	7.84	9.15	0.00	0.00
4	21	5	10	44	0	9	0	0	0	0	0	14	0	0	6	9	0	0
Z COL	13.73	3.27	6.54	28.95	0.00	5.08	0.00	0.00	0.00	0.00	0.00	9.33	0.00	0.00	3.92	5.08	0.00	0.00
5	0	0	0	37	0	9	0	0	0	0	0	7	39	0	6	6	0	0
Z COL	0.00	0.00	0.00	24.34	0.00	5.08	0.00	0.00	0.00	0.00	0.00	4.67	26.00	0.00	3.92	3.92	0.00	0.00
6	0	0	0	12	0	3	0	0	0	0	0	5	12	0	0	9	0	0
Z COL	0.00	0.00	0.00	7.89	0.00	1.96	0.00	0.00	0.00	0.00	0.00	3.33	8.00	0.00	0.00	5.08	0.00	0.00
7	0	0	0	5	0	4	0	0	0	0	0	2	30	0	1	17	0	0
Z COL	0.00	0.00	0.00	3.29	0.00	2.61	0.00	0.00	0.00	0.00	0.00	1.33	20.00	0.00	.65	11.11	0.00	0.00
8	0	0	0	1	0	0	0	0	0	0	0	0	12	0	0	4	0	0
Z COL	0.00	0.00	0.00	.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.00	0.00	0.00	2.61	0.00	0.00
9	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Z COL	0.00	0.00	0.00	.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	.65	0.00	0.00
10	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0
Z COL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.00	0.00	0.00	0.00	0.00	0.00
11	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Z COL	0.00	0.00	0.00	0.00	0.00	.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
Z COL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.33	0.00	0.00	0.00	0.00	0.00
TOTAL COL:	153	153	153	152	153	153	152	141	153	153	150	150	150	152	153	153	45	25
MISSING :	0	0	0	1	0	0	1	12	0	0	3	3	3	1	0	0	108	128
MEAN :	2.57	2.31	2.45	4.19	1.45	2.50	1.76	1.10	1.39	1.04	1.85	2.55	5.35	1.55	2.12	2.82	1.38	1.40
STAND.DEV:	.87	.59	.70	1.23	.50	1.52	.88	.30	.49	.28	.65	1.26	2.37	.64	.96	2.35	.49	.50
SKENNESS :	.12	.75	.29	.87	.20	2.04	.48	2.68	.44	6.93	.15	1.58	.36	.74	1.98	.98	.50	.41
KURTOSIS :	-.65	.59	-.16	1.01	-1.96	6.18	-1.54	5.18	-1.80	46.82	-.66	2.16	-.35	-.47	5.52	-.52	-1.75	-1.82

Figure VIII.3 (cont.)

MIDDLE SCHOOL TEACHER 10

MATRIX OF CORRELATIONS

	*3RD ACQ	3RD USE	3RD GLO	AGE	GENDER	SIBLINGS	SIB.POS.	PRIM.SCH	REPEAT.	ILIVING	F.' AGE	F.' QUAL	F.'OCC.	M.'AGE	M.'QUAL	M.'OCC.	F.SCHOOL	M.SCHOOL
*3RD ACQ	1.00	.47	.79	-.17	-.05	.03	-.12	.07	.09	-.04	.03	-.00	.00	.03	-.04	-.09	-.04	.01
3RD USE	.47	1.00	.66	-.11	-.15	-.02	-.15	.05	.03	-.08	-.02	.02	.10	.05	-.02	-.02	-.07	-.10
3RD GLO	.79	.66	1.00	-.16	-.02	.11	-.06	.08	.06	-.02	-.04	-.01	-.00	-.01	-.04	-.09	-.15	-.08
AGE	-.17	-.11	-.16	1.00	.14	.05	-.08	-.10	.55	.02	.07	-.10	.02	.03	-.08	-.13	.04	.12
GENDER	-.05	-.15	-.02	.14	1.00	.02	.05	-.02	.13	-.03	.02	-.06	-.03	-.10	-.01	-.10	-.05	-.08
SIBLINGS	.03	-.02	.11	.05	.02	1.00	.36	-.16	-.10	.04	.25	.06	.16	.26	-.08	-.10	-.13	.05
SIB.POS.	-.12	-.15	-.06	-.08	.05	.36	1.00	-.02	-.09	.20	.38	.02	.07	.34	-.08	-.05	-.09	-.03
PRIM.SCH	.07	.05	.08	-.10	-.02	-.16	-.02	1.00	.08	.13	-.15	.21	.19	-.13	.26	.22	.05	-.09
REPEAT.	.09	.03	.06	.55	.13	-.10	-.09	.08	1.00	.08	.07	-.11	.00	-.03	-.08	-.14	-.01	.08
ILIVING	-.04	-.08	-.02	.02	-.03	.04	.20	.13	.08	1.00	.09	-.01	-.02	.10	-.12	.11	-.01	-.01
F.' AGE	.03	-.02	-.04	.07	.02	.25	.38	-.15	.07	.09	1.00	-.11	-.08	.66	-.16	-.14	-.02	-.09
F.' QUAL	-.00	.02	-.01	-.10	-.06	.06	.02	.21	-.11	-.01	-.11	1.00	.55	-.05	.49	.12	-.08	-.07
F.'OCC.	.00	.10	-.00	.02	-.03	.16	.07	.19	.00	-.02	-.08	.55	1.00	-.10	.32	.20	-.03	-.02
M.'AGE	.03	.05	-.01	.03	-.10	.26	.34	-.13	-.03	.10	.66	-.05	-.10	1.00	-.19	-.17	-.03	-.15
M.'QUAL	-.04	-.02	-.04	-.08	-.01	-.08	-.08	.26	-.08	-.12	-.16	.49	.32	-.19	1.00	.32	-.09	.06
M.'OCC.	-.09	-.02	-.09	-.13	-.10	-.10	-.05	.22	-.14	.11	-.14	.12	.20	-.17	.32	1.00	.00	.04
F.SCHOOL	-.04	-.07	-.15	.04	-.05	-.13	-.09	.05	-.01	-.01	-.02	-.08	-.03	-.03	-.09	.00	1.00	.19
M.SCHOOL	.01	-.10	-.08	.12	-.08	.05	-.03	-.09	.08	-.01	-.09	-.07	-.02	-.15	.06	.04	.19	1.00
*3RD ACQ	153	153	153	153	153	153	152	141	153	150	150	150	150	152	153	153	45	25

Figure VIII.3 (cont.)

MIDDLE SCHOOL TEACHER 11

SUMMARY STATISTICS

	*3RD ACQ	3RD USE	3RD GLO	AGE	GENDER	SIBLINGS	SIB.POS.	PRIM.SCH	REPEAT.	LIVING	F.' AGE	F.' QUAL	F.'OCC.	M.'AGE	M.'QUAL	M.'OCC.	F.SCHOOL	M.SCHOOL
1	2	13	6	0	42	17	48	111	23	107	9	23	0	26	33	90	6	2
1 COL	1.77	11.50	5.31	0.00	37.17	15.04	42.48	98.23	20.35	95.54	8.33	20.54	0.00	23.01	29.20	79.65	75.00	66.67
2	59	48	53	0	71	47	23	2	90	0	77	81	38	71	77	9	2	1
2 COL	52.21	42.48	46.90	0.00	62.83	41.59	20.35	1.77	79.65	0.00	71.30	72.32	33.93	62.83	68.14	7.96	25.00	33.33
3	51	50	54	0	0	29	42	0	0	5	22	3	13	16	1	6	0	0
3 COL	45.13	44.25	47.79	0.00	0.00	25.66	37.17	0.00	0.00	4.46	20.37	2.68	11.61	14.16	.88	5.31	0.00	0.00
4	1	2	0	0	0	11	0	0	0	0	0	2	0	0	1	1	0	0
4 COL	.88	1.77	0.00	0.00	0.00	9.73	0.00	0.00	0.00	0.00	0.00	1.79	0.00	0.00	.88	.88	0.00	0.00
5	0	0	0	1	0	4	0	0	0	0	0	2	28	0	1	1	0	0
5 COL	0.00	0.00	0.00	.90	0.00	3.54	0.00	0.00	0.00	0.00	0.00	1.79	25.00	0.00	.88	.88	0.00	0.00
6	0	0	0	18	0	4	0	0	0	0	0	1	4	0	0	0	0	0
6 COL	0.00	0.00	0.00	16.22	0.00	3.54	0.00	0.00	0.00	0.00	0.00	.89	3.57	0.00	0.00	0.00	0.00	0.00
7	0	0	0	32	0	0	0	0	0	0	0	0	24	0	0	6	0	0
7 COL	0.00	0.00	0.00	28.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	21.43	0.00	0.00	5.31	0.00	0.00
8	0	0	0	35	0	1	0	0	0	0	0	0	2	0	0	0	0	0
8 COL	0.00	0.00	0.00	31.53	0.00	.88	0.00	0.00	0.00	0.00	0.00	0.00	1.79	0.00	0.00	0.00	0.00	0.00
9	0	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9 COL	0.00	0.00	0.00	11.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0	0	0	9	0	0	0	0	0	0	0	0	3	0	0	0	0	0
10 COL	0.00	0.00	0.00	8.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.68	0.00	0.00	0.00	0.00	0.00
11	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 COL	0.00	0.00	0.00	1.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 COL	0.00	0.00	0.00	.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL COL	113	113	113	111	113	113	113	113	113	112	108	112	112	113	113	113	8	3
MISSING	0	0	0	2	0	0	0	0	0	1	5	1	1	0	0	0	105	110
MEAN	2.45	2.36	2.42	7.73	1.63	2.60	1.95	1.02	1.80	1.09	2.12	1.95	4.40	1.91	1.76	1.57	1.25	1.33
STAND.DEV.	.55	.71	.59	1.31	.49	1.29	.89	.13	.40	.41	.52	.78	2.22	.61	.60	1.46	.46	.58
SKEWNESS	.03	-.34	.47	.63	-.53	1.36	.10	7.32	-1.47	4.41	.14	2.37	.41	.04	1.38	2.96	1.15	.71
KURTOSIS	-.88	-.55	-.67	.33	-1.72	2.53	-1.73	51.52	.17	17.45	.41	9.27	-.86	-.30	7.23	7.87	-.67	-1.50

Figure VIII.3 (cont.)

MIDDLE SCHOOL TEACHER 11

MATRIX OF CORRELATIONS

	*3RD ACQ	3RD USE	3RD GLO	AGE	GENDER	SIBLINGS	SIB.POS.	PRIM.SCH	REPEAT.	LIVING	F.' AGE	F.' QUAL	F.' OCC.	M.' AGE	M.' QUAL	M.' OCC.	F.SCHOOL	M.SCHOOL
*3RD ACQ	1.00	.31	.61	-.11	-.00	.02	.03	.01	-.02	-.10	-.03	-.05	-.10	-.01	-.24	-.02	.08	.04
3RD USE	.31	1.00	.67	-.15	.01	.02	-.01	.12	-.05	-.05	-.09	.13	-.07	-.09	-.03	-.01	.13	.14
3RD GLO	.61	.67	1.00	-.11	-.04	.04	.03	.13	-.01	-.08	-.01	-.01	-.12	.03	-.11	.00	.08	.15
AGE	-.11	-.15	-.11	1.00	.09	.10	.11	.02	.30	.09	.27	-.14	-.22	.31	-.16	-.12	.02	.05
GENDER	-.00	.01	-.04	.09	1.00	-.23	.00	-.04	.11	.08	-.04	-.03	-.11	.10	-.03	-.05	.08	.09
SIBLINGS	.02	.02	.04	.10	-.23	1.00	.28	-.01	.01	-.14	.30	-.03	.04	.31	-.16	.05	-.01	.00
SIB.POS.	.03	-.01	.03	.11	.00	.28	1.00	.16	.12	-.13	.50	-.04	.00	.52	-.16	-.17	-.13	.11
PRIM.SCH	.01	.12	.13	.02	-.04	-.01	.16	1.00	.07	-.03	.23	.36	.21	.02	.05	-.05	-.02	-.00
REPEAT.	-.02	-.05	-.01	.30	.11	.01	.12	.07	1.00	.00	.07	.05	-.04	.10	.09	-.14	.05	-.01
LIVING	-.10	-.05	-.08	.09	.08	-.14	-.13	-.03	.00	1.00	.04	-.15	-.19	.03	-.06	-.09	-.01	.01
F.' AGE	-.03	-.09	-.01	.27	-.04	.30	.50	.23	.07	.04	1.00	-.12	-.06	.61	-.23	-.15	.03	.08
F.' QUAL	-.05	.13	-.01	-.14	-.03	-.03	-.04	.36	.05	-.15	-.12	1.00	.54	-.12	.47	-.04	.27	-.10
F.' OCC.	-.10	-.07	-.12	-.22	-.11	.04	.00	.21	-.04	-.19	-.06	.54	1.00	-.22	.40	.15	.15	-.01
M.' AGE	-.01	-.09	.03	.31	.10	.31	.52	.02	.18	.03	.61	-.12	-.22	1.00	-.28	-.24	.03	.06
M.' QUAL	-.24	-.03	-.11	-.16	-.03	-.16	-.16	.05	.09	-.06	-.23	.47	.40	-.28	1.00	.04	-.07	-.09
M.' OCC.	-.02	-.01	.00	-.12	-.05	.05	-.17	-.05	-.14	-.09	-.15	-.04	.15	-.24	.04	1.00	-.02	-.00
F.SCHOOL	.08	.13	.08	.02	.08	-.01	-.13	-.02	.05	-.01	.03	.27	.15	.03	-.07	-.02	1.00	.10
M.SCHOOL	.04	.14	.15	.05	.09	.00	.11	-.00	-.01	.01	.08	-.10	-.01	.06	-.09	-.00	.10	1.00
*3RD ACQ	113	113	113	113	113	113	113	113	113	112	100	112	112	113	113	113	8	3

Figure VIII.3 (cont.)

UPPER SCHOOL TEACHER 01

SUMMARY STATISTICS

	*3RD ACQ	3RD USE	3RD GLO	AGE	GENDER	SIBLINGS	SIB.POS.	PRIM.SCH	REPEAT.	LIVING	F.' AGE	F.' QUAL	F.'DCC.	M.'AGE	M.'QUAL	M.'DCC.	F.SCHOOL	M.SCHOOL
1	0	0	0	0	11	5	14	8	27	26	2	0	0	6	0	0	17	14
% COL	0.00	0.00	0.00	0.00	40.74	18.52	51.85	33.33	100.00	96.30	7.41	0.00	0.00	22.22	0.00	29.63	73.91	73.68
2	2	11	5	0	16	11	7	16	0	0	20	4	0	19	8	0	6	5
% COL	7.41	40.74	18.52	0.00	59.26	40.74	25.93	66.67	0.00	0.00	74.07	14.81	0.00	70.37	29.63	0.00	26.09	26.32
3	15	16	19	0	0	7	6	0	0	1	5	1	2	2	3	0	0	0
% COL	55.56	59.26	70.37	0.00	0.00	25.93	22.22	0.00	0.00	3.70	18.52	3.70	7.69	7.41	11.11	0.00	0.00	0.00
4	10	0	3	0	0	1	0	0	0	0	0	6	0	0	4	0	0	0
% COL	37.04	0.00	11.11	0.00	0.00	3.70	0.00	0.00	0.00	0.00	0.00	22.22	0.00	0.00	14.81	0.00	0.00	0.00
5	0	0	0	7	0	2	0	0	0	0	0	3	1	0	4	1	0	0
% COL	0.00	0.00	0.00	26.92	0.00	7.41	0.00	0.00	0.00	0.00	0.00	11.11	3.85	0.00	14.81	3.70	0.00	0.00
6	0	0	0	15	0	1	0	0	0	0	0	2	1	0	0	3	0	0
% COL	0.00	0.00	0.00	57.69	0.00	3.70	0.00	0.00	0.00	0.00	0.00	7.41	3.85	0.00	0.00	11.11	0.00	0.00
7	0	0	0	4	0	0	0	0	0	0	0	11	4	0	8	3	0	0
% COL	0.00	0.00	0.00	15.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	40.74	15.38	0.00	29.63	11.11	0.00	0.00
8	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0
% COL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.69	0.00	0.00	7.41	0.00	0.00
9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
% COL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.70	0.00	0.00
10	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	3	0	0
% COL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	26.92	0.00	0.00	11.11	0.00	0.00
11	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	4	0	0
% COL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.85	0.00	0.00	14.81	0.00	0.00
12	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	2	0	0
% COL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	30.77	0.00	0.00	7.41	0.00	0.00
=====																		
	*3RD ACQ	3RD USE	3RD GLO	AGE	GENDER	SIBLINGS	SIB.POS.	PRIM.SCH	REPEAT.	LIVING	F.' AGE	F.' QUAL	F.'DCC.	M.'AGE	M.'QUAL	M.'DCC.	F.SCHOOL	M.SCHOOL
=====																		
TOTAL COL:	27	27	27	26	27	27	27	24	27	27	27	27	26	27	27	27	23	19
MISSING :	0	0	0	1	0	0	0	3	0	0	0	0	1	0	0	0	4	8
MEAN :	3.30	2.59	2.93	5.88	1.59	2.52	1.70	1.67	1.00	1.07	2.11	5.15	9.15	1.85	4.33	6.48	1.26	1.26
STAND.DEV:	.61	.50	.55	.65	.50	1.28	.82	.40	0.00	.38	.51	1.08	2.81	.53	2.04	4.09	.45	.45
SKEWNESS :	-.22	-.38	-.06	.11	-.38	1.07	.59	-.71	0.00	4.90	.22	-.43	-.77	-.16	.20	-.26	1.09	1.08
KURTOSIS :	-.61	-1.86	.36	-.60	-1.86	.77	-1.23	-1.50	0.00	22.04	.75	-1.21	-.40	.27	-1.49	-1.39	-.81	-.84

Figure VIII.4

U P P E R S C H O O L T E A C H E R 01

MATRIX OF CORRELATIONS

	*3RD ACQ	3RD USE	3RD GLO	AGE	GENDER	SIBLINGS	SIB.POS.	PRIM.SCH	LIVING	F.' AGE	F.' QUAL	F.' OCC.	M.'AGE	M.'QUAL	M.'OCC.	F.SCHOOL	M.SCHOOL
*3RD ACQ	1.00	.54	.64	-.06	.16	-.01	-.05	-.03	-.10	-.11	.33	.34	-.33	.23	.03	.05	-.11
3RD USE	.54	1.00	.58	-.22	.08	-.02	-.02	.20	.16	-.12	.48	.50	-.23	.36	.10	.10	.13
3RD GLO	.64	.58	1.00	-.14	.03	-.22	.03	.21	.03	.03	.20	.40	-.04	.23	.22	.12	.04
AGE	-.06	-.22	-.14	1.00	.37	-.22	-.10	-.12	.05	-.47	-.22	-.19	-.18	-.10	.17	.04	.24
GENDER	.16	.08	.03	.37	1.00	.04	-.02	-.05	.16	-.12	-.06	-.00	-.23	-.20	-.20	.06	.06
SIBLINGS	-.01	-.02	-.22	-.22	.04	1.00	.26	.08	-.24	.09	.45	.17	-.11	.33	-.06	-.30	-.39
SIB.POS.	-.05	-.02	.03	-.10	-.02	.26	1.00	.18	-.17	.00	.40	.15	.16	.59	.32	-.28	-.46
PRIM.SCH	-.03	.20	.21	-.12	-.05	.08	.18	1.00	.15	-.04	.27	.34	.14	.24	-.03	.01	.08
LIVING	-.10	.16	.03	.05	.16	-.24	-.17	.15	1.00	-.04	-.12	-.01	.06	-.03	-.01	.35	.39
F.' AGE	-.11	-.12	.03	-.47	-.12	.09	.08	-.04	-.04	1.00	-.26	-.16	.63	-.07	.11	.28	-.27
F.' QUAL	.33	.48	.20	-.22	-.06	.45	.40	.27	-.12	-.26	1.00	.85	-.21	.80	.31	-.36	-.34
F.' OCC.	.34	.50	.40	-.19	-.00	.17	.15	.34	-.01	-.16	.85	1.00	-.16	.66	.39	-.25	-.22
M.'AGE	-.33	-.23	-.04	-.18	-.23	-.11	.16	.14	.06	.63	-.21	-.16	1.00	-.02	.07	.01	-.21
M.'QUAL	.23	.36	.23	-.10	-.20	.33	.59	.24	-.03	-.07	.80	.66	-.02	1.00	.58	-.22	-.38
M.'OCC.	.03	.10	.22	.17	-.20	-.06	.32	-.03	-.01	.11	.31	.39	.07	.58	1.00	.00	-.13
F.SCHOOL	.05	.10	.12	.04	.06	-.30	-.28	.01	.35	.28	-.36	-.25	.01	-.22	.00	1.00	.38
M.SCHOOL	-.11	.13	.04	.24	.06	-.39	-.46	.08	.39	-.27	-.34	-.22	-.21	-.38	-.13	.38	1.00
*3RD ACQ	27	27	27	27	27	27	27	24	27	27	27	26	27	27	27	23	19

Figure VIII.4 (cont.)

UPPER SCHOOL TEACHER 03

SUMMARY STATISTICS

	*1ST ACQ	*1ST USE	*1ST GLO	*2ND ACQ	*2ND USE	*2ND GLO	*3RD ACQ	*3RD USE	*3RD GLO	AGE	GENDER	SIBLINGS	SIB.POS.	PRIM.SCH	REPEAT.	LIVING	F.' AGE	F.' QUAL	F.' OCC.	M.' AGE	M.' QUAL	M.' OCC.	F.SCHOOL	M.SCHOOL
1	1	5	1	1	11	0	5	18	5	0	55	22	65	38	110	119	8	0	0	26	8	40	59	50
% COL	.81	4.03	.81	.81	8.07	0.00	4.03	14.52	4.03	0.00	44.35	17.74	52.42	35.85	88.71	95.97	6.61	0.00	0.00	20.97	6.45	32.26	69.41	72.46
2	3	69	32	9	65	45	22	56	44	0	69	56	21	68	14	0	77	37	5	78	47	2	26	19
% COL	2.42	55.65	25.81	7.26	52.42	36.29	17.74	45.16	35.48	0.00	55.65	45.16	16.94	64.15	11.29	0.00	63.64	30.33	4.10	62.90	37.90	1.61	30.59	27.54
3	84	47	87	68	43	61	66	42	61	0	0	25	38	0	0	5	36	12	13	20	16	15	0	0
% COL	67.74	37.90	70.16	54.84	34.68	49.19	53.23	33.87	49.19	0.00	0.00	20.16	30.65	0.00	0.00	4.03	29.75	9.84	10.66	16.13	12.90	12.10	0.00	0.00
4	36	3	4	46	5	18	31	8	14	0	0	9	0	0	0	0	0	20	0	0	22	7	0	0
% COL	29.03	2.42	3.23	37.10	4.03	14.52	25.00	6.45	11.29	0.00	0.00	7.26	0.00	0.00	0.00	0.00	0.00	16.39	0.00	0.00	17.74	5.65	0.00	0.00
5	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	9	7	0	13	2	0	0
% COL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.42	0.00	0.00	0.00	0.00	0.00	7.38	5.74	0.00	10.48	1.61	0.00	0.00
6	0	0	0	0	0	0	0	0	0	11	0	7	0	0	0	0	0	14	18	0	5	16	0	0
% COL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.94	0.00	5.65	0.00	0.00	0.00	0.00	0.00	11.48	14.75	0.00	4.03	12.90	0.00	0.00
7	0	0	0	0	0	0	0	0	0	63	0	1	0	0	0	0	0	30	13	0	13	10	0	0
% COL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	51.22	0.00	.81	0.00	0.00	0.00	0.00	0.00	24.59	10.66	0.00	10.48	8.06	0.00	0.00
8	0	0	0	0	0	0	0	0	0	29	0	1	0	0	0	0	0	0	21	0	0	13	0	0
% COL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.58	0.00	.81	0.00	0.00	0.00	0.00	0.00	0.00	17.21	0.00	0.00	10.48	0.00	0.00
9	0	0	0	0	0	0	0	0	0	17	0	0	0	0	0	0	0	0	0	0	0	3	0	0
% COL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.42	0.00	0.00
10	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	14	0	0	2	0	0
% COL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.48	0.00	0.00	1.61	0.00	0.00
11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	10	0	0
% COL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.64	0.00	0.00	8.06	0.00	0.00
12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	29	0	0	4	0	0
% COL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.77	0.00	0.00	3.23	0.00	0.00
	*1ST ACQ	*1ST USE	*1ST GLO	*2ND ACQ	*2ND USE	*2ND GLO	*3RD ACQ	*3RD USE	*3RD GLO	AGE	GENDER	SIBLINGS	SIB.POS.	PRIM.SCH	REPEAT.	LIVING	F.' AGE	F.' QUAL	F.' OCC.	M.' AGE	M.' QUAL	M.' OCC.	F.SCHOOL	M.SCHOOL
TOTAL COL:	124	124	124	124	124	124	124	124	124	123	124	124	124	106	124	124	121	122	122	124	124	124	85	69
MISSING :	0	0	0	0	0	0	0	0	0	1	0	0	0	18	0	0	3	2	2	0	0	0	39	55
MEAN :	3.25	2.39	2.76	3.28	2.34	2.78	2.99	2.32	2.68	7.50	1.56	2.56	1.78	1.64	1.11	1.08	2.23	4.34	7.88	1.95	3.42	4.85	1.31	1.28
STAND.DEV:	.54	.61	.52	.63	.70	.68	.77	.80	.73	.93	.50	1.41	.89	.48	.32	.40	.56	1.99	3.13	.61	1.77	3.55	.46	.45
SKENNESS :	-.18	.22	-.62	-.58	.16	.30	-.52	.12	-.06	.66	-.23	1.50	.44	-.59	2.45	4.67	.82	.14	-.16	.02	.72	.43	.04	1.01
KURTOSIS :	1.46	-.18	.46	.29	-.14	-.85	.07	-.47	-.30	-.02	-1.95	2.25	-1.58	-1.65	3.98	19.84	-.32	-1.55	-1.03	-.30	-.56	-1.06	-1.29	-.99

Figure VIII.4 (cont.)

