This volume contains 12 papers on teacher training in Poland. Many reflect a special collaborative relationship between the Departments of Education at universities in Gdansk and Linkoping. The papers are: "Teacher Training—Between Atomism and Holism" (Joanna Rutkowiak); "Following—Applying—Seeking Inspiration as Possible Varieties of Dialogue with the Pedagogy of Celestin Freinet" (Wanda Frankiewicz); "Teachers in Poland—Their Education, Professional Qualifications and Duties (to the Beginning of the 20th Century)" (Lech Mokrzecki); "The Training of Teachers in the Renascent Poland of the Pre-War Period" (Janina Siwoszko); "The Education and Betterment of Teachers in Executive Posts in Polish Education in the Post-War Period" (Janina Siwoszko, Jozef Zerko); "A Concept of the University Training of Teachers in Poland" (Jan Zebrowski); "The Training of Staff for the Needs of Extra-School Adult Education" (Barbara Z. Malecka and Jozef Zerko); "Teacher's Preparation and His Work with Gifted Students" (Jan Papiez); "Teachers Schooling for the Needs of Special Education for the Mentally Retarded" (Halina Borzyszkowska, Dorota Krzemska); "The Changing Approaches towards Educating Teachers for Mentally Disabled Children in Poland after World War II" (Danuta Grzybowska, Romuald Grzybowski); "Integrated Education Model for the Chemistry Students of Gdansk University" (Elzbieta Kowalik); and "Preparation of Teachers to the Educational Application of Computers" (Grazyna Penkowska). Most papers contain references. (JB)
Some notes about

TEACHER TRAINING
AND THE EDUCATIONAL SYSTEM
IN
POLAND

Håkan Hult, ed.

Linnköpings Universitet
Department of Education and Psychology
LiU-PEK-R-179
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PREFACE

Ten years of cooperation between the universities of Gdańsk and Linköping can, of course, be celebrated in various ways. One way is to write a book.

This book is about teachers and, specifically, about teacher education in Poland. The cooperation between Gdańsk and Linköping started out with a few meetings, conferences, and mutual visits by researchers, teachers, and students at the Department of Education in Gdańsk and the Department of Education and Psychology in Linköping. It seems, because of this, quite logical to publish a book about teachers and teacher education. This is the fourth publication to be issued in cooperation between the two departments. During these ten years our cooperation has grown deeper and broader. The scope of it is demonstrated in the research collaboration undertaken within several disciplines, such as chemistry, history, biology, mathematics, and pedagogy. The depth of the relationship between the two departments is shown in different ways. One example is the peer review evaluation of the primary school teacher training in Linköping which was carried out by teacher educators from Gdańsk. Another example is the ongoing comparative research study of Polish and Swedish children's thoughts. Other cooperative projects exist, and still others are in the planning stage. The road to the point where we are today has been long and not entirely straight. Language problems, cultural differences, and dissimilar political systems made the initial meetings exciting but not always easy or successful. However, on both sides there was a strong willingness to continue the cooperative efforts, and in the last few years it has borne fruit. Many people have contributed with
hard work during these years; it would be too much to mention them all. Nevertheless, I would like to convey my special thanks to Dr Wit Wojtovicz, who has unweariedly worked towards building a firm bridge between Gdańsk and Linköping. He has brought forward new ideas, arranged meetings, translated documents, made telephone calls and written letters and reports. His knowledgable and affectionate relationship to the two countries and the two universities has been a most important asset throughout. Today we can look back on the past ten years with joy and look forward to another ten years of cooperation with confidence and excitement. Together we can make great achievements for the benefit and joy of Gdańsk and Linköping as well as for both our countries. In the production of this book Dr Tomasz Szkudlarek has made most valuable contributions with contacts with the printer, and coordination work in general. I hope the book will be used in several ways in Poland as well as in Sweden.

Linköping, September 1994

Håkan Hult
JOANNA RUTKOWIAK

TEACHER TRAINING - BETWEEN ATOMISM AND HOLISM

Introduction

The aim of the article is to attract attention to the theoretical reorientation which is coming into view in the subject of teacher training. It consists in the departure of the researchers from concentrating on isolated, atomized fragments of studied phenomena and the growing tendency towards the comprehensive embracing of the questions examined, grasping their broad contexts, indispensable to ensure a comprehensible insight into the subject of interest.

In the problem of teacher training this atomization consisted, and maybe still consists, in the defining of particular detailed factors, as if cut out of the whole of reality and, as it were, deciding as to the training of a high standard teacher.

At the beginning of the 20th century these factors were perceived in the personal attributes of teachers, then, as from the '30s, in the society's demands on teachers, then later, in the '60s, in the elements deduced from the organizational systematic structure observed in educational institutions together with the teacher working there.

Although these studies afforded several interesting detailed conclusions, they did not afford a satisfactory answer to the basic question as to what really defines the good quality of teacher training.
I think that further searches should be directed towards the overall conditions of functioning of teachers, and the holistic cognitive paradigm developing contemporarily should constitute the theoretical justification for such a reorientation of research.

The present article consists of two parts: the first characterizes the signs of the phenomenon of atomism with reference to the training of teachers, and the second contains the justification and a draft of the holistic way possible.

**Part I. Atomistic approach to the question of teacher training**

The social phenomenon of universal education resulted in the question of the effectiveness of training, which gave rise to the next problem as to the required standard of the teacher whose work could guarantee this effectiveness.

At the beginning of the 20th century it appeared that the best way to prepare a teacher with the necessary qualities would be to imagine the qualities required and to furnish him/her with these during training. If this were the case, the qualities should be distinguished, named, described, and this was done.

The pedagogical literature of the first thirty years of this century included several deeply humanistic texts, the authors of which presented the teacher as being gifted with individual characteristics essential, as was considered, for practicing the profession. Let us bring to mind some of the works, beginning with Polish authors.

In 1912, J.W.Dawid wrote a dissertation "On the Spirit of Teaching": the need for perfection, sense of responsibility and duty, inner truthfulness, moral courage and, above all, love of the human soul - these were the characteristics Dawid wished to find in the teacher. The description of the characteristic of fundamental importance - "love
of the human soul" was: "It is love, as man goes beyond himself, takes pain, unselfishly helps others; it is spiritual love, as its object is the internal spirit of man, his moral good, his enlightening and improvement as a spiritual being".

Another Polish text worthy of bringing to mind is the dissertation by Z. Mysłakowski "What is Pedagogical Talent", which was printed in 1925. He considered "communicability" to be a distinctive characteristic of the teacher. He added to this a lively imagination, the ability to understand others' psychological states and reconstruct them, the ability to express his/her own feelings.

Another momentous text was published in 1938. This was the dissertation by M.Kreutz "The Personality of the Teacher-Pedagogue". The author placed "suggestive ability" as the basic characteristic feature of the teacher, deciding as to the possibility of exerting educating influence on the behaviour of the pupil. The suggestive ability, as Kreutz characterized it, is, as it were, a magnetic field produced by a person and acting on other persons. This characteristic consists of specific features: self-confidence manifested particularly in difficult situations, composure, courage, belief in the capacity and veracity of one's own beliefs, the value of ideals proclaimed, uncompromising and straightforwardness in aspiring towards the fulfillment of aims and unswerving consistency, regardless of other considerations.

The Polish psycho-pedagogues whose works I have mentioned were not alone in their way of thinking. In Europe of that time E.Spranger's work on typology (1925), which on the basis of six basic "forms of life" defining the attitude of the individual towards the world of values, distinguished the corresponding types of man. The theoretician places cognitive values first, the economist - economic values, the politician concentrates on authority, the man of religion - on eternal values, the aesthetic - experience and endowing expression to elements of reality, and the social worker - on other people.

G. Kerschensteiner and W.O.Döring tried to attribute characteristics of the Spranger typology to the teacher-tutor. Kerschensteiner
stated that he/she must be of the social worker type, whose attention is turned towards young persons. For Döring, however, the aesthetic characteristic was most important, understanding this in its broader sense, and including the ability to understand other people’s states of mind, in other words the teacher is he or she who forms the psyche of other men.

Spranger’s typology does not exclude mixed types, which suggested that the teacher be seen as a person of many features - and this then appeared to be progress.

The inclination to seek the characteristics of a good teacher was typical not only of European, but also American pedagogy at the beginning of the century. I shall mention only the wide scale studies of W.W. Charters and D.Waples from the close of the 20s. The authors drew up a list of 83 characteristics which were, in their opinion, essential in the ideal teacher, and it was such a person they wished to describe.

Without further multiplying the numbers of texts, the authors of which advanced postulates concerning the positive characteristics necessary for future teachers, let us rather turn towards the psychological theory of the characteristics in order to understand the extent to which it can be of assistance in understanding of the true teacher.

The concept of personality features is related to the aim to grasp its identity, evidenced in the constancy, external recurrence and cohesion of the meaning of the forms of behaviour of individuals. It is considered that this idea was introduced into psychology by W. Stern in the 30s, but the concept of characteristics was itself elaborated and popularized by C.W. Allport. As he wrote later, the feature is a generalized and concentrated neuropsychical system characteristic of a given individual, referring to various functional stimuli and directing adaptive and expressive forms of behaviour. Corresponding to characteristics so understood, individuality constitutes a configuration, or rather a mosaic of features.
The critical analysis of the theory of characteristic features intended here, with reference to the training of teachers, will be guided in three directions: psychological, ideological, general-cultural.

Considering the question from the psychological point of view, it must be noted that the theory of behavioural characteristics does not explain but only describes them. The fact of repeating activities is stated and the assumption accepted that constancy of behaviour depends upon internal factors, but functional mechanisms of such factors are not explained.

The multiplicity and variety of characteristics that can be ascribed to man moving within this theory results in creating eclectic and simultaneously artificial beings separated from the reality with which man is so closely tied. Here, on the other hand, man appears divided into characteristics as his component parts, atomized, segmented. If he is a teacher, the particular characteristic of the pedagogue remains in relation with the specific characteristic of the pupil; the overall man-man relations is, however, lost, as is the wider man-world relation. The mutual teacher-pupil contact, the significance of which is defined indirectly, proceeds as if in a social-historical vacuum, as the teacher-feature bearer does not appear to assume any attitude towards the reality in which he functions, he only "initiates" the features essential for one or another pedagogical activity. Such activity always depends on the circumstances and these are, as it were, suspended in the individualistic theory of characteristics. This cultural element is not taken into account in the theory of characteristics, and in this sense it is one-sided and fragmentized.

The second, cultural aspect of the theory of characteristics, arises from the fact that it is, as it were, a reflection of the present times as an era, elevating the role of the performance aspect in the functioning of man. But, as L.Klages aptly wrote over 50 years ago, people did not always conceive so narrowly and modestly the sense of their activity. On the other hand, in contemporary culture "...one looks only
for the force of output or work, as [it] becomes the period which has already lost the habit of turning attention towards great individualities, setting the doubtful veneration of professional efficiency in place of greatness of heart. Had the Renaissance occupied itself with psychology, interest would most probably have been in the ability of man to attain great achievements; the Middle Ages would have looked for the capability to believe; Antiquity would at least partially have been interested in the ability to be happy. These features of character have lost their value for contemporary psychology; all that remains is the zeal for work, ambition and the ability to achieve success, i.e. a set of characteristics which Antiquity would, without doubt, have ascribed to the lowest category of people, slaves and pariahs.9

The third direction of the critical analysis of the theory of characteristics refers to its ideological course. Assuming that by ideology we understand justifying of the interests of a specified collective subject, we will notice that the basis for creating groups of characteristics which should be formed in young teachers, in view of their future profession, is the conviction as to what kind of person the teacher should be. From whose point of view and from the position of the interests of which groups should the teacher be such a person? These questions are not always noticed and appreciated by those who innocently and with a sense of their noble mission and good will postulate the vision of teachers' positive characteristics. The awareness of the basis here is important, as it favours understanding the ties of activity of the individual with the entirety of the dialectic social structure with it: play of interests in the course of history.

There is still another weak side to the watchword postulate - they are intellectually barren, since it is extremely easy to define the ideal of a teacher not going beyond a slogan. Devoting attention to the theory of virtues may today seem fairly groundless, as it was born and developed at the beginning of the century and now seems to be out-of-date. I think, however, that this is illusory and that a belief in the features of the "good" teacher still exists. Bearing witness to this is
the example of the studies of G.Z. Apresyan, who relatively recently distinguished and described 185 characteristics of a good teacher. This example does not characterize the way of thinking in Eastern Europe alone, the world over the uncritical postulate of "subjectivity" is being propagated as the desired characteristic of the teacher. Are not the old ideas being consolidated?

The atomism we speak about referring to it as being a set of qualities of the "good" teacher also functions in other aspects of conceptualization of his or her training. Here I have in mind such an understanding of the school, which is expressed in isolating the components of the quintessence of school, and which prepares the teacher to work within one "segment" or another, confined to the subjects taught or to the age of the students.

Atomization also manifests itself in the attitude towards modeling practical skills of future teachers. It is demonstrated in breaking the skills into elements and organizing separate training aimed at each of them. American Competency Based Teacher Education can serve as a good example of this analytical approach.

All efforts to segment the teacher's personality, his skills and institutional acts he performs, have already equipped us with considerable and detailed knowledge. However, simultaneously we have developed the conviction that we miss something we should know, something of particular significance for training pedagogues.

Perhaps a holistic view of teacher training will prove useful for grasping and realizing the deficiency.

**Part II. The holistic approach to teacher training; posing the question**

 Apparently, a holistic way of thinking was originally not proposed by educationists. It was born out of the global crisis, the term being used to describe the condition of the Earth and the human race at the
end of the 20c. From the phenomenon of "regional" crises, among which P.Ricoeur mentions the critical situation in economy, pedagogy, politics, industry, epistemology, he derived a generalized notion, referring to the proposition by R. Koselleck who postulates relating the question of crisis to the time structure of history. Ricoeur maintains that crisis occurs where revolutionary rejection of tradition narrows experience and expectations become utopian.

Hence, crisis appears to be a pathological development of the process of history acquiring the value of time, the pathology consisting in "unsettling the relation between the horizon of expectation, and the space of experience".11

I believe that this disturbance in the harmony between experience stemming from the past, and the emerging future has also affected teacher training. The times we have gone through were dominated by the tendency to shape the teacher as he was desired to be, i.e. in accordance with external expectations. In a broad sense these curricula were constructed by the society, in a narrower sense - by educational institutions. Nevertheless, the attitude adopted always involved deprivation of the pedagogue of his/her own "self".

Here, an opponent will remark that, after all, it was just the psychological theory of features which elevated and exposed the "self". However, one must reply that the teacher was primarily viewed as the holder of the values, not as an individual who has actively developed them.

These beliefs favoured creating teachers functioning as executors of fragmentary tasks (defined by the subject, age of the student, type of school), practitioners who should acquire skills but need not or even should not deal with general reflection, as it is reserved for theoreticians. In consequence the teacher was excused of any serious responsibility, and though it was declared, responsibility was merely confined to reporting or being liable for correspondence of aims with the results achieved. It was not understood as the essential responsibility for what one creates.
As I perceive it, the discordance between the already gained experience in teacher training, and the perspective of the future is rooted in the inability to apply old patterns to the new circumstances. This is because the present situation is characterized by increasing diversity, changeability, revaluation. Possibly, the best picture of the times is drawn by the theoreticians of postmodernity. Their works are truly worth concentrating on.

In the unstable reality, in times when all fundamentals are being analyzed anew, the teacher has no other alternative but to adopt the attitude of openmindedness, follow the course of events, ask himself vital questions and, ever anew, formulate answers to them, sustaining utmost inner tension, effort, and sense of responsibility. The point here is not to seek solutions to the question of establishing the most effective line of conduct in relation to the young, but to arrive at an understanding of what constitutes education and tutoring, what is the position of the teacher in the fundamental relation which we shall, after Heidegger, call the relation of "man-in-the-world". The man here is understood as a student-teacher, since the two roles alternate for each individual.

An overall perspective, significant as it seems for training teachers, is required in view of the present crisis in culture. At its base lies a fragmentary perception of the reality of scientific and technical origin, and perception of this nature makes it impossible to comprehend the most crucial problems of our times. F. Carašič12 managed to portray the situation aptly, emphasizing that fragmentary problems of today are correlated inseparably with one another so it is impossible to understand them employing fragmentary methodologies, outdated notional models or irrelevant variables.

The many-sided crisis can truly be captured through adoption of the possibly broadest perspective, one that will allow us to see our present situation in the context of human culture as a whole; the perspective of the end of the 20c has to be broadened so that it could
embrace whole milleniums, proposes Capra, and this postulate sounds convincing.

In the preface to the Polish edition of Capra's work, A. Wyka wrote that holism manifests itself in the development of "a new awareness" which consists in cultivating theoretical reflection on the metamorphoses of our age.\textsuperscript{13} It is a synthetic way of thinking, systemic in the broad sense of the term, staying in contrast with the well-known theory of systems. Holism represents procedural and dynamic thinking, also called "ecological", to be understood as "abstract ecology", not in the popular sense of conservation of natural environment. Hence, a holistic attitude turns towards such a perception of the world which enables comprehensive description of dominating assumptions, emphasizing indication of the universal correlation of phenomena, abandoning the monocausal approach, perceiving the symptoms of basic unity, and metarefection.

If we wanted to refer the holistic philosophy to the question of education remaining in the centre of our interest, we would have to consider how various factors merge and contribute to form a whole, what factors are accepted as pertaining to training a good teacher. This can be achieved through stating that the teacher acts within the society: in a narrower sense he also acts in the institution established by the society, functioning as an individual of concrete personally and skills.

This synthesizing procedure is conducive to combining once isolated atoms. Still, it does not give grounds to formulate the answer to the question of the quintessence of being a teacher. The essence can be defined by someone remaining outside, or by the very teacher placing himself in-the-world.

In the draft proposition of teacher training which is to close the present text, the effort concentrates on achieving a holistic view, where, nevertheless, the teacher himself is not excluded of considering his own self. This broad cognitive approach is supplied by philosophy, hence I postulate introducing philosophy oriented teacher training. The
aim here is not to gain the knowledge of history of philosophy or its elements - ontology, epistemology or axiology, that is fields which merely allow for acquiring the skill of using the language of philosophy. On the contrary, the idea is that such philosophical preparation can be gained without engaging oneself in the problem range offered by philosophy.

