

At the gateways of the university: The career plans of graduates from swiss gymnasiums

1. The gymnasium is the type of higher secondary education which prepares its students for the university, and, consequently, all occupations based on university training. They are more or less the same in Switzerland as in other countries. An important exception is the training of teachers for primary schools. In most cantons these teachers are educated in a teacher training college which parallels the gymnasium. This must be noticed, because students with a certificate for primary school teaching are admitted to the training for teaching professions at the lower secondary level which, in general, is closely integrated into university, and, historically, this backdoor contributed to the opening of the universities to students from other schools than gymnasiums, perforating the originally strong monopoly of the latter. Furthermore, this exclusiveness is actually broken by the fact, the the 'maturity' – the certificate given after a final examination period of the gymnasium which gives admittance to any Swiss university – can also be acquired by passing a federal maturity examination¹

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1. The normal maturity examination is given at the gymnasium under the control of a special examination board. In this case the school and consequently the examination are officially recognized at the state level. This recognition rests on a very peculiar legal base: Since education is the domain of the cantons, no federal control would be possible. But the centralization of the legislation for the medical profession opens a possibility for the federal authorities to dictate the educational requirements necessary for the admittance to this profession and hence to influence the gymnasiums. – The federal maturity is given the same rights as the one passed in a recognized school, but the examination has to be passed in a external social environment during an examination-week. – Besides these two main types, some cantons give a cantonal maturity which gives admission to only a restricted number of studies in a restricted number of universities.

Nevertheless, the gymnasium remains the usual and most frequent path to university.²

Consequently, the preparation for university studies may be called the main goal of gymnasium education, a statement which is supported by several writers on gymnasium-pedagogs, one of whom has given his main work the title 'Hochschulreife'.³

2. But the gymnasium is also an institution dedicated to uphold a culture which may be characterized as a traditionalistic humanitarianism which has its intellectual roots in a set of upper classes. They are not entirely at the top, but near the top, and strongly criss-crossed with political, cultural and moral leadership, being thus the most important agency of integration in a stable and only slowly changing society. The highly illuminative German concept is 'Bildungsbürgertum'.

Among the many aspects which highlight these social biases of the gymnasium, one is of special interest, namely, the characteristics of the gymnasium teachers and their definition of their professional role. Here are a few results of a study by this author.⁴

– Gymnasium teachers are recruited from a social milieu which is either identical with the 'Bildungsbürgertum' or lies just below this group. These latter experience a social promotion which is highly coherent with the general mobility pattern of the society, namely slow, step by step (inter-generational) and in line with the traditional values;

– the geographical mobility is low; two out of five gymnasium teachers teach at the same school where they have been students;

– consequently, they follow a professional career which is highly 'local', i.e. from the gymnasium to the university, where the occupationally related courses give special emphasis to the traditional values of the gymnasium and often back to the same gymnasium where they have been as students.

– their self-concept of the occupational role stresses the importance of the subject-matter and a humanistic approach to it, neglecting the social dimensions of teaching.

This and other circumstances⁵ make the gymnasium an educational institution which highly values tradition, leisure, the general, and a classical under-

2. No exact figures are available, but cautious estimates lead to the conclusion, that about 70 percent of the Swiss students have a federally recognized cantonal maturity, 10 percent a federal maturity, 5-10 percent a cantonal maturity without federal recognition (mostly of the 'Commercial' type) and the rest is admitted with another certificate.

3. Max Zollinger, *Hochschulreife*, Zürich, 1939.

4. Kurt Lüscher, *Der Beruf des Gymnasiallehrers*, Bern, Paul Haupt, 1965. (Berner Beiträge zur Soziologie, Bd. 10) See especially p. 211 ff.

5. Other aspects to be mentioned in this connection are the fact that school administration is mostly in the hands of the teachers; there is no full-time administrative staff at

standing of the languages. It is therefore fully integrated in the subculture of the professional classes.

3. These two aspects, the preparation for university education and for the professions, and the perpetuation of a traditionalistic and elite educational ideology do not contradict each other as long as the general social environment does not challenge the social leadership of the 'Bildungsbürgertum' and the people educated in the above mentioned tradition are able to fulfill their functions.