UPPER SCHOOL TEACHER 03

MATRIX OF CORRELATIONS

	*1ST ACQ	*1ST USE	*1ST GLO	*2ND ACQ	*2ND USE	*2ND GLO	*3RD ACQ	*3RD USE	*3RD GLO	AGE	GENDER	SIBLINGS	SIB.POS.	PRIM.SCH	REPEAT.	LIVING	IF.' AGE	IF.' QUAL	IF.' OCC.	M.' AGE	M.' QUAL	M.' OCC.	IF.SCHOOL	M.SCHOOL
*1ST ACQ	1.00	.27	.43	.44	.40	.31	.22	.28	.31	-.10	.11	-.01	-.02	.05	-.22	-.10	-.08	.09	.13	-.14	.05	.02	.08	-.07
*1ST USE	.27	1.00	.46	.14	.30	.28	.15	.23	.21	-.16	-.02	-.10	-.02	.12	-.06	.07	-.02	.06	.01	-.01	.07	.02	.07	.03
*1ST GLO	.43	.46	1.00	.31	.34	.33	.28	.37	.31	-.15	.12	-.07	-.03	.10	-.03	.02	-.17	.07	.02	-.24	.05	.03	-.01	.02
*2ND ACQ	.44	.14	.31	1.00	.50	.62	.49	.46	.50	-.34	.19	-.19	.14	.04	-.16	-.09	.02	.14	.10	-.05	.07	-.07	.02	.03
*2ND USE	.40	.30	.34	.50	1.00	.67	.43	.60	.57	-.25	.04	-.15	.09	.00	-.21	.02	.02	.02	.02	-.08	.11	.12	-.06	-.07
*2ND GLO	.31	.28	.33	.62	.67	1.00	.54	.58	.56	-.25	.19	-.21	.02	.01	-.15	-.06	.00	.07	.10	-.05	.08	.01	-.05	-.00
*3RD ACQ	.22	.15	.28	.49	.43	.54	1.00	.56	.74	-.23	.08	-.18	.02	-.01	-.06	-.16	.01	.03	.09	-.09	.12	.17	.00	-.04
*3RD USE	.28	.23	.37	.46	.60	.58	.56	1.00	.75	-.16	-.03	-.00	.10	.11	-.14	-.08	.02	.15	.17	-.10	.12	.12	-.01	-.04
*3RD GLO	.31	.21	.31	.50	.57	.56	.74	.75	1.00	-.17	.03	-.10	.08	.04	-.09	-.08	.04	.13	.14	-.04	.16	.10	-.01	-.01
AGE	-.10	-.16	-.15	-.34	-.25	-.25	-.23	-.16	-.17	1.00	-.01	.09	-.15	-.07	.29	.03	-.03	.07	.14	-.04	.01	-.03	.03	.06
GENDER	.11	-.02	.12	.19	.04	.19	.08	-.03	.03	-.01	1.00	-.15	.02	.13	.01	-.06	-.05	.03	.06	-.07	-.05	-.07	.04	.00
SIBLINGS	-.01	-.10	-.07	-.19	-.15	-.21	-.10	-.00	-.10	.09	-.15	1.00	.32	-.02	-.03	-.00	.13	.28	.31	.18	.10	-.12	-.14	-.13
SIB.POS.	-.02	-.02	-.03	.14	.09	.02	.02	.10	.08	-.15	.02	.32	1.00	-.05	.06	.10	.36	.16	.06	.33	.06	-.15	-.11	-.10
PRIM.SCH	.05	.12	.10	.04	.00	.01	-.01	.11	.04	-.07	.13	-.02	-.05	1.00	-.03	-.05	-.01	.23	.19	-.08	.27	.08	.00	-.08
REPEAT.	-.22	-.06	-.03	-.16	-.21	-.15	-.06	-.14	-.09	.29	.01	-.03	.06	-.03	1.00	-.07	.00	.11	.15	.03	.05	.03	-.02	-.11
LIVING	-.10	.07	.02	-.09	.02	-.06	-.16	-.08	-.00	.03	-.06	-.08	.10	-.05	-.07	1.00	.10	.04	-.00	.02	-.10	-.14	-.07	-.03
IF.' AGE	-.08	-.02	-.17	.02	.02	.00	.01	.02	.04	-.03	-.05	.13	.36	-.01	.08	.10	1.00	-.06	-.06	.58	-.02	-.16	.07	-.05
IF.' QUAL	.09	.06	.07	.14	.02	.07	.03	.15	.13	.07	.03	.28	.16	.23	.11	.04	-.06	1.00	.79	-.02	.65	.15	-.12	-.23
IF.' OCC.	.13	.01	.02	.10	.02	.10	.09	.17	.14	.14	.06	.31	.06	.19	.15	-.00	-.06	.79	1.00	.00	.53	.13	-.06	-.24
M.' AGE	-.14	-.01	-.24	-.05	-.00	-.05	-.09	-.10	-.04	-.04	-.07	.18	.33	-.08	.03	.02	.58	-.02	.00	1.00	-.01	-.17	.07	-.10
M.' QUAL	.05	.07	.05	.07	.11	.08	.12	.12	.16	.01	-.05	.18	.06	.27	.05	-.10	-.02	.65	.53	-.01	1.00	.53	-.18	-.24
M.' OCC.	.02	.02	.03	-.07	.12	.01	.17	.12	.18	-.03	-.07	-.12	-.15	.08	.03	-.14	-.16	.15	.13	-.17	.53	1.00	-.01	-.08
IF.SCHOOL	.08	.07	-.01	.02	-.06	-.05	.00	-.01	-.01	.03	.04	-.14	-.11	.08	-.02	-.07	.07	-.12	-.06	.07	-.18	-.01	1.00	.20
M.SCHOOL	-.07	.03	.02	.03	-.07	-.00	-.04	-.04	-.01	.06	.08	-.13	-.10	-.00	-.11	-.03	-.05	-.23	-.24	-.10	-.24	-.08	.20	1.00
	*1ST ACQ	*1ST USE	*1ST GLO	*2ND ACQ	*2ND USE	*2ND GLO	*3RD ACQ	*3RD USE	*3RD GLO	AGE	GENDER	SIBLINGS	SIB.POS.	PRIM.SCH	REPEAT.	LIVING	IF.' AGE	IF.' QUAL	IF.' OCC.	M.' AGE	M.' QUAL	M.' OCC.	IF.SCHOOL	M.SCHOOL
N.CASES	124	124	124	124	124	124	124	124	124	124	124	124	124	106	124	124	121	122	122	124	124	124	85	69

Figure VIII.4 (cont.)

UPPER SCHOOL TEACHER 09

SUMMARY STATISTICS

	*3RD ACQ	3RD USE	3RD GLO	AGE	GENDER	SIBLINGS	SIB.POS.	PRIM.SCH	REPEAT.	LIVING	F.' AGE	F.' QUAL	F.' OCC.	M.' AGE	M.' QUAL	M.' OCC.	F.SCHOOL	M.SCHOOL
1	4	21	8	0	42	27	63	66	102	104	17	13	0	42	13	54	23	26
Z COL	3.64	19.09	7.27	0.00	38.18	24.55	57.27	64.00	92.73	94.55	16.04	12.04	0.00	39.25	11.93	49.54	52.27	78.79
2	35	57	56	0	68	48	16	37	8	0	67	51	11	54	63	10	21	7
Z COL	31.82	51.82	50.91	0.00	61.82	43.64	14.55	35.92	7.27	0.00	63.21	47.22	10.19	50.47	57.80	9.17	47.73	21.21
3	61	31	42	0	0	14	31	0	0	6	22	17	14	11	6	11	0	0
Z COL	55.45	28.18	38.18	0.00	0.00	12.73	28.18	0.00	0.00	5.45	20.75	15.74	12.96	10.28	5.50	10.09	0.00	0.00
4	10	1	4	0	0	12	0	0	0	0	0	7	0	0	7	0	0	0
Z COL	9.09	.91	3.64	0.00	0.00	10.91	0.00	0.00	0.00	0.00	0.00	6.48	0.00	0.00	6.42	0.00	0.00	0.00
5	0	0	0	4	0	5	0	0	0	0	0	5	12	0	10	4	0	0
Z COL	0.00	0.00	0.00	3.64	0.00	4.55	0.00	0.00	0.00	0.00	0.00	4.63	11.11	0.00	9.17	3.67	0.00	0.00
6	0	0	0	48	0	1	0	0	0	0	0	3	8	0	1	8	0	0
Z COL	0.00	0.00	0.00	43.64	0.00	.91	0.00	0.00	0.00	0.00	0.00	2.78	7.41	0.00	.92	7.34	0.00	0.00
7	0	0	0	30	0	3	0	0	0	0	0	12	27	0	9	7	0	0
Z COL	0.00	0.00	0.00	27.27	0.00	2.73	0.00	0.00	0.00	0.00	0.00	11.11	25.00	0.00	8.26	6.42	0.00	0.00
8	0	0	0	21	0	0	0	0	0	0	0	0	9	0	0	1	0	0
Z COL	0.00	0.00	0.00	19.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.33	0.00	0.00	.92	0.00	0.00
9	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	5	0	0
Z COL	0.00	0.00	0.00	5.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.59	0.00	0.00
10	0	0	0	1	0	0	0	0	0	0	0	0	15	0	0	3	0	0
Z COL	0.00	0.00	0.00	.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.89	0.00	0.00	2.75	0.00	0.00
11	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	5	0	0
Z COL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.70	0.00	0.00	4.59	0.00	0.00
12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Z COL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.41	0.00	0.00	.92	0.00	0.00
TOTAL COL:	110	110	110	110	110	110	110	103	110	110	106	108	108	107	109	109	44	33
MISSING :	0	0	0	0	0	0	0	7	0	0	4	2	2	3	1	1	66	77
MEAN :	2.70	2.11	2.38	6.82	1.62	2.41	1.71	1.36	1.07	1.11	2.05	2.97	6.69	1.71	2.79	3.43	1.48	1.21
STAND.DEV:	.68	.71	.68	1.02	.49	1.38	.88	.48	.28	.46	.61	1.81	2.98	.64	1.69	3.28	.51	.42
SKENNESS :	-.23	-.00	.08	.68	-.49	1.40	.60	.59	3.29	3.92	-.02	1.23	.06	.35	1.38	1.13	.09	1.41
KURTOSIS :	-.01	-.64	-.18	-.10	-1.76	1.92	-1.43	-1.66	8.83	13.39	-.28	.2	-.91	-.71	.79	-.07	-1.99	-.02

Figure VIII.4 (cont.)

U P P E R S C H O O L T E A C H E R 09

MATRIX OF CORRELATIONS

	*3RD ACQ	3RD USE	3RD GLO	AGE	GENDER	SIBLINGS	SIB.POS.	PRIM.SCH	REPEAT.	LIVING	F.' AGE	F.' QUAL	F.'OCC.	M.'AGE	M.'QUAL	M.'OCC.	F.SCHOOL	M.SCHOOL
3RD ACQ	1.00	.64	.74	-.21	-.21	.14	-.09	.21	-.03	-.07	-.08	.33	.36	-.17	.36	.28	-.11	-.01
3RD USE	.64	1.00	.77	-.26	-.20	.19	.01	.14	-.19	.02	-.16	.38	.29	-.20	.34	.21	-.11	-.03
3RD GLO	.74	.77	1.00	-.28	-.19	.14	-.03	.17	-.11	.04	-.11	.39	.38	-.18	.34	.24	-.15	-.03
AGE	-.21	-.26	-.28	1.00	-.21	.09	.05	-.22	.19	.20	.22	-.36	-.18	.21	-.27	-.06	.09	.16
GENDER	-.21	-.20	-.19	-.21	1.00	-.01	.08	-.02	-.28	-.14	-.07	-.03	-.06	.10	-.11	-.13	-.14	-.13
SIBLINGS	.14	.19	.14	.09	-.01	1.00	.42	-.05	-.24	-.16	.31	.26	.25	.26	.20	.04	-.13	-.11
SIB.POS.	-.09	.01	-.03	.05	.08	.42	1.00	-.02	-.15	-.10	.34	-.00	.07	.36	-.09	.00	-.11	-.05
PRIM.SCH	.21	.14	.17	-.22	-.02	-.05	-.02	1.00	.09	-.15	-.05	.34	.33	-.10	.35	.15	-.13	-.16
REPEAT.	-.03	-.19	-.11	.19	-.28	-.24	-.15	.09	1.00	.09	.15	-.11	-.01	.07	.14	.11	.10	.16
LIVING	-.07	.02	.04	.20	-.14	-.16	-.10	-.15	.09	1.00	-.08	-.13	-.24	-.04	-.11	-.06	.00	-.00
F.' AGE	-.08	-.16	-.11	.22	-.07	.31	.34	-.05	.15	-.08	1.00	-.09	.11	.59	-.01	-.05	.05	.13
F.' QUAL	.33	.38	.39	-.36	-.03	.26	-.00	.34	-.11	-.13	-.09	1.00	.63	-.15	.78	.27	-.27	-.37
F.'OCC.	.36	.29	.38	-.18	-.06	.25	.07	.33	-.01	-.24	.11	.63	1.00	-.05	.59	.25	-.17	-.07
M.'AGE	-.17	-.20	-.18	.21	.10	.26	.36	-.10	.07	-.04	.59	-.15	-.05	1.00	-.09	-.10	-.09	-.07
M.'QUAL	.36	.34	.34	-.27	-.11	.28	-.09	.35	.14	-.11	-.01	.78	.59	-.09	1.00	.40	-.32	-.14
M.'OCC.	.28	.21	.24	-.06	-.13	.04	.00	.15	.11	-.06	-.05	.27	.25	-.10	.40	1.00	-.14	.02
F.SCHOOL	-.11	-.11	-.15	.09	-.14	-.13	-.11	-.13	.10	.00	.05	-.27	-.17	-.09	-.32	-.14	1.00	.21
M.SCHOOL	-.01	-.03	-.03	.16	-.13	-.11	-.05	-.16	.16	-.00	.13	-.37	-.07	-.07	-.14	.02	.21	1.00
N.CASES	110	110	110	110	110	110	110	103	110	110	106	100	100	107	109	109	44	33

Figure VIII.4 (cont.)

APPENDIX IX

RESULTS OF THE STEPWISE
REGRESSION ANALYSIS

The data presented in this appendix are referred to in Chapter five. In order not to overburden the main text of the chapter with an excessive number of tables we summarized in that chapter the main findings and we keep in this appendix the main tables of our analysis of the data by stepwise regression. The reader can use the base data presented in appendix X to obtain the whole treatment of the data.

The appendix is organized in the following way: First, results for the whole middle and upper schools are presented. These are followed by the results for each teacher in each section of the school. In each case the results for Use follow the results for Acquisition.

MIDDLE SCHOOL ALL PUPILS

STEPWISE REGRESSION

NUMBER OF CASES..... 1059 NUMBER OF VARIABLES... 15 NUMBER OF VARIABLES ENTERED.... 12
DEPENDENT VARIABLE..... 3RD ACQ

----- SUMMARY -----

STEP NO	VARIABLE	MULT.REGRESSION	F. STATISTIC	COEF.IN.REGRESSION	STD FOR COEF.	SIGN.LEVEL AT Z	E.R.
1	SCH. TYPE	.17095581	31.021781	-.34191146	.30305510E-01	.23041858E-04	-1
2	SCH. AREA	.29037303	48.618446	-.47559384	.34622218E-01	0.0000000	-1
3	TEACHER	.36867645	55.318344	-.51630408	.47970608E-01	0.0000000	-1
4	GENDER	.37980375	44.417347	-.18253231	.20800422E-01	0.0000000	-1
5	F.' QUAL	.38034625	37.401855	.16379903	.32940898E-01	0.0000000	-1
6	REPEAT.	.39547694	32.506577	-.15025297	.31260446E-01	0.0000000	-1
7	SIBLINGS	.39944711	28.504637	-.11236830	.28685400E-01	0.0000000	-1
8	F.SCHOOL	.40195164	25.291676	-.09613877E-01	.28733389E-01	0.0000000	-1
9	F.' OCC.	.40357265	22.676916	-.79975739E-01	.44649143E-01	0.0000000	-1
10	PRIM.SCH	.40408569	20.539009	.64129809E-01	.33702865E-01	0.0000000	-1
11	SIB. POS.	.40490407	18.664942	-.17941644E-01	.29595955E-01	0.0000000	-1
12	M.' OCC.	.40495968	17.098726	0.0000000	0.0000000	0.0000000	0

MIDDLE SCHOOL ALL PUPILS

STEPWISE REGRESSION

NUMBER OF CASES..... 1059 NUMBER OF VARIABLES..... 15 NUMBER OF VARIABLES ENTERED.... 13
DEPENDENT VARIABLE..... 3RD USE

----- SUMMARY -----

STEP NO	VARIABLE	MULT.REGRESSION	F. STATISTIC	COEF.IN.REGRESSION	STD FOR COEF.	SIGN.LEVEL AT Z	E.R.
1	TEACHER	.16098219	20.121204	-.32196432	.30357143E-01	.09406967E-04	-1
2	F.' QUAL	.21435562	25.429142	.28314641	.30732673E-01	0.0000000	-1
3	GENDER	.23356642	20.291536	-.18552993	.30146359E-01	0.0000000	-1
4	SCH. AREA	.24443769	16.744551	-.16171230	.48674880E-01	0.0000000	-1
5	SCH. TYPE	.27852550	17.711605	-.28081509	.40755708E-01	0.0000000	-1
6	SIB. POS.	.28257102	15.214561	-.55290191E-01	.29802462E-01	0.0000000	-1
7	M.' OCC.	.28528196	13.302097	.79247229E-01	.34025185E-01	0.0000000	-1
8	PRIM.SCH	.28695843	11.777629	.62799253E-01	.34893464E-01	0.0000000	-1
9	SIBLINGS	.28822598	10.560027	-.54148803E-01	.31477027E-01	0.0000000	-1
10	M.SCHOOL	.28914416	9.5610819	.46052195E-01	.29883990E-01	0.0000000	-1
11	F.' OCC.	.28972027	8.7214108	.40636539E-01	.47341611E-01	0.0000000	-1
12	M.' QUAL	.29004061	8.0062066	.32109909E-01	.53544040E-01	0.0000000	-1
13	F.SCHOOL	.29013994	7.3888769	0.0000000	0.0000000	0.0000000	0

UPPER SCHOOL ALL PUPILS

STEPWISE REGRESSION

NUMBER OF CASES..... 261 NUMBER OF VARIABLES..... 14 NUMBER OF VARIABLES ENTERED.... 12
DEPENDENT VARIABLE..... 3RD ADU

----- SUMMARY -----

STEP NO	VARIABLE	MULT.REGRESSION	F. STATISTIC	COEF.IN.REGRESSION	STD FOR COEF.	SIGN.LEVEL AT Z	E.R.
1	M.' QUAL	.27184093	20.666662	.54368192	.59797037E-01	.20027161E-02	-1
2	SCH. AREA	.32419294	15.150353	-.35338786	.60291592E-01	.17285347E-03	-1
3	F.' OCCUP	.34412435	11.507518	.23663868	.73265329E-01	.10132790E-03	-1
4	M.' OCCUP	.36268559	9.6937351	.23259212	.69377623E-01	.59604645E-04	-1
5	SIBLINGS	.37428057	8.3082523	-.18514614	.61275341E-01	.53644100E-04	-1
6	REPEAT.	.38571370	7.3989177	-.18644449	.58589566E-01	.47683716E-04	-1
7	TEACHER	.39024639	6.4931307	-.12002430	.67532875E-01	.77486038E-04	-1
8	F.' QUAL	.39219064	5.7258353	-.95086634E-01	.11182922	.15497208E-03	-1
9	SEX	.39304382	5.0955496	-.51778864E-01	.59280109E-01	.33378601E-03	-1
10	PRIM.SCH	.39336890	4.5766659	-.32184556E-01	.65157689E-01	.72717667E-03	-1
11	F.SCHOOL	.39356604	4.1488795	.24928423E-01	.60544100E-01	.15199184E-02	-1
12	SIB. POS.	.39363125	3.7893510	0.0000000	0.0000000	.30994415E-02	0

UPPER SCHOOL ALL PUPILS

STEPWISE REGRESSION

NUMBER OF CASES..... 261 NUMBER OF VARIABLES..... 14 NUMBER OF VARIABLES ENTERED.... 13
DEPENDENT VARIABLE..... 3RD USE

----- SUMMARY -----

STEP NO	VARIABLE	MULT.REGRESSION	F. STATISTIC	COEF.IN.REGRESSION	STD FOR COEF.	SIGN.LEVEL AT Z	E.R.
1	F.' QUAL	.30772549	27.091419	.61545092	.59121791E-01	.17881393E-03	-1
2	REPEAT.	.34939551	17.937754	-.33095157	.58340080E-01	.23841858E-04	-1
3	M.' OCCUP	.36899149	13.502325	.23753645	.60638927E-01	.11920929E-04	-1
4	SEX	.38026485	10.818916	-.18382442	.58500513E-01	.11920929E-04	-1
5	F.' OCCUP	.38738194	9.0045719	.16069441	.87361105E-01	.11920929E-04	-1
6	M.SCHOOL	.39246917	7.7079639	.12606998	.60023103E-01	.23841858E-04	-1
7	SCH. AREA	.39557850	6.7049203	-.99474035E-01	.63669622E-01	.47683716E-04	-1
8	TEACHER	.39748231	5.9105792	-.78612670E-01	.67288741E-01	.95367432E-04	-1
9	PRIM.SCH	.39917791	5.2062215	.73812418E-01	.63400470E-01	.18477440E-03	-1
10	SIB. POS.	.40099138	4.790662	.76196566E-01	.58930032E-01	.35166740E-03	-1
11	SIBLINGS	.40221736	4.3688750	-.63383833E-01	.66792749E-01	.68545341E-03	-1
12	M.' QUAL	.40230420	3.9907737	.19335473E-01	.10099943	.14185905E-02	-1
13	F.SCHOOL	.40236545	3.6702704	.14065620E-01	.61601661E-01	.28491020E-02	0