In other words, we could say that the training is of philosophizing nature. Let us use the work by H. Plessner "The Question of the Essence of Philosophy" for explanation since the author presents not the "naked" philosophy as it is presently generally lectured at teacher training institutions, but an approach within philosophy which seems significant for preparation of future pedagogues. Plessner points out that for philosophizing it is crucial to notice the question philosophy asks about its own nature, to see the distance philosophy maintains to itself, to treat it as "a risky enterprise", as thinking that may end up in a void and, hence, different from any considerations safeguarded by a subject field.

If this be so, the philosophizing individual cannot anticipate any evident profit or a positive solution to the problem with which he addresses philosophy. In view of the above what profit or, rather, what good will cultivating philosophy bring the individual?

In order to answer the question, and at the same time, not to exaggerate in our excessively optimistic view of possibilities philosophy offers, let us note how philosophy treats its own tradition. According to Plessner one can find three different attitudes:

Firstly, philosophy may assume that the question about its nature has already been settled by tradition.

Secondly, philosophy acknowledges the question to be unsolved and assumes there can be no answers reached.

Thirdly, philosophy assumes the question is unsolvable, which in turn implies the existence of two other options - either the answer is believed to be impossible to find, or a basic principle is adopted, which
in advance rejects any attempts to find definite answers about the essence of philosophy. The latter attitude does not imply skeptical resignation from any chances to find an answer, but reflects the basic belief that the question is to remain open. The latter attitude seems significant for considering philosophizing in teacher training, since the essence of such training does not lie in teachers learning various "isms", but in their open attitude, in their undertaking their own laborious considerations, in noticing their inner complications, in learning to see problems in educational questions, in realizing complex circumstances they function in, and in their understanding the position of the teacher in the macroscopic entirety. Contemporary radical American pedagogy postulates viewing the teacher as a transformative intellectual, \(^1\) where the intellectual is understood as the individual capable of formulating problems and transforming them which, in turn, requires continuous personal effort of asking questions about the obvious, negating popular beliefs held by others and most of all those of one's own, shaking habits of action and thinking. \(^2\)

It appears that only such a teacher who realizes that atomization of the traditional teaching practice is its weakness, and who takes efforts to overcome the fragmentarization, can become a "holist teacher", an authority in the eyes of his students who struggle with the difficult and complex world - world as a whole.

If we accepted the idea of a holistic outlook upon teacher training achieved through philosophizing treated as the general principle governing the training, we should undertake the huge task of restructuring university and school curricula for future pedagogues.

**NOTES**

2) Z. Mysłakowski: Co to jest "talent pedagogiczny"?, in: W.Okoń, ed., ibidem.
4) E. Spranger: Lebensformen, Halle 1925.
7) G. W. Allport: Personality, New York 1937.
8) A totally different conception of personality was presented by J. Nuttin: Struktura osobowości. PWN, Warszawa 1968.
15) ibid., pp. 300-301.
Wanda Frankiewicz

FOLLOWING - APPLYING - SEEKING INSPIRATION
AS POSSIBLE VARIETIES OF DIALOGUE WITH
THE PEDAGOGY OF CELESTIN FREINET

1. Preface

Questions tackled within the present paper essentially refer to conditions deciding about a variety of different ways of comprehending a pedagogical work by a teacher-reader. We do not, however, mean the mere reception of a text or theory in the sense of adequate deciphering or understanding; we think of its acceptation, arriving at an insight into it, and combining it harmoniously with the present ideas bearing fruit altogether in a teacher's activity. Again, activity is used here in a much broader sense than a practical realization of instructional acts. We assume activity to be a cooperative and communicative approach engaging the most superior spheres of human consciousness stemming from total individual experience. We shall try to prove that comprehension, or reception, of a work may vary, and it does not inevitably result in dialogue between the reader and the work. Thus, we shall construct three possible models of combining theory and practice (which constitute the composition of the main body of the present text). Out of the three versions only "inspiration" will be pointed to as the one which conforms to circumstances conditioning the potential of any dialogue taking place.
All considerations refer to the pedagogics of Celestin Freinet as we believe that this output is richer in inspirational power than a number of other pedagogical conceptions. Hence, we shall attempt to demonstrate its specificity and uniqueness as seen against the background of the scientific canon of pedagogy together with its timelessness and "appropriateness" within the limits created by contemporary humanistic considerations.

How can, thus, a contemporary teacher understand Freinet's pedagogy? How can he make use of his output?

As far as Freinet's pedagogy is concerned, the above questions seem important for at least two reasons. Firstly it is due to the abundance of the humanistic values of the theory. We could say that Freinet rediscovered such inherent qualities of education as creativity, expression, feeling, experiencing, comprehending, sense and responsibility, and tried to confer upon them the status of universal values. His conception proposes education at the same time nonrepressive and emancipatory in character: it rewards pupils for self-reliance, their sense of self-responsibility, and solidarity with others; it elevates the ethos of creativity which is interesting, involving, and most of all rational for every child: it accepts as fundamental principles of respecting dignity of the pupil, his feeling of safety as well as his reflections on the "experienced world": it evokes spontaneity of expression; allows for free choice of subject matter together with the means of its expression; combines children's interests in whatever form they may be manifested with creating bonds with their social and natural neighborhood.

The above values and principles were formulated as a result of a long-lasting process of constructing the pedagogy in the course of teaching practice which contradicted the existing and established patterns within the traditional school. The considered conception sought its own truth about education. Here we must deliberately stress that Freinet's pedagogical theory evolved from teaching practice con-
sciously and intentionally stemming from the prescientific, natural world of human experience. Since throughout the whole period of his pedagogical creativity Freinet was a practicing teacher, he constructed a pedagogy which was actually realized about him and by him. Through his everyday toil and passion of being at the same time an educationist, tutor, and teacher, he testified to the continual search for the truth about education. The theory emerged in cooperation with others, in the community of tutors and their pupils. Freinet learned from them, as they did from him. In this way there was created an original pedagogical conception, ever open and developed by others, which has been given the name "Modern French School of Freinet's Techniques".

Freinet fascinated others as a prolific author full of courage, devotion for work, and modesty. His personality inspired ever greater and greater numbers of teachers to undertake their own creative quest. He initiated popular grass-roots pedagogical trend to humanize the school through restoring the original sense of depreciated educational values, first in France, and then in many other countries of the world. For years everyone has been astounded by the vitality of Freinet's movement constantly developing for almost a quarter of a century since the author's death. To learn from him does not mean: "applying the only correct and unquestionable theory in so-called practice", neither does it mean: "following ready patterns". Freinet's "masterpiece" induces followers to question repeatedly and ever anew the sense of education, and actually demands a creative approach in seeking the answer, all in real-life cooperation between tutors and pupils. Today our contemporary schools and pedagogies face an acute crisis so that we acknowledge the urgent need for finding alternative solutions where the sense of education is seen as embedded in humanistic values, unfortunately lost in the present shape of schools. Thus, it is not surprising that Freinet's output is again met with justifiable interest.

The second reason is strictly associated with the first and lies in the form of pedagogy expressed in Freinet's works. They constitute a specific record of "thinking in practice", a record of pedagogy in the
act of realization. It is neither exclusively a theory, nor merely practice. On the contrary, it forms a kind of theoretical and practical entity, it is all-embracing "thinking put into practice" rather than "thinking for the sake of practice".2

Freinet refrained from scholarly pedagogy enclosed in fixed patterns and systems of assumptions drawn from more general theories, from which appropriate practical rules were derived. He refers to "natural and universal laws of life" inherent in rational thinking and the wisdom of the sages of all times and races. He claims that "they were far more advanced in their dynamic perception of the human being than the most learned authors of contemporary systems and coursebooks" who - though their theories reveal merely "side tracks" - demand that we believe that "individual behavior is dependent on secret data whose authorship is usurped by science".3 In view of the above, Freinet intentionally rejects scientific theory interpreted in those terms, as he considers it contradictory to rational thinking and blames it for the fact that teachers lose their inner compulsion to grasp the essence of the educational process of which they are a part. He undertakes efforts to go beyond previously held categories and notions "deformed and blurred dangerously" by "a scholastic way of thinking which has monopolized and possessed them".4 "To learned expressions of formal knowledge (...) I prefer the elementary simplicity of a train of thought which reflects life itself, and thus, continuously aims at exceeding its own capacity".5 Freinet turns to educational practice, encourages teachers and tutors to enter bravely the path of gradual evaluation of the basics of education. "I would like to bring pedagogy back to a more comprehensible form in which there could blend hesitation and audacity, anxieties and lightning, rainbows, laughter, and tears. I place it anew in the center of the process of becoming a man".6

It is also worth noting that the language used by this pedagogy in no respect resembles scientific dissertations or treatises, it is lively and animated, poetical in places, it does not refrain from using metaphors, narrative, and folk maxims. The logic of his argument combines theo-
retical thinking with descriptions of concrete practical solutions (the so-called "Freinet’s techniques"), applying equally to ideas and actual, direct pedagogical experience.

The initially declared significance of the questions referring to "making use" of Freinet’s pedagogy is firstly due to the inherent values of the theory, secondly to its specific nature, that of a theory abundant in records of actual experiences, concrete practical suggestions. However, this very nature can either be a source of inspiration for constant search and interpretation, or be exposed to the danger of automatic imitation and instrumental application. Both Elisa and Celestin Freinet were fully conscious of it so they warned against including their conception in a set of educational prescriptions, fixed and ready solutions: "We are not fanatics of one method. Freinet’s techniques are a state of mind or a trend, rather than a method"7.

2. Three varieties of combining theory and practice, compared with the possibility of a dialogue between a teacher and a pedagogical work.

At the beginning of the present paper we formulated a question about possible ways of applying the pedagogical output of Freinet. Its nature, however, is more general and refers to the relations between theory and practice in the professional dealings of a teacher. We have already admitted the specific character of Freinet’s pedagogy: it is neither a purely scientific theory nor practice alone. On the contrary, it combines characteristics of both to some extent - it is a peculiar theoretical train of thought immersed in direct practical experience, it is the all-embracing "thinking realized in practice". Still, we would like to consider the question of reception and eventual dialogue with Freinet’s output against the background of the problem of relations between theory and practice tackled by Polish pedagogy.
When speaking of combining theory and practice we would like to distinguish at least three possible variations of a teacher's attitude:

1/ imitating a ready pattern (e.g. a draft, scheme, algorithm)

2/ applying theory in practice, that is implementing a particular pedagogical theory in a real-life educational situation following principles and rules which govern the teacher’s work place and have been derived from the theory itself,

3/ undertaking activities inspired by a theory which serves as an impulse, as a stimulus "opening new perspectives of thinking", the ferment for independent and creative teacher's actions.

We shall consider all three variations of "combining theory and practice" with reference to Freinet's pedagogy assessing the chances for a dialogue inherent in each of the attitudes. Before we actually start, however, let us try to generalize on the possible value of the three ways of applying a theory.

Apparently and only apparently it might seem that the matter is simple. Common opinion on the first of the mentioned attitudes is negative. Still, if we look closer into the everyday reality of a teacher's job it will turn out that all too often the formal criterion adopted as a means of evaluating a teacher's professional performance happens to be his skill at copying ready patterns.

The second and third types of practical application of a theory can evoke reactions both extremely negative and positive. If we identify the sense of instruction with highly rational activities, and hence, the teacher is seen as an efficient executor of a policy reaching the pursued goals with the help of properly selected means, we shall accept the second variation of theory application and reject the third type.

On the other hand, if we disagree with the above conception of the nature of a teacher's work and assume that each educational situation is of unique value, each and every time anew demanding proper assessment and proper decisions, then the second of the discussed
attitudes will become of little use or even misleading while the third will be most highly appreciated. It is just the third way of approaching a theory that assumes the very nature of teaching to lie in the independent creativity of an instructor. Here, to refer to Hannah Arendt, a teacher’s activity can be described as participating and involving the highest degree of consciousness immersed in the overall experience of a human being. In this context practice cannot be understood as "implementing a theory".

We believe that the two extreme and opposing ways of evaluating the previously distinguished conceptions of the mutual relations between theory and practice differ due to a dissimilar understanding of the methodological status of pedagogy. The question will be considered more closely further on.

3. Imitating.

"Imitating", or "to imitate" are automatically associated with synonyms like "to follow", "to borrow", "to reproduce", "to copy", "to duplicate", "to ape". These synonymous notions, as taken from the dictionary, lead us to adopt the following definition of imitation: it is activity shaped to copy another, it is based on a matrix and involves no creativity or reflectiveness, as in order to follow a ready pattern we do not need to understand its origins, sense or significance. We merely copy, and adjust ourselves to the pattern, eventually being meticulous about keeping as close to the matrix as possible. Joanna Rutkowiak claims that such an attitude prevails on teacher training courses. Future teachers are supplied with numerous examples of model methodological solutions, each of them treated as a set of universal practical steps. Moreover, it is just the pattern that is stressed, not its grounds. According to J. Rutkowiak, in this way "the young man is led to believe that he is following the best path to mastering professional skills."
We could add that establishing the feeling of professional competence, when based on numerous instances of learnt and closely reproduced patterns, must eventually give rise to a number of negative phenomena accompanying the development of professional skills in teachers. One of them is certainly a loss of self-dependence and passivity resulting from the fact that the real sense of teacher's activity is seen in a limited perspective due to repeated imitation. Another danger is a loss of criticism which can take the form of unjustified self-confidence as far as the quality and effectiveness of a teacher's activity are concerned, again stemming from the fact that he follows ready, proved, and safe patterns. A break-through may take place only when the teacher suddenly encounters unforeseen difficulties, and his arsenal of routine measures turns out to be insufficient. Only then may he reflect: "I can do certain things better and better, still I do not know what I am actually doing or what is the more general sense of my activity". Once doubts about the value of the acquired knowledge and the quality of actions taken so far arise, we may expect the teacher to question the sense of the steps he takes, his professional identity. Thus, we may witness questioning becoming natural necessity as well as at the same time constituting an indispensable condition of undertaking a dialogue with a more general idea expressed in any work, such as a pedagogical one. We share a strong conviction with R. Schulz, who claims that "the discrepancy between the abundance of information in store (here we would also add the multitude of techniques) and the inadequately realized sense of a teacher's job lies in the very heart of the crisis which affects educational research". Moreover, we suppose the crisis goes deeper into the professional identity of a teacher.

Another aspect of the notion of imitation will be further considered later. Here, however, we can concentrate on mutual relations between theory and practice when teacher's activities are understood as copying a given pattern. We believe that the following of a ready model, scheme, acting according to a matrix, may take place without
any theoretical background, being limited merely to the level of concrete practical steps unless a particular model in question constitutes a rule derived from a particular theory, and thus, can be treated as theory itself.

Another question to be considered deals with the possibility of making use of Freinet's pedagogy as the source of models to be imitated. Such reception seems likely to exist independently of the intentions of the author. Freinet's works include descriptions of a number of concrete experiments, conceptions of practical solutions under the general name of "techniques". Hence, there arises a danger of understanding the conception as a set of ready models to be applied mechanically, irrespective of the whole idea, that is outside the overall philosophical context. To exemplify such interpretation of Freinet's pedagogy let us point to the unfortunately common phenomenon of excessive exposition of the above mentioned techniques which is visualized by the whole conception being given the name of "Freinet's techniques".

To sum up it is worth emphasizing that each concrete example, idea, detailed description of an experiment reveals its full meaning only when it functions in reference to, and within the overall conception. Separating the details from the whole structure means the same as depriving it of its original, actual sense, and reducing it to the position of a dull and formal matrix. Copying such matrices, in whatever way we understand the notion, can never be identified with a dialogue.

4. Application.

The Polish language dictionary includes two entries referring to application. One of them is "to apply" as a verb expressing the very act of using, e.g. "to put into use", "to realize in practice", "to use something for a particular purpose", "to perform according to some assumptions, rules". The other entry comprises objects of use. Thus,
we can apply: "methods", "laws", "theories", "regulations", "directives", "customs", "tactics", "moves". If we compare the act of using with its object we can conclude that the object, e.g. a theory, becomes the tool, the implement of the act of application. Hence, relations between the two elements are of technical nature. In other words, applying theory in practice revolves itself into making use of a theory as a tool serving to accomplish concrete practical aims. Thus, we believe, it is commonly associated with technical activity which is evaluated according to its efficiency and effectiveness of application.

The technological approach has dominated contemporary pedagogy as presented in basic academic coursebooks. Such handbooks present goals of pedagogy in the limited form of the answer to the question: "what to do and how to act in order to educate efficiently?"13. The tendency is particularly clearly reflected in general didactics. Here, the rational combination of theory and practice is seen as one of the significant links in "the theory of the teaching-learning process": it constitutes one of the major didactic principles and is a crucial idea in "the theory of multi-directional education" 14. In forming the principle of combining theory and practice, gnoseological principles of dialectical materialism have been accepted, particularly the canon reflecting cooperation of senses, mind and practical experience in the process of cognition, as well as the threefold function of experience. Here, experience is understood as the source of knowledge, the criterion to test its credibility as well as the process of altering or modifying reality 15. It is just the third function of experience that is interpreted as applying theory in practice. Particular laws of science, or regularities observed by it, become the source of principles and rules which form the basis for practical activity immersed in a given material or social reality. The practical steps are adequate to the accepted theory, and in effect we observe the actual process of transforming reality 16.

The technological approach to the question considered above can be summarized in the statement that each and every practical activity
of a man is valuable as long as it is rational; here, it means that it is based on a scientific theory. The statement applies to the activities both of the learners and the teacher.

How shall we, thus, relate this conception of "application" to the actual work of a teacher? Should it really be technical in nature? Can we ever expect to find dialogue in a case when the teacher's task is limited to proper understanding and adequate application? What is pedagogy in this view? Is it theory or practice? Is it basic or applied science? What is it?

The above questions are of immense significance in the perspective of the present crisis in pedagogy, as well as in the light of discussions of the necessity for a self-definition of pedagogy and science in general. However, it is impossible to raise them here in the hope of finding absolute answers. Still, we believe that defining the identity of pedagogy itself, and the finding of their own identity by teachers is of primary importance for the way we understand the nature of combining theory and practice. Meanwhile, such relations between theory and practice in educational activity are generally accepted as desirable, when "practice [is] based on scientific knowledge, and scientific knowledge itself [is] applicable in practical activity".