Historically the over-accentuation of humanistic ideas and especially the heavy emphasis on ancient languages was challenged for the first time at the turn of this century; it ended with the introduction and acceptance of a new type of gymnasium-curriculum, which omits Latin and Greek and stresses mathematics and sciences. Similar attempts to pave the way for other types of gymnasium education (with emphasis on the social and commercial disciplines or on the arts) have not yet won official agreement.⁶ One may say that this first challenge was of a qualitative nature, originating from new needs on the occupational side. It was however not strong enough to threaten the equilibrium. Differentiation, as it happened, provided mechanisms to overcome the difficulties. In the first half of the century, some further but smaller changes of the differentiation type lowered tensions of different origins; among them was the above mentioned partial acceptance of students from the teacher training schools or, as also mentioned, the admittance of several forms of the so called 'zweite Bildungsweg'.

In contrast to this, the large-scale change in manpower and in attitudes toward higher education, considering it more and more as a civil-right (Dahrendorf's 'Bildung is Bürgerrecht') which marks the postwar period, bears a strong quantitative element and it seems unlikely that differentiation alone furnishes the means to satisfactory solutions. It is not the purpose of this paper to speculate on the direction or the form of the changes in the structure of the gymnasium; the main purpose of the foregoing description lies in evaluating the situation which defines any empirical study undertaken in the gymnasium at this time.

4. One main hypothesis bears upon the general characteristics of the gymnasium (especially in an environment where the values have a highly stable equilibrium

as this is the case in Switzerland): The gymnasium, given its anchorage in a strong tradition, the high degree of social homogeneity of its teaching staff and the absence of any strong administrative control or contradictory social influence from outside, creates a strong homogeneity among its successful students. Differences in their social background lose their bearing at least for the social conduct in regard to their professional future.

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The mechanism of special importance which ensures this assimilation consists in a very strong selection. No figures for the totality of the gymnasiums are available, but a circumstantial survey in Basle showed that only 26 percent of the pupils entering the gymnasium graduate in the normal cadence, and even more important, the ratio of success is different for the social classes, namely 35 percent for a group of upper class students, 26 percent for the middle class and 18 percent for the lower class students.⁷ To be correct one has to consider that the organisational pattern of the schools at Basle overstresses the selective processes. The figures may, therefore, be lower elsewhere, but the fact of a strong selection, differentiated by social classes, very likely holds true for all schools with the possible exception of the boarding schools ('Internate') where the ratios of failure seem to be lower and also the discrimination of students from the lower social classes is less.

However, in the light of the on-going changes in the social structure and their possible relationship to the schools one could also make the conjecture that the homogenization may be breaking down. Differences of any kind among variables describing the student-population could, therefore, become the starting point for the formulation of a hypothesis concerning forms and directions of possible changes. This two-fold reflection, namely that homogeneity still prevails but that possible differences may come to be discovered and – even if only spurious – could be of significance, guides the following interpretation of the data from surveys among the graduates of the gymnasiums in two cantons, Bern and Zürich.

5. These surveys have their origin in studies on teacher shortage and were first designed to help determine the possible ratio of students interested in the teaching professions. It was possible to extend it to a general survey on the career plans of the graduates, combined with detailed information on their social background. In a first step, only the gymnasiums in the canton of Bern could be reached, later, those in the canton of Zürich joined the study, supported now by the respective education departments of the cantonal governments and by the bureau for professional guidance. This origin accounts for the main restriction of the survey, namely, that the data are collected by written questionnaires, distributed through the school and re-

7. Franz Hess, Fritz Latscha and Willy Schneider, *Die Ungleichheit der Bildungschancen*, Olten, F. Walter Verlag, 1966. Especially p. 268.

6. See Fritz Blättner, *Das Gymnasium*, Heidelberg, 1960.

-collected by the schools under circumstances which are not fully under control of the researcher. The range of the questions is therefore rather limited, on the other hand the rate of return is high (80 - 90 percent) and the answers seem to be trustworthy. A first analysis of the data, based on the responses of 1199 Bernese students in 1963 - 65 was done as a plain multivariate analysis.⁸ It confirmed the homogenization-hypothesis to a large extent. Most of the correlations between different aspects of social background, study-choice, career plans, and school performance showed no significant differences. The main exceptions are the prevalence of certain traditional patterns of occupational choice (especially in self-recruitment), a significantly lower scholastic performance, measured by the results of the maturity exams, of upper class students compared with those from professional milieus, and finally certain differences between the sexes; the latter confirm the still dominating character of the traditional male orientation of the schools. A methodologically similar analysis of the 1966/1967 data came to the same conclusions.⁹

6. A more refined analysis will be put to the test with the data of the 1967 survey.¹⁰ The idea is to load the main variables with different indices, in other words, to work with typologies of student groups and to try out a new ordering of the data in order to bring out possible differences in stronger relief.