Figure IX.1

MIDDLE SCHOOL TEACHER #1

STEPWISE REGRESSION

NUMBER OF CASES..... 29 NUMBER OF VARIABLES..... 12 NUMBER OF VARIABLES ENTERED.... 10
DEPENDENT VARIABLE..... 3RD ACQ

----- S U M M A R Y -----

STEP NO	VARIABLE	MULT.REGRESSION	F. STATISTIC	COEF.IN.REGRESSION	STD FOR COEF.	SIGN.LEVEL AT Z	E.R.
1	F.' QUAL	.44910231	6.8215699	.89820457	.17195037	1.3964117	-1
2	M.'QUALI	.49208000	4.1530053	.41734543	.22427702	2.6720643	-1
3	M.'OCC.	.54303086	3.4997654	-.47006261	.19963296	2.9895604	-1
4	REPEAT.	.59071010	3.2157100	-.47410199	.20853053	2.9916048	-1
5	M.SCHOOL	.62551922	2.9567695	-.41274911	.17578906	3.3141434	-1
6	GENDER	.63028903	2.5208905	-.25515762	.17998321	5.1813960	-1
7	SIB.POS.	.64709467	2.1611261	-.21332447	.17872790	8.0974941	-1
8	F.SCHOOL	.65307945	1.8592945	.17665647	.17828105	12.413538	-1
9	F.'OCC.	.66702284	1.6994714	-.35476705	.35103890	15.776051	-1
10	SIBLINGS	.68431550	1.5852890	0.0000000	0.0000000	18.937891	0

MIDDLE SCHOOL TEACHER #1

STEPWISE REGRESSION

NUMBER OF CASES..... 29 NUMBER OF VARIABLES..... 12 NUMBER OF VARIABLES ENTERED.... 9
DEPENDENT VARIABLE..... 3RD USE

----- S U M M A R Y -----

STEP NO	VARIABLE	MULT.REGRESSION	F. STATISTIC	COEF.IN.REGRESSION	STD FOR COEF.	SIGN.LEVEL AT Z	E.R.
1	F.' QUAL	.32002544	3.0007593	.64005003	.10232894	8.7060213	-1
2	PRIM.SCH	.30896737	2.3174651	-.44820312	.21307519	11.669201	-1
3	M.'QUALI	.41365325	1.7202606	.29843417	.25708652	10.731153	-1
4	REPEAT.	.44308054	1.4656612	-.31792694	.19198655	24.306995	-1
5	M.'OCC.	.40705749	1.4367844	-.43614236	.26271811	24.830877	-1
6	GENDER	.51593310	1.3300647	-.33737734	.20152229	28.560060	-1
7	SIB.POS.	.53033406	1.1739372	.24905863	.21931320	35.872669	-1
8	M.SCHOOL	.54329371	1.0469447	.20837012	.43.601711	43.601711	-1
9	F.'OCC.	.54412180	.88791817	0.0000000	0.0000000	55.362301	0

MIDDLE SCHOOL TEACHER #2

STEPWISE REGRESSION

NUMBER OF CASES..... 113 NUMBER OF VARIABLES..... 11 NUMBER OF VARIABLES ENTERED.... 9
DEPENDENT VARIABLE..... 3RD ACQ

----- S U M M A R Y -----

STEP NO	VARIABLE	MULT.REGRESSION	F. STATISTIC	COEF.IN.REGRESSION	STD FOR COEF.	SIGN.LEVEL AT Z	E.R.
1	SIBLINGS	.27945924	9.4031030	-.55091842	.91134124E-01	.20570639	-1
2	M.'QUALI	.30400954	9.5133533	.52675241	.88400602E-01	.20337105E-01	-1
3	SIB.POS.	.44799033	9.1228410	.46183330	.89236140E-01	.20550625E-02	-1
4	M.'OCC.	.45710193	7.1346604	.19491030	.12363136	.51021576E-02	-1
5	F.'OCC.	.46310627	5.8426633	-.15367410	.11382891	.99241734E-02	-1
6	F.' QUAL	.48204020	5.3476758	.31147134	.14979571	.87670432E-02	-1
7	F.SCHOOL	.48507107	4.6153998	-.10037220	.08633551E-01	.17565409E-01	-1
8	PRIM.SCH	.48697671	4.0412760	.86104613E-01	.90374127E-01	.35274029E-01	-1
9	M.SCHOOL	.48803547	3.5700330	0.0000000	0.0000000	.70041418E-01	0

MIDDLE SCHOOL TEACHER #2

STEPWISE REGRESSION

NUMBER OF CASES..... 113 NUMBER OF VARIABLES..... 11 NUMBER OF VARIABLES ENTERED.... 10
DEPENDENT VARIABLE..... 3RD USE

----- S U M M A R Y -----

STEP NO	VARIABLE	MULT.REGRESSION	F. STATISTIC	COEF.IN.REGRESSION	STD FOR COEF.	SIGN.LEVEL AT Z	E.R.
1	M.'QUALI	.21792762	5.5345007	.43585524	.92634499E-01	1.9415498	-1
2	SIBLINGS	.27540362	4.5139647	-.33677998	.92030720E-01	1.2903382	-1
3	SIB.POS.	.32737902	4.3615570	.35430554	.94312064E-01	.62325001	-1
4	PRIM.SCH	.35974270	4.0136213	.29832169	.91019040E-01	.46260953	-1
5	M.SCHOOL	.37220022	3.4413459	.19103014	.91836594E-01	.64778924	-1
6	F.' QUAL	.38044247	2.9097344	.16933696	.13199390	.98247528	-1
7	F.'OCC.	.39714995	2.8009752	-.25370330	.14342535	1.0201335	-1
8	M.'OCC.	.40433690	2.5407276	.16370001	.13295247	1.4438629	-1
9	F.SCHOOL	.40630254	2.2620188	.80201064E-01	.10006591	2.3527205	-1
10	GENDER	.40704504	2.0256078	.49109062E-01	.94232425E-01	3.7081315	0

Figure IX.2

MIDDLE SCHOOL TEACHER #3

STEPWISE REGRESSION

NUMBER OF CASES..... 26 NUMBER OF VARIABLES..... 12 NUMBER OF VARIABLES ENTERED.... 10
DEPENDENT VARIABLE..... 3RD ACQ

----- SUMMARY -----

STEP NO	VARIABLE	MULT.REGRESSION	F. STATISTIC	COEF.IN.REGRESSION	STD FOR COEF.	SIGN.LEVEL AT 2	E.R.
1	SIB.POS.	.29317304	2.2567818	-.58634603	.19515400	14.249743	-1
2	GENDER	.37846664	1.9226149	.47957900	.20511472	16.731102	-1
3	M.'OCC.	.43755567	1.7364559	-.43986332	.20277345	18.775129	-1
4	F.' QUAL	.49037072	1.6621096	.45314914	.23600953	19.553816	-1
5	M.'QUALI	.51717603	1.4605347	-.40579599	.37485814	24.615896	-1
6	SIBLINGS	.53595215	1.2761856	.28415361	.22365463	31.426708	-1
7	PRIM.SCH	.54591238	1.0916810	.20977963	.22830825	40.903812	-1
8	F.SCHOOL	.55865417	.92474329	-.14712396	.24737850	52.128464	-1
9	F.'OCC.	.55643111	.79727703	-.19693534	.40498674	62.407507	-1
10	REPEAT.	.55864757	.68050867	0.0000000	0.0000000	72.774087	0

MIDDLE SCHOOL TEACHER #3

STEPWISE REGRESSION

NUMBER OF CASES..... 26 NUMBER OF VARIABLES..... 12 NUMBER OF VARIABLES ENTERED.... 10
DEPENDENT VARIABLE..... 3RD USE

----- SUMMARY -----

STEP NO	VARIABLE	MULT.REGRESSION	F. STATISTIC	COEF.IN.REGRESSION	STD FOR COEF.	SIGN.LEVEL AT 2	E.R.
1	PRIM.SCH	.24598558	1.5457451	.49197122	.19785213	22.384893	-1
2	SIB.POS.	.39390384	2.1130641	-.61575878	.19713201	14.193500	-1
3	GENDER	.50382060	2.4947011	.62931085	.19620551	8.554472	-1
4	M.'OCC.	.56204049	2.4242995	-.49972162	.19498446	7.9561472	-1
5	F.' QUAL	.59332269	2.1731422	.39544657	.23875362	9.7615299	-1
6	M.SCHOOL	.61762166	1.9528869	.34442276	.19716299	12.340837	-1
7	SIBLINGS	.62527877	1.6507665	.19630773	.20540800	18.429876	-1
8	F.'OCC.	.63137555	1.4086282	-.21731675	.37181967	26.178438	-1
9	F.SCHOOL	.63211608	1.1830667	.63354508E-01	.25279191	36.797012	-1
10	REPEAT.	.63256538	1.0005792	0.0000000	0.0000000	48.425560	0

535

MIDDLE SCHOOL TEACHER #4

STEPWISE REGRESSION

NUMBER OF CASES..... 84 NUMBER OF VARIABLES..... 12 NUMBER OF VARIABLES ENTERED.... 9
DEPENDENT VARIABLE..... 3RD ACQ

----- SUMMARY -----

STEP NO	VARIABLE	MULT.REGRESSION	F. STATISTIC	COEF.IN.REGRESSION	STD FOR COEF.	SIGN.LEVEL AT 2	E.R.
1	M.SCHOOL	.21991298	4.1671934	-.43982598	.10772811	4.2044940	-1
2	GENDER	.30166200	4.0544767	.41304079	.10772369	2.0633042	-1
3	M.'OCC.	.33751804	3.4283986	.30280456	.10666510	2.0788968	-1
4	F.'OCC.	.34515768	2.6711130	.14402814	.11374895	3.7662864	-1
5	SIB.POS.	.35147077	2.1987042	-.13264084	.10819341	6.2180343	-1
6	REPEAT.	.35510813	1.0527794	.10257237	.11042403	9.9156561	-1
7	SIBLINGS	.35837293	1.5998682	.98206500E-01	.13675071	14.761048	-1
8	F.SCHOOL	.36173099	1.4113919	-.10023168	.13086998	20.511358	-1
9	M.'QUALI	.36221313	1.2416435	0.0000000	0.0000000	28.308083	0

MIDDLE SCHOOL TEACHER #4

STEPWISE REGRESSION

NUMBER OF CASES..... 84 NUMBER OF VARIABLES..... 12 NUMBER OF VARIABLES ENTERED.... 10
DEPENDENT VARIABLE..... 3RD USE

----- SUMMARY -----

STEP NO	VARIABLE	MULT.REGRESSION	F. STATISTIC	COEF.IN.REGRESSION	STD FOR COEF.	SIGN.LEVEL AT 2	E.R.
1	M.'QUALI	.24196061	5.0992179	.40392117	.10715017	2.5208592	-1
2	M.'OCC.	.26852861	3.1473029	.12387972	.23541176	4.7074914	-1
3	F.'OCC.	.28371137	2.3343542	.19604476	.15572681	7.8891101	-1
4	F.' QUAL	.34095809	2.5980103	-.57001144	.27866790	4.1968107	-1
5	GENDER	.34741950	2.1413913	.13349451	.11056522	6.8535509	-1
6	M.SCHOOL	.35581133	1.8602301	-.15382618	.11186317	9.7789764	-1
7	SIBLINGS	.35997498	1.6163385	.11080357	.12710382	14.289002	-1
8	PRIM.SCH	.36142939	1.4086859	-.65069363E-01	.11825238	20.624256	-1
9	SIB.POS.	.36215553	1.2411891	.46151980E-01	.12165410	28.334124	-1
10	F.SCHOOL	.36263654	1.1053473	0.0000000	0.0000000	36.986656	0

Figure IX.2 (cont.)

MIDDLE SCHOOL TEACHER 05

STEPWISE REGRESSION

NUMBER OF CASES..... 63 NUMBER OF VARIABLES..... 12 NUMBER OF VARIABLES ENTERED.... 9
DEPENDENT VARIABLE..... 3RD ACQ

----- S U M M A R Y -----

STEP NO	VARIABLE	MULT.REGRESSION	F. STATISTIC	COEF.IN.REGRESSION	STD FOR COEF.	SIGN.LEVEL AT %	E.R.	STEP NO	VARIABLE	MULT.REGRESSION	F. STATISTIC	COEF.IN.REGRESSION	STD FOR COEF.	SIGN.LEVEL AT %	E.R.
1	M.'QUALI	.18631625	2.1936896	-.37263250	.12579493	13.973535	-1	1	F.' QUAL	.21167795	2.8614769	.42335594	.12513550	9.1927948	-1
2	F.' QUAL	.31485558	3.3012910	.54378903	.17833397	4.2596641	-1	2	M.'QUALI	.24654724	1.9415865	-.27081951	.18209010	15.020495	-1
3	GENDER	.36465630	3.0162410	-.36804342	.12448157	3.6419332	-1	3	PRIM.SCH	.27173555	1.5679699	.22851735	.12594357	20.535719	-1
4	SIBLINGS	.40401801	2.8285484	.34912235	.13067077	3.2380939	-1	4	SIB.POS.	.28802523	1.3117167	-.19168484	.13701995	27.578413	-1
5	PRIM.SCH	.41914061	2.4295614	.22315064	.12119681	4.5489254	-1	5	REPEAT.	.29823676	1.1129678	.15475941	.12804694	36.395050	-1
6	M.'OCC.	.43386194	2.1642637	.22778398	.14422929	5.9724808	-1	6	M.SCHOOL	.30609569	.96488738	-.13883667	.14353204	45.812149	-1
7	SIB.POS.	.43655470	1.8499845	.97767189E-01	.13944814	9.5469656	-1	7	F.'OCC.	.31334230	.85543007	.14469926	.19046609	54.825245	-1
8	F.'OCC.	.43985850	1.6192435	.11872344	.19175248	14.044720	-1	8	F.SCHOOL	.31734535	.75590527	.10108326	.14382273	64.364441	-1
9	F.SCHOOL	.44240776	1.4330919	0.0000000	0.0000000	19.746471	0	9	M.'OCC.	.32936787	.67353851	.90381116E-01	.16567464	73.005737	-1
								10	GENDER	.32153729	.59959865	0.0000000	0.0000000	80.761215	0

MIDDLE SCHOOL TEACHER 06

STEPWISE REGRESSION

NUMBER OF CASES..... 117 NUMBER OF VARIABLES..... 11 NUMBER OF VARIABLES ENTERED.... 10
DEPENDENT VARIABLE..... 3RD ACQ

----- S U M M A R Y -----

STEP NO	VARIABLE	MULT.REGRESSION	F. STATISTIC	COEF.IN.REGRESSION	STD FOR COEF.	SIGN.LEVEL AT %	E.R.	STEP NO	VARIABLE	MULT.REGRESSION	F. STATISTIC	COEF.IN.REGRESSION	STD FOR COEF.	SIGN.LEVEL AT %	E.R.
1	M.SCHOOL	.18607558	4.1614122	.37375122	.91607742E-01	4.1268172	-1	1	M.SCHOOL	.17948122	3.8278623	.35896233	.91736227E-01	5.0021949	-1
2	F.SCHOOL	.23745811	3.4060783	-.29305285	.92529655E-01	3.5785388	-1	2	GENDER	.21565317	2.7801528	-.23913540	.92927143E-01	6.4584970	-1
3	SIBLINGS	.27454057	3.0704596	-.27563193	.92223153E-01	3.0336201	-1	3	SIBLINGS	.22914806	2.0874417	-.15495747	.92326574E-01	10.429150	-1
4	F.' QUAL	.30374432	2.8458574	.26061663	.96922234E-01	2.7078569	-1	4	F.'OCC.	.24532744	1.7931150	.98685265E-01	.17571968	13.386005	-1
5	M.'OCC.	.31548336	2.4537849	-.17095661	.96757621E-01	3.7460327	-1	5	F.' QUAL	.26954300	1.7392712	-.25405756	.15356292	13.042450	-1
6	GENDER	.32894677	2.2244782	-.18638885	.92977315E-01	4.5620084	-1	6	M.'QUALI	.27622256	1.5143567	.12899274	.13230924	17.910009	-1
7	F.'OCC.	.33223754	1.9320670	-.10752787	.15598730	7.0746899	-1	7	F.SCHOOL	.27749524	1.2990907	.53132202E-01	.95652418E-01	25.697166	-1
8	M.'QUALI	.33524740	1.7093966	-.10220541	.15300187	10.367304	-1	8	M.'OCC.	.27860168	1.1360327	.51287267E-01	.11976896	34.509075	-1
9	PRIM.SCH	.33778073	1.5312549	-.02807220E-01	.95397443E-01	14.555502	-1	9	SIB.POS.	.27876455	1.0017254	0.0000000	0.0000000	44.364983	0
10	SIB.POS.	.33798659	1.3670558	.23194740E-01	.98885834E-01	20.503361	0								

Figure IX.2 (cont.)

MIDDLE SCHOOL TEACHER 07

STEPWISE REGRESSION

NUMBER OF CASES..... 187 NUMBER OF VARIABLES..... 12 NUMBER OF VARIABLES ENTERED.... 11
DEPENDENT VARIABLE..... 3RD ACQ

----- SUMMARY -----

STEP NO	VARIABLE	MULT.REGRESSION	F. STATISTIC	COEF.IN.REGRESSION	STD FOR COEF.	SIGN.LEVEL AT %	E.R.
1	GENDER	.19856955	6.9717922	-.38113913	.72174087E-01	.87888837	-1
2	M.'QUALI	.22859961	5.0728092	.25251582	.71873061E-01	.72843432	-1
3	SIB.POS.	.24787807	3.9657440	-.18748738	.72732858E-01	.91692289	-1
4	F.'OCC.	.25697470	3.2178806	-.14522269	.98584226E-01	1.4026523	-1
5	REPEAT.	.26476374	2.7289100	.12749927	.72161682E-01	2.0989895	-1
6	F.SCHOOL	.26848686	2.3290429	-.88244110E-01	.75448476E-01	3.4161091	-1
7	M.SCHOOL	.27486282	2.0897801	.11925296	.80759548E-01	4.6528401	-1
8	F.'QUAL	.27849782	1.8708367	.18533165	.12882110	6.6773953	-1
9	PRIM.SCH	.28869870	1.6820033	.70880154E-01	.74768735E-01	9.5790749	-1
10	M.'OCC.	.28257839	1.5272337	.67968711E-01	.97311132E-01	13.241691	-1
11	SIBLINGS	.28294539	1.3844913	-.29218113E-01	.78569852E-01	18.314320	0

MIDDLE SCHOOL TEACHER 07

STEPWISE REGRESSION

NUMBER OF CASES..... 187 NUMBER OF VARIABLES..... 12 NUMBER OF VARIABLES ENTERED.... 11
DEPENDENT VARIABLE..... 3RD USE

----- SUMMARY -----

STEP NO	VARIABLE	MULT.REGRESSION	F. STATISTIC	COEF.IN.REGRESSION	STD FOR COEF.	SIGN.LEVEL AT %	E.R.
1	GENDER	.33293390	23.062704	-.66586769	.69327079E-01	.90003014E-03	-1
2	F.'QUAL	.40207982	17.741663	.67616791E-01	.29882322E-04	.29882322E-04	-1
3	M.SCHOOL	.41711903	12.848831	-.22203800	.68472579E-01	.29882322E-04	-1
4	F.'OCC.	.42583340	10.078226	-.18866643	.18465565	.47683716E-04	-1
5	SIBLINGS	.43353540	8.3786974	-.16272746	.67899382E-01	.71525574E-04	-1
6	PRIM.SCH	.43911764	7.1666293	-.13982108	.70929527E-01	.11928929E-03	-1
7	REPEAT.	.44159627	6.1946077	.93457721E-01	.68198396E-01	.24437904E-03	-1
8	SIB.POS.	.44311261	5.4361401	-.73298626E-01	.69598876E-01	.52452887E-03	-1
9	M.'OCC.	.44358940	4.8156943	.37742402E-01	.75234115E-01	.11682510E-02	-1
10	M.'QUALI	.44467875	4.3380027	-.75113714E-01	.11988220	.23424625E-02	-1
11	F.SCHOOL	.44503474	3.9290640	-.36008686E-01	.78863710E-01	.48041344E-02	0

MIDDLE SCHOOL TEACHER 08

STEPWISE REGRESSION

NUMBER OF CASES..... 174 NUMBER OF VARIABLES..... 12 NUMBER OF VARIABLES ENTERED.... 10
DEPENDENT VARIABLE..... 3RD ACQ

----- SUMMARY -----

STEP NO	VARIABLE	MULT.REGRESSION	F. STATISTIC	COEF.IN.REGRESSION	STD FOR COEF.	SIGN.LEVEL AT %	E.R.
1	F.'QUAL	.91166183E-01	1.4415196	.18233229	.75931765E-01	22.947533	-1
2	F.'OCC.	.16685526	2.4485471	-.28109670	.83915159E-01	8.7353172	-1
3	GENDER	.17638768	1.8196625	.11440478	.76057136E-01	14.369291	-1
4	SIB.POS.	.18351308	1.4724426	.18128004	.75730585E-01	21.158166	-1
5	REPEAT.	.18914174	1.2466238	-.91598615E-01	.75812362E-01	28.902699	-1
6	M.'OCC.	.19531907	1.1039438	-.97521894E-01	.78474335E-01	36.214386	-1
7	PRIM.SCH	.19762261	.96379489	-.60172666E-01	.76688454E-01	46.011429	-1
8	SIBLINGS	.19943975	.85436785	-.53742187E-01	.78416906E-01	55.746769	-1
9	F.SCHOOL	.20118595	.76803440	-.51678600E-01	.77142470E-01	64.732239	-1
10	M.'QUALI	.20185398	.69235384	0.0000000	0.0000000	73.174072	0

MIDDLE SCHOOL TEACHER 08

STEPWISE REGRESSION

NUMBER OF CASES..... 174 NUMBER OF VARIABLES..... 12 NUMBER OF VARIABLES ENTERED.... 10
DEPENDENT VARIABLE..... 3RD USE

----- SUMMARY -----

STEP NO	VARIABLE	MULT.REGRESSION	F. STATISTIC	COEF.IN.REGRESSION	STD FOR COEF.	SIGN.LEVEL AT %	E.R.
1	GENDER	.19567442	6.8478098	-.39134884	.74775308E-01	.94193816	-1
2	F.SCHOOL	.24855939	5.6381832	-.38655844	.74146457E-01	.44560432	-1
3	F.'OCC.	.27514541	4.6413287	.23599960	.74277110E-01	.39724112	-1
4	PRIM.SCH	.29138867	3.9178369	.19137491	.74044771E-01	.46977997	-1
5	SIBLINGS	.30793853	3.5197387	.19968494	.73603220E-01	.48587322	-1
6	SIB.POS.	.32888255	3.3756831	-.23188481	.74034973E-01	.37402511	-1
7	M.SCHOOL	.33811697	3.0610373	-.15698464	.74268393E-01	.47822595	-1
8	M.'QUALI	.34331068	2.7557815	.11972094	.81738137E-01	.70828199	-1
9	F.'QUAL	.34526423	2.4662144	.74189343E-01	.85215397E-01	1.1641979	-1
10	M.'OCC.	.34547314	2.2098914	0.0000000	0.0000000	1.9650996	0

Figure IX.2 (cont.)