Critics of technologically oriented pedagogy that derived its methodological status directly from the positivistic model of natural sciences concentrate particularly on two aspects bearing a negative impact on educational activity as a whole. The first question refers to the status of pedagogy as a science. Just as in the case of contemporary tendencies in natural sciences, J. Habermas states, pedagogy has been reduced to "a technical approach to controlling nature" and its goal is seen as transforming and "administering people and their mutual relations within a social and organizational frame". Referring to the topic J. Rutkowiak writes that "in pedagogy we seek positive and 'firm' knowledge hoping to apply it successfully in educational practice on the basis of principles parallel to those which govern the process of
transforming natural laws into technical norms" 19. Such orientation in pedagogy inevitably results in another treacherous tendency: because of the "vocation" of the science it introduces radical separation of theory and practice. It divides men into those who "supply" a teacher with a theory in the form of supposedly valid theoretical solutions, and those who are obliged to put the theory into practice in their own work following technical models 20.

It is not hard to notice that the role appointed to the teacher is here limited to reproductive application. Automatically practitioners are "disqualified" when they do not follow directives of theoretical pedagogy. They are considered "less and less useful for society"21.

In view of the above outlook it is very interesting to study the analysis of "implementation repulse" (the term used by the author himself, H. Muszyński) of the so-called "Poznań experiment". "Theoretically based model proposition for Polish schools" which the author also calls "technology of personality creating changes" reached the phase of "wide implementation", and at this stage revealed all the negative effects of introduction typical of red-tapey systems "spreading ravages" and "becoming the source of exasperation for all": pupils, teachers, and parents 22.

The example of the described defeat encountered while putting a pedagogical theory into practice is interesting not because it "verifies" a reproach previously aimed at technological pedagogy (since the author presents the whole case as his private, authentic tragedy - the tragedy of a theoretician whose work begins to live "its own life" independently of his will or even against it). What is really interesting, and even instructive, is just the fact that the author of the conception meant to be commonly implemented within the whole Polish educational system does not doubt the sense of the very idea itself.

Finally, let us attempt to find an eventual place for Freinet's pedagogy in the paradigm presented above. Hence, we have to raise the question whether Freinet's conception can be applied in practice ac-
cording to criteria valid for pedagogy enclosed within technological limits. We suppose that in the perspective of our initially accepted interpretation of Freinet's pedagogy the answer is easy. His theory cannot be applied in practice as, among others, it does not conform to criteria of an applicable theory. On the other hand, if we try to classify it as a technologically oriented system (science-based pedagogy) we shall soon come across a number of deficiencies which resulted from the fact that Freinet consciously retreated from scientific pedagogy and aimed at overcoming "scientific prejudice"\(^\text{23}\) while thinking of education.

5. Inspiration.

Thus, today there is no agreement on how to define the relationship between theory and practice explicitly. Parallel to the technologically dominated orientation in contemporary pedagogy there exists another opposing thought trend expressing critical disagreement with the above outlined status of pedagogy understood as science applied according to technical principles. The disagreement takes the form of alertness and distrust towards mechanisms transferred from "the world of technical and instrumental activities" into "the world of human interactions and dialogue, the world of communicational rationality" where contact is maintained through symbols, which in turn can occur exclusively among individuals. The essence of education lies in the world where there is no place for rules of "technical administration" based on the logic of aims, means and effectivity if we do not want to offend human dignity\(^\text{24}\).

The protest against identifying pedagogy with implementing a theory stems from all tendencies in contemporary humanistic thought\(^\text{25}\), among others from hermeneutic philosophy. One of its outstanding representatives, Hans G.Gadamer, reflects on the state of contemporary science of man and writes: "Our task is to include man's theo-
retical cognition and technical capabilities in his praxis and to subject them to the praxis, thus it does not mean transforming our own experienced world (...) into a theoretically justifiable technical construction. While differentiating between practical activity (meaning "doing something concrete") and praxis (activity entangled in "the overall life situation of a man") the author says that "praxis is not the same as acting according to rules or applying knowledge, but means the quite primitive situation of a man in his natural and social surrounding.

Similarly Hannah Arendt distinguishes several fundamental forms of human activity: "labor" as everyday effort indispensable for sustaining life, "work" which characterizes "man as manufacturer", and "action" which gives activity its highest value. The essence of action, according to Arendt, lies in the human ability "to begin", "to begin a new process which has no precedent of its own". Action is "sharing the common good", it is activity which takes place among people and so takes on a communicative character revealing the overall sense of human life in world or deed. Action requires the highest level of human consciousness rooted in the world of human experience.

We believe Celestine Freinet understood the sense of a teacher's action similarly. He exposes himself to the danger of being blamed for atheoretical and non-scientific attitude, still he appeals to direct educational experience, to the overall and natural experience of the world, to common sense, initial and natural knowledge, all in order to reconsider the sense of education anew, to free pedagogical activity from eventual dependence on scholasticism, on science derived from formulae of logic pretending to exist independently of the world or the existence of other people. As Freinet's pedagogy consists of records of direct educational experience, it cannot be considered a scientific theory which might be technically applied. While characterizing these forms of pedagogy Tomasz Szkudlarek rightly points out that "every attempt at constructing a commonly applicable scientific theory out of such experience (...) leads to missing their value. This form of culti-
vating pedagogy is spreading mainly due to participation in the real-life experience of existing within a community, due to learning from others and sharing our own experience with them.

A widespread grass-roots pedagogical trend which centered around C. Freinet confirms observations formulated by Szkudlarek. The unique phenomenon of people being penetrated or "infected" by Freinet's pedagogy despite the fact (or perhaps just for the very reason) that it does not fit conditions of a "decent" scientific theory poses, however, great difficulties when we try to answer the question of how and due to what the penetration is possible or how we can account for dialogue between an individual and a written work, a teacher and a pedagogical theory.

Here, we attempt to describe the phenomenon employing the notion of inspiration at the same time perhaps broadening its semantic boundaries and indirectly seeking answers to the leading question raised in the text.

Aleksander Lewin considers the possibilities of the wider use of Freinet's output and suggests that "it should not mean a mechanical transfer of his experience into our realities but rather seeking inspiration in his output, as it allows for a clearer insight into and understanding of educational questions". In the course of discussion held during a session in Gdańsk Lewin distinguished four requirements of inspiration, that is knowledge (in other words being familiar with Freinet's pedagogy), personal attitude, skill, and ability of taking into account actual external circumstances, institutional conditions which he presented as contrary to the very idea of Freinet's proposition.

Romana Miller defines inspiration as "a kind of specific influence of some people on others due to which they feel the need to introduce changes into their actions or way of thinking". Then she adds that "the process is contrary to persuasion based on the logic of argumentation or to ordering stemming from authority."
Lexical synonyms of the term "inspiration" appear in the following configurations: "breath stimulation", "prompting thinking", "insight", "providing and impulse for action", "bringing to realization", "hinting", "bringing someone into action". Referring to the source of inspiration, that is "something or someone that has been the source of inspiration" and under the influence of which a man creates something, we shall find such entries as: "inspirator", "someone sharing his enthusiasm", "moral instigator" and "animator", that is the one who inspires, raises interest, stimulates, encourages, provides a model, enlivens.

The expressions listed above clearly suggest that inspiration does not belong to entirely clear categories easy to define. Its sense is very broad and multilevel, metaphorical and even mysterious to some extent, particularly when combined with phenomena like afflatus, insight or fascination. Let us try to consider aspects of its meaning more thoroughly, let us broaden them and, perhaps, emphasize everything that might be important.

Inspiration is undoubtedly some sort of relation between the source of inspiration and the person who receives stimuli from the source. It can be considered a direct bond when infiltration of an idea takes place between two persons, or indirect when inspiration comes not from an individual but e.g. his work. In this case the work emanates ideas and evokes thinking in someone ready for receiving the stimuli, for feeling them or "becoming infected" by them.

It seems to us that in our further considerations we should pay closer attention to a few of its aspects which might reveal significant meaning levels of inspiration constituting the circumstances in which he might expect a dialogue between an individual and a work, the author and his reader. Hence, it seems worth considering: 1/ the state of readiness of the one who receives signals inherent in the work, 2/ the phenomenon of fascination which seems to accompany inspiration, and 3/ relations between the Master and his Disciple in which case we
can encounter inspiration though it may develop twofold - either as an element which will constrain the pupil, or a factor instigating self-reliant, creative development.

Ad. 1. It seems that a primary requirement for the considered instance of penetration of ideas to take place is a certain state of readiness on the part of the "receiver", that is the individual who is being inspired. The state of readiness in the first place consists of a certain indispensable level of competence. In other words it is of absolute importance for the person inspired not to be ignorant. Another condition of effective inspiration is, we believe, an identical or similar type of rationality and hierarchy of values represented by both partners - the transmitter and the receiver, or the work and its reader. We could say that the whole life of an individual, or his teaching experience, reaches the stage when the man is ready to accept such an idea which agrees with the requirements of his system of values. The individual experiences some sort of an act of discovery finding in the work that inspires him values which make his eventual actions sensible. The text offers those values to him so that he can accept their influence upon him. This leads to actions Jan Strzelecki refers to as "the challenge of value" or "congruent with the value"\(^{34}\). Taking such steps means that the individual feels and accepts an obligation to undergo a test, sometimes even of his own "self". Inspiration can be so adequate to the described state of readiness (when we come across something that has so far been merely our apprehension, conjecture, our pre-comprehension) that it can evoke experience similar to Bruner's "effective surprise" when it confirms the sense of our previous often intuitive performance.

It is not true that the source of inspiration acts in the same way upon everyone who comes into contact with it: its reviving strength is only apprehended by those who are sufficiently receptive to see it and to experience it.

The consequences of acting "according to value" are a separate question. In general following such steps gives little comfort since it
demands a teacher's creative approach, not mere application of ready patterns. It happens that a teacher meets with reluctance or even scorn of the community and discontent of his superiors and other "higher level" institutions. Moreover, lack of quick and spectacular success brings a new wave of insecurity and retards the growth of the feeling of a job well done. Teachers inspired by Freinet are very familiar with such feeling of insecurity as well as with the awareness of taking steps out of accord with the directives of authorities, or even a sense of being different, of thinking and acting "against the current". Perhaps for those reasons Freinet's followers have such a strong need for direct exchange of experience, dialogue, meeting one another, the sense of forming a community, sharing their efforts and achievements. This need enables them to confront and arrive at an objective look at the values of education.

Ad. 2. Inspiration corresponds with the notion of fascination. In his wonderful essay "On Fascination" Jerzy Bukowski defines the psychological state as "emotional submission to the charm of another man which takes the form of uncritical admiration of his personality, desire of following him, need to equal him, and longing to be noticed by him". Because the state does not rather include intellectual comprehension or adequate and logical evaluation, on the contrary, it is of an emotional nature and involves rather trust and the sense of kinship with the object of fascination, it consequently gives rise to the desire of imitating.

Here, we can come across two variations of imitation (or the desire to equal the model): one can be blind, uncritical, and passive in his reproduction of patterns regardless of any alterations in external conditions, or creative, active, individualized, in accord with external and internal circumstances.

The latter form called "fascination within good" by the author allows for releasing enormous energy, need for performance which in turn leads to "excelling oneself". "Fascination enables us to discover
things "in their true form" inevitably evoking an irrepressible need to change the so-far accepted way of seeing and experiencing the world. Furthermore, fascination brings about other consequences, such as abandoning the already achieved outlook and opening oneself to new horizons, to the world of others. It gives us a chance "to study ourselves", to arouse ourselves from our torpor, moral idleness, numbness, sense of decline.

Hence, fascination offers an exceptionally inspiring chance for a dialogue with another individual to take place. "It is a gift which we receive suddenly and unexpectedly" though its outcome depends on ourselves, as fascination can also follow "the path of evil" when it leads to passive and blind imitation, to losing sense of criticism, the ability of independent thinking, voluntary subjection and constraint, to limiting perspectives and remaining insensitive to people, finally to sluggishness and self-assuredness of dubious value which coexists with flattery and toady.

Ad. 3. The question of fascination as a particularly powerful impulse inspiring man to undertake various actions is strictly related to interdependencies between the Master and his Disciple described in the literature of the subject. Barbara Skarga clearly distinguishes the above relation from that which exists between the Teacher and the Pupil. Her criterion is a different type of interdependencies in each case. According to her, the relation between the Teacher and the Pupil is of an institutional character as the student does not choose his tutor, on the contrary, he is imposed on him. On the other hand, the relation between the Master and the Disciple is of an emotional nature and the bond develops "independently of any institutionalized connections": since the follower chooses his master himself. Quoting H. Bergson the author describes the Teacher-Pupil relation as training (or taming) while the Master Disciple one as challenge.

In view of the question of inspiration considered here the Master-Disciple relation is of importance since, like fascination, it opens the
possibility to fill the notion of inspiration with additional connotations. Here we can witness the process of adoption, penetration, the pupil being voluntarily influenced by his master who evokes admiration and the need to follow him.

"Most often one can become the master when he speaks differently and more convincingly than others, when he encourages us to abandon stereotyped ways of thinking, reveals new horizons, (...) overcomes or rather breaks barriers", when he is more trustworthy than others. Jerzy Bukowski believes that the disciple looking at his master holds him in estimation "as an ethically brave man", he admires him for his courage and uncompromising attitude in his efforts to reach high ethical values. "For the disciple the master is a representative of Good in concrete actual reality".

However, in order for a dialogue with the ideas and action of the master to take place the follower need not know him personally or be familiar with his biography. He may only know "his output in which he discovers something fascinating that becomes his source of inspiration, encouragement to undertake creative effort". Thus, the function of serving as the inspiring "challenge" can be fulfilled both by an individual or his work. The whole point is for the admiration, fascination, example or model, when they arouse the need for imitation, to become the source of creative activity, excelling both oneself and the model, not submission and subjection. "Having a master" - says Barbara Skarga - "we must surpass him".

6. Conclusion.

Freinet’s pedagogy is a specific type of phenomenon. While belonging to the trend of "new education" it has remained, unlike any other contemporary tendency, somehow live not only in France alone, but also abroad.
It is impossible for a short study to "discover" and "explain" all the circumstances of the interesting phenomenon. Still, the interpretation presented here leads to the following statement: Freinet did not create a system closed in any respect. His pedagogy is permanently open and enriched just as he meant it to be when he and his companions were creating it. It has remained open today, the number of its co-creators and at the same time co-realizers continuously growing. Due to this his pedagogy has avoided the repulse typically met by closed doctrines "frozen in theoretical patterns" and rigorous performance regulations, irrespective of actual educational problems. Freinet’s pedagogy is being created and simultaneously accepted by teachers "ready to follow the call" of the Master and his Work, people who identify the sense of their professional activity with a responsibility to themselves and their pupils in harmony with their system of values and all-human experience in which education is ever immersed.

However, if that is the case then any attempt at authoritarian or administrative introduction of the pedagogy in the form of an obligatory conception to be adopted will remain fruitless as it will destroy the very process of its creation. That is why trying to choose from imitation, application, or inspiration we emphasize the significance of inspiration as offering a chance for a dialogue between the Author and the Reader, or the Master and the Disciple to occur. Meanwhile we definitely reject technical application of the pedagogy, but leave open the question of the possibilities of imitating it. We prefer to base our hopes on the narrow and winding path counting on the human need to understand and on the need to make sense of one’s own actions, rather than on the wide road, comfortable and safe, relieving the traveller of all doubt and from the need to seek and understand.

Maybe it is just the openness, ambivalence and open endedness of the conception that offers us a chance for dialogue and "a reflective experiencing of our existence" (term used after Gadamer) within the whole praxis, which after all is real education time after time.
NOTES:

4. op.cit.
5. op.cit.
6. op.cit.
10. A voice in the discussion enclosed in: Frankiewicz, Pedagogika C.Freineta - dzieło i inspiracja, Gdańsk, in print.
12. R.Seulz, op.cit.
16. The most thorough study of the question that we can find in Polish didactics was made by K.Lech who distinguished, among others, four separate rules of combining theory and practice (see: Lech K., System nauczania, Warszawa 1964.
17. Palka S., (red.) Teoretyczne podstawy pedagogiki, Kraków 1987 ,UJ.

20. op.cit.


24. Kwaśnica R., Dwie racjonalności. Od filozofii sensu ku pedagogice ogólnej, Wrocław 1987, IKN ODN.

25. Here, we mean not only contemporary philosophy but also humanistically oriented sciences of man which overcome the positivistic canon of science.


27. op.cit.


36. op.cit.


38. op.cit.

40. Skarga, op.cit.
41. op. cit.

Translated by Ewa Nanowska
The improvement of the training of teachers, including the betterment of their knowledge and competence in teaching, depended on the development of education and the tasks facing it over the centuries. In Poland, these processes were similar to those in other European countries. Thus, analyzing the position, scholarship and professional qualifications of teachers from the Middle Ages to the 20th century, one cannot ignore the situations and problems to be solved by education of the time.

The first cathedral schools were established in Cracow, Gniezno, Poznań and Wrocław, and the names of some of the teachers are even known. Also available are some of the catalogues giving the books collected and made accessible to the pupils. Those were mainly the works of the classical authors: Vergil, Sallust, Tucidydes, Justin, Florus, Herodotus, Ovid, etc. The standard of teaching in the parish schools was much lower, although some of them encouraged the reading of Cato, Socrates, Cicero, Seneca, as well as other writers and poets. During the Middle Ages and Renaissance, the syllabuses changed frequently and were gradually improved, mainly as regards the reading list in rhetoric, grammar and poetics, which was reflected in the requirements for teachers.
During the period from the 11th to the 14th century it is difficult to speak of teachers in the strict sense. One can rather mention those who directly or indirectly passed on a certain amount of knowledge to children or the youths, apart from performing various religious functions simultaneously, for example, the responsibilities of priests, preachers, clerks at the court of a lay or ecclesiastic magnate, etc.