The following were the main considerations which led to the typologies: If the gymnasium is the school of the 'Bildungsbürgertum', one would expect that a group of students, combining typical elements of this milieu, shows a social conduct in regard to school performance as well as in content and form of the career plans which can be seen as an optimum of conformity with the traditional goals of the gymnasium. It could, therefore, be taken as a first fixing-point. (Type 1). There may be defined another group of students which are quite the opposite in their social origin, with regard to the educational experience of their father as well as of their mother. Thus, they show maximal distance to the social climate of the gymnasium (Type V). Between these extreme points, one can image wealthy students, whose parents have no academic background and thus no direct relation to the educational culture

8. Kurt Lüscher, 'Die Studien- und Berufswahlsituation von Maturanden. Untersuchungen bei Maturanden der bernischen Gymnasien 1963-1965', *Schweizerische Zeitschrift für Nachwuchs und Ausbildung*, 5 (1966), Heft 2. This article contains an appendix with more details on the design on the research.

9. Franz Haag, *Die Studien- und Berufswahlsituation von Maturanden. Untersuchungen bei Maturanden der Berner und Zürcher Gymnasien 1966 und 1967*, mimeo 1968.

10. We had the intention to combine the 1966 and the 1967 data but certain difficulties in computing the data made this impossible in regard to the date this paper had to be finished.

of the gymnasium (Type III). Finally, two middle class groups may be localized, one between Type I and III and the other between Type III and V. In all types, the socio-economic background of the grand-parents (i.e. the parents of the father) is treated as duplication of the socio-economic classification of the father. In sum, the five types are defined as shown in Diagram 1.

DIAGRAM 1

A typology of graduates at the gymnasium

Type	Attributes			
	Socio-economic group		Education	
	father	father's father	father	mother
I	Professional (3)	Upper or middle (1 - 6)	University (9)	Higher middle and university (4 - 9)
II	Middle (4 - 6)	Middle (4 - 6)	Higher middle and university (4 - 9)	Higher middle and university (4 - 9)
III	High (1 + 2)	High and upper middle (1 - 3, 6)	Not university (1 - 8)	Not university (1 - 8)
IV	Lower middle (5 + 6)	Lower middle (4 - 6)	Low and lower middle (1 - 3)	Low and lower middle (1 - 3)
V	Low (7 - 9)	Low and lower middle (7 - 9, 5 + 6)	Low and lower middle (1 - 3)	Low and lower middle (1 - 3)

The numbers in brackets refer to the codes reproduced in the Appendix.

7. Out of 956 respondents of the 1967 survey, 325 could be assigned to one of our five types. - A first confirmation of the typologies as well as of their ordering can be seen in the distribution concerning the four types of the gymnasium, especially the two traditional ones (with a curriculum in classical languages) in contrast with the two modern types (science and commercial).¹¹ The figures are assembled in Table 1. (See Table 1, p. 197)

8. Much less clear cut are the distributions into groups of scholastic achievement as expressed by the results of the maturity-exams. It may be pointed out that the 1963/65 analysis showed only one variation of significance con-

11. The type 'commercial' exists only at the large gymnasiums.

cerning students from the professional milieu in contrast to those from the upper-classes. Unfortunately the new results are based on small figures, because the marks were available for the canton of Bern only. They confirm, however a tendency of students from Group I to perform better than the others, both in the total sum as well as especially in the languages. Here, they are joined by Group II, and these results are no surprise in the light of what is already known about the greater facilities of students from higher social milieus in language performance. But in the view of our results, especially those of Group III, one could speculate that this language advantage can be maintained in higher secondary education only if the parents have a high educational experience, in other words, here, the main variable is not only wealth but also the education of the parents.