MIDDLE SCHOOL TEACHER 10

STEPWISE REGRESSION

NUMBER OF CASES..... 153 NUMBER OF VARIABLES..... 12 NUMBER OF VARIABLES ENTERED.... 9
DEPENDENT VARIABLE..... 3RD ACQ

----- SUMMARY -----

STEP NO	VARIABLE	MULT.REGRESSION	F. STATISTIC	COEF.IN.REGRESSION	STD FOR COEF.	SIGN.LEVEL AT X	E.R.
1	SIB.POS.	.11686331	2.0907657	-.23372662	.00821246E-01	14.618474	-1
2	M.'OCC.	.14997351	1.7257187	-.10798995	.00838524E-01	17.939823	-1
3	PRIM.SCH	.17342940	1.5401872	.17424518	.02702138E-01	20.502758	-1
4	SIBLINGS	.19086036	1.3987783	.15992795	.07710753E-01	23.616064	-1
5	REPEAT.	.20106296	1.2386060	.12650354	.02692116E-01	29.347366	-1
6	GENDER	.21054451	1.1287065	-.12495591	.02070127E-01	34.840740	-1
7	F.SCHOOL	.21553594	1.0091797	-.92239760E-01	.02088433E-01	42.767681	-1
8	M.'QUALI	.21073951	.90452427	-.74884422E-01	.00750078E-01	51.542355	-1
9	F.'OCC.	.21956524	.80478352	.00000000	.00000000	61.360931	0

MIDDLE SCHOOL TEACHER 10

STEPWISE REGRESSION

NUMBER OF CASES..... 153 NUMBER OF VARIABLES..... 12 NUMBER OF VARIABLES ENTERED.... 11
DEPENDENT VARIABLE..... 3RD USE

----- SUMMARY -----

STEP NO	VARIABLE	MULT.REGRESSION	F. STATISTIC	COEF.IN.REGRESSION	STD FOR COEF.	SIGN.LEVEL AT X	E.R.
1	GENDER	.14842747	3.4015765	-.29685494	.00477446E-01	6.3713551	-1
2	SIB.POS.	.20455663	3.2753860	-.28151527	.00010355E-01	3.9514482	-1
3	M.SCHOOL	.23200060	2.0459816	-.22228681	.79966530E-01	3.9053082	-1
4	F.'OCC.	.25338447	2.5385182	.20007654	.79771675E-01	4.1904631	-1
5	F.SCHOOL	.26281917	2.1814547	-.13961098	.81438921E-01	5.8697939	-1
6	M.'QUALI	.27298041	1.9594051	-.14796314	.85134350E-01	7.4538663	-1
7	M.'OCC.	.27622169	1.7110149	-.84460184E-01	.85213386E-01	10.998667	-1
8	PRIM.SCH	.27979997	1.5288771	.09387976E-01	.85221387E-01	15.132678	-1
9	F.' QUAL	.28225729	1.3754344	-.77289499E-01	.10628934	20.384556	-1
10	REPEAT.	.28279400	1.2343204	.34867775E-01	.04410004E-01	27.373331	-1
11	SIBLINGS	.28324059	1.1180363	.32014892E-01	.90746343E-01	35.141254	0

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MIDDLE SCHOOL TEACHER 11

STEPWISE REGRESSION

NUMBER OF CASES..... 113 NUMBER OF VARIABLES..... 12 NUMBER OF VARIABLES ENTERED.... 7
DEPENDENT VARIABLE..... 3RD ACQ

----- SUMMARY -----

STEP NO	VARIABLE	MULT.REGRESSION	F. STATISTIC	COEF.IN.REGRESSION	STD FOR COEF.	SIGN.LEVEL AT X	E.R.
1	M.'QUALI	.23744660	6.6322136	-.47409345	.92201263E-01	1.0965943	-1
2	F.' QUAL	.24810429	3.6101160	.14553715	.10456882	2.9629469	-1
3	F.SCHOOL	.25096777	2.4422748	.74712135E-01	.99050902E-01	6.6948056	-1
4	F.'OCC.	.25402078	1.8623900	-.79993211E-01	.11204945	12.103015	-1
5	M.SCHOOL	.25522438	1.4911151	.49519032E-01	.94024061E-01	19.773632	-1
6	SIBLINGS	.25595126	1.2384970	-.38560983E-01	.95809956E-01	29.212547	-1
7	REPEAT.	.25695982	1.0604377	.00000000	.00000000	39.442738	0

MIDDLE SCHOOL TEACHER 11

STEPWISE REGRESSION

NUMBER OF CASES..... 113 NUMBER OF VARIABLES..... 12 NUMBER OF VARIABLES ENTERED.... 10
DEPENDENT VARIABLE..... 3RD USE

----- SUMMARY -----

STEP NO	VARIABLE	MULT.REGRESSION	F. STATISTIC	COEF.IN.REGRESSION	STD FOR COEF.	SIGN.LEVEL AT X	E.R.
1	M.SCHOOL	.13677280	2.1160390	.27354559	.94023031E-01	14.452541	-1
2	F.' QUAL	.20093426	2.3140297	.29440207	.93842186E-01	10.145950	-1
3	F.'OCC.	.26011510	2.8141439	-.36024529	.10951830	4.1995707	-1
4	PRIM.SCH	.27929965	2.2844284	.15686215	.98958291E-01	6.4116182	-1
5	F.SCHOOL	.29323751	2.0132651	.17893521	.97689405E-01	8.1734038	-1
6	REPEAT.	.30404499	1.7995194	-.16069157	.93176246E-01	10.529697	-1
7	SIBLINGS	.30685213	1.5591834	.02822345E-01	.93182661E-01	15.493822	-1
8	SIB.POS.	.30789888	1.3614944	-.50909847E-01	.10137137	22.152311	-1
9	M.'OCC.	.30804220	1.2034317	.37310429E-01	.98367423E-01	30.065781	-1
10	GENDER	.30862504	1.0738254	.00000000	.00000000	38.928596	0

Figure IX.2 (cont.)

UPPER SCHOOL TEACHER 01

STEPWISE REGRESSION

NUMBER OF CASES..... 27 NUMBER OF VARIABLES..... 11 NUMBER OF VARIABLES ENTERED.... 10
DEPENDENT VARIABLE..... 3RD ACQ

----- SUMMARY -----

STEP NO	VARIABLE	MULT.REGRESSION	F. STATISTIC	COEF.IN.REGRESSION	STD FOR COEF.	SIGN.LEVEL AT %	E.R.
1	F.'OCC.	.34205097	3.3125341	.68410200	.18793629	7.7464285	-1
2	GENDER	.37765402	1.9961692	.32014814	.18900913	15.600096	-1
3	PRIM.SCH	.40506925	1.5120003	-.29793942	.20272428	23.721087	-1
4	F.SCHOOL	.43227497	1.2639166	.29778048	.20021941	31.389898	-1
5	F.'QUAL	.45314652	1.0052910	.33000124	.30566196	39.757889	-1
6	M.'OCC.	.47139961	.95235533	-.26228154	.22632094	48.182194	-1
7	SIBLINGS	.49140057	.86400556	-.20611565	.25603673	55.203785	-1
8	M.SCHOOL	.50048010	.75195444	-.19221604	.23866291	64.809083	-1
9	SIB.POS.	.52062511	.70235896	-.31255078	.31538960	69.900309	-1
10	M.'QUALI	.52790141	.61815518	.24912020	.51067568	77.830345	0

UPPER SCHOOL TEACHER 01

STEPWISE REGRESSION

NUMBER OF CASES..... 27 NUMBER OF VARIABLES..... 11 NUMBER OF VARIABLES ENTERED.... 9
DEPENDENT VARIABLE..... 3RD USE

----- SUMMARY -----

STEP NO	VARIABLE	MULT.REGRESSION	F. STATISTIC	COEF.IN.REGRESSION	STD FOR COEF.	SIGN.LEVEL AT %	E.R.
1	F.'OCC.	.49937780	8.3057232	.99875575	.17327687	.78209639	-1
2	M.SCHOOL	.55656570	5.3853917	.49162349	.17379901	1.1628926	-1
3	F.'QUAL	.58568005	4.0030780	.45372343	.33523592	1.9663215	-1
4	F.SCHOOL	.61979604	3.4307041	.40842205	.18846443	2.5151134	-1
5	SIBLINGS	.63119382	2.7814481	-.24669160	.21865524	4.4110122	-1
6	M.'OCC.	.64364588	2.3576682	-.25333896	.18900019	6.9033265	-1
7	GENDER	.64731491	1.9575961	.13774069	.18175636	11.540018	-1
8	M.'QUALI	.65201926	1.6639223	.20987913	.39987284	17.545725	-1
9	PRIM.SCH	.66267902	1.4789759	0.0000000	0.0000000	23.248428	0

UPPER SCHOOL TEACHER 03

STEPWISE REGRESSION

NUMBER OF CASES..... 124 NUMBER OF VARIABLES..... 12 NUMBER OF VARIABLES ENTERED.... 10
DEPENDENT VARIABLE..... 3RD ACQ

----- SUMMARY -----

STEP NO	VARIABLE	MULT.REGRESSION	F. STATISTIC	COEF.IN.REGRESSION	STD FOR COEF.	SIGN.LEVEL AT %	E.R.
1	SIBLINGS	.18293400	4.2240696	-.36586788	.89007974E-01	3.9691627	-1
2	F.'OCC.	.24207205	3.7659099	.31749755	.92001009E-01	2.5380135	-1
3	M.'OCC.	.26958200	3.1347978	.23734672	.89997761E-01	2.7762115	-1
4	SIB.POS.	.29007709	2.7332976	.21463069	.93478732E-01	3.1869113	-1
5	REPEAT.	.30859500	2.4040026	-.21061537	.89147307E-01	3.5123050	-1
6	F.'QUAL	.32359743	2.2007806	-.22004065	.14592540	4.0307226	-1
7	M.'QUALI	.32798937	1.9976010	.11984000	.14250524	6.0785952	-1
8	PRIM.SCH	.33134562	1.7720735	-.94204073E-01	.92502837E-01	8.0910924	-1
9	GENDER	.33394957	1.5899285	.83298549E-01	.91536097E-01	12.583274	-1
10	F.SCHOOL	.33504358	1.4280690	0.0000000	0.0000000	17.590421	0

UPPER SCHOOL TEACHER 03

STEPWISE REGRESSION

NUMBER OF CASES..... 124 NUMBER OF VARIABLES..... 12 NUMBER OF VARIABLES ENTERED.... 10
DEPENDENT VARIABLE..... 3RD USE

----- SUMMARY -----

STEP NO	VARIABLE	MULT.REGRESSION	F. STATISTIC	COEF.IN.REGRESSION	STD FOR COEF.	SIGN.LEVEL AT %	E.R.
1	F.'OCC.	.16649514	3.4783385	.33299017	.89272082E-01	6.1305704	-1
2	REPEAT.	.23827951	3.6417859	-.34093905	.89263216E-01	2.8483068	-1
3	SIB.POS.	.25770627	2.8473685	.19674055	.88474140E-01	3.9840102	-1
4	M.'OCC.	.28266004	2.5833256	.23194665	.89944057E-01	4.0135264	-1
5	SIBLINGS	.29859567	2.3101308	-.19387072	.99040309E-01	4.7901812	-1
6	PRIM.SCH	.30563551	2.0092442	.13048218	.90271212E-01	6.9255056	-1
7	M.'QUALI	.31129357	1.7781408	-.12687522	.12924266	9.7488346	-1
8	GENDER	.31714290	1.6075153	-.12133876	.91696754E-01	12.944025	-1
9	F.SCHOOL	.31789324	1.4239419	-.43689851E-01	.92339180E-01	10.533019	-1
10	M.SCHOOL	.31822371	1.2732465	0.0000000	0.0000000	25.346010	0

Figure IX.3

UPPER SCHOOL TEACHER 09

STEPWISE REGRESSION

NUMBER OF CASES..... 110 NUMBER OF VARIABLES..... 12 NUMBER OF VARIABLES ENTERED.... 11
DEPENDENT VARIABLE..... 3RD ACQ

----- SUMMARY -----

STEP NO	VARIABLE	MULT.REGRESSION	F. STATISTIC	COEF.IN.REGRESSION	STD FOR COEF.	SIGN.LEVEL AT X	E.R.
1	F.'OCC.	.36428457	16.524853	.72856921	.89613199E-01	.13923645E-01	-1
2	M.'OCC.	.41392508	11.061594	.39331016	.90970933E-01	.64074993E-02	-1
3	GENDER	.44569048	8.7583771	-.33050370	.87720618E-01	.43094158E-02	-1
4	M.'QUALI	.45914772	7.0122313	.22892223	.11381745	.62167645E-02	-1
5	REPEAT.	.47371656	6.0182023	-.23352584	.91339782E-01	.76234341E-02	-1
6	SIB.POS.	.48234329	5.2048454	-.18169455	.88583492E-01	.11962652E-01	-1
7	PRIM.SCH	.48677826	4.5249443	.13157292	.94000421E-01	.22161007E-01	-1
8	SIBLINGS	.49239630	4.0406570	.15089902	.10426450	.36472082E-01	-1
9	F.SCHOOL	.49314925	3.5705159	-.54684076E-01	.94830342E-01	.73635578E-01	-1
10	M.SCHOOL	.49390084	3.1941648	.54558028E-01	.92420885E-01	.14088154	-1
11	F.' QUAL	.49407080	2.8770723	.32314202E-01	.17491783	.26364923	0

UPPER SCHOOL TEACHER 09

STEPWISE REGRESSION

NUMBER OF CASES..... 110 NUMBER OF VARIABLES..... 12 NUMBER OF VARIABLES ENTERED.... 10
DEPENDENT VARIABLE..... 3RD USE

----- SUMMARY -----

STEP NO	VARIABLE	MULT.REGRESSION	F. STATISTIC	COEF.IN.REGRESSION	STD FOR COEF.	SIGN.LEVEL AT X	E.R.
1	F.' QUAL	.37870541	18.002466	.75741076	.89057945E-01	.76055527E-02	-1
2	GENDER	.42135060	11.548465	-.36942399	.87718906E-01	.44763088E-02	-1
3	REPEAT.	.47211799	10.134590	-.42649463	.90048373E-01	.10251999E-02	-1
4	M.'QUALI	.49014989	8.3006973	.30180261	.14498650	.10907650E-02	-1
5	M.'OCC.	.49668926	6.8118496	.16130673	.93563303E-01	.20682812E-02	-1
6	M.SCHOOL	.50249404	5.7987004	.15337527	.95847011E-01	.38146973E-02	-1
7	SIBLINGS	.50402707	4.9624505	.78733765E-01	.91331713E-01	.05055828E-02	-1
8	PRIM.SCH	.50518554	4.3261423	.68668157E-01	.94037846E-01	.18215179E-01	-1
9	SIB.POS.	.50545782	3.8128989	-.33431217E-01	.97731560E-01	.38659573E-01	-1
10	F.SCHOOL	.50574672	3.4025133	0.0000000	0.0000000	.77599207E-01	0

Figure IX.3 (cont.)

APPENDIX X

BASE DATA

The base data presented here refer to the analyses described in the three main parts of the empirical study: (a) patterns of achievement in different types of competencies; (b) teacher's degree of competence in distinguishing A and U competencies and teacher's degree of demand in the marking of pupils' answers; (c) sociological variables and achievement. The base data are presented in this order and each of the three groups of the base data is preceded by a short explanation of its organisation.

We gather that it is unusual to include the base data in a social science doctorate in the University of London. We have included such data in our thesis because we consider important for researchers in Portugal to have access to the base data in order that repetition of our study and use of the data for further research may be facilitated. We also consider that the inclusion of the base data in the thesis does create the grounds for a better understanding of the text. The code numbers of the pupils of different teachers are as follows:

- X_1 - pupils 1 to 29 in the middle school
and 30 to 56 in the upper school
- X_2 - pupils 57 to 169
- X_3 - pupils 170 to 195 in the middle school
and 196 to 319 in the upper school
- X_4 - pupils 320 to 403
- X_5 - pupils 404 to 466
- X_6 - pupils 467 to 583
- X_7 - pupils 584 to 770
- Z_1 - pupils 771 to 944
- Z_2 - pupils 945 to 1,054
- Z_3 - pupils 1,055 to 1,207
- Z_4 - pupils 1,208 to 1,320

542

Teacher X_7 , Year 7, Classes A, B, E, M

[illegible]

627 0100 0 0100100100100 0100100100 0100100 33 60 0 75 0 0 0 40100 70 60 0100 50 60 50 60100100 40 0 0 50 0 0 80 25100100 0 13 42 61 76 16 28 34 47 60 47
628 0100100 0 0 66 50100100100100100100100100 33100 0 87100 50 90 30100 80 50 50100100 40100 40100100 40 25 33 75 80 80100100 33 75 80 56 71 84 84 66 66 76 36 81 79
629 0 0 0 0100 66 50 0 0 0100 0 0 0 0 0 20 0 0 0 0 0100 0 40 0100 50 60100 60 0 0 0 0 33 0 0 0 0 0 33 25 0 0 14 23 23 11 19 26 47 36 13
630 0100100 0 0 0100100 0 0 0100 0 0 0 0 20 0 25 0 0 0 40100 0 0 0100 0 60100 0 0 0 0 75100 50 0 0 0 0 0 0 0 0 14 30 23 0 0 30 63 45 0
631 0100100 50100100100100 0 0 0100 0 0100 0 0100 0 30 0 50 40 0 33 60100 0 0100100 50 40100 40 0100 0 0 33 0 0 0 80 0 33 0 0 20 21 53 23 11 47 26 36 27 21
632 0 0 0 0 66 50100 50 0100 0 0 0 0 20 0 0 0 0 0 0 0 0 0100 20 50 0 0100 0 0 0 0 0 0 0 0 0 33 0 0 14 0 0 0 23 15 13 13
633 0100100 0 0100100100 0 0 0 0 0 0100 0 20 0 0 0 0 0 0 0 40100 60 0 0 0100 60100 0 0100 0 0 0 0 80 46 25 33 0 40 0 14 15 69 16 26 36 36 27 21
634 0100100 0100100 50100100100100100 0100100 33100100100100 62 44 80100 80 60100100100 90100100100100 40 50 33 25 0100 0100100 75 80 40100 92 84 72 61 84 73 63 73
635 0100100 0 50 0100100 0 0100 0 0 0100 0100 0 75 80 75 0100100 70 80 50 0 50 50100 0100 0 40 25 33 0 0 60 0 0 0 0 40 0 71 84 76 77 38 19 36 27 30
636 0100100 0 75 83 50100 0100100 0 0 0 0 20 0 25 0 0 0 50 0 0 60 0100100 40 50 40 0100 40 0 0 0 40 0 0 0 40 0 14 30 0 16 19 30 21 13 30
637 0100100 0 50100100100 0 0100 0100100100100 33 60100 75100 50 0 80100 30 0100100100 0100 80 60100 40 75 0 62 80100 80 0 66 87 40 13 71 76 46 56 86 61 10 81 69
638 0100100 0 0100100100 0 0100100 0100100 0 60 0 37 60 0 0 80 0 70 0 0100100 40100 80100100 0 0 75 0100 20 0 33 0 0 0 42 53 53 16 20 30 26 54 52
639 0 0 0 0100 83100100 0 0100100100100100 0 40 0100100 62 33 80100 50 80 0100100 60100100100100 0 0 0 75 0100 20 0 33 0 0 0 20 20 92 61 77 47 30 36 45 56
640100100100 0 0100100100 0 0100100 0100100 0 60 0 62 0 50 11 80100 50100100 0100 40100100 0 0 25 0 0 0100 0 0 66 50 0 6 42 69 61 50 52 30 31 45 21
641 0100100 0100100100100 0 0100 0 0100100 0 0 25 0 25 0100 0 70 0100 0100 40100 40 0 0 0 0 75 60 0 0 50 0 0 40 0 0 53 53 11 28 36 21 54 36
642 0100100 0100100100100 0 0 0100 0 0100 0 30 0 37 0 0 0 80100 50 0 50100 50 20100 0 0 0 0 0 0 0 60 0 0 0 0 0 37 40 0 21 45 61 0 26 25 10 48 0
643 0100 0 0 -1 83 50 50 0 -1 0 0 0 0 0 -1 -1 25 0 0 0 40100 50 60 0 -1 -1 60100 80 0 0 0 -1 50 0 0 0 0 -1 0 0 40 0 21 30 61 16 0 26 47 27 26
644 0100100 0100100100100 0 0100 0 0100100 33 30 0 25 80 75 77 40 0 70 0 0100100 40100 60 0100 0100 33 75100 0 40 0 0100100 60 21 38 53 55 9 69 47 90 69
645 0 50 50 0 0100100 50 0 0100100 0 0100 0 0 0 12 0 37 0 40100 50 60 50 0 50 0 50 0 20 0 0 0 0 60 0 0 0 0 0 66 0 0 0 23 61 33 28 11 16 17 4
646 0100100 0 0100100 75 0 0100 0100 0 0 60 0 50 0 25 0 0100 40 0100100100 20100 40 40100 0 50100 0 0 0 0 25 0 37 0 0 42 38 53 11 28 61 42 48 30
647 0100100 0100100100100 0100100 0 0100100 0 30 0 62 80 0 22 0100 50 60 50 0100 60100 40 0100 0 75 83 62 0 0 33 0 0 13 21 30 61 36 14 46 63 50 21
648 0100100 0100100 75100 0 0 0100 0100 0 0 0 0 25 0 0 0 0 0 60 0 0100 40100 0 0 0 0 50 0 0 0 0 0 0 0 15 0 16 0 23 36 27 0
649 0100100 0100100100100 0 0 0100 0100100 0 60 0 37 80 0 0 0 0100 80 0 0100100 40100 40 0100 0 0100 50 80 40 0 0 0 37 40 0 42 25 84 22 9 30 52 59 47
650 0100100 0100100100100 0 0 0 0 0100 0 33 0 0 25 80 0 0 0 0 0 50 0 50 40100 40 0100 40 0100 0 0 0 0 33 0 66 13 0 15 0 22 23 11 57 27 34
651 0100100 0100100100100 0 0100100 0100100 33 60100 25100 37 0 60100 50 60100 0100 20100 80100 0 0 0 83 0 0 0 0 0 37 40 13 71 38 61 61 28 23 36 40 47
652 0100100 0100100100100 0100100 33 30 0 50 80 75 0 80100 40 30 50100100 0100100100100 0 0100 25 0 60 40100 66 50 40 13 21 61 53 77 38 69 42 54 65
653 0 0100 0100100 75100 0 0 0 0 0100100 0 0 25 0 25 0 0100 50 60 50100 50 0100 0100 0 0 83 25 0 60 0 25 0 0 0 0 15 61 27 28 34 47 36 21
654 0 50100 0 75100100100 0 0 0 0 0100 0 30 0 62 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 21 39 0 0 4 23 0 0 0
655 0100100 0100 83100100 0 0100100 0100100 33 80 0 62 0 50 0 40100 70 0 0100100 40100 40 0100 0 0100 25 60 0 0 0100 37 0 13 57 53 76 22 0 36 68 58 39
656 0 0100 0 0 80100100 0100 0 0 0100 0 20 0 0 0 0 0100 50 0 50 0100 60 50 40 40100 40 0100 0 0 0 0 0 0 0 14 0 61 0 23 23 63 13 30
657 0100100 0100 66100100 0 0100100 0100100 0 60 0 75 80 75 44 60100 50 0100100100 90100100100100 0 50 83 75 40 60 0 0100 0 60 26 42 69 61 55 42 53 89 54 78
658 0100100 0100100100100 0 0100 0 0 0100 0 0 0 0 62 0 25 0 40100 30 0 0100100 0100 40 0 0 0 83 50 0 0 0 0 0 0 0 0 0 53 46 11 0 30 26 45 0
659 0100100 0 0100100100 0 0 0 0 0100100 0 60 0 50 80 0 0 60 0 50 60 0100100 70100 60 0 0 0 0 62 0 0 0 0 0 0 0 40 0 42 53 38 30 0 30 36 50 21
660 0 50 0 0 0 66100100 0 0 0100 0 0100 0 0 0 0100 25 11 0 0 50 0 0 0 50 0100100 30100 40 0 33 0 40 60 40 75 0 37 80 6 0 0 30 38 33 34 10 40 79
661 0100 0 0 0100100100 0 0100100 0100100 0 0 0 0 50 11 0100 60 0 50100 40 0 80 50 83 50 60 80 0 0 0 37 0 6 0 0 69 22 52 42 26 59 30
662 0 75100 0 0100 75100 0 0 0100 0 0100 0 20 0 25 40 25 0 60 0 70 0 50 0 0 0 50 0 0 0 75 0 0 0 0 25 0 25 0 14 30 53 22 14 30 1 22 0
663 0 0100 0 0100 50100 0 0100100 0 0 0 0 0 0 0 0 60 25 0 0100 50 40100100100 0100 40 0100100 0 0 75 0 0 0 0 20 0 33 75 0 0 0 61 36 57 30 5 01 21
664 0100100 0 75100100100 0 0 0100100100100 33 70 0 25 0 0 22 0 0 60 0100100 40100 0 0100 0100100 0 80 0 0 0 33 0 0 26 50 15 0 16 0 69 57 27 30
665 0100100 0 0 50100100 0 0 0100 0100100 0 60100 75 80 37 0 40100 0 0 0 0100 0 0 0 0100 0 0 0 0 0 0 0 0 0 0 71 61 23 38 0 23 0 0 13
666 0100100 0100 66100100 0100100 0 0100 0 0 50 0 62 40 75 22 60100 70 80 50100100 0100 40 0 0100 83 0 0100 0 0 0 25 0 13 35 61 76 66 38 69 26 36 8
667 0100100 0 75100100100 0100100100 0100100 0 60100100100 37 66 60 0 50 0 50 0100 40100 0 0100 0100 0 25 0 0 0100 0 0 40 71 64 38 44 14 84 21 36 13
668 0 0 0 0 93100 75100100 0100 0100100 16 0100 62100 37 55 40100 0 60100100 50100100 40 0100 0100 33 62 0 40 0100 0 0 60 40 20 53 23 61 38 88 63 50 34
669 0 75100 0 0 50100100 0 33 0100 0100100 33 80100 25 40 50 77100100 0 80100100 50100100 40 0100 0100 33 62 0 40 0100 0 0 60 40 20 53 23 61 38 88 63 50 34
670 0100100 0 0100100 75 50100 0100 0100100 33100 0100 60 50 44 0100 70 30100100100 60100100 0100 0 75 0 37 30 0 0100 0 75 0 40 71 61 76 61 28 92 31 68 52
671 0100 50 0 0100100100 0100100100100100 83100100 87100 62 22 0 0 50100100 0100 80100 0 60100 0 50 66 0 80 60 40 0 33100 40 40100 52 30 63 52 36 68 63 52
672 0100100 0100100100100 50100100 0100100100 0 50100 75100 50100 60100 70 30 50100100 40100 0 0100 0 0 50 37 0 0100 0 66 0 0 60 54 69 76 72 38 30 47 40 13
673 0100 0 0 0 50 50 0 0 0 0 0 0 0 0 20 0 12 0 25 0 0100 40 0 0 0 0 0 0 0 0100 0 40100 0 50 0 0 0 0 0 0 11 7 53 11 0 0 15 27 21
674 0100100 0 0 83100100100100100100 0100100 0 60100 75100 62 30100100 70 30100100100 30100 60 0100 40 0 66 0 0 80 0100 65 75 0 53 71 84 76 77 57 69 73 54 26
675 0100100 0 50 50 75100 0100100100 0100100 33 80 0 75 60 0 0 0100 0100 0100100100 50 0 0100 0 0100 50 80 0 0 0 33 0 0 13 57 46 23 44 0 38 89 31 30
676 0100100 0100 50100 75 0100100100 0100100 33 60 0 25 0 0 22 60 0 50100 0100100 40100 0 0100 0 66 0 60100100 0 33 25 0 26 42 38 30 27 47 38 47 36 26
677 0100 0 0 0100100100 0100100 0 0100100 0 60100100 0 62 0 60100 50 60100100 50 90100 80100100 80100100 0 60100100 25 66 50 40 0 71 84 61 44 95 65 89 45 73
678 0100100 0 0 50100100 0 0100100 0100100 0 30 0 62 60 50 0 0100 40 30 15100100 0100 30 0 0 25100 0 0100 0 0 33 75 0 0 21 53 53 61 28 46 36 54 17
679 0 50100 0 50100100100 0 0100100 0100100 0 10 0 25 80 50 22 40100 0 0 0100100 60100 0 0100 0 0 82 0 0 0 0 0 0 13 7 30 23 44 0 38 57 27 13
680 0 0 0 0 50 83 50 50 50100100100 0100100 33 70100 50100 25 66 60100 80100 0100100 0100100 50100 0 0100 37 80 80 60100 33 37 40 53 70 53 84 66 33 69 36 54 73
681 0100100 0100100 0100100100 0100 0100100100 80 0 75 60 25 33 60 0 50100100100100 80100 0 0100 0 75100 50 80 0100 0 66 75 40 60 57 69 38 55 52 61 84 72 39
682 0100 0 0 0 83100100 0100100100 0100100 50 0100 62 60 37 0 60100 50100 50100100 0100100 0 0100100100 62 0 0100100100 0 20 23 61 61 61 61100 47 50 21
683 0100100 0 0 0100100 0100100 0100100100 33 80 0 50100 50 55 60100 50 60 50100100 60100 40 0100100 0 33 37 0100100100100 25 60 46 57 53 61 66 65 69 57 50 34
684 0100100 0100 66100100 0100100100100100100 0 30 0 75100 50 22 60100 0 80 50100100 80 50 0 0100 0 0 50 62 0 0 60 50 33 25 0 13 21 69 23 72 28 53 63 45 13
685 0 50100 0 75 33100100 0100100 0 0100100 0 60100 87 0 50 33 60100 0 0 50100100 40 50 60 40 0 0 0 50100100100100 0 75 80 20 71 76 23 36 61 67 21 59 60
686 0100100 0 75100100100100100100100 0100100 0 20 0 37100 50 22 40100 80 0 50100100 0 50 0 0100 0 0100 62 80100 0 0 33 75 0 13 14 69 04 50 38 30 36 63 30
687 0100100 50 50100100100 0100100100 0100100 33 30 0 87 0 50 44 60100 0100100100100 80100100 0100 0 0 75100100 40 25 33 75 0 40 21 76 23 50 61 46 47 81 56
688 0 0100 0 50100100100100 0 0100100100100 50 20100100100 50100 80100 0100100100 50 70100 0 0 0100100 75 0100 0 37 33100 0 80 42 92 53 77 52 69 84 94 0
689 0 0 0 0 0 0100 0 0100100 0 0100 0 0 0 25100 37 0 60100 50 60 50100100 40100100 40100 0 25 0 0 0 75 0 0 0 30 61 61 23 46 21 54 43
690 0100100 20 0100100100 0 0100100 0100100 33 30 0100 0 50 11 60100 70 40100100 50 40100 0 0100 60 0 66 0 0 0100 0 0 0 20 21 84 76 33 66 26 42 27 13
691 0100100 0100100100100 0100100100 0100100 0 20 0 62 80 37 33 40100 60100 0100100 0100 0 0 25 33 0 0100 0 37 0 0 20 14 53 69 66 23 57 10 27 0
692 0100 50 0 50 66 75 50 0100100 0 0100100 33 30 0100 30 50 33 60 0 0 30 0100100 20100 0 0100 0 0 0 37 0 0100 0 33 0 0 33 21 84 0 66 23 30 15 40 13
693 0 -1 50 0 0 0 -1 75 0 0 0100 0 -1 0 0 20 0 50100 50 0 0 -1 -1 0 0 0 50 0 -1 40 40 0 0 25 82 -1 0 40100 0 0 -1 0 0 14 30 0 50 33 19 26 40 17