Knowledge was transmitted in various ways. Chance persons, mainly clergymen, were often appointed to teach the sons of the upper classes, others were taught by candidates to religious orders, still others - by young people preparing themselves to various public posts in the future. The teaching of children from the plebian classes was restricted to reading, writing and singing.

Several methods of imparting essential knowledge to young persons can be distinguished in the 12-15th century Poland. The first consisted in individual contacts between pupils and teachers, during which the former gained knowledge from the latter's explanations and from books indicated. This took place in both scriptoria, where books were copied, or on occasion of other direct contacts, when the process of forming of works could be observed. The second method was during joint lessons with small groups of pupils, during which chosen literature was read and commented upon. The third method of improving knowledge by both teachers and pupils was very close to the style of living of members of religious orders - self education. Still another method of supplementing knowledge attained was employment at courts or in town administration, during which advantage was taken of previously gained knowledge, in practice. As the result of the educational work of the few schools and universities in Poland at the time, a group of people was prepared for work as teachers and in public offices.

What scope of knowledge and teaching abilities were required of teachers employed in education? It is difficult to supply a univocal answer to this question. The need to train teachers was better under-
stood in the Renaissance. Prior to this period, the improving of knowledge was by imitation and self-education, often by the method of trial and error, this not always, of course, being realised.

The first chronicles devoted to the history of Poland, in particular those by Gall Anonymous (12th century), emphasized the need to expand the teaching programme and for the young people to become better acquainted with the history of their country. The next chronicler, Wincenty Kadłubek (13th century) postulated the educating of the educational and ethical aspects, and emphasizing the responsibilities of citizens towards the state, during teaching, paying special attention to these questions in particular works. The suggestions concerning the teaching programme simultaneously defined the demands facing teachers or persons performing such functions. As I have already mentioned, these were most frequently clergymen, in particular priests connected with the activities of the diocese and individual orders, also occasionally lay people representing various standards of education and training.

The most outstanding, both foreigners and Poles educated in foreign universities or high-standard middle schools, represented the best preparation for the job of teaching. They could read and comment on the works of classical authors, knew many of the works of the Fathers of the Church, and made every effort to read the contemporary dissertations written in Poland. They included some of these works in the curricula, thus introducing pupils to the present-day problems of their own and other countries. Other, less educated and prepared for educational work, were more primitive in their teaching, supplying only the minimum of necessary facts to their pupils.

Of considerable importance in raising the requirements in respect to teachers and their standard of education, were the opinions expressed by the 16th-century Polish philosophers, together with the educational reforms introduced in catholic and protestant centres in the Re-
naissance and Baroque. The next stage was the activities of the Polish National Education Commission founded in 1773.

In the 15-18th centuries, several groups of teachers can be distinguished:

a) private - primarily employed as tutors by the wealthy gentry and magnates;

b) clergy - worked in monasterial and cathedral schools, teaching the seven liberal arts, with the addition of new subjects (history, politics, geography);

c) teachers employed in schools constituting branches of the Cracow University (so-called "kolonie" - colonies), the latter originated mainly from the middle classes, as the post of teacher or university professor constituted an important step in their career:

d) teachers in schools of different religions (e.g. the Polish Brothers, or Lutherans), and finally

e) parish school teachers.

Each of the groups mentioned had different professional training and represented a different level of knowledge. The tasks they were set also differed. The private teachers, both secular and clergy, frequently foreigners, were not always appropriately prepared for teaching work, hence they often made mistakes and their pupils gained mediocre advantages. These teachers were usually employed individually by the gentry and magnates.

In Poland, monastic teachers, particularly Jesuits and Piarists, worked in monastic schools and colleges. They were well prepared both as regards the merits and methods of the work; on concluding their noviciate, they had attended 2-3 year studies in philosophy and theology, then underwent practical training. The Jesuits gradually established kinds of teacher seminaries in Poznań, Warsaw, Wilno, Cracow and Lvov, whereas the Piarists set up similar establishments at Podoliniec and Rzeszów. The training of teachers for work in monastic secondary schools (seminaries, colleges) included university studies or
the graduating from the best seminaries. Attending to various educational establishments, followed by studies in central establishments or at universities, and finally the work as a teacher, was considered as a duty to God, a mission which was to be carried out as conscientiously as possible.

High standards were required of teachers employed in schools subordinated to Cracow University. They had to have a degree, most frequently from the Faculty of Arts from which they had graduated as "Magister" (Master) after four years of studies. Cracow University guaranteed future teachers good professional training, but they had to supplement their educational knowledge by reading treatises of classical and modern authors on the subject. Methodological skills were also improved by participating in debates and lectures organized by the university professors. In 1614, the Rector, A. Schoneus, wanted to introduce pedagogical subjects to the Arts Faculty programme, so that the students might, irrespective of the knowledge of didactics, be able to select material needed for lessons from the point of view of its educational and material value.

Appropriate training was also required from teachers in schools of other religions, particularly those of the Polish Brothers and Lutherans, in Poland. The standard of teaching staff depended, to a great extent, on the affluence of individual schools, whether or not they were able to guarantee higher salaries for their teachers. The schools of the Polish Brothers already boasted regulations defining the qualifications, responsibilities and rights of teachers. In the upper classes, the teachers had to be university graduates, this not necessarily being the case in the lower classes.

A relatively high standard of learning and didactical ability was represented by the teachers (called professors) in the academic "gymnasia" (grammar schools) in Royal Prussia (Gdańsk, Toruń, Elbląg). They were, as a rule, graduates of foreign universities, having gained their education under the supervision of well-known professors and
often boasted degrees of Doctors of Philosophy, also successfully coupling their own research with teaching. The most famous of these included: J.A.Comenius, J. Pastorius, P.Pater, B. Keckermann.

Opinion contained in numerous works of the time, including those of A.F. Modrzewski (De republica emendanda, 1554) and S. Marcius (De scholis seu academiis libri duo, 1551) influenced the increased demands in relation to teachers. They demanded that teachers be prepared to impart professional knowledge, shape the opinions and character of pupils, to ensure they become good citizens. Modrzewski wanted the raising of the prestige of the teaching profession, emphasizing the importance of the teacher as a preceptor of the younger generation which will hold the reins of government in the future. This opinion was not univocally accepted in the 16th century, as, e.g. J.L.Vives considered that a teacher must teach primarily, whereas T. More appreciated also the behavioural influence. The trend towards the integration of the tasks of the school and teacher with the objectives of the state, took shape in 16-18th century Poland.

A new stage in the history of strengthening the position of the teachers and the principles of their training, was connected with the activities of the National Education Commission in the 18th century, as efforts were made to create the model of the contemporary teacher and his essential qualifications. It was required that teachers be open to new concepts of learning and teaching, constantly improve their teaching skills by acquainting themselves with the psychological characteristics and cognitive abilities of young people. The work of teachers was facilitated by preparing programmes for particular subjects, publishing new text-books and instructions as to methodology. Also defined was the course of their training, the relevant fields of study were established at the universities of Cracow and Wilno, several seminars were set up to prepare candidates for the profession. It was foreseen that university graduates with doctors’ degrees would take up employment in secondary schools and those from seminaries - in elementary schools. Practical experience was gained earlier by giving
private tuition or substituting for colleagues in schools. Pedagogical supervision was established by introducing school inspectors. In addition, lower schools were made subordinate to universities, the professors of which were to afford professional care over the younger teachers. Thanks to the efforts of the National Education Commission, groups of energetic and well educated teachers were formed, these being successfully employed also during the following period of annexations.

The professional and social situation of teachers changed completely after Poland lost her independence in 1795. As from then they had to work in schools carrying into effects the Russification or Germanization tasks set by the occupants. Alongside these teachers were foreigners who were usually less well educated, but who concentrated primarily on the divesting of the young people of their national character. In this situation, private teachers once again began to play a specific role almost until the regaining of independence in 1918. These often included outstanding writers and thinkers who taught the Polish youth their national reading, writing, history and literature. The main pressure was always placed on awakening patriotic sentiments. Less effort was placed on formal education and professional training, as the consolidation of Polish national feelings was appreciated more.

The private teachers and those employed in state schools understood their patriotic duties and did everything possible to carry them out to the best of their ability. In addition, they ran clandestine libraries, courses, took care of orphans and impoverished youth, earning universal esteem among the population. Even after Poland regained independence, teachers continued to be held in respect, as their services in the propagation of national traditions under the three annexations were long remembered.
NOTES:

1. W. Grzelecki, Szkoly-kolonie Uniwersytetu Krakowskiego 1588-1773 (The Schools-Colonies of Cracow University in the years 1588-1773), Wroclaw 1986.


4. Ł. Kurdybacha, Zawód nauczyciela w ciągu wieków (The Teacher's Profession over the Ages), Łódź, 1949.


11. R. Wroczyński, Dzieje oświaty polskiej do roku 1795 (The History of Polish Education to 1795), Warsaw 1987.

The traditions of organizing the training of teachers under the supervision of the state in Europe go back to the 18th century, when the preparation of teaching staff was taken over from the Church or private persons organizing schools for the future teachers.

The first institutions training lay teachers in Poland came into existence during the times and under the auspices of the National Education Commission (1773-1794), the first lay Ministry of Education in Europe. As from that time, the profession of the teacher, also called the academic profession, gained the rank of a separate, lay profession, most frequently under the direct tutelage of the state authorities.

The result of the 146-year servitude under the three annexing states resulted in different factual and legal states of education, the result being different systems of teacher training in each sector annexed. The teachers' seminaries in the particular sectors sometimes differed in the length of courses (in the Prussian sector - a 6-year course following an 8-year "Folk" school, in the Russian sector - 3- or 4-year seminary after 4-6 years of elementary school, in the Austrian sector - 4-year seminary after 4 classes of the "Folk" school or lower grammar school), programme and the contents of the curricula. The differentiation in teacher training also concerned the extent of their readiness to work in town and village. This was of tremendous importance in the case
of the different material situation of elementary and grammar school teachers. The teachers' professional organizations established, formed the separate Polish Elementary Schools Teachers Association, the Polish Secondary Schools Teachers Trade Union, the Polish Folk Schools Teachers Associations Regional Union.

The restoration of Poland's statehood on regaining independence in 1918 came up against several difficulties: lack of political stability, economic decline, class conflicts, war damage, lack of experience in the organizing and administering of the state, a Russified and Germanized, as well as ruined education system.

In the areas ruled by Prussia and Russia there was no Polish education, the elementary and grammar schools, as well as universities boasted programmes suited to the needs of the authorities. After the partitionings, the Republic of Poland inherited a highly varied education system with a totally different legislation and form of education in each region. In 1919, 92% constituted single-class, 6% two-class and about 2% - 7-class schools.

This was made worse by the lack of school buildings. In 1920, barely 6% of the schools were in accommodation designed for the purpose. Only 47% of the children of school age actually attended school.

At the time of regaining independence, there were 102 state- and privately-owned teacher training institutions (18 in the former Prussian, 37 in the Russian and 47 in the Austrian sectors). The majority of teachers boasted elementary, incomplete secondary education, or short courses in teaching. Of all the teachers, 54.4% had been so employed for a bare two years and together with those who had worked for 4 years - 62.5%. Only one third of the elementary school teachers boasted teacher training seminaries.

The most important immediate aim of the Ministry of Religious Beliefs and Public Education, established in 1918 and run by Ksawery Prauss, was the unification of education in the regained country and
the gaining of teachers to work in education. The setting up of a uniform education system was also difficult for reasons of language. As the result of Germization and Rusification, some children had to be "re-Polonized", and for national minorities (these constituting about 30% of the total population), it was necessary to organize education in their mother tongues.

The legal regulations of certain urgent educational questions such as: the obligation to attend school, or the principles of the organization and building of elementary schools also embraced the teaching profession. The catastrophic state of the educational staff in Poland on the threshold of independence, as well as the pauperization of teachers, were preliminarily settled by the decree of the Council of Ministers of 18th December 1918 "On the stabilization and remuneration of elementary school teachers" - the resolutions of this meant that teachers became independent of the local administrations, the priests, and the lords of the manors. As from then, the teachers became state employees with salaries equal to those of civil servants. In addition they were entitled to certain social facilities, like free living accommodation, fuel, 2 "morgs" (1 m = 5,600 m²) of land, and a 30-hour working week. Qualified teachers were guaranteed special care and the possibilities of professional stabilization.

During the initial post-war years, 1918-1926, the organization of teaching and educating in Poland reached out for the idea which was popular amongst teachers and went back to the times of the partitioning, the so-called national education. Stanisław Szczepański and Zygmunt Balicki's "National Pedagogy" propagated the world-wide mission of the Polish nation, the spiritual renaissance of which had been possible thanks to the proper, national upbringing of the young people. Several apt, general-educational recommendations can be found in the upbringing of a "soldier-citizen" so understood for the nation as being of the highest value, but unfortunately strongly influenced by the nationalist concepts of the National Democratic ideology. The substance of this concept was taken into account not only in the
organization of the Polish school, in its educational and teaching programme, but also in the training of teachers.

Although teachers were initially trained in seminaries inherited from the invaders and on hastily organized courses, efforts were also made to establish a uniform, state-wide system of training teaching staff, to cover the needs of the community.

On 7th February 1919, a decree of the Head of State "On the training of elementary school teachers" introduced, to a certain extent, a uniform teacher training system in seminaries.

The main form of training elementary school teachers was to be a 5-year seminary, where general subjects predominated during the first 3 years and professional in the remaining two. Cadidates for entrance to the seminaries had to be aged 14 (at least) and had to pass an entrance examination embracing the programme of the 7-class elementary school. The decree also took into account the establishing of elementary schools in the seminaries, where the students could take lessons with pupils, and the organizing of boarding accommodation or dormitories for the pupils. The seminary curriculum paid special emphasis on: Polish, biology, geography, physics, chemistry, history, handicraft, art, music, and physical education. Also planned was gardening and bee-keeping as a form of preparing pupils for life in rural areas. As opposed to the 8-year grammar schools, instead of Latin, one modern foreign language was taught. The professional-teaching training in the last 2 years included such subjects as: psychology, logic, theory of education, didactics, organization of education and school legislation, and the methodology of teaching particular subjects.

Two teaching examinations were introduced: the first after graduating from the seminary and the second - after at least two years of practical experience in school.

The organizing of teachers' seminaries was based on teacher training centres in Prussia and Austria, and when compiling the program-
mes and principles, advantage was taken of the achievements of the teacher training courses of the former Kingdom of Poland.

Given the great demand for teachers in the early years of our independence, the number of seminaries suddenly increased (from 102 in 1918 to 209 in 1922), this including private seminaries.

The country’s economic stagnation in the 30s put a stop to the further development of this form of teacher training and eliminated it in 1932 in view of the education reforms.

As the basic form of training elementary school teachers, the teachers’ seminaries of the inter-war period constituted a better form of training than the similar type of institutions of the annexation period. A uniform structure of schools, carefully prepared curricula conforming with the most up-to-date achievements in education and psychology, a suitably chosen teaching staff, enabled such schools to work out good methods of teaching and education, and the continuation of educational experiments commenced during the annexation. Graduates had mastered several skills and efficiency in the fields of practical lessons, singing, music, natural sciences, teaching and teaching methods. They also became valuable and progressive teachers, educational activists during both the twenty inter-war years and the fascist occupation.

This form of teacher training had, however, two fundamental faults which gave rise to dissatisfaction among the teachers, publicists and education reformers of the time. Teachers’ seminaries, as inadequate, vocational type middle schools, constituted a "blind alley", as they did not afford possibilities of further education at university, nor did they offer teachers full pedagogical qualifications.

Up until the mid-twenties, "preparanda" - 2-year boarding schools (part of seminaries), the task of which was to prepare pupils in the 5th-7th form programmes of the elementary school and eliminate the shortcomings of the elementary school lower classes, constituted a transitional form of preparing candidates for teachers’ seminaries.
Another, widespread form of training teachers were two types of State Courses for Teachers:

Type I - short preparatory teaching courses which did not afford full qualifications and were designed for unqualified teachers. They were mainly organized in the temporary period of rebuilding Poland’s education system;

Type II - this constituted a permanent form of teacher training. There were 2-year preparatory teacher training courses for persons with a general education (6 classes high school) or one-year courses for matriculation candidates.

These courses were taken over by the state as from 1920 and were organized in Cracow, Lvov, Poznań, Toruń, Grudziądz, Łódź, Wilno, Brześć on the Bug. They boasted both faults and valours. The latter included longer, more thorough general education and the right of graduates to take up university studies. Their drawback was too little time spent on pedagogical training and inappropriate recruitment.

The May coup by J. Piłsudski in 1926 put a stop to discussions on the school reform and teacher training for several years. Piłsudski’s government rejected the relatively up-to-date project of educational reform of 1926/27 and began an ideological campaign for the new concept of "national education" answering the reformed social-political life in the country. The creators of a new idea in opposition to that of "national education", were for the educating of citizens loyal to the state and its leaders, a universally developed citizen, prepared for service to and defence of the state, intelligent "state-building work". The basic endeavour to adapt education to the needs of the state was the passing by the Sejm (parliament) in 1932, of a new law on the education system, which went down in history as "the Jędrzejewicz Law". The new regulation introduced several essential changes in the organization of primary, general education grammar and vocational schools, but it cannot, however, be accepted as being fully democratic. There were favourable assumptions, but it broke the principle of uni-
formity of the compulsory 7-class elementary school, guaranteed by
the Constitution of 1921.

A highly important achievement of the new inter-war educational
reform was the announcement to close the 5-year teachers' seminaries
based on the 7-year elementary school, and to establish 3-year peda-
agogical lycees (for graduates from 4-year "gimnazja" or grammar
schools) and 2-year pedagogical schools (for graduates of 2-year ge-
neral-educational lycees) for candidates to the profession of elementa-
ry school teacher.

For the first time, the reorganized forms of teacher training inclu-
ded 4-year seminaries for nursery school teachers (based on 6 classes
elementary school) and 2-year lycees for nursery teachers (based on
4-years grammar school and the so-called "mała matura", the equiva-
lent of the former English "O" level). In this way, three-year pedago-
gical lycees began to operate as from 1937. As compared with te-
achers' seminaries, their recruitment basis was narrower nad they of-
fered a higher standard of education, also qualifying graduates to take
up higher studies.