Among the other conclusions which can – cautiously – be drawn from our figures, there is a confirmation of a relatively low total performance of students from Group III. This could perhaps also be interpreted as a lower degree of motivation. A rather strong motivation could account, on the other hand, for the results of Group IV, whereas those of Group V, with a very small N, are not consistent. (See Table 2, p. 198)

Scholastic performance seems to confirm partly the homogenization-hypothesis, partly, it shows some not very surprising differences, but the result must be considered as of only limited evidence given the small statistical base. A much stronger test is provided by the statements of the students regarding their career plans. Here, it seems to us that the value of our typologies becomes visible, because as will be demonstrated, the more general questions confirm the homogenization-hypothesis whereas some further analysis, especially in the time-dimensions, brings some interesting differences to our attention.

9. A first, very general confirmation is given by the percentage of respondents who declare their intention to go on with studies at the university. The figure is in all cases 90 percent and higher, which endorses the strong relationship between the gymnasium and the university. The only – small – deviation in the 'total' figures concerning Group I is explained by the high share of females in this group and disappears if we consider the figures for the male population alone. (See Table 3, p. 199)

A similar observation concerning the main hypothesis is suggested by the definiteness of the answers concerning their study plans, i.e. the percentage of those who declare that they have not yet reached a decision concerning the fields of study. (See Table 4, p. 199)

10. One would expect some differentiation in regard to the plans for university-studies, but here again the differences are minor, as demonstrated by the

following points:

– The humanities and theology are over-represented in Group I and II, part of this, however, is accounted for by a stronger female population, especially in Type I. In contrast, Groups IV and V, but also Group III, show a stronger preference for the sciences and engineering, but these differences again disappear when controlled for sex.

– This tendency toward homogenization is furthermore partly supported by the figures concerning the choice of medicine as a field of study. Here, only a certain overrepresentation in the column males/Group I may be mentioned; it explains itself with reference to the well known high ratio of self-recruitment in this milieu.

– This same possibility of selfrecruitment, if not in occupation at least in 'office' (Kingsley Davis), explains certain points in Group III, especially the high rate of students in law and economics. (See Table 5, p. 200)

11. The picture changes somewhat if the occupational choice is considered. A first point comes up in the comparison between two and more preferences. This second group is stronger among Types I and II.¹² This finding is consistent with a sociological characterization of these types. One can argue that these milieus stress first of all the value of higher education as such deemphasizing in this way the importance of the occupational decision, at least at the time of entry into the university. Also, these students, being slightly better in scholastic performance, could see themselves able to fill different professional positions. This holds at least for those among group I who do not plan to follow the paths of occupational inheritance.

Self-recruitment is on the other hand undeniable if one looks at the content of the answers. Also, similar tendencies concerning Group III, already observed in the study-plans, become visible. Such a pattern is not evident for teaching-professions in Group I, the contrary is more likely. Finally, engineering and architecture are strongly preferred by students from Group V (See Table 6, p. 201)

12. It appears that occupational inheritance, or more precisely, positional inheritance, influences also the definiteness of the answers. We have already referred to this concept of definiteness. Certain aspects of definiteness can be derived implicitly by comparing the answers which are unequivocal with those containing alternatives. Explicitly, definiteness, as a kind of certitude, is measured by answers the students give to the question 'How certain do you

12. We consider here only the males since the answers of female students differ concerning the attitude toward marriage. However, if one takes into account the answers to a special question concerning this problem, there is no strong difference between the definition of males and females in our surveys.

feel in regard to your occupational choice'.

By a question about the expected occupational situation at age 35, the students were invited to ascribe a likelihood to their conception of the future.

If we look at the first item, no differences appear in the total figures; if controlled with regard to sex, however, Groups III and IV show a higher certitude. (See Table 7, p. 201) We are inclined to attribute this result for Group III to positional inheritance. Such a possibility does not exist for the students of Group IV, even though their fathers may own a small shop. Here, the sons should at least make an effort to raise the position to the professional level which demands an upward motivation. We are, indeed, inclined to attribute a rather strong motivation to this group of students. Their results in scholastic performance are an additional evidence for this argument. Such a motivation can be expected also from students of Group V, and they do not show any strong deviance in regard to occupational choice. But their answers to the question of the situation at 35 show the same certitude as those of Group I and II. Whereas in the latter case, this can be explained more by a stronger importance given to education and less to the 'occupational world', the results of Group V could also express a difference in time perspective. Since their own social milieu is far away from their eventual future positions, these students have more difficulty to attribute a high certitude to their images. — The tendencies just described appear again in the ratios of those who give very definite answers to the two items.