Teacher X_3 , Year 7, Class A

[illegible]

Teacher X_3 , Year 11, Classes C, D, E, F, G (first four objectives)

196100100 70 50 0100100 0100100100 0 50	237 0100100100 0100100 0100100 0100100	278 0 80 50100 0100100 0 0100 0 50 50
197 0100 50 -1 0100 -1100 0100 0 0 -1	238 0100100100 0 60100 0100100100 0100	279 0 80100100 0 50100 0100100 0 0100
198 40100100100 0100100 0100100 0 30 50	239 0100100100 0100100 0100100100 0100	280 0 -1100 0 0100100 0 -1 0 0 0100
199 0100100100 0 60100 0 0100 0 30100	240 0100 70100 0 30100 0100100 0 0100	281 0 80 50100 0100100 0 0100 0 0 0
200 0100 70100 0100100 0 0100 0 0100	241 0100100100 0100100 0100100100100100	282 0 40100100 0100100 0100100 0 50100
201 0 40100100 0100100 0100100 0 30100	242 0100100100 0 60100 0100100 0 30 50	283 0 80100100 0100100 0100100 0 0100
202 0 90100100 0100100 0100100 0100100	243 50100100100 0100100100100100 0 0100	284 0 80100100 0100 50 0100100 0 0100
203 0 80 70100 0100100 0100100 0 30100	244 0 60100100 0 0 50 0100 0 0 0100	285 0 80100100 0100100 0 0 0 0 0 50
204100 -1100100 0100100 0 -1100 0 60100	245 0100 80100 0100100 0100100 50 0100	286 0100100100 0100100 0100100 0 50100
205100 80100100 0100100 0100100 0 30100	246 0100100100 0 0100 0100100 0 0100	287 0100 70100 0100100 0100100 0 0 50
206 0 40100 0 0100 50100100100 0 0 0	247 0100 40100 0100100 0100100 0 0100	288 0100 70 50 0 50100 0100100 0 0100
207 0 80100100 0 60100 0100100 0 0100	248 0100100100 0 60 50 0100100 50 0100	289 0100 70100 0100100 0100100 0 0100
208 0 0100100 0100 50 0100100 0100 50	249 0100100 50 0100100 0100100 0 0100	290 0 40 50100 0100100 0100100 0 0100
209 0100100100 0100100 0100100 0 30 50	250 0100 80 0 0100 50 0100100 0 0 50	291 0 80 70100 0100100 0100100 0 0100
210000100100100 0100100 0100 0 0100100	251 0100 0100 0100100 0100100 0 0 50	292 0 -1 70100 0100100 0 -1100 0 0100
211 0100100100 0100100 0100100 0 0 50	252 0100100100 0100100 40100100 0 0 50	293 0 80 70 0 0 0 0 0100100 0 0100
212 0100100100 0100100 0100 0 0100 50	253 0 80 80100 0100100 0100100 0 0 50	294 0 40 50 50 0100100 0100100 0 0 50
213 0100 20 -1 0100 -1100 0100 0 0 -1	254 0 80100 -1 0100 -1 0100100 0 0 -1	295 0100 70100 0100100 0100100 0 0100
214100 80 50100 0 0100 0100100 0 0100	255 0100100100 20100100 0100100 0 0100	296 -1 60 50100 -1100100 -1100100 -1 0 50
215 0 80100100 0100100 0100100 50100100	256 0 0100 50 0 30100 0100100 50 0100	297 0 -1100100 0100100 0 0100 0 30 0
216100100100100 0100 50100 0100100 60 50	257 0100100 50 0 0100 0100100 0 0100	298 0 -1100100 0 0 50 0100100 0 0 0
217 80 80100 50 0100100 0100100 0 60100	258 0100100100 0100100 0100100 0 0100	299 30 -1100 50 0100100 0100100 0 30 50
218100100100100 0 60 50 0100100 0 0 0	259 0 80100100 0100100100100100 50 60 50	300 0 -1100100 0100100 0100100 0 30100
219 0 80100100 0100100 0 0 0 0 0100	26000100 80100 0100 50 0100100 0 0 50	301 0 -1100100 0100100 0100100 0100100
220 20100100100 0100100100100100 0 0 50	261 0100100100 0100100100100100 50 30100	302 0 -1100100 0100100100100100 80100100
221 0100100100 0100100 0100100 0 0100	262 0100100100 0 0100 0100100 0 0 50	303 0 -1 -1100 0 -1 0 0100 -1 0 -1 0
222 0100100 50 0100 50100100100 0 60 50	263 0 80100100 0100100 0100100 0 0 50	304 0 -1100100 0 30100 0100100 0 0 50
223 0100100 0 0 30100 0100100 50 30100	264 0 80100100 0100100 0100100 0 60100	305 0 -1100100 0 6100 0100100 50 0 50
224 0 -1100100 0 30100 0 -1100 30 0100	265 0 80 80100 0100100 0100 0 50 0100	306 0 -1100100 0100100100100100 0 30100
225 0100100100 0100100 0100100100100 50	266 0100 80 0 0100 0 0100100 0 0 0	307 0 -1100100 0100100100100100 0 0 50
226 0 80100100 0100100 0100100100 60100	267 0100100100 0100100 0100100 0 30100	308 0 -1100100 0100100100100100 20100 50
227 0100 70 50 0 0 50 0100100 0 30 50	268 -1100100100 -1 60 0 -1100 0 -1 0 50	309 0 -1100100 0 0 50 0100 0 0 0100
228 0100100100 0 60100 0 0100 0 0100	269 0100100100 0100100 0100100 0 0100	310 0 -1100100 0 8100 0100100 0 0100
229 0100 70100 0100100 0100100 0100100	270 0100100100 0 0 0 0 0 0 0 0	311 0 -1 70100 0100100 0100100100100
230 0 80 70 -1 0100 -1 0100100 0100 -1	271 0 80 50100 0100 50 0100 0 0 0	312 0 -1 0100 0100100 0100 0 0 0 0
231 0100100100 0100100100100100 0100100	272 0 80 70 -1 0100 -1 0 0100 0 0 -1	313 0 -1 70100 0 0 0 0 -1 0 0 0 0
232 0100 70100 0 60100 0100100100 0100	273 80 80100 -1 0 0 -1 0100 0 0 -1	314 0 -1 0100 0 30 50 0100100 0 0100
233 0100100100 0100100 0100100100 0100	274 0 80 70100 0 0100 0 0100 0 0 50	315 0 -1 50100 0 0100 0 -1 0 0 0 0
234 0100100100 0100100 0100 0100 0 50	275100 60 -1100 0 -1100 0100 -1 0 -1100	316 0 -1100100 0100 50100100100 0 0100
235 0 80 20100 0100100 0100100100 30100	276 0 80100100 0 0100 0100100 0 0 0	317 0 -1100100 0 30100100100100 10100100
236 0 40100100 0 0100 0100100100 0 50	277 0 60 70 50 0 50 0100 0100 0 0100	318 0 -1 -1100 0 -1 0 0100 -1 0 -1 50
		319 0 -1100100 0100100 0100100 50 0100

Teacher X_3

Year 11, Class C

196	57	0	40	0	25100	40	60	0100	0	0	0	0	20100	71	0100	71	0	50	9100					
197	42	0	90	0	-1100	60	60	30	-1	50	66	66	0	30	-1100	0	20100	25	10	50100				
198	42	60100	0	0	42	40	60	20	75	50	0	60100	40	97	57100	80	57	75	90	56	87			
199	0	0	0	0	0100	0	60	80	50100	75	50	0	75	90	0	85	20	0	85	75	10	54	0	
200	71	20	60	0	25	57	40	50	25	50	0	0	25	0	0100	0	20100	37	10	0	0	0	0	
201	100	0	80100	75	75	100	20	80	40	50100	33	50100	96	12	85	60	86	05100	76	63	12	0	0	
202	57100	80	0	62	42	30	0	30	0	0	0	33	0	60	25	85	0	0	85	0	0	36	25	
203	57	80	0	66100	42	60	60	70	75	20	03	83	0	60	0	85	60100	85	0	80	72	0	0	
204	100	40	-1	0	25	57	20	-1	50100	0	0	50	50	40	25	85	-1	-1	85	25	80	31	25	
205	42	0	0	0	50	57	80	60	60	75	0	0	33100	76100	85	40	20	85	50	30	40100	0	0	
206	42	40	0	0	0	42	40	60	20	0	16	33	0	0	0	42	0	42	0	0	13	0	0	
207	71	80100	0100100	85	80	60	20	75	25	0	33	0	50100100	40100100	12	76	31100	0	0	0	0	0	0	
208	42	0	0	0	0	28	20	60	20	12100	66	50	25	0	0	85	0	0	85	62	0	31	0	
209	05100	0	83	0	42	80100	60	75	75	0	66100	100	0	85	20	80	85	87	50	63	0	0	0	
210	100	0	0100	75	95	95100100	00100	50	16	66	75	0	87	85	60	80	95	62	70	22	87	0	0	
211	100100100	0100	83	50	71	80100	0100	50	33	66100	90100	85	60100	85	60100	85	75	80	60100	0	0	0	0	0
212	0	60	60	0	0	29	60	60	0	0	0	66	83	0	0	85	60	60	85	0	60	40	0	
213	57	0	0	0	-1	42	60	60	0	-1	0	0	0	0	-1	85	0	40	85	0	20	0	0	
214	57	0	0	0	12	42	40	40	50	75	50100100	50	20	0	85	80	20	95	50	50	63	0	0	
215	71	80	60	50100	05100100	20	37	0	33	66	0100100	85	40	60	85	0	50	72100	0	0	0	0	0	
216	57	0	0	0	87	85	80100	80100	25	0	66	50100	75	85	40100	95	37	70	63	75	0	0	0	
217	71	40	0	0	87	14	80	80	80100	50	66	50	50	80100100	80100100	50	80	60100	0	56	94	68100	0	
218	65	40	0	0	0	14	30	30	0	50	50	0	50100	10	25	71	0	60	71	75	30	18	25	
219	57	0	0	0	75	71	60	80	50	47	0	0	33	25	50	25	85100	80	85	12	90	31	25	
220	100	80	0	50	87	57	60	40	30100	0	33	33100100	100	95	40100	85	50	70	83100	0	0	0	0	
221	42	60	0	0	0	57	40	60	50100	0	0	0	75	90	0	85	0	0	85	37	0	40	0	

Teacher X_3

Year 11, Class D

Teacher X_3

Year 11, Class E

```

244 50 0 0 60 0 33 0 0 62 30 80 0 57100100 83 60 0 83100 0 0 41 80 26 73
245 50 50100100 75 66 0100100 40 80 72100100 60 50 40 50 66 00100 32 75 66 73 75
246 65 0 0100 50 33 0 0100 0 40 75100 80100100 20 12 16100100 75100 60 53 56
247 83100 60100 0 56 0100 87 20100 50 28100100 50100 0 62 80 50 50 50 90 13 93
248 50 50 20 0 75 83 50 0 75 60100 75 42 60 60 50100 37100100100 75 75100 40 75
249 0 50 60100100 0 33 20 50 0 40 75 71 20100 33 60 87 33100 0 75 16 80 80 50
250 0 0 40 60 0 50 0 0 25 0 0 0 65100 60 66 0100100100 0 0 33 50 93 87
251 16 0 0 40 0 33 0 0 50 40 0 0 57100 40 83 66 0 0100100 0 91 90 26 43
252100100100100 0 50 0100100 40 60 37100 40100100 20 0 0100100 37100 60 46 43
253 0 0 60 60 0 0 0 0100 0 0 37 57 0 60 0 60 87 0 0 37 0 30 73 10
254 66100 0 60 0 -1 0 0 50 -1 -1 75 42 -1 -1 16 40 0 -1100100 75 58 70 20 19
255 33 66 60 40 75 83 33 0 62100 60 87 0 80 80100 0100 66100100 87100 50 53 75
256 50 0 60 80 50 50 0 0 50 0100 62 71100 60 50100 0 33100100 62 75100 33 62
257100 33 60 40 0 66 0100100100100 50100 60100 66100 0 0100 66 56 66100 40 50
258 50 66 0 40 25 33 0 0 75 0 0 0 42 60 60 83 60 25 0100100 0 91 80 33 37
259100 33 40 60 0100 0 0 87 0100 75100100 60 50 60 75 0100100 75 75 80 80 50
260100 0100100 0 0 33 60 37100100 0100 0 80100100100 0100100 0100100100 25
261 66100 60100100 33 0 60100 0100 87 57 0 80100 40100 0100100 87100 70 80 25
262 33 83 20100 0 0 0 80 87 40 80 82100 40 40 50 0 0 50100100 62 75 50 46 43
263 66 66 0100 37100 0 0 87100 60 75 28 0 60 50 40100100100 65 75 50 70 66 50
264 66 83 0 80 75 33 0 80 87 0 60 62 42 0 60 50 40 0 0100 50 62 50 70 20 18
265 33 0 0100 75100 50 0 62100100 87 0 0 60 66 0 0100100100 87 83 50 0 56
266 66 0 0100 0 33 50 0 62 0 20 87100 80 60 50 40100 0100100 87 75 70100 43
267100 0 0 80 0 66 0 40100100100 50100100 80 66 0100100100100 50 83 50100 93
268 0 66 0 40 0 50 16 0100 0 20 75100 0 60100 0 25 50100100 75100 50 60 37
269 16 0 0 40 0 16 0 0 87 0 60 87 71 80 60100100100 83100 66 87 83100 80 75

```

Teacher X_3

Year 11, Class F

```

271 42 0100 0 60 75 66 57 50 0 0 25 0 20100 80 66100100100 50 66100 77 60100 75
272 57 -1 -1 0 60 37 -1 28 -1 0 10100 -1 60100 -1 -1100 33 -1 -1 -1 77 80 50 75
273 57 66 -1 0 60 37 -1 42 50 0 60 12 -1100100 -1 66100 66100 -1 50 -1 72100 75 75
274 42 50 50 0 80 37 33 28 33 0 0 62 0 60100 0 50100 33 16 75 83 0 50 80 50 25
275 0 50 0 0 60 -1 0 42 50 0 -1 -1100 40 -1 80 0100 -1 50 50 50100 32 70 50 75
276 28 33 50 0 0 75 66 42 16 0 0 25 0 40100 0 0100 83100 50 50 66 50 70 87 33
277 0 0 40 0 62100 42 50 0 0 0 0 40100 80 33100 33 0 75 50100 27 70 50 93
278 42 50 66 0 40 37 0 29 0 0 20 25 40 60100 0 0100 16 0 25 50 33 16 80 37 16
279 28 50 50 0 20 50100 42 50 40 40 0 60 40100 80100100 66 0 75 83 66 61 70 75 75
280 65 66 0 -1 -1 12 83 42 33 -1 0 0 60 -1100 30 83 -1 50100 0 50 66 77 70 62 50
281 42 33 50 0 80 25 33 28 0 0 20 12 0 0100 40 83100 66 0 75100100 61 50 75 66
282 57 0 66 0 0 25 50 28 0 0 50 37 60 40100 80 66100 66 33100 83100 61 70 75 91
283 57 83 83100100100100 42 33100 80100100100100 60 0100100 0 0100100 33100100 50
284 71100100 0100 75100 42 33 0100 75100100100 80 66100 66100100 50100 72100 75 91
285 57 33 50 0100 0 50 28 0 0 40 0 0 40100 0 33 40 66 33 56 66 44 40 75 33
286 57 50100 0 80100100 71 50 0 40 0100 0100 40 0100 66100100 50100 50 50 75 75
288 0 50 0 0 0 0 16 42 33 0 0 0 0 60100 0 33 0 16 16 0 33 0 27 30 37 0
289 42 33 50100 80 87 0 57 66 60100 12100100100 20 0100 83100 75 50100 50100 67 50
290 28 0100 0100100100 14 66 0 50 0 0 40100 40 0100 66 66 56 50100 30 70 66 50
291 20100100100 80 50100 28 83100 50 0100 40100 80 0100 66100 50 66100 55 70 75 75
292 42 0 0 -1 -1 0 33 28 0 60 50 12 40 -1 0 80 66 -1 0 50 50 63 66 66 70 66
293 20100 50 80 20 62 50 20 50 80 10 0 60 0100 60 83100 66100 50 83100 80 50 75 66
294 42 50 50 40 60 50 83 42 33 0 80 0 0 0 0 20 0100 0100 50 66 66 55 50 0 41
295 42 83 33 0100 75100 0 66 0 0 0 40 40100 0 50 60 66100 50 83 66 77 50 75 33
296 -1 -1 -1 0 20 75100 -1 -1 40 0 0 0 60100 80 -1 0 66 -1 0 -1 66 77 30 75 50

```

Teacher X_3

Year 11, Class G

```

297 57 60 66 50 16 28 40 33 20 50 0 0 66100100 75 66 0 85 85 37 33 75100
298100100 0 75 83 42100 0 70100100 75 16100 83 50 66 0 85 85 62 0 75 83
299100100 33100 0 42 50 0 0 0100 50 33100 0100 33100 85 85 75 91 50 0
300100 40 50100 0 71 40 33 0 50100 50 50100 0100 83100100100 75 75 87 0
301100100100100100 71 60100 80 0100 50 66100 0100 83100 85 85 75 83 87 0
302 85100 83 75 66 85 60 66 50 75 50 75 0100 16 75 83 50 85 85 75 25 87 16
303 71 0100 -1 0 71 20 66 -1 -1 0 25 50 -1 0 50 -1 83 85 35 37 66 87 0
304 42100 66 25 83 42 20 83 10 25100 25 0100 0 0 83 0 85 85 12 0 87 0
305 57100 0 50 0 0 80 16 10100 50 25 0100 50 75 66 50 85 85 50 25 75 50
306100 60 83 50 66 85 00 0100100 83 25 83100 0100 50 33 85 85 62 50 62 0
307 57 0 0 50 0 57 50 16 20 0 83 0 0100 50 50 0 0 85 85 25 0 25 50
308 0100 66 50 50 42 0 66 10100 16 0 33100100 0 50 50100100 0 41 62100
309 57 30 83 87 50 42 20 50100 0100 0 0100 0100 66 66 85 85 50 33 75 0
310 0 60 66 75 83 57 60 0 50 0 83 0 66100 83 50100 0 85 85 25 33100 83
311 85 60 33100 50100 40 50 30 0 83 0 83100 0 50 33100 85 85 25 91 50 0
312 0 60 66 50 83 71 20 0 0 75 66 0 50100 0 75 0 83100100 37 66 25 0
313 42100 -1 50 0 57 0 -1 20 25 0 25 -1100 0 50 33 -1100100 37 66 50 0
314 28 20 50 50 0 0 20 16 50 12 83 0 16100100 50 66 0 85 85 25 8 75100
315 42100 -1 0 0 57 40 -1 0 25 83 0 -1100 0 75100 -1 71 71 37 8100 0
316100 0 50 37 83100 60 16 20 0 0100 0100100100 83 66 85 85100 33 87100
317 85100100 50 33100100 83100 75100 0 83100100 75 66100100100 37 91 75100
318100 80 0 -1 66 57 0 0 -1 -1 0 0 0 -1 0100 -1 0 0 50 0 75 0
319 85100100 87 83 42 80 66100100100 75100100 66 25 66 0100100 50 50 75 66

```

DISTINCTION BETWEEN A AND U COMPETENCIES

The teachers' classification of questions, entered in the 22 tables (a table for each test) exemplified by the table in Figure 3 in Appendix III, were entered into the computer following the order of tests (tests were ordered according to teachers from 1 to 11). Each column corresponds to each teacher from 1 to 11 ($X_1 \dots X_{11}$) and each row corresponds to one question. The meaning of the figures +1, -1, 0 is explained in Chapter four.