Irrespective of the pedagogical lycees, there also existed post-ma-
triculation 2-year pedagogical institutions which undoubtedly constitu-
ted a better form of teacher training than the previous State Teacher
Training Courses. During the two years, they could offer good peda-
gogical-professional training and also improve knowledge in certain
fields of general education. They were, however, given an elite char-
acter, as they trained candidates for the highly-organized urban general
education schools. Up until 1938, only 11 such centres were estab-
lished in Poland.

Teacher training schools based on grammar schools not only af-
forded candidates to the profession of teachers a better general educa-
tion, but also the possibility of graduates applying to go to university.
The new system of teacher training placed Poland among the leading
countries in this field: Germany, England and the U.S.A.
Poland’s inter-war system of teacher training also embraced organized forms of additional training of elementary school teachers. These covered: higher teacher training courses, pedagogical and tutorial institutes, vocational courses, regional conferences.

The higher teacher training courses boasted the relatively greatest popularity, as they afforded qualified teachers additional qualifications to teach one of the groups of subjects: the humanities, geographical-natural science, physics-mathematics, handicrafts with art, singing plus and instrument. This form of additional training was very helpful in enabling teachers to improve, within a short time, their general and professional education, but it did not quench their ambitions to gain higher education. This was closed to graduates of teachers seminaries.

In the search for a way out, a new type of centre was introduced - the institute. The best known as from 1918, was the Institute of Pedagogy, established on the initiative of Dr. Józefa Jotejko, which trained teachers of pedagogical subjects for teachers’ seminaries, grammar schools and the conducting of research in psychology, didactics, teaching theory and the history of pedagogy. Three years later, in 1921, the State Teachers Institute was established in Warsaw, its aim being to train teachers of general subjects for grammar schools and teachers colleges.

The life-span of these institutes was short, as they were closed in 1925-1926. Following public criticism, the State Institute of Teacher Training was reactivated in 1930, this being to train elementary school teachers already employed. The 2-year course embraced such subjects as: pedagogy, psychology, social care, the history of culture, philosophy and art, physical education, and cycles of lectures on various fields of life. Under the directorship of the excellent Maria Grzegorzewska, the Institute also trained teachers for social service in Poland.

Apart from this, the private Institute of Pedagogy in Katowice and extra-mural Institute of Pedagogy of the Free Polish University in Warsaw were organized on the initiative of the teachers.
Grammar school teachers were trained mainly by universities. Up until the '30s, separate examinations were organized for candidates to the teaching profession, after having undergone a specific number of classes and lectures. After the educational reform in 1932, teacher candidates had to complete normal university studies and pass a qualification examination after a 2-year period of practical experience. Inter-departmental 2-year Pedagogical Studies were made available at the Universities of Cracow and Warsaw, but the number of places available was not very great.

Lectures in pedagogical subjects and methodologies of teaching individual subjects were introduced at other universities; these afforded professional training and facilitated the passing of the state examination for grammar school teachers.

Such a system of teacher training, although it did not fulfil the perspective educational plans, did give well-trained teachers, distinguishable for their dynamism and determination, attaining increasingly higher education.

Many progressive educational activists and publicists criticized the restricting of the level of training elementary school teachers to lycees and pedagogical colleges, postulating the training of all teachers at university level.

World War II hindered the checking of the value of the new pedagogical grammar schools, as the first graduates were to have taken up employment in September 1939 and those of the pedagogical lycees - in 1940.

The Nazi occupation induced underground, clandestine educational activities, in teacher training also. Pedagogical activities were conducted by some underground pedagogical lycees, higher teacher training courses, the Maria Grzegorzewska Institute with full university studies, the Polish Teachers’ Trade Union’s Institute of Teacher Training, and the Polish Free University.
NOTES:

THE EDUCATION AND BETTERMENT OF TEACHERS IN EXECUTIVE POSTS IN POLISH EDUCATION IN THE POST-WAR PERIOD (1945-1990)

The history of the choice of educational managerial staff against the background of the policy of employment in the Polish People’s Republic is not only an example of the close connections between decisions concerning educational staff and the monopoly of authority of one party, but also of the evolution of opinion and practices in the choice, evaluation and training of such staff. The relativism of these changes was clearly marked in the disparity of qualification requirements, mechanisms of choice of staff and organized forms of managerial training. In Poland, the practice of filling managerial posts in industry and state administration preferred primarily ideological-political criteria, forcing into the background professional, organizational competence and knowledge and the ability to work with people. Hence during the period of rebuilding education following the II World War (the 1940s and '50s), a high percentage of managerial staff in educational institutions constituted teacher-activists and those never previously connected with education and its specific problems. People without the appropriate general and pedagogical education were maintained in managerial posts (mainly educational superintendents and deputy superintendents, as well as school inspectors) for relatively
long periods, and the placing of education under the national (or town) councils in the '50s eliminated the influence of the Minister of Education on the choice of such staff, for all practical purposes. At the same time, the basic examinations in pedagogy ceased to be required of heads of education; the system of exaggerated formalization, injunctonal methods of work increased. The depreciated formal authority of the education authorities remained. In the organization and management of various types and levels of education, the basic problem of the post-war years was the maintaining of the specified and adopted principles of personnel policy, i.e. universality and obligation of the 7-class elementary school and also free education in all types and at all levels of education. The factor on which this task depended was the guaranteeing of teaching staff.

The basic role in the system of improving work in education (mainly that of teachers), was played by various courses organized by school administration and methodological centres (1948-1972).

This idea of organized forms of training managerial staff in education had its good (immediate utility) and bad sides (being set on current training, interpretation of administrative-financial regulations, indiscriminate variety of problems). It should be kept in mind that it was set in the concrete historical-political conditions of the Polish People's Republic and adapted to the needs and possibilities of Poland's educational system. The only available text-books on the organization of supervisory work were those by J. Szurek and T. Pasierbiński.

The political events and struggles against the monoparty system resulted in attempts to bring about changes in the work of the state administration, including education, and the tightening of qualification requirements in respect of those occupying managerial posts in education. At teachers' congresses, it was insisted that the principle of electing heads of schools be introduced and that tenders for the posts should be invited. In practice, certain stipulations were accepted, the
main one being the entrusting of posts of school heads to those with verified teaching qualifications, outstanding in exercising their responsibilities and with a specified period of practical experience.

The idea of competitive selection of school heads did not pass the test (lack of living accommodation, low salaries, limited competence) and once more those chosen were of a highly differentiated standard of education and unprepared for the posts. The fulfilment of the demand that heads of education be specially trained was reflected in the initiating, during the following years, of a trial field of studies "The organization of the school and pedagogical supervision", for extra-mural students of the Department of Pedagogy at the University of Warsaw and several other institutions of higher education. They were, however, only attempts at the spontaneous creating of academic bases of educational management.

The '60s were noted for the introduction of structural (8-year instead of 7-year compulsory elementary education) and curricular reforms, based on the Educational Law of 15th July, 1961. The restructuring of education showed a distinct preference for the education of teachers on a higher level (doing away with 5-year pedagogical lycees, establishing of semi-university teacher training courses, reorganization of higher education), but specialized, academic training of managerial staff employed in educational centres and educational administration was overlooked. The end of this educational reform and beginning of the '70s saw a distinct evolution in the organization of education and improved training of both teachers and their superiors.

Greater interest and appreciation of the organization of work in the whole of Poland's economy followed the political changes in 1970. It was probably for the first time that the strategy of intensive development of education (reform of curricula and an attempt to introduce 10-year compulsory education, including secondary level), with the training of academic staff to handle the task, gained academic rank and political acknowledgement.
The formal assumptions concerning the choice of executive staff were contained in political and ministerial documents. Interest in the problem of staff on the political, economic and academic level attained its zenith. The choice, evaluation and training of staff was to constitute an element of a stable system of personnel policy. Both political and professional demands began to be made of those in managerial posts in the economy and administration (university education, managerial training and experience, as well as ability).

The Decree of the Council of Ministers of November 1973 covered the principles of setting up staff reserves for posts in the state administration and economy.

The predominant accent contained in the documents and publications of the Ministry of Education was of improving the level of education, and ideological-political attitude of the heads of the educational administrative staff.

New employment regulations for teachers came into force as from 1972 - the Charter of Rights and Responsibilities of the Teacher, which raised the qualification requirements of teachers substantially (university degree in pedagogy, compulsory professional improvement). The discussion on the educational reforms defined the changed, increased and differentiated tasks facing the employees of the education authorities (school superintendents, deputy superintendents, school inspectors, rural and urban school heads), as well as heads of care and education centres.

The assumptions of the reform became the basis for more detailed definition of staff qualification criteria. The Charter of Rights and Responsibilities of the Teacher of April 1972 and executive regulations of 1972-75 introduced essential changes in respect of qualifications of elementary level executive staff employed: high ideological-moral and political requirements, outstanding conduct of professional responsibilities, higher education, 5 years of practical experience, organizational abilities, initiative, ability to manage and administer the cen-
tre's property, to form good relations with people, training in administration, training in the organization of work and leading of groups of people.

Different organizational solutions were undertaken. Until the beginning of the '70s (1972) these mainly embraced methodological centres, slightly later were the universities and colleges of education (to 1977), then the specially established (in 1973) Teacher Training Institute (TTI) in Warsaw with branches in provincial towns. As from 1977/78, the Ministry of Education ceased recruiting directors on post-graduate university courses, the job being taken over by the TTI and its provincial branches.

Initially, the training of selected candidates for managerial posts was realized by means of courses, self-education and as assistants to outstanding "chiefs", or practical experience in a large educational institution (e.g. education inspectorates), this consisting in consecutive training in each department. "Hitherto, the method preferred by the ministry was that of short-term courses in the middle of the year or during the vacations, for candidates for heads or managerial posts, but these were organized rather sporadically and not according to any specific country-wide system".

Apart from the Teacher Training Institute's system, over a period of several years, some Polish universities organized their own forms of training managers and directors. In the 1960s, only Warsaw University took up such an experiment. In 1970, the University of Śląsk at Katowice made post-graduate studies available for educational managerial staff. At Kielce, on the other hand, a three-semester post-graduate course was organized from 1971/72 for "voivodship managerial staff" based on Warsaw University's programme. In the following few years, post-graduate studies for short periods in several institutions of higher education (Gdańsk University, Śląsk University, the Adam Mickiewicz University in Poznań, Colleges of Education at Kraków, Rzeszów and Kielce).
The variety of problems and range of programmes was reflected in the names of the organizational forms and their true utility, e.g., "the organization of school and pedagogical supervision", "organization of work and directing the school", "post-graduate course in economics and management of education", "post-graduate course for provincial management staff". These forms of training ended with the instructions of the Minister of Education on the suspending of recruitment and the taking over of these forms by the TTI.

The uniform system of training education management staff created then (as a subsystem of teacher training) within the framework of the TTI maintained the previous basic form of training (in 1972-75): shortened course for newly appointed managerial staff and the restricting of the programme.

Despite certain practical values of the courses, brief preparation for various groups of heads of staff (mainly heads of elementary, vocational, comprehensive schools), it was decided that such courses did not guarantee participants elementary knowledge in the field of organization and administration. During the following years the following three forms were adopted:

1. universal self-education of executive or administrative personnel (as from 1973) run by 18 provincial branches of Institutes of Teacher Training;
2. post-graduate studies in organization and administration of education run by the Centre of Teacher Advancement in Sulejówek and Kalisz;
3. Preparatory Study for candidates for managerial posts in education (for staff reserves, as from 1978).

Universal self-education of executive or administrative personnel in education was of an obligatory character, with a longer period of training (1 year for each group) and was designed for all executive staff in the country, divided into 12 groups, analogous with the institutions of basic employment (nursery schools, elementary schools, orp-
hanages, grammar schools, special schools, etc.). The basic aims of the course were: "...the introducing of the majority of directors or heads into the problems of the theory of organization, inducing them to adopt the assumptions of the theory in practice and confront the theory with their own practice, finally the arousing of the need for systematic up-dating of the knowledge required by them as teachers." The main idea of this type of general courses was to afford participants the organizational knowledge and competence to improve management. It ensued from the research on the diagnosis of the readiness of educational staff to introduce the reforms in the system of national education, that 12,500 of the staff had undergone such training, i.e. about 28% of the total number of school or departmental heads, and an analysis of the efficiency of the training brought to light insufficient assimilability of certain subjects.

On the other hand, post-graduate courses in organization and administration lasting 2 cycles of 1.5 years were initiated in 1974, 3,000 persons having completed them. They were designed for the managerial staff of schools and other educational-teaching posts, and also the school administrative staff at all levels, those attending boasting university degrees. Seminar groups were formed according to the types of institutions or rank in the organizational hierarchy. The education and school boards handled recruitment. The study programme embraced three subjects: the basics of organization and management theory, the management system in Poland on a comparative basis, the managing of educational-teaching institutions. Other subjects (e.g., chosen problems of the psychology of management or methods and techniques of research on the work of a school head) were of an auxiliary or supplementary character. Altogether there were 230 hours of lectures. As the studies covered elementary and introductory problems, one can agree with many authors that it was a form of education and not improvement. This was a higher form of management training as compared with the formerly described, as it was uniform throughout the country as regards programmes and plans, with examinations, collo-
quia, tests and diploma examination in front of a special board. On the order of the minister of education\textsuperscript{14}, in 1977 some branches of the Teacher Training Institute took over the organizing of post-graduate studies in organization and management. The number of such branches depended upon the qualifications of the teaching staff in the centres.

It was only in the 2nd half of the '70s that the importance and role of training candidates for the posts of head or administrator (training of staff reserves) was appreciated. This meant that the education authorities wished to lessen the risks arising from employing untrained staff. On the other hand, the organizing of such a staff policy as training staff reserves also created motivation for work in teaching circles, where promotion was rare. The training of teachers for higher posts in education in the years 1978-1982 was on a course covering the organization and administration of education for candidates for managerial positions. Participants constituted teachers qualified by schools and education superintendents as reserve staff for various posts. The decision not to give the positions to those belonging to the reserve staff was an important condition in the organization and structure of the training programme. The reason for this was to acquaint candidates with the general principles, methods and techniques of managerial work in various fields.

To fulfil the training programme, various forms of work were introduced: educational activities (lectures, workshops, seminars, consultations - 54 hours), self-education in 2 sessions, individual practical training in a managerial position (12 days/6 hours per day) in special teaching-educational institutions, 2 papers on the theory of organizing and directing of educational-teaching institutions, and the final examination. Altogether, 168 hours were assigned for work with students. This was the highest of the previous forms of management training and after the initial introduction in 8 vivodships it became universally adopted throughout the country\textsuperscript{15}. The value and efficiency of functioning of the courses should be assessed from the point of view of the aims set and their place in the whole system of education.
A basic legal and practical shortcoming can be noted in the organization and progress of training processes for educational management staff in the ’70s and ’80s. Observations of practice as regards the qualifications of educational managerial staff in the regional administration have shown that clearly defined qualifications for managers in education referred solely to directors and their deputies in centres of basic activities, ignoring altogether the managerial staff of educational administration. It was characteristic that apart from a few cases, the training of managers embraced mainly the basic personnel. In reality, only the legal comments to the ministerial instructions inform us that staff employed in the school administration organs (i.e. superintendents and their deputies, inspectors and their deputies) are employees of the regional state administration and thus come under the provisions of the Act of 15th July, 1968 concerning employees of national councils. Hence, in the legal regulations of the department of education there were no qualification requirements defined in respect to such employees (there was also a similar lack of regulations concerning managerial staff of state administration). The Instructions of the Council of Ministers of November 1973 and those of the Minister of Education of the ’70s, put all managerial staff under the obligation (irrespective of position held) to improve their professional qualifications. In practice, the education authorities did not fully utilise the limits available to direct staff to attend various forms of managerial staff training. The true situation was that the directives only obliged centres to fulfil their tasks formally. Recruitment for courses was chaotic and not synchronised with the needs of the region. Educational and teaching superintendents and school inspectors responsible for recruitment and the qualifications of staff, for the most part did not themselves participate in the organized forms of management training, hence their distinctly neglectful approach to compliance with the obligatory qualification requirements in the choice of staff and recruitment in the courses organized. The situation was worsened by the hierarchical subordination of voivodship needs to train and improve the teaching staff.
The new political-social conditions in Poland after 1981 and the different situation in education (lack of teaching staff and changes in managerial staff) resulted in changes being made in the previously functioning system of training managerial staff by the central education authorities and TTI in Warsaw in 1983.

The main aim of training and improving managerial staff in the teaching and education system continues to be the gaining of the necessary knowledge and competence to ensure efficiency in the conducting of managerial functions, and raise the organizational standard of schools and other teaching-educational centres.

The basis of the substance of the training and improving of educational managerial staff also embraces the theory of the organization and administration of education, educed from the general theory (mainly from the praxiological trend), and empirical studies based on educational management.

The forms of training introduced as from 1983/84 refer to two separate managerial functions: managing of educational institutions as centres of the basic activities, and conducting control-supervisory functions.

For the first time in the evolitional organization of improving the qualifications of educational managerial staff, the form and contents of course programmes were adapted to the character of various posts in education. Also for the first time, acknowledging a certain organizational equilibrium in the education administrative system (including staff policy), different organizational forms were introduced, these enabling the differentiating of training and improvement. This constitutes a certain indication of modernizing the whole process of training, bringing it closer to the more developed systems of other countries.

Three forms of training have been introduced to ensure that the managerial staff obtain the necessary qualifications:

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1) Introductory courses for newly-appointed managerial and reserve staff;

2) A course in the organization and administration of education for managerial staff;

3) Post-graduate course in the organization and administration of education.

The introductory course for newly-appointed managerial and reserve staff was based on the experience of the previous course for reserve staff and was basically of an obligatory character. The course consisted of two terms and 10-day practical training, the whole taking 126 hours. Of the aims of the courses, worthy of note are the acquainting of course members with basic difficulties and problems of new managers, facilitating of the adaptation process at work and the steering towards self-education. The preliminary course ended in an examination before a board, the certificate awarded qualifying the holder to take up a managerial post in education.