13. These differences in the time-perspective can be tested again by answers given in a prepared time-table which asked for the activities planned in different time segments up to two and a half year after graduation. We have selected two variables, the no-answers and those who expected to remain at their studies. The over-all tendencies are the same as in the occupational perspectives. One interesting result is given by the similarities between Group I and Group V which are the two extreme-positions of our typology. It seems plausible, however, that the motivations are different; respective hypotheses are mentioned above. (See Table 8, p. 202)

A deeper analysis on this as well as on other points would require finer methods of inquiry, i.e. interviewing. On the other hand, an even more detailed analysis of the typologies is only possible, if the number of subjects becomes higher. At this stage we must accept, therefore, the main thesis, namely a still very strong homogenization by the gymnasium, differentiable only more easily if one works with typologies, but even then only with rather minor differences, concerning primarily the occupational career in the strict sense of the word and the time-perspective related to it.

TABLE 1
*Graduates of the five types by type of the maturity and sex,
compared with total population of the survey*

Type of maturity	Type of graduates					All graduates
	I	II	III	IV	V	
	All					
A (Greek and Latin)	20	14	2	9	3	12
B (Latin)	68	51	55	40	31	48
C (Sciences)	10	33	40	37	62	33
H (Commercial)	2	2	3	13	5	8
Total	100	100	100	100	101	101
N	94	63	62	67	39	956
	Males					
A	30	15	2	5	3	11
B	50	43	42	36	26	40
C	18	43	52	45	66	42
H	2	0	4	14	6	7
Total	100	101	100	100	101	100
N	50	47	48	56	35	721

TABLE 2

Results of the maturity examination (scholastic achievement)
for the five types (percentages)

Results of the maturity examination	I	II	III	IV	V
	a) Total				
Low (≤ 4.2)	21	19	27	16	32
Middle (4.3 - 5.1)	63	68	66	81	48
High (5.2 - 6.0)	16	13	7	3	20
Sum	100	100	100	100	100
	b) Languages				
Low (≤ 4.33)	42	35	52	58	52
Middle and high (≥ 4.4)	58	65	48	42	48
Sum	100	100	100	100	100
	c) Mathematics and sciences				
Low (≤ 4.33)	50	65	66	32	64
Middle and high (≥ 4.4)	50	35	34	68	36
Sum	100	100	100	100	100
N (for a, b and c)	38	31	44	31	25

The results were available for graduates in the canton Bern only.

TABLE 3

Percentage* of students planning to study at the university for the five types

	I	II	III	IV	V
All students	90	95	92	97	97
Males only	98	95	96	96	97
	I	II	III	IV	V

* For N see Table 1

TABLE 4

Percentage* of students giving the answer 'Not yet decided'
concerning their study plans for the five types

	I	II	III	IV	V
All students	3	6	5	9	8
Males only	6	9	4	7	6

* For N see table 1

TABLE 5

Graduates of the five types by field of study* and sex (percentages)

Field	I	II	III	IV	V
	All				
Medicine	21	22	17	19	18
Sciences	14	16	10	16	21
Engineering, Architecture	10	6	19	19	18
Law	2	5	10	4	3
Economics, Soc. Sciences	9	3	8	7	8
Theology	4	3	2	0	0
Humanities	20	24	16	13	15
Art	0	2	2	0	0
Teaching**	6	8	3	10	8
Other	11	5	10	7	3
No answer	3	6	5	3	8
Sum	100	100	102	98	102
	Males				
Medicine	24	17	16	14	17
Sciences	22	19	10	19	20
Engineering, Architecture	16	9	22	23	20
Law	4	6	10	5	3
Economics, Soc. Sciences	10	4	8	9	9
Theology	6	4	2	0	0
Humanities	10	19	14	12	17
Art	0	2	0	0	0
Teaching	0	6	4	9	6
Other	2	4	8	5	3
No answer	6	9	4	4	6
Sum	100	99	98	100	101