1st EVALUATION

DATA FOR TEST NUMBER 1:

```

1 +1,+1,-1,+1,+1,-1,-1,-1,-1,+1
2 +1,+1,-1,+1,+1,-1,-1,-1,-1,+1
3 +1,-1,-1,-1,-1,+1,-1,-1,-1,+1
4 +1,+1,-1,-1,-1,+1,-1,-1,-1,+1
5 +1,+1,+1,+1,+1,-1,-1,-1,-1,+1
6 +1,+1,-1,-1,-1,+1,-1,-1,-1,+1
7 +1,+1,+1,+1,+1,-1,+1,-1,+1,+1
8 -1,-1,-1,-1,-1,+1,-1,-1,-1,-1
9 -1,-1,-1,-1,-1,+1,+1,-1,-1,-1
* -1,-1,-1,-1,-1,-1,-1,-1,-1,-1
1 -1,-1,-1,-1,-1,+1,-1,-1,-1,-1

```

DATA FOR TEST NUMBER 2:

```

1 +1,-1,+1,0,+1,-1,0,+1,-1,0,+1
2 -1,+1,+1,0,-1,+1,+1,0,+1,-1,-1
3 +1,-1,-1,0,-1,+1,-1,0,+1,-1,0,-1
4 +1,-1,-1,0,-1,-1,0,-1,-1,0,+1
5 -1,+1,-1,0,+1,+1,0,+1,+1,0,+1
6 +1,+1,-1,0,+1,-1,0,-1,+1,0,+1
7 +1,+1,-1,0,-1,+1,-1,0,-1,0,+1
8 -1,-1,-1,0,-1,+1,-1,0,-1,-1,0
9 +1,-1,-1,0,-1,+1,-1,0,+1,0,+1
* +1,+1,+1,0,+1,+1,-1,0,+1,0,+1
1 +1,+1,+1,0,+1,+1,0,+1,0,+1
2 -1,-1,-1,0,-1,-1,0,-1,-1,0,-1

```

DATA FOR TEST NUMBER 3:

```

1 +1,+1,+1,+1,+1,+1,-1,+1,-1,+1
2 +1,+1,+1,+1,+1,+1,+1,+1,+1,+1
3 +1,+1,+1,+1,+1,+1,+1,-1,+1,-1
4 +1,+1,+1,+1,+1,+1,+1,-1,+1,+1
5 +1,+1,+1,+1,+1,+1,+1,-1,-1,+1
6 +1,+1,+1,+1,+1,-1,-1,-1,-1,-1
7 -1,-1,-1,-1,-1,+1,-1,-1,-1,-1
8 +1,+1,+1,+1,+1,+1,+1,+1,+1,+1
9 -1,-1,-1,-1,-1,-1,-1,-1,+1,-1
* +1,-1,+1,+1,+1,+1,-1,+1,+1,-1

```

DATA FOR TEST NUMBER 4:

```

1 +1,+1,+1,0,+1,+1,+1,+1,0,+1
2 +1,+1,-1,0,-1,+1,+1,+1,0,+1
3 +1,-1,-1,0,+1,+1,+1,+1,-1,0,-1
4 +1,-1,-1,0,+1,+1,+1,+1,-1,0,-1
5 -1,-1,-1,0,-1,+1,-1,-1,-1,0,-1
6 +1,+1,-1,0,+1,+1,-1,+1,0,+1
7 +1,+1,-1,0,+1,+1,-1,+1,0,+1
8 -1,+1,+1,0,+1,+1,-1,+1,0,+1
9 +1,+1,+1,0,+1,+1,-1,+1,0,+1
* -1,-1,-1,0,+1,+1,-1,-1,-1,-1
1 -1,+1,-1,0,+1,+1,-1,+1,0,+1
2 +1,+1,-1,0,-1,+1,+1,-1,0,+1
3 -1,-1,-1,0,-1,+1,-1,-1,-1,-1
4 -1,-1,-1,0,-1,+1,-1,-1,-1,-1

```

DATA FOR TEST NUMBER 5:

```

1 +1,+1,+1,+1,+1,-1,+1,+1,+1,+1
2 -1,-1,-1,-1,-1,-1,-1,-1,-1,-1
3 +1,+1,+1,+1,+1,-1,-1,-1,-1,-1
4 -1,-1,-1,-1,-1,-1,-1,-1,-1,-1
5 +1,+1,-1,+1,+1,-1,-1,-1,-1,-1
6 +1,+1,+1,-1,+1,+1,-1,-1,-1,-1
7 +1,+1,+1,-1,+1,+1,-1,+1,-1,-1
8 +1,+1,+1,+1,-1,+1,+1,+1,+1,+1
9 +1,+1,+1,+1,-1,+1,+1,+1,+1,+1
* +1,+1,+1,+1,-1,+1,-1,-1,-1,-1
1 +1,+1,+1,+1,-1,+1,-1,-1,-1,-1
2 +1,+1,+1,+1,+1,+1,+1,+1,+1,+1
3 +1,+1,+1,+1,+1,+1,+1,+1,+1,+1
4 +1,+1,-1,+1,+1,+1,+1,-1,-1,-1
5 -1,-1,-1,-1,-1,-1,-1,-1,-1,-1
6 +1,+1,+1,+1,-1,+1,+1,-1,-1,-1
7 +1,+1,-1,+1,+1,+1,-1,-1,-1,-1
8 +1,+1,-1,+1,+1,+1,-1,+1,-1,-1
9 +1,+1,-1,+1,+1,+1,-1,+1,-1,-1
* -1,-1,-1,-1,-1,-1,-1,-1,-1,-1
1 -1,-1,-1,-1,-1,-1,-1,-1,-1,-1
2 +1,+1,+1,+1,-1,-1,-1,-1,-1,-1

```

DATA FOR TEST NUMBER 6:

```

1 +1,+1,-1,0,-1,+1,-1,0,-1,-1
2 +1,+1,+1,0,+1,+1,-1,0,-1,-1
3 +1,-1,-1,0,-1,+1,-1,0,-1,-1
4 +1,+1,-1,0,-1,+1,-1,0,-1,-1
5 +1,+1,+1,0,+1,+1,0,+1,+1,0,+1
6 +1,+1,+1,0,+1,+1,0,+1,+1,0,+1
7 +1,-1,-1,0,-1,+1,-1,0,-1,-1
8 -1,-1,-1,0,-1,+1,-1,0,-1,-1
9 +1,-1,-1,0,-1,+1,-1,0,-1,-1
* +1,+1,-1,0,+1,+1,-1,0,-1,-1
1 +1,-1,+1,0,+1,+1,-1,0,+1,-1
2 +1,+1,-1,0,+1,+1,-1,0,+1,-1
3 +1,+1,-1,0,+1,+1,-1,0,+1,-1
4 -1,+1,-1,0,-1,+1,-1,0,-1,-1
5 -1,-1,-1,0,-1,+1,-1,0,-1,-1

```

DATA FOR TEST NUMBER 7:

```

1 +1,-1,+1,+1,+1,+1,-1,+1,-1,-1
2 +1,-1,+1,+1,+1,+1,+1,-1,+1,-1
3 +1,+1,+1,+1,+1,+1,+1,+1,+1,+1
4 +1,+1,+1,+1,+1,+1,+1,+1,-1,+1
5 +1,+1,+1,+1,+1,+1,-1,+1,-1,+1
6 +1,+1,+1,+1,+1,+1,+1,+1,+1,+1
7 +1,+1,+1,+1,+1,+1,-1,+1,-1,-1
8 +1,+1,+1,+1,+1,+1,-1,+1,-1,-1
9 -1,-1,-1,-1,+1,+1,-1,-1,-1,-1
* -1,-1,-1,-1,+1,+1,-1,-1,-1,-1
1 -1,-1,-1,-1,+1,-1,-1,-1,-1,-1
2 -1,-1,-1,-1,+1,-1,-1,-1,-1,-1
3 +1,+1,+1,+1,+1,+1,-1,+1,-1,-1
4 -1,+1,-1,+1,+1,+1,-1,+1,-1,-1
5 -1,+1,-1,+1,+1,+1,-1,+1,-1,-1
6 -1,-1,-1,-1,+1,+1,-1,-1,-1,-1

```

DATA FOR TEST NUMBER 8:

```

1 +1,+1,+1,+1,+1,-1,-1,+1,+1,-1,-1
2 +1,+1,+1,+1,+1,+1,+1,+1,+1,-1
3 -1,-1,-1,-1,-1,-1,-1,-1,-1,-1
4 +1,+1,+1,+1,+1,+1,+1,+1,+1,-1
5 +1,+1,+1,+1,+1,+1,+1,+1,-1,+1
6 +1,+1,+1,+1,+1,+1,+1,+1,-1,+1
7 +1,+1,+1,+1,+1,-1,-1,-1,-1,-1
8 -1,-1,-1,-1,-1,-1,-1,-1,-1,-1
9 +1,+1,+1,+1,+1,+1,+1,+1,+1,+1
* +1,+1,+1,+1,+1,+1,+1,+1,+1,+1
1 +1,+1,+1,+1,+1,+1,+1,+1,+1,+1
2 -1,-1,-1,-1,-1,-1,-1,-1,-1,-1
3 +1,+1,+1,+1,+1,+1,+1,+1,-1,+1
4 +1,+1,+1,+1,+1,+1,+1,+1,-1,+1
5 +1,+1,+1,+1,+1,-1,+1,+1,-1,+1
6 +1,+1,+1,+1,+1,+1,+1,+1,-1,+1
7 +1,+1,+1,+1,+1,+1,+1,+1,-1,+1

```

DATA FOR TEST NUMBER 9:

```

1 -1,+1,-1,-1,-1,-1,-1,-1,-1,-1
2 +1,+1,-1,-1,-1,-1,-1,-1,-1,-1
3 +1,+1,+1,+1,+1,+1,+1,+1,+1,+1
4 +1,+1,+1,+1,+1,+1,+1,+1,-1,+1
5 -1,-1,-1,-1,-1,-1,-1,-1,-1,-1
6 -1,-1,-1,-1,-1,-1,-1,-1,-1,-1
7 +1,+1,+1,+1,+1,+1,+1,+1,+1,+1
8 +1,+1,+1,+1,+1,+1,+1,+1,+1,+1
9 -1,+1,+1,+1,+1,+1,+1,+1,-1,+1
* +1,+1,-1,-1,-1,-1,-1,-1,-1,-1
1 +1,+1,-1,+1,+1,+1,+1,+1,+1,+1
2 -1,+1,-1,+1,+1,+1,+1,+1,-1,+1
3 +1,+1,+1,+1,+1,+1,+1,+1,+1,+1
4 -1,-1,-1,-1,-1,-1,-1,-1,-1,-1

```

DATA FOR TEST NUMBER 10:

```

1 +1,+1,+1,+1,+1,+1,-1,-1,-1,-1
2 -1,-1,-1,-1,-1,-1,-1,-1,-1,-1
3 -1,-1,-1,-1,-1,+1,+1,-1,-1,-1
4 +1,+1,+1,+1,+1,+1,+1,+1,-1,-1
5 -1,-1,-1,-1,-1,-1,-1,-1,-1,-1
6 -1,-1,-1,-1,-1,-1,-1,-1,-1,-1
7 +1,+1,+1,+1,+1,+1,+1,+1,+1,+1
8 +1,+1,+1,+1,+1,+1,+1,+1,+1,+1
9 +1,+1,+1,+1,+1,+1,+1,+1,-1,+1
* +1,+1,+1,+1,+1,+1,-1,-1,-1,-1
1 +1,+1,+1,+1,+1,+1,+1,+1,-1,+1
2 +1,+1,+1,+1,+1,+1,+1,+1,-1,+1
3 -1,-1,-1,-1,-1,-1,-1,-1,-1,-1
4 -1,-1,-1,-1,-1,-1,-1,-1,-1,-1
5 -1,-1,-1,-1,-1,+1,+1,+1,+1,+1
6 +1,+1,+1,+1,+1,+1,+1,+1,+1,+1

```

DATA FOR TEST NUMBER 11:

```

1 +1,+1,+1,-1,+1,+1,-1,+1,+1,-1,0
2 +1,+1,+1,+1,+1,+1,+1,+1,+1,0
3 +1,+1,+1,+1,+1,+1,+1,+1,+1,0
4 +1,+1,+1,-1,+1,+1,+1,+1,+1,0
5 +1,+1,+1,+1,+1,+1,+1,+1,+1,0
6 +1,+1,+1,+1,+1,+1,+1,+1,+1,0
7 +1,+1,+1,+1,+1,+1,+1,+1,+1,0
8 -1,-1,-1,-1,-1,-1,-1,-1,-1,0
9 +1,+1,+1,+1,+1,+1,-1,+1,+1,0
* +1,+1,+1,+1,+1,+1,-1,+1,+1,0
1 -1,-1,-1,-1,-1,-1,-1,-1,-1,0
2 +1,+1,-1,+1,+1,-1,-1,-1,-1,0
3 +1,+1,-1,+1,+1,-1,-1,-1,-1,0
4 +1,+1,-1,+1,+1,-1,-1,-1,-1,0
5 +1,+1,-1,+1,+1,-1,-1,-1,-1,0
6 +1,+1,-1,+1,+1,-1,-1,-1,-1,0
7 -1,-1,-1,-1,-1,-1,-1,-1,-1,0
8 +1,+1,-1,+1,+1,-1,-1,-1,-1,0
9 -1,-1,-1,-1,-1,-1,-1,-1,-1,0
* -1,-1,-1,-1,-1,-1,-1,-1,-1,0

```

DATA FOR TEST NUMBER 12:

```

1 +1,+1,+1,+1,+1,+1,+1,-1,-1,+1,0
2 -1,-1,-1,-1,-1,-1,-1,-1,-1,0
3 -1,-1,-1,-1,-1,-1,-1,-1,-1,0
4 -1,-1,-1,-1,-1,-1,-1,-1,-1,0
5 +1,-1,-1,-1,-1,-1,-1,-1,-1,0
6 -1,-1,-1,-1,-1,-1,-1,-1,-1,0
7 -1,-1,-1,-1,-1,-1,-1,-1,-1,0
8 +1,+1,+1,+1,+1,+1,+1,-1,-1,0
9 +1,+1,-1,-1,+1,+1,+1,-1,-1,0
* +1,+1,+1,+1,+1,+1,+1,+1,+1,0
1 +1,+1,+1,+1,+1,+1,+1,+1,+1,0
2 +1,-1,-1,-1,-1,-1,-1,-1,-1,0
3 -1,-1,-1,-1,-1,-1,-1,-1,-1,0
4 +1,+1,+1,+1,+1,+1,+1,+1,-1,0
5 +1,+1,+1,+1,+1,+1,+1,+1,-1,0
6 +1,+1,+1,+1,+1,+1,+1,+1,-1,0

```

DATA FOR TEST NUMBER 13:

```

1 +1,-1,-1,+1,+1,-1,-1,-1,-1,-1
2 +1,-1,-1,+1,+1,-1,-1,-1,-1,-1
3 +1,-1,-1,+1,+1,-1,-1,-1,-1,-1
4 +1,+1,+1,+1,+1,+1,+1,+1,+1,+1
5 +1,+1,+1,+1,+1,+1,+1,+1,+1,+1
6 +1,-1,-1,+1,+1,+1,+1,+1,+1,+1
7 +1,+1,+1,+1,+1,+1,+1,+1,+1,+1
8 +1,+1,+1,+1,+1,+1,+1,+1,+1,+1
9 -1,-1,-1,-1,-1,-1,-1,-1,-1,-1
* -1,-1,-1,-1,-1,-1,-1,-1,-1,-1
1 -1,-1,-1,-1,-1,-1,-1,-1,-1,-1
2 +1,+1,-1,+1,+1,+1,+1,-1,-1,-1
3 +1,+1,+1,+1,+1,+1,+1,+1,+1,+1
4 +1,+1,+1,+1,+1,+1,+1,+1,+1,+1
5 -1,-1,-1,-1,-1,-1,-1,-1,-1,-1
6 +1,+1,+1,+1,+1,+1,+1,+1,+1,+1
7 +1,-1,-1,+1,+1,-1,+1,-1,-1,-1
8 +1,+1,-1,+1,+1,-1,+1,-1,-1,-1
9 +1,+1,-1,+1,+1,-1,+1,-1,-1,-1
* +1,+1,-1,+1,+1,-1,+1,-1,-1,-1
1 +1,+1,-1,+1,+1,-1,+1,-1,-1,-1
2 +1,+1,-1,+1,+1,-1,+1,-1,-1,-1

```

DATA FOR TEST NUMBER 14:

```

1 +1,+1,+1,+1,+1,+1,+1,+1,+1,+1
2 +1,+1,+1,+1,+1,+1,+1,+1,+1,+1
3 +1,+1,+1,+1,+1,+1,+1,+1,+1,+1
4 +1,+1,+1,+1,+1,+1,+1,+1,+1,+1
5 +1,-1,+1,-1,+1,+1,-1,+1,+1,+1
6 +1,+1,+1,+1,+1,+1,+1,+1,+1,+1
7 -1,+1,+1,-1,+1,+1,-1,+1,+1,+1
8 -1,+1,+1,-1,+1,+1,-1,+1,+1,+1
9 -1,-1,-1,-1,-1,-1,-1,-1,-1,-1
* -1,-1,-1,-1,-1,-1,-1,-1,-1,-1
1 -1,-1,-1,-1,-1,-1,-1,-1,-1,-1
2 -1,-1,-1,-1,-1,-1,-1,-1,-1,-1
3 +1,+1,+1,+1,+1,+1,+1,+1,+1,+1
4 +1,-1,+1,-1,+1,+1,-1,+1,+1,+1
5 +1,-1,+1,-1,+1,+1,-1,+1,+1,+1
6 +1,-1,+1,-1,+1,+1,-1,+1,+1,+1
7 +1,-1,+1,-1,+1,+1,-1,+1,+1,+1
8 -1,+1,+1,-1,+1,+1,-1,+1,+1,+1
9 +1,+1,+1,-1,+1,+1,-1,+1,+1,+1
* +1,+1,+1,-1,+1,+1,-1,+1,+1,+1
1 -1,-1,-1,-1,-1,-1,-1,-1,-1,-1

```

DATA FOR TEST NUMBER 15:

```

1 +1,+1,+1,-1,+1,+1,-1,-1,+1,+1
2 +1,+1,+1,-1,-1,-1,-1,-1,-1,-1
3 +1,+1,-1,+1,-1,-1,-1,-1,-1,-1
4 +1,-1,-1,-1,-1,-1,-1,-1,-1,-1
5 +1,+1,+1,+1,-1,+1,+1,-1,-1,-1
6 +1,+1,-1,+1,+1,-1,+1,-1,-1,-1
7 +1,-1,+1,-1,-1,+1,-1,+1,-1,-1
8 -1,-1,-1,-1,-1,-1,+1,+1,+1,+1

```

DATA FOR TEST NUMBER 16:

```

1 -1,+1,+1,+1,+1,+1,+1,-1,+1,+1
2 +1,+1,+1,+1,+1,+1,+1,-1,+1,+1
3 -1,-1,-1,-1,-1,-1,-1,-1,-1,-1
4 +1,+1,+1,+1,+1,+1,+1,-1,-1,-1
5 +1,+1,+1,-1,+1,-1,+1,+1,+1,+1
6 +1,+1,+1,+1,+1,+1,+1,+1,+1,+1
7 +1,-1,+1,-1,-1,+1,-1,-1,-1,-1
8 +1,+1,+1,+1,+1,+1,+1,-1,+1,+1

```

DATA FOR TEST NUMBER 17:

```

1 +1,+1,+1,0,-1,+0,+1,-1,+1,+1
2 -1,-1,+1,0,+1,+0,+1,-1,-1,0,+1
3 -1,-1,+1,0,+1,+0,+1,-1,-1,0,+1
4 -1,-1,+1,0,-1,+0,+1,-1,-1,0,+1
5 +1,+1,+1,0,+1,+0,+1,-1,-1,0,+1
6 +1,+1,-1,0,+1,+0,-1,-1,-1,0,-1
7 -1,-1,-1,0,-1,+0,-1,-1,-1,0,-1
8 -1,-1,-1,0,-1,+0,-1,-1,-1,0,-1

```

DATA FOR TEST NUMBER 18:

```

1 +1,-1,+1,0,+1,-1,-1,0,+1,-1,0,+1
2 +1,-1,-1,0,+1,-1,-1,0,+1,-1,0,+1
3 +1,-1,-1,0,-1,-1,0,+1,-1,0,+1
4 +1,+1,+1,0,+1,+1,+1,0,+1,+1,0,+1
5 +1,-1,-1,0,-1,+1,0,+1,-1,0,+1
6 +1,+1,+1,0,+1,+1,+1,0,+1,-1,0,+1
7 +1,+1,+1,0,+1,+1,0,+1,-1,0,+1
8 -1,-1,-1,0,-1,-1,0,-1,-1,0,-1
9 +1,-1,-1,0,-1,-1,0,-1,-1,0,+1
* +1,+1,+1,0,+1,-1,-1,0,+1,-1,0,+1
1 -1,-1,-1,0,-1,-1,0,-1,-1,0,-1
2 +1,+1,+1,0,+1,-1,-1,0,+1,-1,0,+1
3 +1,+1,+1,0,+1,+1,+1,0,+1,+1,0,+1
4 +1,-1,+1,0,-1,+1,+1,0,+1,-1,0,+1
5 +1,+1,+1,0,-1,+1,+1,0,+1,-1,0,+1
6 +1,+1,+1,0,-1,+1,+1,0,+1,-1,0,+1
7 +1,+1,+1,0,-1,+1,+1,0,+1,-1,0,+1
8 +1,+1,+1,0,+1,+1,+1,0,+1,-1,0,+1

```

DATA FOR TEST NUMBER 19:

```

1 +1,+1,+1,+1,-1,-1,+1,-1,-1,-1
2 +1,+1,+1,+1,+1,-1,-1,+1,+1,+1
3 +1,+1,+1,-1,+1,-1,+1,+1,-1,+1
4 -1,-1,-1,-1,-1,-1,-1,-1,-1,-1
5 +1,+1,+1,+1,+1,+1,+1,+1,-1,+1
6 +1,+1,+1,+1,+1,+1,+1,+1,-1,+1
7 +1,+1,+1,+1,+1,+1,+1,+1,-1,+1
8 -1,-1,-1,-1,-1,-1,-1,-1,-1,-1
9 +1,-1,-1,-1,-1,-1,-1,+1,-1,+1
* +1,-1,-1,-1,-1,-1,-1,+1,-1,+1
1 +1,+1,+1,+1,-1,+1,+1,-1,-1,+1
2 +1,+1,+1,+1,-1,+1,+1,-1,-1,+1
3 +1,+1,-1,-1,+1,-1,-1,+1,-1,-1
4 +1,+1,+1,+1,+1,+1,+1,+1,+1,+1

```

DATA FOR TEST NUMBER 20:

```

1 +1,+1,+1,+1,+1,+1,-1,+1,-1,+1
2 +1,-1,-1,-1,+1,+1,-1,-1,-1,+1
3 -1,+1,-1,-1,-1,+1,-1,-1,-1,+1
4 +1,+1,+1,+1,+1,+1,-1,+1,+1,+1
5 +1,-1,-1,-1,-1,+1,-1,+1,-1,+1
6 +1,+1,+1,+1,+1,+1,-1,+1,+1,+1
7 -1,-1,-1,-1,-1,-1,-1,-1,-1,-1
8 +1,+1,+1,-1,-1,-1,-1,+1,-1,-1
9 +1,+1,+1,-1,+1,-1,-1,-1,-1,-1
* +1,+1,+1,-1,-1,-1,-1,+1,-1,-1
1 +1,+1,+1,-1,+1,-1,-1,-1,-1,-1
2 +1,+1,+1,-1,-1,-1,-1,-1,-1,-1
3 +1,+1,+1,+1,-1,-1,+1,-1,-1,-1
4 -1,+1,+1,-1,-1,-1,-1,-1,-1,-1
5 +1,-1,-1,-1,-1,-1,-1,-1,-1,-1
6 -1,-1,-1,-1,-1,-1,-1,-1,-1,-1