The next form of managerial training in education was for both managerial personnel without university degrees and for teachers interested in the problem of organization and administration. The course not only provided students with elementary organizational knowledge, but also taught principles of efficient organization of work, organizational culture, organizational competence, efficient organization of managerial work. The whole course (120 hours) was divided into 3 parts (introductory, methodological seminars, recapitulation) and ended with an examination. The final certificate confirmed the holder's qualifications to manage/administer a school or other educational centre.

Both introductory courses for newly appointed and reserve staff, and the courses in organization and management for directors (heads) and teachers in basic centres, were organized and conducted by regional branches for teacher training.

The third and highest form of training and advancement of managerial staff was conducted by the Teacher Training Centre at Sulejó-
wek and two regional branches (Gdańsk and Kalisz) for specialized teaching staff. The post-graduate courses in organization and administration of education, lasting 3 semesters, were for managerial staff of both educational-teaching and educational administrative centres, at all levels of management. The main aim was to improve the professional qualifications, improve knowledge in special subjects, to enable the efficient conducting of managerial positions, as well as diagnostic and study competence in the field of educational management. The course programme was adapted for specific groups of participants, with the possibility of further differentiation of contents: managerial staff of general education centres, managerial staff of vocational schools, managerial staff of special schools and care-education centres, managerial staff of basic and voivodship education-administration centres, managerial staff of the central educational organs. Post-graduate studies covered 3 semesters (230 hours) for external students. Seminars, examinations and presentation of theses before a commission constituted the evaluating forms of participation and completion of the course. The completing of post-graduate studies and obtaining of a diploma formally testified as to: the stability of the graduate-manager in the post occupied, future professional promotion, and constituted a condition for applying for a specialized professional degree.

Apart from the forms of training managerial staff mentioned, the concept introduced in 1983 took into account the following forms of professional improvement of educational managerial staff, depending upon interests, education and possibilities of participants:

- self-educational problem groups as a mass form of in-post improvement and counselling, mainly conducted with groups of directors and deputies of corresponding types of educational teaching posts in various voivodship towns: the self-educating groups were under the essential and organizational supervision of the regional branches of teacher improvement and educations and teaching board. They were conducted by employees of Teacher Improvement Centres or graduates of managerial training courses. 30-person groups met 2-3
times during the school year, submitting the subject covered themselves. The aim of the meetings was to improve the ability to manage and solve the problems of managing a school or centre on the basis of knowledge gained and exchange of experience;

- research-teaching seminars and post-graduate doctoral studies in educational management, were organized by either the Teacher Improvement Centres at Sulejówek, or by other institutes in the country. They were mainly designed for academic teachers engaged in teaching the educational management staff and post graduate studies in the organization and management of education for those showing greater interest;

- consultations, conferences, specialized courses and others. These are extemporaneous forms of improving managerial work, depending upon the concrete demands of the teaching circles or individual self-education. Here, consultations concerning the training of directors and managerial staff of education administration to obtain the grade of professional specialization in organization and management. Seminars for the directors of teaching-education centres conducting research or presenting dissertations on education management, were also significant. The publishing of communiques on research, or participation in discussions at seminars, played a significant role in the dissemination of knowledge.

The organizational forms of training and improving the managerial staff in education presented above, already boasted an established position in the '80s and constituted an evolutionally higher, modified part of the subsystem of teacher training and improvement. In the opinion of some educational researchers and authorities, managerial training courses played a very important role in improving the standard of Poland's managerial staff in education. It must be admitted that the effects were not utilized sufficiently in the staff policy, and the authors of the concept of educating and improving did not foresee such resistance to changes in the old structures of education management.
The regress in education management at the close of the '80s was a distinct example of this and the political changes of 1989 in Poland only accelerated the unsettling of the delicate balance.

The change in political system in Poland after June 1989 had considerable consequences for education, including the training and improving of managerial staff. The sudden and complete exchange of managerial staff of all educational institutions, irrespective of the level of management and administration, together with reorganization of institutions training such staff, has not, as yet, afforded either new, or better concepts, forms of work or curricula. By the end of 1991 all forms of training and improving what was then new managerial staff, disappeared and a new concept of organizing a system for the training of this staff remained suspended in mid-air.

In the situation in Poland's education, facts overtake legal regulation considerably. For over 2 years, non-public nurseries, elementary and grammar schools have shot up spontaneously. Their organization and functioning is regulated by a new Law on the education system (7th September 1991), but the neuralgic and open problem remains the mechanism of choice and managerial training of heads of posts. Practice has proved that free choice in this respect exposes both local societies and pupils to negative consequences. The impression that arises is that in this field also, social-political stabilization and suitable legal regulations of the ministry of education will enable rational operation.

NOTES

2. Trzebiatowski K., Organizacja i podstawy prawne szkolnictwa vol.II, WSP Gdańsk 1966, vol.III WSP Gdańsk 1968; Wojtyński W. O kształceniu nauczyciela szkoły podstawowej w Polsce i na świecie, PSWS, War-
saw 1971 ;Mauersberg S., Reforma szkolnictwa w Polsce w latach 1944-1948, Wrocław-Warsaw 1974


4. Szurek J., Organizacja pracy wychowawczej w szkole i rola inspektora szkolnego, Warsaw 1949; Szurek J., Broda S., Organizacja pracy w powiatowym wydziale oświaty, Warsaw 1953; Pasierbiński T., O pracy inspektora szkolnego, Hannover 1945.

5. Office Gazette of the Ministry of Education 1957, No 5, it.52; 1956, no 12, it. 63.

6. Educational Convention (May 1957) postulated to discuss the problematic of school management and managerial training on the scientific basis.


11. Instruction of the Ministry of Education of 13.09.1974 (No 0P7-MK-0171-4/74) about creating after graduate study of management of education in the Institute of Teacher’s Education.


13. Kierowanie oświatą i szkołą, op. cit.,


16. Siwoszko J., Kadra kierownicza oświaty i jej sprawność w zarządzaniu szkolnictwem (na przykładzie Makroregionu Północnego), Instytut Badań Pedagogicznych, Warsaw 1984; Studia Pedagogiczne, vol. XLII; Kierowanie oświatą... op. cit.,
As a field of studies, pedagogy was called into being for the first time in 1926, at Warsaw University's Arts Department. The main aim at that time was to prepare specialists - teachers of pedagogical subjects in teacher training institutions - mostly at the middle school level: teacher training seminaries, and after the war pedagogical lycees. The studies also afforded specialization in the field of theoretical problems of teaching. Graduates were awarded degrees of Master of Philosophy in pedagogy. The study course included viva voce exams in:

1) an outline of the history of philosophy,
2) logics with methodology and the theory of cognition,
3) general psychology,
4) educational psychology,
5) experimental pedagogy,
6) general pedagogy and didactics,
7) educational jurisdiction and the organization of education,
8) the history of education.

Students had to take written examinations in subjects embraced in an extended programme of one of three fields: pedagogy, the history of education or psychology.
During three semesters, students had to attend "proseminars" in pedagogy and workshops in psychology. The curriculum also covered subjects of choice, which included 1 of 8 available foreign languages, Polish, history, geography, petrography, crystallography, general biology, zoology, botany, chemistry, physics and mathematics. One of these subjects concluded with an examination. The course lasted almost 4 years (11 semesters) and the students could choose their degree seminar from the chosen field of pedagogy or psychology.

The curriculum presented was in force throughout the whole inter-war period and the initial post-war period up until 1952, no greater changes being introduced. During the Nazi occupation, study courses were continued in underground groups organized by Warsaw University. During the occupation, another teacher training centre was organized by the Polish Free University, which also maintained an active underground teacher training course.

The demands as regards qualified teaching staff changed after 1945, the curriculum also gradually changing as compared with the inter-war period. New fields of employing teachers-tutors adapted to the needs of various areas and the new situation in the country. The curriculum included new subjects such as the basics of cultural-educational work, the dissemination of education, problems connected with general and vocational education, the development of social activities, etc. Apart from Warsaw University, new centres began to offer pedagogical studies - Cracow and Łódź.

In 1946, Jagiellonian University opened up pedagogical studies in the field of adult education, whereas Łódź University organized studies in social pedagogy.

There were no admissions to educational studies at Warsaw University in the years 1949-1952. What was opened, on the other hand, by the same university, was 2nd stage studies as from 1952/53; this course was open to those employed in education who had previously completed a three-year 1st stage course. Graduates could take up em-
ployment in teacher training institutions - they lectured in pedagogical subjects and later in secondary colleges of education and next in teacher training colleges. Many graduates took up employment in the field of extra-school education, various forms of child care, cultural-educational posts, etc.

An outstanding event in the development of pedagogical studies and the academic training of teachers was the establishing, in 1953, of the first Department of Pedagogy in Poland, in Warsaw University. It was then (the 1953/54 academic year) that uniform, full-time pedagogical studies were established. After 1956, they were also reactivated in other university centres. Depending upon the social demand, these studies were frequently reformed, particularly in the years 1956/57, 1962/63 and 1973/74.

According to the concept of studies from 1956, there were two courses of studies: a) pedagogy, b) in the field of an additional subject (choice of subjects: biology, history, Polish). Universities continued to train pedagogical staff for work in teacher training centres (pedagogical subjects), and teachers of general subjects in which they graduated, apart from pedagogy. The training profile was extended considerably, as many graduates were able to take up employment in various fields - health, culture and art, jurisdiction. Specialized subjects (basic pedagogical subjects), and fields related with the science of education and behaviour, gained a higher ranking. Practical pedagogical work in teacher training institutions, care and resocialization establishments, institutes of education and culture for adults and social work increased. In the following years the additional subject was rejected, and as the result of study reforms in 1965, specialization was introduced on IV and V years. Students could chose facultative studies in special pedagogy, social, or school pedagogy. The number of special fields increased with time. Several groups of subjects were distinguished in the curriculum: social-political, elementary, facultative, supplementary, additional, as well as attending of lessons conducted by other students and practitioners. Although various forms of specialized fields
existed, the character of training continued to be too traditional, the 
university still trained "teachers".

The introduction of certain modifications into the study plans and 
programmes did not fully correspond to the needs of the society, the 
professional profile of the graduate in pedagogy was off balance. The 
taking up by graduates of employment in elementary or primary scho-
ols in additional subjects, to an increasing extent, was not the best 
solution. The insufficiently outlined professional profile of a graduate 
in pedagogy resulted in the fact that from being a complementary 
function of education, the additional subject grew into professional 
specialization. Not being specially trained as a teacher in special insti-
tutions, the graduate of pedagogy entered the teaching profession thro-
ugh the "side" gate of the additional subject.

Critical opinions concerning the previous concept of pedagogical 
studies also began to appear in the columns of pedagogical periodicals. 
The discussion on the subject was provoked by the articles by M. 
Kreutz and B.Nawroczyński published in "Nowa Szkoła" (The New 
School) (1959 No. 9, 1960 No. 2, 1964 No. 11). The breaking away 
of teacher training from educational-teaching practice and the univer-
sality of the syllabus was universally criticized: the superficial treat-
ment of subjects associated with pedagogy (psychology, philosophy, 
sociology) and insufficiently outlined training profile were the subject 
of complaints. M. Kreutz openly stated that: "We are training not 
pedagogues, but only superficial dilettantes". The majority of critical 
opinions on the subject of the shortcomings of pedagogical studies and 
the need to carry out further reforms was pertinent in view of the 
divergences of the assumed functions of education with the factual 
one. This was confirmed by my studies on graduates of pedagogy.

In the '60s, the additional subject was abolished and there was no 
further need to train teachers of pedagogy for the secondary educatio-
nal colleges, as these gradually disappeared, whereas teacher training 
studies, as from 1969, were transformed, in many centres, into univer-
sity level courses. In view of this, new fields of employment, mainly outside education, opened up before the graduates. The main reason for suspending recruitment for pedagogical studies towards the close of the '70s and beginning of the '80s, was the disappearance of the non-academic teacher training institutions. 1973 proved to be the turning point, as a new concept of country-wide reforms of studies was introduced.

The higher schools of pedagogy, introducing studies in the field of pedagogy, followed a different path. The Higher School of Education in Gdańsk began to introduce an experimental concept of training pedagogues on full-time courses beginning with the 1959/60 academic year. The innovation in this concept was that candidates were not admitted immediately following matriculation, but on completing a teacher training school (or other first degree specialized studies) and at least three years (two years in the following period) practical experience as a teacher. The study course in the first period lasted three years, this being extended to four later.

Candidates for the third year of intramural studies were more mature both physically and mentally. As students they attained good results and the standard of their degree theses was also high. Thanks to their maturity, the students of pedagogy greatly influenced the improvement of the life-style and attitude of those in other departments. The type of student who was professionally employed prior to taking up studies left a specific impression on the university. The students valued their studies highly. I have illustrated that pedagogical studies are impossible without concrete knowledge of pedagogy and educational processes. From this point of view, the Gdańsk concept of pedagogical studies awoke considerable interest.

The organizers of pedagogical studies in Gdańsk assumed that studies bear more fruit when the student knows the school from his/her own experience and pedagogical practice. The university could concentrate better on educational subjects and cut down the study cycle...
to three years (later four) due to the student already boasting a first specialization (auxiliary subject) in the range of the teacher training study. The organizers of the studies did not concentrate on the training of teachers of pedagogy, but were interested in graduates returning to their places of employment and playing the main role, primarily in schools. It was thus assumed that after a certain period, the heads of schools, care and education posts, teachers in schools cooperating with teacher-training institutions, instructors and heads of sections in special centres, employees in pedagogical supervision and certain extramural educational institutions, would be recruited from this well-educated group of pedagogues. It was expected that graduates would return to their places of employment with much broader intellectual horizons, better understanding of the social needs and tasks of school, a knowledge of the most up-to-date achievements in education and that they would be followed in their good work by others. It was also assumed that such graduates would constitute the "yeast" which would stimulate their professional environment. Later studies on graduates indicated that there existed considerable divergencies between the function assumed and that actually existing, as regards the training and educating of teachers.

The previous two-directional studies in education functioning in many universities in the country became "antiquated". Training in the field of an additional subject qualifying graduates to teach in elementary school proved insufficient in view of the gradual improving of qualifications of teachers. Apart from this the choice of subjects was most frequently restricted to Polish and history. The practical training of graduates was also poor. Complaints were that studies did not conform with the demands of life and practical work in school, to say nothing of their verbal character and dillettantism, lack of full rights to teach concrete subjects in school, as well as difficulties in finding employment. The next suspension of pedagogical studies at the beginning of the 70s, was also not the best solution. This held up the influx of new teachers and the training of young personnel. The effects of
these decisions were felt for many years. The point was that pedagogical studies be radically reformed and adapted to the changing social needs and not abolished.

Pedagogues-teachers began to be trained basing on completely new programmes after 1973. The basic change consisted in candidates deciding as to choice of specialization (school education, education of those in care, education in the field of culture and teaching, defensive education, special education, primary school teaching and nursery-school education). The range of specialized fields underwent some modification in the following few years. There were also changes in the plans and programmes of studies.

During the present period of transformation in the country’s system, changes leaning towards the modern model of university studies are being introduced. Thanks to introducing the assumptions of the reform, the more elastic organization of studies, primarily individualization leading to the activation and independence of students, became possible. It is foreseen that the teaching programme for the first two years’ studies will be identical or at least as similar as possible in the whole department (e.g. of social sciences). Students will be enrolled in the department and not specific field of studies. The number of obligatory classes will be cut, which will enable students to spend more time on their own study. At Gdańsk University, pedagogical subjects have been divided into three groups: compulsory, facultative and free choice by the students. A credit system is to be introduced.

At Gdańsk the previous programme (very strict and compulsory) is being substituted by one which is more elastic and offers a choice of subjects to suit the interests of each student.

NOTES:

Barbara Z. Malecka
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THE TRAINING OF STAFF FOR THE NEEDS OF EXTRA-SCHOOL ADULT EDUCATION

The question of training staff for the needs of extra-school education of adults is strictly related to the state of conventional education for children and young people. It also concerns its structure and functioning, the effectiveness of training and its criteria, the aspirations and motivation for learning. It is finally connected with the standard of training of teachers employed in this branch of the education system. Whether and to what extent adults will take advantage of extra school adult education centres will, in effect, depend on what and the level to which they will be taught at school. Whether and what kind of passions and needs of development it will arouse in them?

Extra-school adult education centres may fulfil a compensational function in the work with adults, in relation to conventional education, on the one hand, and on the other - accomplish its proper function, affording the adult the possibility of fulfilling educational aspirations and the possibility of spending time to the best advantage.

Not only the everyday observations and experiences related with the work of the schools are disquieting, however, but primarily the results of studies on their efficiency. It has become evident that "the inefficiency of institutions concerns, primarily, their elementary functions. The school does not do that which is its primary function, it
does not teach the understanding of the meaning of its own and universal culture, it does not afford an elementary orientation in the world to those who cannot gain this without school. Attempts to reform the education system in the years 1971-1989 proved unsuccessful. Education is destitute both as regards material and staff. (...) Society, which regained the right to make its own decisions and full, free choice, lapsed into silence on the subject of the development of its own children, they who are subjected to the greatest threat¹. The author defines the result of such a state of the universal system of education functioning in Poland at present, as "educational poverty" and "a vicious circle of cultural poverty"².

In this situation basic questions arise for extra school adult education: who will be the adults who, for various reasons, will take advantage of centres belonging to this system? How will they be generally and professionally prepared for life in our complicated and universally difficult reality? Will they be responsible people? What will be their moral and ethical standard? One could submit numerous questions. What is, however, disquieting, is that the answers to the above exemplary questions are not always favourable. Let us put it another way - from the formal point of view, they will be adults for whom the basic determinant will be chronological age. They will not always, on the other hand, be people whose maturity will be able to be defined by positive qualitative, informal indices not mechanically connected with their actual age. They will probably be "difficult adults". Adults may appear in extra-school educational centres from sheer necessity, as a result of the pressure of circumstances compelling them to learn, in order to retain their professional or social position. There may also be such adults who will seek the possibility of continuing the development of their interests, passions, aspirations, in extra-school adult education centres. They may treat attending such centres as the chance to become acquainted with and develop what are for them new fields of knowledge or abilities. The latter two groups will base their participation on voluntary choice, and the centres must
be sufficiently interesting to attract them with their wealth of offers, variety of contents, forms, methods of conducting subjects.