* Unequivocal answers only

** Primary and lower secondary schools

For N see table 1

TABLE 6

Male graduates of the five types by choice of occupational group (percentages)

Occupational group	I	II	III	IV	V
More than one entry	48	47	33	35	29
Unequivocal choice:					
Medical professions	20	15	12	12	11
Engineering, architecture	14	13	27	21	37
Education	8	13	18	14	11
Economy, administration	0	2	2	11	3
Law, social order	2	2	2	0	0
Clergy, social work	4	2	0	0	0
Other sciences	0	2	0	0	3
Other humanities	4	2	2	5	3
Sum	100	100	100	100	100

TABLE 7

Certitude in regard of occupational choice as expressed by male students of the five types (percentages)

Expressed certitude	I	II	III	IV	V
	a) Occupational choice				
(1) Very certain	33	33	52	41	43
(2) Very doubtful	22	24	20	15	21
	b) Situation at age of 35				
(1) Very likely	28	19	44	48	21
(2) Very indefinite	17	29	28	22	43
	c) Occupational choice and situation				
(1) + (1)	11	10	32	26	21
(2) + (2)	6	19	8	4	14

For N see table 1

TABLE 8

Plans for future time periods of graduates of the five types, by sex (percentages)

Time period	I		II		III		IV		V	
	St	N	St	N	St	N	St	N	St	N
	All									
Winter 1967/68	67	7	65	3	60	5	66	3	54	13
Summer 1968	52	17	56	10	56	14	60	9	54	23
Winter 1968/69	52	34	65	25	54	32	59	26	51	36
Summer 1969	32	59	43	52	35	51	44	46	31	59
	Males									
Winter 1967/68	76	12	64	2	57	6	70	2	51	11
Summer 1968	50	20	49	9	53	14	61	5	51	23
Winter 1968/69	50	36	66	26	47	35	67	19	51	34
Summer 1969	34	60	45	49	35	51	51	39	31	60

St: Plans to study N: No answer

For N see table 1

Appendix:

Education-levels

1. Upper levels of primary schools (Primaroberschule)
2. Lower secondary schools (Sekundarschule)
3. Apprentice and trade schools (Berufslehre und/oder Berufsschule)
4. Academic secondary school (Gymnasium, Matura)
5. Teacher training for pre-primary and primary school (Lehrer- Kindergärtnerinnen-seminar, Primarlehrerpatent)
Teacher Training for lower secondary school (Sekundarlehrerpatent)
6. Other secondary schools a.o. lower classes of academic secondary education, specialized technical colleges (Andere Mittelschulen Progymnasium, Konservatorium, Kunstgewerbeschule)
7. Colleges of technology (Technikum)
8. Several technical certificates (Meisterprüfung, Fachprüfung, Eidg. Buchhalterdiplom)
9. University (Universität, Hochschule Gymnasiallehrerpatent Staatsexamen)

Socio-economic groups

1. Owners and managers of large and medium size private establishments (Selbständige Unternehmer und Direktoren mittlerer und grosser Privatbetriebe)
2. Higher officials of the government and public establishments (Chefbeamte von Behörden und öffentlichen Betrieben)
3. Professional workers, university teachers, teachers in academic secondary schools, chergymen (Freierwerbende Angehörige freier Berufe, Universitätsdozenten, Lehrer an höheren Mittelschulen, Pfarrer)
4. Intermediate workers in private and public establishments, teachers in apprentice schools, lower secondary and primary schools (Gehobene Angestellte und Beamte privater und öffentlicher Betriebe, Lehrer an Berufs-, Sekundar- und Primarschulen)
5. Other clerical and technical workers, foremen (Sonstige Angestellte und Beamte, Werkmeister)
6. Owners and managers of smaller retail, service and repair establishments (Selbständige in Detailhandel und Handwerk)
7. Farmers (owners and tenants), employees and workers in agriculture and forestry (Selbständige Landwirte, Pächter und Verwalter landwirtschaftlicher Betriebe; Angestellte und Arbeiter in Land- und Forstwirtschaft)
8. Skilled manual workers (Gelernte Arbeiter in Industrie und Handwerk)
9. Semiskilled and unskilled manual workers (Angelehrte und ungelernete Arbeiter in Industrie und Handwerk)