```

DATA FOR TEST NUMBER 21:

```

1 +1,+1,+1,-1,+1,+1,+1,+1,+1,+1
2 +1,+1,+1,+1,+1,+1,+1,-1,-1,+1
3 -1,-1,-1,-1,+1,-1,-1,-1,-1,-1
4 +1,+1,+1,+1,+1,+1,+1,-1,-1,+1
5 +1,+1,+1,+1,+1,+1,+1,-1,-1,+1
6 +1,+1,+1,+1,+1,+1,+1,-1,-1,+1
7 +1,+1,+1,+1,+1,+1,+1,-1,-1,+1
8 +1,+1,+1,+1,+1,+1,+1,-1,-1,+1
9 +1,-1,-1,-1,+1,+1,-1,+1,+1,+1
* +1,+1,+1,-1,-1,+1,-1,-1,-1,+1

```

DATA FOR TEST NUMBER 22:

```

1 +1,+1,-1,-1,+1,+1,-1,+1,-1,-1
2 +1,+1,-1,-1,+1,-1,-1,-1,-1,-1
3 +1,+1,+1,+1,+1,+1,+1,+1,-1,-1
4 +1,-1,+1,+1,+1,+1,+1,+1,+1,+1
5 -1,-1,-1,-1,-1,+1,+1,-1,-1,+1
6 -1,-1,-1,-1,-1,-1,-1,-1,-1,+1
7 +1,+1,-1,-1,+1,+1,-1,-1,-1,+1
8 +1,+1,+1,+1,+1,+1,+1,+1,-1,-1
* +1,+1,+1,-1,+1,+1,+1,+1,+1,+1

```

2nd EVALUATION

DATA FOR TEST NUMBER 1:

```

1 +1,+1,+1,+1,+1,+1,+1,+1,+1,+1
2 -1,-1,+1,-1,-1,+1,-1,-1,+1,-1
3 +1,-1,+1,+1,+1,+1,-1,-1,-1,-1
4 -1,-1,-1,-1,-1,-1,-1,-1,-1,-1
5 +1,+1,+1,-1,-1,+1,-1,+1,+1,+1
6 +1,+1,+1,+1,+1,+1,+1,+1,+1,+1
7 +1,+1,+1,+1,+1,+1,+1,+1,+1,+1
8 +1,-1,-1,-1,+1,-1,-1,-1,-1,+1
9 +1,-1,-1,-1,+1,-1,-1,-1,-1,+1
* -1,-1,-1,-1,-1,-1,-1,-1,-1,-1
1 -1,-1,-1,+1,-1,-1,-1,-1,-1,-1
2 +1,+1,-1,-1,+1,+1,-1,-1,-1,-1
3 -1,+1,-1,-1,+1,+1,-1,-1,-1,-1
4 -1,+1,-1,-1,-1,+1,+1,-1,-1,-1
5 -1,+1,-1,-1,-1,+1,-1,-1,-1,-1
6 -1,+1,-1,-1,-1,-1,-1,-1,-1,-1

```

DATA FOR TEST NUMBER 2:

```

1 -1,+1,-1,0,+1,+1,-1,0,+1,-1,0,-1
2 -1,+1,-1,0,+1,-1,-1,0,-1,0,-1
3 -1,+1,-1,0,+1,-1,-1,0,-1,0,-1
4 +1,+1,+1,0,-1,+1,+1,0,+1,+1,0,+1
5 +1,+1,+1,0,-1,+1,+1,0,+1,+1,0,+1
6 -1,-1,-1,0,+1,-1,-1,0,-1,+1,0,-1
7 -1,-1,-1,0,-1,-1,+1,0,-1,-1,0,-1
8 -1,-1,-1,0,+1,-1,+1,0,-1,-1,0,-1
9 +1,+1,+1,0,+1,+1,+1,0,+1,+1,0,+1
* +1,+1,+1,0,+1,+1,+1,0,+1,+1,0,+1
1 +1,-1,+1,0,-1,+1,+1,0,+1,+1,0,+1
2 +1,-1,-1,0,+1,-1,+1,0,+1,-1,0,+1
3 +1,-1,-1,0,-1,-1,+1,0,+1,-1,0,+1
4 -1,-1,-1,0,-1,-1,+1,0,-1,-1,0,-1

```

DATA FOR TEST NUMBER 3:

```

1 +1,+1,+1,+1,+1,+1,+1,+1,+1,+1
2 +1,+1,+1,+1,+1,+1,-1,-1,-1,+1
3 +1,-1,+1,+1,-1,+1,+1,+1,+1,+1
4 -1,-1,+1,+1,-1,+1,-1,-1,-1,-1
5 -1,-1,-1,+1,-1,-1,-1,-1,-1,-1
6 +1,+1,+1,+1,+1,+1,+1,+1,+1,+1
7 +1,+1,+1,+1,+1,+1,-1,-1,-1,-1
8 -1,-1,-1,-1,-1,-1,-1,-1,-1,-1
9 -1,-1,-1,-1,-1,-1,-1,-1,-1,-1
* -1,-1,-1,-1,-1,+1,+1,-1,-1,-1
1 -1,-1,-1,-1,-1,-1,-1,-1,-1,-1
2 +1,+1,+1,+1,+1,+1,+1,+1,+1,+1
3 -1,-1,-1,-1,-1,-1,-1,-1,-1,-1
4 -1,-1,-1,-1,-1,-1,-1,-1,-1,-1
5 -1,-1,-1,-1,-1,-1,-1,-1,-1,-1
6 +1,+1,+1,+1,+1,+1,+1,+1,+1,+1
7 +1,+1,+1,+1,+1,+1,+1,+1,+1,+1
8 +1,+1,+1,+1,+1,+1,+1,+1,+1,+1
9 -1,-1,-1,-1,-1,-1,-1,-1,+1,-1
* -1,-1,+1,+1,+1,+1,-1,+1,+1,-1

```

DATA FOR TEST NUMBER 4:

```

1 +1,-1,-1,0,+1,0,-1,+1,-1,+1,0,-1
2 +1,+1,-1,0,+1,0,+1,+1,+1,+1,0,+1
3 +1,+1,+1,0,+1,0,+1,+1,+1,+1,0,+1
4 +1,+1,+1,0,+1,0,+1,+1,+1,+1,0,+1
5 +1,+1,-1,0,-1,0,+1,-1,+1,+1,0,+1
6 -1,-1,-1,0,+1,0,+1,-1,-1,0,+1,+1
7 -1,-1,-1,0,+1,0,+1,-1,-1,0,+1,+1
8 -1,-1,-1,0,+1,0,+1,-1,-1,0,+1,+1
9 -1,-1,-1,0,-1,0,-1,-1,-1,0,-1,+1
* +1,+1,-1,0,+1,0,+1,-1,+1,+1,0,+1
1 +1,-1,-1,0,-1,0,-1,+1,-1,0,-1,+1
2 +1,+1,+1,0,+1,0,+1,+1,+1,+1,0,+1
3 -1,+1,-1,0,+1,0,-1,-1,-1,0,-1,+1
4 -1,-1,-1,0,-1,0,-1,-1,-1,0,-1,+1
5 +1,-1,-1,0,-1,0,-1,-1,-1,0,-1,+1
6 +1,+1,+1,0,+1,0,+1,+1,+1,+1,0,+1
7 +1,+1,+1,0,+1,0,+1,+1,+1,+1,0,+1

```

DATA FOR TEST NUMBER 5:

```

1 +1,-1,-1,-1,+1,-1,-1,-1,-1,+1,+1
2 +1,-1,-1,-1,-1,-1,-1,-1,-1,+1,+1
3 -1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1
4 -1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1
5 +1,-1,+1,+1,+1,+1,+1,+1,-1,+1,+1
6 +1,+1,+1,+1,+1,+1,+1,+1,+1,+1
7 +1,+1,+1,+1,+1,+1,+1,+1,+1,+1
8 +1,+1,+1,+1,+1,+1,+1,+1,+1,+1
9 +1,-1,+1,+1,+1,+1,+1,+1,-1,+1,+1
* +1,-1,+1,+1,+1,+1,+1,+1,-1,+1,+1
1 +1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1
2 -1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1
3 +1,+1,+1,+1,+1,+1,+1,+1,+1,+1
4 +1,+1,+1,+1,+1,+1,+1,+1,+1,+1

```

DATA FOR TEST NUMBER 6:

```

1 +1,+1,+1,0,+1,0,-1,0,+1,-1,0,+1
2 +1,+1,+1,0,+1,0,-1,0,+1,-1,0,+1
3 +1,+1,+1,0,+1,0,-1,0,+1,-1,0,+1
4 +1,+1,+1,0,-1,0,+1,0,+1,-1,0,+1
5 +1,+1,+1,0,+1,0,+1,0,+1,-1,0,+1
6 -1,-1,-1,0,+1,0,+1,0,+1,-1,0,+1
7 +1,+1,+1,0,+1,0,+1,0,+1,-1,0,+1
8 +1,+1,+1,0,-1,0,+1,0,+1,-1,0,+1
9 +1,+1,+1,0,+1,0,+1,0,+1,-1,0,+1
* +1,+1,+1,0,+1,0,+1,0,+1,-1,0,+1
1 -1,-1,-1,0,-1,0,-1,0,-1,-1,0,-1
2 -1,-1,-1,0,-1,0,-1,0,-1,-1,0,-1
3 -1,-1,-1,0,-1,0,-1,0,-1,-1,0,-1
4 -1,-1,-1,0,-1,0,-1,0,-1,-1,0,-1
5 +1,-1,-1,0,+1,0,+1,0,-1,-1,0,+1
6 +1,-1,-1,0,+1,0,+1,0,-1,-1,0,+1
7 +1,-1,-1,0,+1,0,+1,0,-1,-1,0,+1
8 +1,-1,-1,0,+1,0,+1,0,-1,-1,0,+1
9 +1,-1,-1,0,+1,0,+1,0,-1,-1,0,+1
* -1,-1,-1,0,-1,0,-1,0,-1,-1,0,-1

```

DATA FOR TEST NUMBER 7:

```

1 +1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1
2 +1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1
3 -1,+1,-1,-1,-1,-1,+1,+1,+1,-1,-1
4 -1,+1,-1,-1,-1,-1,+1,+1,+1,-1,-1
5 +1,-1,+1,+1,+1,+1,+1,+1,-1,+1,+1
6 +1,+1,+1,+1,+1,+1,+1,+1,+1,+1
7 +1,+1,+1,+1,+1,+1,+1,+1,+1,+1
8 +1,+1,+1,+1,+1,+1,+1,+1,-1,+1,+1
9 +1,+1,+1,+1,+1,+1,+1,+1,-1,+1,+1
* +1,+1,+1,+1,+1,+1,+1,+1,-1,+1,+1
1 +1,+1,+1,+1,+1,+1,+1,+1,-1,+1,+1
2 +1,-1,-1,+1,+1,+1,-1,-1,-1,+1,+1
3 +1,-1,-1,+1,-1,-1,-1,-1,-1,+1,+1
4 +1,+1,-1,+1,-1,-1,-1,-1,-1,+1,+1
5 +1,+1,-1,+1,-1,-1,-1,-1,-1,+1,+1
6 +1,+1,-1,+1,-1,-1,-1,-1,-1,+1,+1
7 +1,+1,-1,+1,-1,-1,-1,-1,-1,+1,+1
8 -1,-1,-1,+1,-1,-1,-1,-1,-1,+1,+1
9 +1,-1,-1,+1,-1,-1,-1,-1,-1,+1,+1
* +1,-1,-1,+1,-1,-1,-1,-1,-1,+1,+1

```

DATA FOR TEST NUMBER 8:

```

1 +1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1
2 +1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1
3 -1,+1,-1,-1,-1,-1,+1,+1,+1,-1,-1
4 -1,+1,-1,-1,-1,-1,+1,+1,+1,-1,-1
5 +1,-1,-1,+1,+1,+1,+1,+1,-1,+1,+1
6 +1,+1,+1,+1,+1,+1,+1,+1,+1,+1
7 +1,+1,+1,+1,+1,+1,+1,+1,+1,+1
8 +1,+1,+1,+1,+1,+1,+1,+1,-1,+1,+1
9 +1,+1,+1,+1,+1,+1,+1,+1,-1,+1,+1
* +1,+1,+1,+1,+1,+1,+1,+1,-1,+1,+1
1 +1,+1,+1,+1,+1,+1,+1,+1,-1,+1,+1
2 +1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1
3 -1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1
4 +1,+1,-1,+1,+1,+1,+1,+1,-1,+1,+1
5 +1,+1,-1,+1,+1,+1,+1,+1,-1,+1,+1
6 +1,+1,-1,+1,+1,+1,+1,+1,-1,+1,+1
7 +1,+1,-1,+1,+1,+1,+1,+1,-1,+1,+1
8 +1,+1,-1,+1,+1,+1,+1,+1,-1,+1,+1
9 +1,+1,-1,+1,+1,+1,+1,+1,-1,+1,+1
* +1,+1,-1,+1,+1,+1,+1,+1,-1,+1,+1

```

DATA FOR TEST NUMBER 9:

```

1 +1,+1,+1,-1,+1,+1,+1,+1,+1,+1
2 +1,+1,+1,-1,+1,+1,+1,+1,-1,+1,+1
3 -1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1
4 +1,+1,+1,-1,+1,+1,+1,+1,-1,+1,+1
5 +1,+1,+1,-1,+1,+1,+1,+1,-1,+1,+1
6 +1,+1,+1,-1,+1,+1,+1,+1,-1,+1,+1
7 +1,+1,+1,-1,+1,+1,+1,+1,-1,+1,+1
8 +1,+1,+1,-1,+1,+1,+1,+1,-1,+1,+1
9 +1,+1,+1,-1,+1,+1,+1,+1,-1,+1,+1
* +1,+1,+1,-1,+1,+1,+1,+1,-1,+1,+1
1 +1,+1,+1,-1,+1,+1,+1,+1,-1,+1,+1
2 -1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1
3 -1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1
4 +1,-1,+1,+1,+1,+1,+1,+1,-1,+1,+1
5 +1,-1,+1,+1,+1,+1,+1,+1,-1,+1,+1
6 +1,-1,+1,+1,+1,+1,+1,+1,-1,+1,+1
7 +1,-1,+1,+1,+1,+1,+1,+1,-1,+1,+1
8 +1,-1,+1,+1,+1,+1,+1,+1,-1,+1,+1
9 +1,-1,+1,+1,+1,+1,+1,+1,-1,+1,+1
* +1,-1,+1,+1,+1,+1,+1,+1,-1,+1,+1

```


DATA FOR TEST NUMBER 10:

[illegible]

DATA FOR TEST NUMBER

1	-1,-1,-1,-1,-1,-1,-1,-1,-1,-1
2	+1,+1,+1,+1,+1,+1,+1,+1,+1,+1
3	+1,+1,+1,+1,+1,+1,+1,+1,+1,+1
4	-1,-1,-1,-1,-1,-1,-1,-1,-1,-1
5	+1,+1,+1,+1,+1,+1,+1,+1,+1,+1
6	-1,-1,-1,-1,-1,-1,-1,-1,-1,-1
7	+1,+1,+1,+1,+1,+1,+1,+1,+1,+1
8	-1,-1,-1,-1,-1,-1,-1,-1,-1,-1
9	+1,+1,+1,+1,+1,+1,+1,+1,+1,+1
*	-1,-1,-1,-1,-1,-1,-1,-1,-1,-1
1	+1,+1,+1,+1,+1,+1,+1,+1,+1,+1
2	-1,-1,-1,-1,-1,-1,-1,-1,-1,-1
3	+1,+1,+1,+1,+1,+1,+1,+1,+1,+1
4	-1,-1,-1,-1,-1,-1,-1,-1,-1,-1
5	+1,+1,+1,+1,+1,+1,+1,+1,+1,+1
6	-1,-1,-1,-1,-1,-1,-1,-1,-1,-1
7	+1,+1,+1,+1,+1,+1,+1,+1,+1,+1

DATA FOR TEST NUMBER 12:

1	-1	-1	-1	-1	-1	-1	-1	-1	-1
2	-1	-1	-1	-1	-1	-1	-1	-1	-1
3	-1	-1	-1	-1	-1	-1	-1	-1	-1
4	-1	-1	-1	-1	-1	-1	-1	-1	-1
5	+1	+1	+1	+1	+1	+1	+1	+1	+1
6	+1	+1	+1	+1	+1	+1	+1	+1	+1
7	-1	-1	-1	-1	-1	-1	-1	-1	-1
8	-1	-1	-1	-1	-1	-1	-1	-1	-1
9	+1	+1	+1	+1	+1	+1	+1	+1	+1
*	-1	-1	-1	-1	-1	-1	-1	-1	-1
1	-1	-1	-1	-1	-1	-1	-1	-1	-1
2	-1	-1	-1	-1	-1	-1	-1	-1	-1
3	+1	+1	+1	+1	+1	+1	+1	+1	+1
4	-1	-1	-1	-1	-1	-1	-1	-1	-1
5	+1	+1	+1	+1	+1	+1	+1	+1	+1
6	+1	+1	+1	+1	+1	+1	+1	+1	+1
7	+1	+1	+1	+1	+1	+1	+1	+1	+1
8	+1	+1	-1	-1	+1	+1	+1	+1	+1

DATA FOR TEST NUMBER 13

[illegible]

DATA FOR TEST NUMBER 14:

1	+1,+1,+1,+1,+1,+1,+1,+1,+1,+1,
2	+1,-1,-1,-1,-1,-1,-1,-1,-1,-1,
3	+1,+1,+1,+1,+1,+1,+1,+1,+1,+1,
4	+1,+1,+1,+1,+1,+1,+1,+1,+1,+1,
5	+1,+1,+1,+1,+1,+1,+1,+1,+1,+1,
6	+1,-1,-1,-1,-1,-1,-1,-1,-1,-1,
7	+1,-1,-1,-1,-1,-1,-1,-1,-1,-1,
8	+1,+1,+1,+1,+1,+1,+1,+1,+1,+1,
9	+1,+1,+1,+1,+1,+1,+1,+1,+1,+1,
*	+1,+1,+1,+1,+1,+1,+1,+1,+1,+1,
1	+1,+1,+1,+1,+1,+1,+1,-1,-1,+1,
2	+1,-1,-1,-1,-1,-1,-1,-1,+1,+1,
3	+1,-1,-1,-1,-1,+1,+1,+1,-1,+1,
4	+1,-1,-1,-1,-1,+1,+1,-1,-1,+1,
5	-1,-1,-1,-1,-1,-1,-1,-1,-1,-1,
6	-1,-1,+1,+1,-1,-1,-1,-1,-1,-1,
7	-1,+1,+1,+1,-1,-1,-1,-1,+1,-1,
8	-1,-1,-1,+1,-1,-1,-1,-1,-1,-1,
9	-1,-1,-1,-1,-1,-1,-1,-1,-1,-1,
*	-1,-1,-1,-1,-1,-1,-1,-1,-1,-1,
1	-1,-1,-1,-1,-1,-1,-1,-1,-1,-1,

DATA FOR TEST NUMBER 15:

1	-1	+1	+1	-1	+1	+1	-1	+1	+1	+1
2	-1	-1	-1	+1	-1	-1	-1	-1	-1	-1
3	+1	+1	+1	+1	+1	+1	+1	+1	+1	+1
4	+1	+1	+1	+1	+1	+1	+1	+1	+1	+1
5	+1	-1	-1	+1	+1	+1	-1	-1	-1	-1
6	-1	+1	-1	-1	-1	-1	-1	-1	-1	-1
7	+1	-1	-1	-1	+1	+1	+1	-1	-1	-1
8	-1	+1	-1	-1	-1	-1	-1	-1	-1	-1
9	+1	+1	+1	-1	+1	+1	+1	+1	+1	+1
*	+1	+1	+1	+1	+1	+1	-1	-1	-1	-1
1	-1	+1	+1	-1	+1	+1	+1	+1	+1	+1

DATA FOR TEST NUMBER 16:

1	+1	+1	-1	-1	+1	+1	+1	-1	+1	-1	-1
2	+1	-1	+1	+1	+1	-1	-1	+1	-1	+1	-1
3	+1	-1	+1	+1	+1	-1	-1	-1	+1	+1	-1
4	-1	-1	+1	+1	+1	+1	-1	+1	+1	+1	+1
5	-1	-1	+1	+1	-1	+1	+1	+1	+1	+1	+1
6	+1	+1	+1	+1	+1	+1	+1	+1	+1	+1	+1
7	+1	+1	+1	+1	+1	+1	+1	+1	+1	+1	+1
8	+1	+1	+1	+1	+1	+1	+1	+1	+1	+1	+1
9	+1	+1	+1	+1	+1	+1	-1	+1	+1	+1	+1
*	-1	-1	-1	-1	+1	+1	-1	-1	+1	+1	-1
1	+1	+1	+1	+1	+1	+1	+1	-1	+1	+1	+1

DATA FOR TEST NUMBER 17:

1	+1	+1	+1	0	+1	8	+1	+1	+1	8	+1
2	+1	+1	+1	0	-1	0	0	0	0	0	0
3	+1	+1	+1	0	-1	0	+1	-1	-1	0	-1
4	-1	-1	-1	0	-1	0	-1	-1	-1	0	-1
5	-1	-1	-1	0	-1	0	-1	-1	-1	0	-1
6	-1	-1	-1	0	-1	0	-1	-1	-1	0	-1
7	+1	+1	+1	0	-1	0	-1	-1	-1	0	-1
8	-1	-1	-1	0	-1	0	-1	-1	-1	0	-1
9	+1	+1	+1	0	-1	0	-1	-1	-1	0	-1
*	-1	-1	-1	0	0	1	0	-1	+1	+1	0
1	+1	+1	+1	0	+1	0	+1	+1	+1	0	+1
2	+1	+1	+1	0	+1	0	+1	+1	+1	0	+1
3	+1	+1	+1	0	+1	0	+1	+1	+1	0	+1
4	-1	-1	-1	0	+1	0	-1	-1	-1	0	+1

DATA FOR TEST NUMBER 18:

1	+1	+1	+1	0	+1	+1	+1	0	+1	+1	0	+1
2	+1	+1	+1	0	+1	+1	+1	0	+1	+1	0	+1
3	+1	+1	+1	0	+1	+1	+1	0	+1	+1	0	+1
4	+1	+1	+1	0	+1	+1	+1	0	+1	+1	0	+1
5	+1	+1	+1	0	+1	+1	+1	0	+1	+1	0	+1
6	+1	+1	+1	0	+1	+1	+1	0	+1	+1	0	+1
7	+1	+1	+1	0	+1	+1	+1	0	+1	+1	0	+1
8	+1	+1	+1	0	+1	+1	+1	0	+1	+1	0	+1
9	+1	+1	+1	0	+1	+1	+1	0	+1	+1	0	+1
*	+1	+1	+1	0	+1	+1	+1	0	+1	+1	0	+1
1	-1	-1	-1	0	-1	-1	-1	0	-1	-1	0	-1
2	-1	-1	-1	0	-1	-1	-1	0	-1	-1	0	-1
3	-1	-1	-1	0	-1	-1	-1	0	-1	-1	0	-1
4	-1	-1	-1	0	-1	-1	-1	0	-1	-1	0	-1

DATA FOR TEST NUMBER 19:

1	-1,-1,-1,-1,-1,-1,-1,-1,-1,-1,
2	+1,-1,-1,+1,-1,-1,-1,-1,-1,-1,
3	-1,-1,-1,-1,-1,-1,-1,+1,-1,-1,
4	+1,-1,-1,-1,-1,-1,-1,+1,-1,-1,
5	-1,-1,-1,-1,-1,-1,-1,-1,-1,-1,
6	-1,-1,-1,-1,-1,-1,-1,-1,-1,-1,
7	+1,+1,+1,+1,+1,+1,+1,+1,+1,+1,
8	+1,+1,+1,+1,+1,+1,+1,+1,+1,+1,
9	+1,+1,+1,+1,+1,+1,+1,+1,+1,+1,
*	+1,+1,+1,-1,-1,-1,-1,+1,+1,+1,
1	+1,+1,+1,+1,+1,+1,+1,+1,+1,+1,
2	+1,+1,+1,-1,-1,-1,+1,+1,+1,+1,
3	+1,+1,+1,-1,-1,-1,+1,+1,+1,+1,
4	+1,+1,+1,+1,+1,+1,+1,+1,+1,+1,
5	+1,+1,+1,+1,+1,+1,+1,+1,+1,+1,
6	+1,+1,+1,+1,+1,+1,+1,+1,-1,+1,