The attractiveness of this type of centre, for all potential groups of adults, is influenced by the people employed there. It must be their profession and not just a fortuitous job which only appears to be simple and not require qualifications. Such an approach, occurring also in practice, can be met particularly in respect of that group of employees of the narrowly comprehended group of employees of extra-school adult education employed in such classic cultural-educational centres as: clubs, youth clubs, community centres. No essential changes have taken place in respect of this group of employees since 1973 - they continue to be educated or trained on post-secondary school courses, cultural-educational studies and at university graduate level, in two fields: pedagogy and culture.

In view of the programme and its fulfilment in particular universities or colleges, the following concepts of education can be distinguished: the pedagogical, that related to the dissemination of the attitude of active participation in culture, and the instrumental.

The pedagogical concept is based on the assumption that cultural-educational activity is a tutorial activity. A cultural-educational employee is a trained teacher, possessing knowledge in various subdisciplines of education and knowledge of the functioning of various educational institutions - from nursery schools to institutions for the propagation of culture. He or she also boasts knowledge in the field of the methodology of cultural-educational work, psychology and sociology. This concept is based on a very broad profile of educational training, which ensures good organization of cultural-educational work in various environments. University studies in the field of culture train personnel for the organization of and participation in cultural events. They should be both active and creative. A cultural-educational employee is primarily and inspirer and animator of cultural life. He or she should be prepared (...) "primarily for work of a conceptional type, for the
directing of activities in the system of cultural operations, to inspire, design, and programme the forms and fields of development of cultural life and its organization. The basis for this is the widest possible knowledge of culture, supplemented with practical knowledge and abilities. The instrumental concept of training cultural-educational personnel assumes "that education at university level should afford basic theoretical and general knowledge, but graduates should primarily acquire instrumental knowledge and practical skills.

It is difficult to decide with certainty which of these concepts is the best, or to define distinct boundaries. There is a lack of sound empirical studies concerning the efficacy of graduates trained according to the concepts given.

Extra-school adult education is treated in its broader sense in the present study, and thus embraces not only the cultural-educational centres mentioned, but also all those outside the traditional class-lesson education system. The classification proposed by F. Urbańczyk could be adopted to illustrate its extent. The author proposes the differentiating of the following systems of working with adults: class-lessons, correspondence courses, unconstrained education by means of the written word and a system of self-education. Thus without going into discussion on the merits of the proposed division, it can be observed that extra-school adult education embraces all systems with the exception of that of class-lessons. Such an extensively developed system employs not only cultural-teaching staff. There are also those whose job it is to popularize learning, art and technology in centres of a non-cultural-educational character. They could be described as extra-school educational centres, in view of the basic purpose on their activities. Thus extra-school adult education embraces two groups of centres: cultural-educational and educational. The two analogical groups of employees constitute the basic element of their functional structure. Schematically, the interdependences in an extra-school adult education centre can be presented as A↔B, where "A" denotes the employee, "B" - the adult participant, and the two-way arrow - the interaction.
In Polish andragogical literature the objective treatment of the mutual relationship between "A" and "B" is finally being abandoned as the relationship assumes a one-way action (A→B), expressed in the relationship: the teaching and the taught. "Contemporary adult education wants to break away from the objective relation, aiming at the subjecting of all stages of educational activities, starting with planning. This is expressed in the planned methods of educational work: examination of participants, method of self-government, activation of local society, educational advice. As the subject of educational activities, an adult means the systematic relations between the pupil and the teacher. This relationship is defined by contemporary psychology as transactional, aiming towards mutual communication and understanding, the change-over from the position of receiver to that of transmitter and vice versa."

The subjectivity of mutual relations is the basic feature defining the specifics of the training of staff for extra-school adult education. This is related with the demands the employee must meet, in order to retain the subjectivity of relations in direct or intermediate contact with the adult. The employee must be able to recognize the adult participants and their needs, aspirations, problems. An adult boasts a certain amount of knowledge and experience, a particular position in society, functions within the framework of social and personal contacts, boasts his or her own reflection, interpretation and reinterpretation of events experienced. The employee must be aware of this and know the adult with whom he or she is working.

The effect of the mutual subjective relationship between the employee and adult is that the roles they fulfil are not completely or permanently defined in a concrete situation, as during mutual contacts they change continually - the polar positions of "A" and "B" may be changed. The adult is frequently the one who advises or informs the employee, the animator of more efficient methods of operation or contents of which adults are in greater need.
The previously mentioned concepts of training employees are also connected with a discussion on the subject of their professional qualifications which would prepare them reasonably well to carry out their work. It is proposed that two levels of qualifications be accepted for employees:

a) a general level, compulsory for all employees (in all concepts of education) irrespective of that required for specialists,

b) the specialistic level, embracing more extensive knowledge, competence and efficiency, strictly connected with a particular field of cultural-educational activities, group of tasks, or type of institution of future employment.

The acquirements required at the general level include:

- elements of social-political subjects (philosophy, economics, political science, etc.),
- elements of socio-psycho-pedagogical knowledge (general and developmental, as well as creative and social psychology, general sociology with elements of that of culture, the theory of education, social pedagogy, andragogics, etc.),
- elements of the science of culture, including art, symbolic communication and the history of culture,
- elements of praxiolegy and general methodology of cultural-educational activities.

At the specialist level, knowledge is differentiated according to the type of specialization (or particular field within a particular specialization).¹⁰

That the system of training employees in extra-school adult education is not a uniform system is also illustrated by the fact of differentiation of the groups of employees, depending upon the criterion of division. For example, three groups of employees can be distinguished because of the choice of the specific method of operation. These are:
- employees perceiving mainly cultural values (known from the literature as organizers of cultural life),
- employees preferring the educational values, so-called teachers,
- employees treating cultural and educational values equally - the so-called animators.

In practice, none of the groups of employees distinguished is particularly preferred. It is worth adding that the authors point out the possibility of distinguishing an additional, previously non-existing group of cultural-educational employees - owners (leaseholders) of centres for the dissemination of culture and education.

The main aims of work of organizers, animators and teachers are given as: the retaining of cultural values, stimulating to participate in culture and elicit changes in environment and individuals. The necessary personality characteristics are given as: efficiency, activity and creativeness, and for teachers: optimism, kindness and ease of contact.

In the various categories of the rich, although frequently disordered subject literature, insufficient attention is drawn to such an essential matter as the place and role of the adult (participant) in contact with the employee. It is imperative that the subjective character of this be brought into prominence, irrespective of the divisions or categories of employees we have to deal with.

Thus the problems and particular character of the work (and thus also the education) of extra-school adult education employees consist of:
- work with adults and the resulting extensive consequences, in the shape of the multitude of forms and differentiated character of the profession;
- the subjective character of the mutual relations (awareness of this need and ability to retain the subjectivity),
- extensive training to practice the profession (substantial, methodological and specializational).
NOTES:

2. Ibid. p. 349
4. Ibid., pp. 347-349.
5. Ibid., p. 348.
6. Ibid., p. 348.
7. Ibid., p. 349.
11. Ibid., p. 345
Appropriate preparation of teachers constitutes a significant element in the process of creating conditions contributing to personality development in gifted pupils. The teacher should possess broad knowledge and numerous skills, he ought to be flexible in his actions and sensitive to individual needs of his pupils. In view of the above teacher training understood as a range of actions aiming at improving their professional qualifications must take into account individual differences between pupils, going beyond their gifts or talents. However, before I pass to presenting these aspects of teacher training, I will review the forms of work with gifted pupils adopted in Poland.

Education for the Gifted in Poland

Interest in the question of educating gifted individuals in Poland goes back to the Renaissance. Later on we can see it in the times of the National Education Commission, and then in the 20-ies and 30-ies of the 20th century (Ł. Kurdybacha 1967).

The final years of the 1960-ies witnessed increased interest in the issue of talent and abilities, hence attempts were undertaken to provide education for gifted pupils on an experimental basis. The experiments
consisted in introducing two stages in the educational process. The first of them referred to individualization of teaching during class hours, the other - to consolidating and broadening the pupils' knowledge at extracurricular classes, as well as supervising their individual work. The gifted solved additional, more difficult problems, prepared monthly lists of issues going beyond the school syllabus, wrote academic papers.

Another experimental step taken consisted in introducing "selection classes" for children beginning their schooling. Selection of pupils was based on medical tests and more extensive psychological projections. In a result there were formed classes working at an average rate, classes following the syllabus slower, and those grouping outstanding children working quicker.

Presently education of the gifted is organized at primary, secondary, and tertiary school levels.

At the primary school level children can start their schooling earlier and finish it sooner due to quicker promotion from grade to grade.

Since the year 1970 secondary schools have had classes of different profiles to suit gifted pupils. The range of profiles comprises classes oriented towards Mathematics, the Humanities, Biology and Chemistry, more intensive course of a Foreign Language, and Sports. There are also experimental classes specializing in Mathematics with a broadened syllabus in the field. They group pupils of exceptional mathematical abilities, and the lessons are taught by academic staff members of schools of higher education. Similar forms of teaching are adopted by secondary schools and classes with a foreign language treated as the lecturing medium. Some subjects are taught in one of the following foreign languages: English, Russian, French, or German.

In the course of the school year 1989/1990 the first non-public, communal and "authorship" (with non-standard curricula) schools were founded. They are the first primary and secondary schools of general education not supervised (or fully supported) by the state. They are established by either the teaching staff or/and by the parents. Classes
are usually organized in small groups, and the curriculum is based either on field subjects or topical blocks. Some of the communal schools are simultaneously of the "authorship" type with syllabuses written, and course books chosen by the staff. Teachers also provide original teaching materials, e.g. authentic texts. It is in these schools that you can find homework eliminated from pupils' core, and free afternoons are left for the children to develop their own interests. Communal schools often employ university staff or members of other scientific institutions, e.g. the Polish Academy of Science. Here admittance is based on an interview in case of primary schools, and on entrance examinations in case of secondary schools.

At the level of tertiary education students are enabled to follow an individual course of studies. Students choose the contents, methods and the form of their studies, and can follow one or two faculties. Studying consists in broadening knowledge, participation in academic research work within various faculties.

Polish educational system provides for interesting forms of work with gifted children and teenagers, namely interest groups on the school or interschool basis, students' research groups, and "Olympic games" in individual subjects.

Interest groups and Olympic games offer opportunities to identify and cultivate discovered and awakened interests, emphasize the process of individual search for knowledge in various sources, solving problems, and development of interests of individual students.

The tradition of Olympic games in various fields of knowledge in Poland is very long. As applies to science they have been organized for already forty years. Currently there are as many as twenty one different field oriented Olympic games organized in three stages, from school, through the region to national games.

The winners of national games participate in international events of the kind. Longitudinal research I carried out has revealed that a characteristic feature of the participants of field competitions is their
very high and high IQ (IQ = 128 and higher, or IQ = 120-127) which is the level represented respectively by 6.7% and 2.2% of the total population (D. Wechsler 1958, J. Papiez 1990). High prognostic value of the Olympic games is also evidenced by the marks their participants receive in high school and the university. Hence, in view of the secondary and tertiary school career of the participants of the Olympic games one can consider these competitions as the best starting point for academic studies and, possibly, for further career in adult life (J. Papiez 1990)

Training teaching staff for gifted pupils.

The need for educating gifted individuals is much ahead of professional training of teachers. Though organized at the tertiary educational level, teacher training concentrates on technical preparation to the job. Studying goes down to learning the presented ready-made educational goals, knowledge, principles, and methods considered the most effective. Hence, the whole model of teacher training is directed towards the final product, i.e. towards acquiring a certain portion of knowledge and a set of skills required by the obligatory syllabus. If individualization is introduced it is due to differences in marks received by students at examinations. Teachers prepared in this way cannot find their place in a new, open situation. They understand knowledge as a "huge encyclopaedia", and not in terms of an unknown sphere to be investigated. Thus, trainers of future teachers should not supply ready knowledge but explain how it is arrived at. In this way, in his mind the student will not form a stable, hence false, picture of both knowledge and the world.

Such an attitude to teacher training requires paying attention to the students' cognitive potential and their individual preferences psychologists refer to as cognitive styles. Psychology of individual differences defines cognitive abilities as "the developmentally highest code
of functioning in the repertoire of an individual" (A. Mateczak, 1982, p. 10). This includes intelligence and intraindividual differentiation of abilities which together form the grounds for the development of special talents. Particular individuals are equipped with different cognitive potential, and this is the reason that their development follows different tempo and reaches different extent, hence leading to various results. (M. Delias; E. L. Gaier, 1970).

Besides individual cognitive potential, for the process of teacher training it is crucial to respect individual cognitive functioning modes which mediate between the inner state of an individual and the external situation. Cognitive styles are not tantamount with abilities; they constitute human techniques adopted at arriving at goals, they refer to types of approach in view of cognitive questions. They have nothing in common with the competence of an individual or his active approach to problem solving. Research proves that cognitive functioning mode can be relatively easily manipulated through instruction, training or reinforcement. Thus, representing a given cognitive style does not imply inability to function in any other way. Due to the dynamic nature of cognitive styles in students, it is possible for them to undergo changes desirable for their development under the influence of a creative teacher (see: V. Jones; L. Jones, 1986).

It is worth mentioning here that the level of functioning of individuals of high potential may but need not be high. The reason lies in the fact that cognitive preferences constitute merely one of the elements determining the code of functioning in a particular situation. For preferences to become probable it is necessary that the situation matches cognitive potential. Moreover, lack of fixed external requirements deciding about the mode of functioning aids execution of preferences, as well as creativity (C. Rogers, 1959). Cognitive preferences will be implemented to a greater extent when behaviour of an individual is driven mainly by cognitive motivation; on the other hand, they will be limited in case fear-driven motivation prevails. (K. B. Madsen, 1974; A. Kępiński, 1977).
The above considerations point to the need for alternative education which would be adequate to psychological peculiarity of the students, since it is possible to treat them as individuals with unique personal qualities such as intelligence, creativeness, abilities, including particularly outstanding talents, or their preferred cognitive style (style of learning). In congruence with theoretical considerations cognitive style, or learning style, is understood as the approach to the process of studying and organizing the material to be learnt.

To sum up we must conclude that once education is understood as above, we should consequently abandon any unified educational system and turn to intensifying our assistance in individual development of our students. Hence, both students and teachers face new and crucial demands concerning organization of a rich, diversified and multidimensional offer in relation to the process of teaching and learning.

NOTES:

5) Madsen K.B.: Modern Theories of Motivation. PWN Warsaw 1980
1/ Types of special education institutions for the mentally retarded

After the huge Second World War damage, Poland started to re-build and develop its education, including special education for the mentally retarded. As far as the predominant character of the actions undertaken in the process of development is concerned, one may distinguish three periods of it. They are as follows:

I - the first period, from 1944/45 to 1951/52
II - the second period, from 1952/53 to 1972/73
III - the third period, from 1973/74 up till now.

The most characteristic feature of the first period was not only the institutional, but also a conceptual reconstruction of special education. The period was finished with the introduction of a new organization of special education that fitted the demands and needs of the country, which was done on the basis of the directive of the Minister of Edu-

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cation dated September 5th 1951 concerning the organization of special schools and institutions.

The directive mentioned above provided for the organization of schools for the mentally retarded, which had existed before the war, and also - which was a novelty - of nursery schools, primary schools, vocational schools and schooling-production workshops, according to the needs.

The second period was three times longer than the first one. Since the main structure of the special education for the mentally retarded had already been established in the first period, all the efforts in the second phase concentrated mainly on:

- the quantitative development of special education
- reforming the conditions of education and care
- increasing the level of the instruction, education and rehabilitation.

The new ideas which appeared in that period of development of special education and care were the following:

- organization of special classes in normal schools (primary and vocational)
- organization of semi-vocational classes for children with educational retardation of at least three years
- introduction of home teaching lead by teachers at pupil's homes
- continuation of compulsory schooling up to 8 years.

The third period was begun by the Minister of Education decree dated September 29th 1973, concerning the development of special education and care for children with deviations and developmental retardation. Practically this period had been arising for many years. The most important changes introduced in that period were the following:
improvement of the range of new categories of children with deviations and retardation like:

a/ children with slight deviations in the intellectual development,
b/ children with partial developmental deficits and developmental retardation,
c/ children with IQ between 68-83.

The above mentioned changes played an important role in the organization of special education for the mentally retarded; they have been constantly corrected since 1951 and brought about the development of special education and care for the mentally retarded to the current state.

At present, special education for the mentally retarded is organized in revalidational institutions for:

- children with mild mental retardation
- children with moderate and severe mental retardation
- children with profound mental retardation.

Teaching and upbringing of children with mild mental retardation is provided in educational institutions accessible to the general public. Preschool children go to normal nursery schools where special classes are organized only for the oldest groups of children.

Separate institutions for children with mild mental retardation are the following:

- independent special primary schools (so called externate)
- special classes with vocational training
- special classes organized in normal primary schools
- special vocational schools
- educational institutions (special primary schools and boarding schools)
- special schooling-upbringing centres (at least two types of school in one place, for example a primary, vocational, and a boarding school).

Teaching and upbringing of children with moderate and severe mental retardation is organized in:
- institutions with boarding schools
- institutions for children coming every day to schools which are organized in larger towns.

In these institutions, according to the needs, special nursery schools and special primary schools, so called "Schools of Life", are organized.

There are also nursery school groups and special classes for children with moderate and severe mental retardation organized in institutions and schools for children with mild mental retardation.

The educational and instructional work with children with profound mental retardation takes place in the educational institutions organized by the department of health and social care.

Taking into consideration all mentioned above degrees of mental retardation and types of special education institutions, workers employed in these institutions may be grouped in some categories:
- teachers and tutors of nursery schools
- teachers and tutors of primary education in primary schools
- teachers of particular subjects in older classes and vocational schools
- teachers of vocational subjects and practical vocational training
- tutors of boarding schools and those who organize after-school and extra-school activities.
As far as the increasing tendency to integrate children with mental retardation with normal children is concerned, one may distinguish special teachers in normal nursery schools and special teachers of primary education in normal primary schools.

These teachers should be properly prepared according to the character and the tasks of their work. Since teacher education is a part of each educational system, all the faults appearing in this sphere influence the professional preparation of teachers.

All the needs of special education in its current state and its developmental tendencies and purposes basically influence the organization of special teacher’s schooling and, first of all, its range.