DATA FOR TEST NUMBER 20:

1	-1	-1	-1	-1	-1	-1	-1	-1	-1
2	-1	-1	-1	-1	-1	-1	-1	-1	-1
3	+1	-1	+1	-1	+1	-1	+1	-1	+1
4	+1	+1	+1	+1	+1	+1	+1	+1	+1
5	+1	+1	+1	+1	+1	+1	+1	+1	+1
6	+1	+1	+1	+1	+1	+1	+1	+1	+1
7	-1	-1	-1	-1	-1	-1	-1	-1	-1
8	+1	+1	+1	+1	+1	+1	+1	+1	+1
9	+1	+1	+1	+1	+1	+1	+1	+1	+1
*	+1	+1	+1	-1	+1	+1	+1	+1	+1
1	+1	+1	+1	+1	+1	+1	+1	+1	+1
2	+1	+1	+1	+1	+1	+1	+1	+1	+1
3	+1	+1	+1	+1	+1	+1	-1	-1	-1
4	+1	+1	-1	-1	+1	+1	-1	-1	+1
5	+1	-1	-1	+1	+1	+1	-1	-1	+1
6	+1	-1	+1	+1	+1	+1	-1	-1	+1

DATA FOR TEST NUMBER 21:

DNA FOR	TEST NUMBER 21:
1	-1,-1,-1,-1,-1,+1,+1,-1,-1,-1,-1,
2	+1,-1,-1,-1,-1,+1,+1,-1,-1,-1,-1,
3	+1,+1,+1,+1,+1,+1,+1,+1,+1,+1,+1,
4	+1,+1,+1,+1,+1,+1,+1,+1,+1,+1,+1,
5	+1,+1,-1,+1,-1,+1,+1,-1,+1,-1,-1,
6	+1,+1,+1,+1,-1,+1,+1,+1,+1,+1,-1,
7	-1,-1,+1,+1,+1,-1,-1,-1,-1,-1,-1,
8	-1,-1,+1,+1,-1,+1,+1,-1,+1,+1,+1,
9	+1,-1,+1,+1,+1,+1,+1,+1,+1,+1,+1,
*	+1,+1,+1,-1,+1,-1,+1,+1,+1,+1,+1,

DATA FDP TEST NUMBER 22:

1	+1,+1,+1,+1,+1,+1,+1,+1,+1,+1,
2	+1,+1,+1,+1,+1,+1,+1,+1,+1,+1,
3	+1,+1,+1,+1,+1,+1,+1,+1,+1,+1,
4	+1,+1,+1,+1,+1,+1,+1,+1,+1,+1,
5	+1,+1,+1,+1,+1,+1,+1,+1,+1,+1,
6	-1,-1,-1,-1,-1,-1,-1,-1,-1,-1,
7	-1,-1,-1,-1,-1,-1,-1,-1,-1,-1,
8	+1,+1,-1,-1,-1,-1,+1,+1,+1,+1,
9	-1,-1,-1,-1,+1,+1,-1,-1,-1,-1,
*	-1,-1,-1,-1,-1,-1,-1,-1,-1,-1,
1	+1,-1,-1,+1,-1,-1,-1,-1,-1,-1,
2	+1,-1,-1,+1,-1,-1,-1,-1,-1,-1,
3	+1,+1,+1,+1,+1,+1,+1,+1,+1,+1,
4	-1,+1,+1,+1,+1,+1,+1,-1,+1,+1,
5	-1,-1,-1,+1,-1,-1,-1,-1,-1,-1,
6	-1,+1,-1,-1,+1,+1,+1,-1,+1,+1,

MARKING OF PUPILS ANSWERS TO QUESTIONS OF *A* AND *U* COMPETENCIES

The scores, entered in the 29 tables (a table for each test) exemplified by the table in Figure 5 of Appendix III, were entered into the computer following the order of tests (tests were ordered according to teachers from 1 to 11). Scores for Acquisition and Use were separated and therefore for each test there are 16 *A* answers and 16 *U* answers. Each column corresponds to each teacher from 1 to 11 ($X_1 \dots Z_4$) and each row corresponds to one answer. Marks were changed to a 0-100 scale.

ACQUISITION

100		100	100	100	
50		25	0	100	
100		25	100	100	
33		0	0	0	
0				50	
33		15	0	0	
0		0	20	0	
50		25	20	50	
63		100	0	100	
100		100	80	100	
25		50	20	50	
75		100	80	100	
75		75	80	100	
100		100	100	100	
25		0	0	50	
63		75	30	70	
100				100	
63				100	
75				100	
75				70	
100				100	
0				0	
63				80	
0				0	
33				70	
100				70	
50				80	
0				0	
0				0	
100				100	
50				70	
33				40	
100				50	
0				0	
100				50	
0				30	
0				0	
80				38	
100				70	
63				100	
0				40	
100				100	
25				40	
100				100	
63				50	
38				40	
38				80	
44				50	
56				50	
78				50	
100				100	
44				70	
56				50	
78				30	
100				100	
0				20	
100				50	
100				50	
0				0	
75				100	
75				0	
25				50	
0				0	
---	100	80	---	100	40
---	75	80	---	100	70
---	50	60	---	100	80
---	100	100	---	100	80
---	63	40	---	100	40
---	50	60	---	100	30
---	75	80	---	100	60
---	63	60	---	100	70
---	80	100	---	80	70
---	80	80	---	80	100
---	0	0	---	0	20

40			0		80		30
0			0		60		30
100			100		100		90
40			80		30		60
100			80		80		80
40							60
80							60
20							20
80							60
40							40
60							80
20							40
60							80
100							80
100							80
67							50
83							60
33							50
67							60
83							50
33							30
75						0	
50						40	
100						80	
0						0	
50						40	
100						100	
25						20	
75						60	
38						30	
100						100	
50						60	
75						70	
50						50	
0						0	
63						50	
100						80	
100						100	
100						50	
50						60	
67						60	
50						100	
0						0	
67						60	
33						30	
100						80	
88						100	
75						100	
75						50	
50						40	
25						0	
50						70	
25						0	
100	100	100		80	100		60
0	100	100		100	0		0
80	80	100		50	80		10
50	50	20		0	50		0
0	50	80		0	0		0
100	50	20		20	100		0
80	50	40		20	100		0
80	100	80		100	100		0
60	20	0		0	0		0
100	80	80		90	90		90
0	0	0		0	0		0
0	0	0		0	100		0
60	100	100		50	100		100
80	100	100		50	100		100
0	80	60		80	100		90
100	80	100		100	100		100
70	50	60					
0	0	0					
30	75	100					
90	100	100					
20	50	40					

[illegible]

100	---	---	---	100	70	---	---
0	---	---	---	29	0	---	---
60	---	---	---	50	50	---	---
0	---	---	---	0	0	---	---
80	---	---	---	29	50	---	---
0	---	---	---	50	0	---	---
100	---	---	---	100	40	---	---
60	---	---	---	93	30	---	---
100	---	---	---	67	100	---	---
40	---	---	---	40	30	---	---
20	---	---	---	13	30	---	---
100	---	---	---	100	50	---	---
0	---	---	---	27	0	---	---
80	---	---	---	40	80	---	---
80	---	---	---	13	0	---	---
0	---	---	---	53	---	---	---
20	---	---	---	80	---	---	---
0	---	---	---	67	---	---	---
80	---	---	---	80	---	---	---
0	---	---	---	0	---	---	---
0	---	---	---	0	---	---	---
80	---	---	---	100	---	---	---
20	---	---	---	90	---	---	---
20	---	---	---	67	---	---	---
0	---	---	---	0	---	---	---
40	---	---	---	100	---	---	---
0	---	---	---	67	---	---	---
0	---	---	---	80	---	---	---
80	---	---	---	93	---	---	---
0	---	---	---	0	---	---	---
80	---	---	---	100	---	---	---
0	---	---	---	---	---	---	---
100	100	---	---	100	---	---	---
0	0	---	---	---	---	---	60
10	0	---	---	---	30	---	10
0	0	---	---	---	0	---	10
30	20	---	---	---	50	---	30
100	50	---	---	---	80	---	80
50	20	---	---	---	30	---	10
40	30	---	---	---	50	---	10
20	80	---	---	---	50	---	80
0	30	---	---	---	50	---	50
0	20	---	---	---	100	---	80
20	20	---	---	---	25	---	0
80	100	---	---	---	100	---	50
0	80	---	---	---	75	---	10
50	30	---	---	---	75	---	20
0	50	---	---	---	0	---	50
40	---	---	---	20	0	20	---
80	---	---	---	100	75	80	---
100	---	---	---	100	100	100	---
40	---	---	---	40	50	50	---
100	---	---	---	100	75	100	---
20	---	---	---	10	0	20	---
100	---	---	---	100	100	100	---
40	---	---	---	40	50	50	---
100	---	---	---	15	0	0	---
40	---	---	---	100	100	100	---
40	---	---	---	75	60	50	---
100	---	---	---	25	30	50	---
0	---	---	---	80	100	100	---
20	---	---	---	15	0	50	---
60	---	---	---	30	30	50	---
---	---	---	---	75	60	80	---
---	---	---	---	100	60	---	---
---	---	---	---	50	0	---	---
---	---	---	---	50	0	---	---
---	---	---	---	50	---	---	---
---	---	---	---	100	80	---	---
---	---	---	---	100	60	---	---
---	---	---	---	70	40	---	---
---	---	---	---	100	100	---	---
---	---	---	---	50	40	---	---
---	---	---	---	20	0	---	---
---	---	---	---	50	20	---	---
---	---	---	---	100	60	---	---
---	---	---	---	50	60	---	---
---	---	---	---	---	---	---	---
---	---	---	---	50	40	---	---
---	---	---	---	50	60	---	---
---	---	---	---	---	---	---	---
---	---	---	---	80	100	---	100
---	0	0	---	---	50	---	30
---	0	0	---	---	0	---	0
---	50	40	---	---	70	---	70
---	0	0	---	---	50	---	30
---	0	30	---	---	70	---	10
---	0	0	---	---	0	---	0
---	70	80	---	---	70	---	100
---	60	100	---	---	100	---	100
---	0	0	---	---	0	---	0
---	30	50	---	---	50	---	50
---	60	100	---	---	100	---	100
---	0	50	---	---	50	---	50
---	60	0	---	---	100	---	100
---	50	50	---	---	50	---	50
40	---	---	---	80	20	50	---
40	---	---	---	50	0	100	---
60	---	---	---	100	100	80	---
20	---	---	---	20	0	50	---
20	---	---	---	20	0	80	---
0	---	---	---	25	0	20	---
20	---	---	---	25	0	20	---
40	---	---	---	100	0	100	---
80	---	---	---	100	100	100	---
0	---	---	---	50	20	33	---
0	---	---	---	50	50	80	---
100	---	---	---	100	50	100	---
40	---	---	---	100	100	100	---
100	---	---	---	100	100	100	---
20	---	---	---	80	0	67	---

[illegible]

---	80	90	---	---	50	---	60	---
---	0	0	---	---	0	---	20	---
---	0	0	---	---	0	---	0	---
---	0	80	---	---	100	---	80	---
---	40	70	---	---	100	---	60	---
---	0	0	---	---	0	---	0	---
---	100	100	---	---	100	---	100	---
---	0	50	---	---	100	---	60	---
---	0	0	---	---	70	---	60	---
---	0	20	---	---	50	---	20	---
---	100	50	---	---	40	---	80	---
---	20	0	---	---	40	---	80	---
---	40	30	---	---	0	---	40	---
---	50	30	---	---	40	---	48	---
---	40	20	---	---	40	---	20	---
---	80	90	---	---	50	---	100	---
---	0	0	---	---	---	---	0	---
---	80	---	---	---	---	---	180	---
---	10	---	---	---	---	---	50	---
---	30	---	---	---	---	---	17	---
---	40	---	---	---	---	---	50	---
---	90	---	---	---	---	---	100	---
---	20	---	---	---	---	---	33	---
---	10	---	---	---	---	---	33	---
---	100	---	---	---	---	---	100	---
---	50	---	---	---	---	---	67	---
---	0	---	---	---	---	---	17	---
---	0	---	---	---	---	---	33	---
---	0	---	---	---	---	---	17	---
---	100	---	---	---	---	---	50	---
---	0	---	---	---	---	---	33	---
---	0	---	---	---	---	---	17	---
0	---	60	---	---	---	---	70	---
40	---	80	---	---	---	---	50	---
40	---	60	---	---	---	---	100	---
0	---	60	---	---	---	---	48	---
0	---	40	---	---	---	---	80	---
20	---	40	---	---	---	---	40	---
0	---	40	---	---	---	---	0	---
20	---	60	---	---	---	---	40	---
60	---	80	---	---	---	---	30	---
0	---	40	---	---	---	---	0	---
60	---	80	---	---	---	---	50	---
60	---	40	---	---	---	---	50	---
0	---	0	---	---	---	---	20	---
0	---	60	---	---	---	---	30	---
60	---	---	---	---	---	---	50	---
20	---	---	---	---	---	---	80	---
20	---	---	---	---	---	---	100	---
20	---	---	---	---	---	---	50	---
60	---	---	---	---	---	---	70	---
60	---	---	---	---	---	---	0	---
0	---	---	---	---	---	---	30	---
60	---	---	---	---	---	---	100	---
0	---	---	---	---	---	---	0	---
0	---	---	---	---	---	---	0	---
20	---	---	---	---	---	---	80	---
60	---	---	---	---	---	---	50	---
60	---	---	---	---	---	---	100	---
60	---	---	---	---	---	---	80	---
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ACHIEVEMENT AND SOCIOLOGICAL VARIABLES

Columns correspond to variables (see categories for each variable in Chapter two) following the order presented in the beginning of each set of data (0 means the category is unknown).

Rows correspond to pupils.

The marks for competencies and global achievement for each test were first entered in the marking matrix (see Figure 1 of Appendix III) by the teacher. After that she entered them in the matrix for each pupil (see questionnaire for teachers in Appendix III). Marks on all tests for each competency (or global) and each term were added. They were entered into the computer and changed into a 0-100 scale later converted to a 1-4 scale. In the file here presented some other scales are converted: repeating 1-2 scale; parents' educational qualification 1-7 scale; teachers 1-11 scale.

MIDDLE SCHOOL ALL PUPILS

PUPIL

1ST ACQ

1ST USE

1ST GLO

2ND ACQ

2ND USE

2ND GLO

3RD ACQ

3RD USE

3RD GLO

AGE

GENDER

SIBLINGS

SIB.POS.

PRIM.SCH

REPEAT.

LIVING

F.' AGE

F.' QUAL

F.' OCC.

M.' AGE

M.' QUAL

M.' OCC.

SCH.AREA

TEACHER

SCH.TYPE

F.SCHOOL

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 1040 3 1 2 2 1 2 2 1 1 8 1 1 1 2 1 1 2 2 5 1 2 1 0 2 8 3 0 0
 1041 3 1 2 2 1 2 3 2 2 7 1 1 1 1 2 1 2 3 6 2 5 9 2 8 3 2 1
 1042 3 3 3 3 2 2 2 2 2 9 1 4 3 1 1 1 3 2 7 2 2 1 2 8 3 0 0
 1043 3 2 3 3 2 2 2 2 2 7 2 2 1 2 1 1 2 4 8 2 7 1 2 8 3 1 1
 1044 4 3 4 3 2 2 3 2 2 6 2 3 2 1 1 1 1 3 7 1 2 1 2 8 3 1 0
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 1046 4 4 4 4 3 4 4 3 3 5 2 2 1 1 1 1 2 3 1 0 1 5 9 2 8 3 2 2
 1047 4 2 3 4 2 3 3 2 3 6 2 3 3 2 1 1 2 7 1 2 2 7 1 1 2 8 3 1 1
 1048 4 3 4 3 3 3 4 3 3 6 2 2 1 2 1 1 1 5 6 2 5 6 2 8 3 1 1
 1049 4 3 4 3 3 3 4 2 3 6 2 1 1 1 1 1 2 7 1 0 2 5 9 2 8 3 1 1
 1050 4 3 4 4 2 3 3 3 3 6 2 2 1 2 1 1 2 7 1 2 1 7 1 1 2 8 3 1 1
 1051 3 3 3 3 2 3 2 1 2 8 2 1 1 2 2 1 3 2 7 2 2 7 2 8 3 0 0
 1052 3 1 3 4 2 3 3 2 3 6 2 2 3 2 1 1 2 4 6 2 2 1 2 8 3 1 0
 1053 3 1 2 2 1 2 2 1 2 8 1 1 1 1 2 1 2 1 3 2 2 1 2 8 3 0 0
 1054 4 3 4 3 2 3 3 2 3 6 2 2 3 2 1 1 2 3 1 0 2 2 1 0 2 8 3 1 0

APPENDIX XI

EDUCATIONAL SYSTEM IN PORTUGAL
AND CURRICULUM ORGANISATION OF
SECONDARY EDUCATION

Diagrams of the educational system in Portugal and the curriculum organisation of secondary education are presented here so that the main text can be better understood. The diagram which summarizes the educational system presents only the main organization of primary, secondary and higher education. The arrows on the right hand side represent different routes of studies to medium level courses. The second diagram which summarises the curriculum organisation of secondary education presents the main subjects and periods allocated, from 7th to 11th years. Divisions within the school are conventionally referred in the text as middle and upper school. Middle school corresponds to 7th, 8th and 9th years; upper school to 10th and 11th years. Both diagrams are a translation of diagrams presented in Costa, A., 'Linhas Gerais do Sistema de Ensino' in Silva, M. and Tamen, I. (eds.) Sistema de Ensino em Portugal, Fundacao Gulbenkian, Lisbon, 1981.

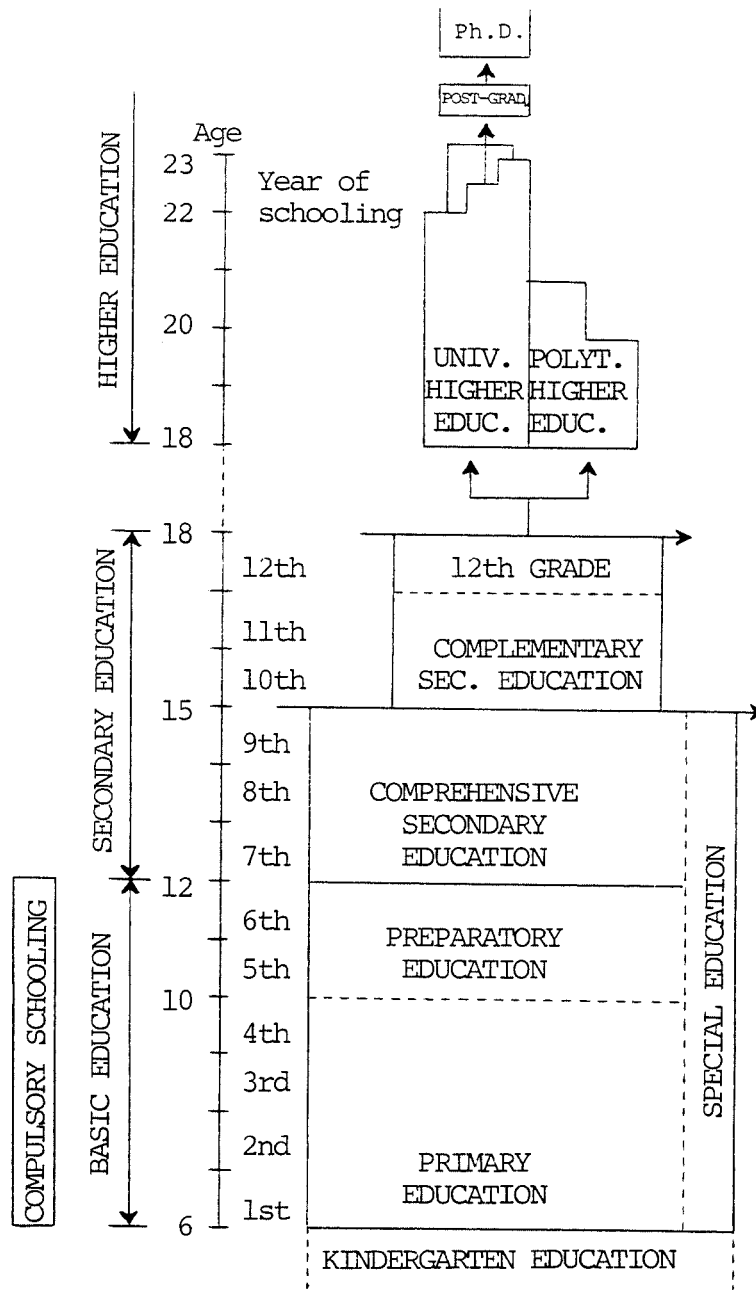


Figure XI.1 - *Diagram of the Educational System in Portugal (1979)*

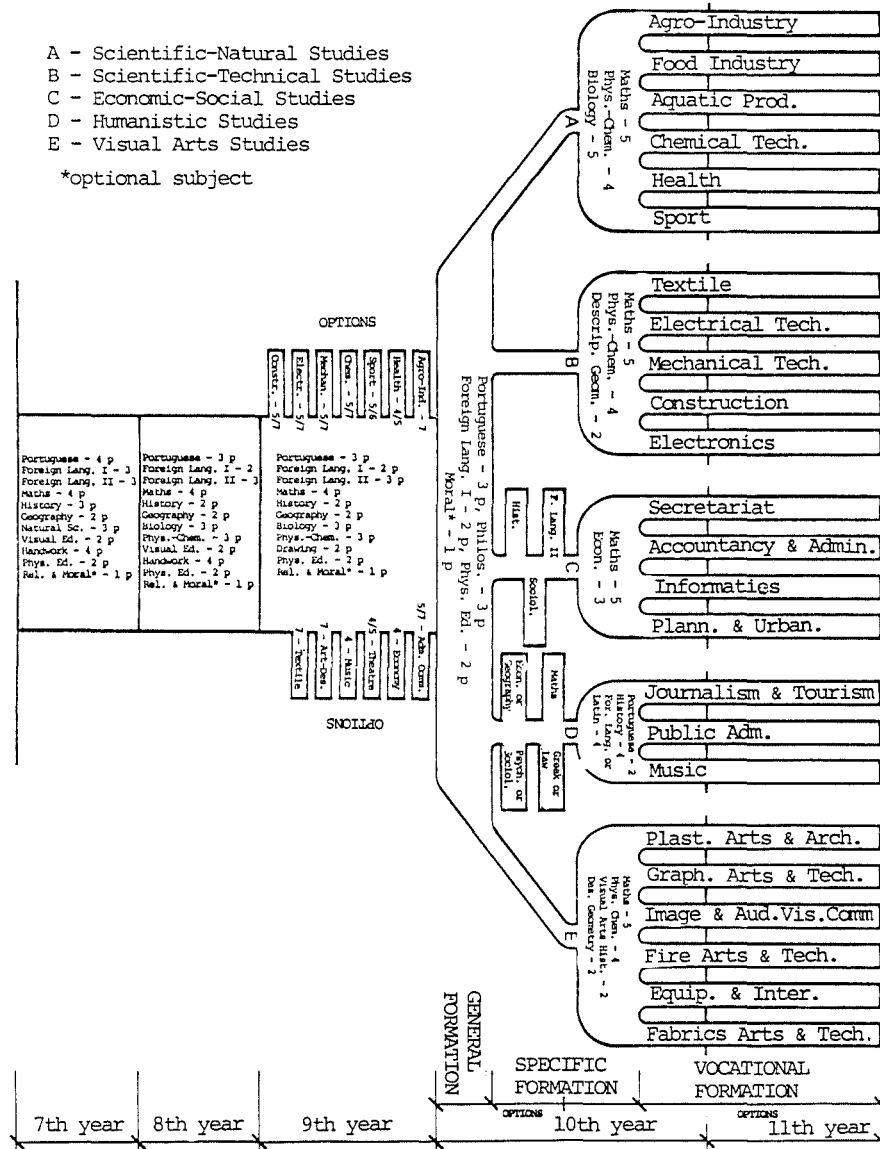


Figure XI.2 - Curriculum Organisation of Secondary Education (1979)

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