The evolution of opinion referring to the problem of pedagogical staff schooling is connected with the development and level of theory of special education, including oligophrenopedagogics, as well as the development and state of education in general, and particularly the education of the mentally retarded. Another condition that influences the problem of pedagogical staff schooling is the expansion and differentiation of the education of the mentally retarded.

2/ Forms of teachers schooling for the work with the mentally retarded

Taking into consideration the above mentioned factors conditioning the pedagogical staff training for the work in special institutions, it is possible to note that its form emerged as a result of certain evolution.

In the interwar period, there existed special primary schools for the mentally retarded. Hence the application for pedagogical staff was limited to primary school teachers. After the second world war, since the education became differentiated, the need of differentiated staff appeared simultaneously.
Up till 1970 teachers schooling took place in The State Institute of Special Education, in accordance with traditional rules. In that period one-year and two-year studies were held which prepared special candidates who had just acquired qualifications for work in normal schools - it was a characteristic feature of this kind of schooling. There were also irregularly organized two-semester courses for tutors in nursery schools, tutors in special institutions, and qualifying courses for vocational teachers working in special schools.

During the following several years teachers’ schooling was held on the level of three-year vocational studies. In 1973 four-year resident and extramural studies were introduced in 12 academies (universities and Teaching Training Colleges) in the whole country.

Simultaneously there were organized two- and three-year extramural supplementary studies for the candidates who had just acquired special qualifications on lower qualifying degree.

Since 1979, special teachers schooling has been taking place on five-year university studies.

In the pedagogical staff preparation for work in various institutions of special education one distinguishes:

1/ primary preparation, consisting of various forms of university studies:
   - 5-year resident and extramural studies
   - 3-year studies for graduates of Teacher Training Colleges
2/ qualifications improvement courses including, first of all, 1,5-year postgraduate and doctor’s degree studies
3/ self-education, which includes among the others:
   - theoretical knowledge and practical skill refreshment and developing courses
   - self-improvement within teachers’ communities.
All the forms and educational institutions mentioned above create a coherent system of teacher schooling for special education which meets current demands and requirements.

Five-year graduate residential and extramural studies prepare teachers for the work in special primary schools, particularly in early education.

Postgraduate studies of special education prepare teachers for subject teaching in higher forms.

There are also various types of postgraduate studies according to the needs of special education:

- three-semester postgraduate extramural studies training teachers of particular subjects (e.g., biology) on a M.A. level. This type of studies provides the qualifications for teaching in special schools.
- two-semester postgraduate extramural studies training masters (M.A.) of special education. This type of studies enhances the knowledge of the previously acquired specialization, for example, individual revalidation, vocational guidance, etc.
- two-semester postgraduate extramural studies for masters of special education which serve to divert teachers to different jobs. Thanks to these studies a graduate who acquired qualifications in one particular specialization, e.g., surdopedagogy, working in the institution for the mentally retarded, will acquire qualifications for work in the institution for children with mental retardation.

The first type of postgraduate studies is a form of teachers and tutors schooling, whereas the second and the third one is a form of self-development.

Self-development of special education staff (teachers and tutors) consolidated its position in the system of special education. It used to be organized in the Institute of Teachers Training and in the Forms of Teachers Schooling up till the end of 1991. Currently it is organized
in the regional methodological centres. This type of teacher schooling is part of a wide programme of continuous training. This is also a basic element of general and vocational development of pedagogical staff employed in special schools and other institutions of special education.

A new impulse for the pedagogical staff self-development was given by The Teacher's Charte (a set of fundamental state regulations concerning the profession of the teacher), which introduced degrees of vocational specialization for promoted teachers who acquired pedagogical qualifications and special preparation for particular subjects teaching, distinguishing in educational work. Degrees of specialization are the last stage of vocational self-development.

3/ Estimation of the system of schooling and self-development of teachers of schools for the mentally retarded.

The current system of education concentrates, in fact, on teachers and tutors employed mainly in special education institutions, i.e. special schools, special institutions or schooling-upbringing centres.

According to the previously mentioned differentiation of education for the mentally retarded, this is an insufficient system.

Currently existing needs require to educate a qualified staff for revalidation, reeducation and extra-school activities, and other types of rehabilitation conducted by various specialists.

The profile of tutors schooling is also not clear. There arises a dilemma whether to secure the current state, i.e. the teacher-tutor training, or to create a new special profile of pedagogical schooling.

Furthermore, two-stage studies of special education should be introduced, i.e. 3-year vocational studies with a permeability to 2-year graduate studies.
Summing up the considerations concerning the process of teachers and tutors schooling for the work with the mentally retarded in the aspect of current trends of development within the institutions in which the process of rehabilitation takes place, it should be noted that the process of differentiation of institutional forms of special education went on faster than the organization of pedagogical staff schooling for the new forms of special education.
THE CHANGING APPROACHES TOWARDS EDUCATING TEACHERS FOR MENTALLY DISABLED CHILDREN IN POLAND AFTER WORLD WAR II

The Second World War had caused severe damages of the educational system for mentally disabled children in Poland, which made it necessary to make up for the losses as soon as possible. The process of rebuilding the system went in two directions - building the network of schools, and educating teachers. All the actions undertaken were determined by internal factors, among which the following deserve mentioning: the development of special pedagogy and its influence on the problems of educating and bringing up mentally disabled children, current possibilities and needs of the country, and the evolution of the opinion on the role of teachers in the society.

In the late forties, the work on stabilizing the concept of primary education and on a suitable system of teachers training constituted the dominant element of the educational policy in Poland. As a result, in 1948 a national education system based on a seven-year primary and a four-year secondary school was introduced⁠¹. Primary school teachers were to be trained in four-year teacher training colleges based, practically speaking, on seven years of primary school, and grammar school teachers and the staff for teacher training colleges - in state pedagogi-
cal schools of higher education (officially starting in the school year 1953/54)\(^2\).

The rather complex political situation in Poland at that time, a wide variety of political organizations and their attempts to take over the political power, the conviction about the apolitical nature of schools deeply rooted among the pre-war teachers, and the autonomy of Teachers' Trade Union favoured the formulation of some special tasks schools were supposed to perform.\(^3\) Schools were to deal with the democratization of social relations in Poland and eliminate moral deviations caused by the war experiences in the youth.\(^4\) The active participation in the process of rebuilding the country was considered to be the basic task of a teacher. To be able to do that, a teacher should possess certain features, such as a relatively high level of general intelligence and mental capabilities, with at least some experience as a social worker and the physical ability to do the job.\(^5\)

People working with mentally disabled children were also involved in developing the liberal educational system.

Despite the severe shortage of school buildings, the number of schools for mentally disabled children was systematically increasing.\(^6\) The teachers for that kind of schools were educated, just as it was before the war, in the State Institute of Special Pedagogy in Warsaw, headed by Maria Grzegorzewska. Already on May 15th 1945 the Minister of Education asked the Institute to resume its activity. In the first after-war year the Institute had only 27 students. In spite of many problems, the Institute started to take up new functions and to master its organizational structure. Unfortunately, the attempts at prolonging the time of studies were unsuccessful, and the Institute still had to educate its students in one year, which was in accordance with its Statute from 1922.\(^7\)

The political changes of the late fourties, which eliminated the active participation of political opposition in the social life, marked the beginning of the end of the liberal educational policy. Ideological slo-
gans based on Marxism started to play the main role. The teachers then were to be characterized by a socialist morality, "folk patriotism" and proletarian internationalism, conscious discipline and a scientific, materialistic philosophy of life. Such an educational policy had lead to dismissing teachers because of their philosophy of life, to preferring children from workers' families, and, as a consequence, to lower qualifications of the staff in teacher training colleges.

Schools for mentally disabled children were not immune to the dominant role of ideology in the social life of the country.

The thesis that the state can satisfy all the needs of all the children and youngsters was especially harmful, its consequence being the opinion that the disabled do not need any special care. As a result, up to 1958 not a single school for disabled children had been built.

In 1948 "Special School", the only magazine on educating the disabled, ceased to exist. In this way teachers lost one of the basic possibilities to publicly criticize the educational authorities. The research on special care children and their education in the State Institute of Special Pedagogy was not recognized by the authorities. Administrative orders were to change the Institute into a school of one function, that is of training teachers.

In 1950, the authorities changed the name of the Institute and the names of its departments and restricted their functions. Now it was confined to teaching only. As for the methodology of teaching, the most important change was introducing subject teaching already in the first form of primary school. The previously applied, holistic method of "teaching centers" was considered a bourgeois element which was to be eliminated from the curriculum of the socialist school. The protests of teachers did not help. The lecturers of the Institute, believing in what they had been doing, tried to continue their previously set tasks. Maria Grzegorzewska, who tried to defend the values of "teaching centers" method in teaching disabled children, was in danger of losing the position of the head of the Institute.
The early fifties proved the inefficiency of the existing system of teacher training. It meant mainly insufficient number of teachers as well as their inadequate qualifications, both general and professional. It was caused both by the above mentioned predominant role of ideology and the new social and economic system of the country, pointing out to the new needs of primary education. The old structure of teacher training colleges did not go with the new reality, either.

To overcome the crisis, in 1954 the Government introduced a new system of teacher training, according to which the teachers for primary schools were to be educated in four-year pedagogical secondary schools, five-year evening courses organized by pedagogical secondary schools, two-year teacher training colleges, and three year evening courses organized by universities. The secondary schools were meant for those teaching in forms I-IV, and teacher training colleges for those teaching in forms V-VII. Soon the education in secondary pedagogical schools was prolonged to five years. Universities, academies and other schools of higher education trained teachers for secondary education.

The above discussed changes had their bearing on the work of the Institute of Special Pedagogy. Due to the introduction of a new form of teacher training, i.e. teacher training colleges, in 1955/56 it got a status of a college, which automatically prolonged the education there to two years. The syllabus there included some elements of philosophy, logic, sociology, culture and arts, two foreign languages, lectures on norms and deviations of behaviour, theory and practice of revalidation and resocialization, and teaching practice. It met the needs of schools for mentally disabled children. The graduates were very well prepared to work in special care schools because they had attended either a pedagogical secondary school or a teacher training college, and had worked at school before.
However, the number of graduates decreased. It was due to the fact that although the students studied for two years, the Institute could not accept more candidates than it had before.

The situation became even worse when the teachers were deprived of the possibility of taking the exams without actually attending the classes and lectures. This, and the growing demand for highly qualified specialists, made the universities start evening courses for teachers and tutors from special care schools and centers who had received secondary pedagogical education and had worked at school for at least two years (one year in some exceptional cases). The first graduates left the universities in 1960. At first, the studies lasted for two years and then were prolonged to two years. The diploma was equivalent to that given to regular university students.

The syllabuses of those evening courses and regular university studies were almost the same, the basic difference being the lack of practical classes at schools in case of evening courses, the motivation being the previous school experience of the students.

The growing discrepancy between the capacity of the State Institute of Special Pedagogy concerning the number of graduates and the demand for qualified teachers for mentally disabled children called for creating more educational institutions preparing teachers for that kind of schools.

The efforts of the Section of Special Education of Teachers’ Trade Union resulted in establishing departments of special pedagogy at different universities and higher pedagogical schools. The first one was that in Łódź, later in Katowice, Kraków, Poznań, Gdansk, and Szczecin. To meet the demand for teachers, candidates from outside the State Institute of Special Pedagogy were again able to take final exams there.

All that led to a significant increase in number of qualified staff, but that was still far from satisfying.
At the same time the University of Warsaw started to become interested in the issue. In 1958 Department of Special Pedagogy was established there and Maria Grzegorzeńska became its head. The Department was a part of the Pedagogical Faculty of the University of Warsaw and it educated specialists in different fields of special pedagogy. The students started to specialize in the fourth year, which was devoted mainly to basic problems of special pedagogy, and continued through the fifth year, which was devoted to detailed studies of the chosen branch of special pedagogy.21

The sixties brought about some more significant changes in the attitude towards educating teachers for special care children. The existing structure, including two types of teacher training systems (secondary schools and university studies) was commonly criticized, because in practice those two types of schools tried to accomplish the same goals, which only pointed out to the redundancy.22 And besides, the graduates did not always seem to be properly prepared.23 The opinion on the personality of the teacher and the tasks she was to perform also changed. Professional qualifications gradually became the most important factor.24

It was generally felt that a new approach towards the system of educating teaching staff was needed. In the school year 1966/67 new candidates for secondary pedagogical schools were not accepted any more, thus leaving the task of preparing new teachers to teacher training colleges. But since the practical qualifications of the graduates were not thought very highly of, there was a strong need for new solutions to the problem, which resulted in establishing schools of higher education where the candidates were to study for three years before they could become teachers. This soon became the dominating form of teachers’ training and the previously functioning kind of schools ceased to exist.25

The early seventies witnessed rapid political changes, which again brought about a still different attitude towards educational issues. The
The educational system was to be modernized and to aim at popularizing secondary schools, which, in turn, meant preparing teachers - university graduates with masters’ degrees. In 1973 the educational authorities decided that all the prospective school teachers would be educated in the same system of four year university studies in one department where they would get their masters’ degrees.

The changes in the attitudes towards teacher training processes apparently influenced the institutions educating teachers for special care children. The transformation of teacher training colleges into three-year schools of higher education had a negative impact on the quantitative development of teaching staff. All the new schools that came into being as a result of the transformation gave up teaching special pedagogy. The same process took place in the State Institute of Special Pedagogy, which in 1970 became a higher vocational school. That meant a new organization and a change of the syllabus. The Institute was to consist of two faculties: resocialization and revalidation, foreign languages department, physical education department, and a library. There were to be regular studies and evening courses, and since 1971 also post-graduate studies.

The 1973 unification of the teachers’ training system caused that in the same year nine schools of higher education started to accept candidates for special pedagogy departments.

One of them was, of course, the State Institute of Special Pedagogy, which in 1976 was officially transformed into Higher School of Special Pedagogy named after Maria Grzegorzewska.

NOTES:

5. B. Ratuś, op. cit., p. 73.
8. B. Ratuś, op. cit., p. 73-75.
10. "Od redakcji" (in:) Szkoła Specjalna 1957/1.
15. B. Ratuś, op. cit., p. 36.
17. O. Lipkowski, op. cit., p. 63.
18. K. Kirejczyk, op. cit., p. 690.
20. K. Kirejczyk, op. cit., p. 84-86.
21. B. Ratuś, op. cit., p. 94.
23. B. Ratuś, op. cit., p. 76.
INTEGRATED EDUCATION MODEL FOR
THE CHEMISTRY STUDENTS
OF GDANSK UNIVERSITY

Every educational system must constantly adjust its programmes to the current development of science and technology as well as to the social and political changes. The science of education, as one of the social sciences, is especially flexible and adjustable to the constant changes of the concept and the role of human being in the contemporary world.

Democracy means more independence and bigger individual responsibility of teachers in the educational process. A teacher must be better educated and motivated, he must have the possibility to take independent decisions, he must also be able to understand and interpret his instructions and to treat his pupils as partners. He must feel fully responsible for his individual decisions. All this means constantly growing demands as regards teacher's ethics and qualifications.

Chemistry at Gdańsk University is formally educating postgraduates to work successfully as school teachers. According to the current statistics of 1987-1991 as many as 60% of chemistry postgraduates of Gdańsk University work as school teachers. One can expect even higher percentage in the future, since schools seem to be highly competitive to chemical industry as far as employment opportunities are con-
cerned. Therefore educational qualifications of the students as future school teachers become more important and highly appreciated.

Some difficulties which occur while educating chemistry students as future teachers are of various background. Often a problem arises what an ideal chemistry teacher looks like, and is it necessary to teach the special chemistry school teachers. Perhaps it is enough to teach a good chemist and to let him develop his teaching abilities while working at school.

Each country deals with this problem individually according to traditions, school system, and employment opportunities. Polish traditions go back to the thirties and are connected with the theories of Jan Harabaszewski, a famous Polish specialist in chemistry education. These traditions together with some knowledge adapted from abroad create our philosophy of preparing our future chemistry teachers as early as during the regular chemistry university course. The students can include in their education also some essential elements of psychology, sociology, pedagogics, school organization and administration, etc.

The philosophy is that a chemistry teacher needs at least as much knowledge about chemistry as chemistry itself. He must know how to teach chemistry and not only perform chemical experiments. This is a concept of teaching a generally educated person rather than a highly sophisticated narrow specialist. It is especially clear when thinking in terms of ecology. It is necessary to give up strictly chemical, industrial way of thinking and start up building ecological orientation together with personal feelings, understanding and quantification of science. In order to find common understanding with young students, it is necessary to show some scientific facts and theories as elements of wide general human education.

Most pupils need not just scientific terminology and methods but also deep understanding how this knowledge is influencing people’s life on earth. So the teacher must not only be specialized in knowledge
but also in knowledge of science, the latter including the ways of achieving certain scientific success (Gasparakis, 1989). So additional education in social science and humanities is needed to create open-minded, social individuals who start their career as school teachers.

Another problem is connected with dynamic changes of civilization which demand creative ways of thinking instead of adopting old, ready-made solutions and patterns.

Crisis of education in Poland is generally connected with deep economic and social problems, but teaching good intellectuals and teachers may be one of factors to overcome this crisis.

Starting up a new programme of studies, it is essential to include various basic elements in relatively small number of hours. The so-called Rome Club suggested: "if you want to introduce something to school, start with units educating teachers, there is no other way".

Young chemistry teachers, who are Gdańsk University postgraduates, are generally well prepared to work at schools. They know chemistry well, but not too well when it comes to mathematics, physics, or other sciences. They are quite good at preparing and organizing their lectures, experiments or chemical performances. However they know very little about care, tutoring and upbringing.

This pedagogical and psycho-didactical approach together with some elements of psychology became essential while creating a new concept of university courses. It became necessary to coordinate various subjects in order to create a well-prepared, generally educated chemistry school-teacher.

What kind of pedagogy is best for the future chemistry teacher?
- Should he treat pedagogy as a branch of knowledge coming out of philosophy and creating some future developments;
- Should he take pedagogy as empirical, experimental science;
- Should he take pedagogy as knowledge of teaching and educating?
All this is important and a compromise between the needs and the possibilities is crucial.

Of course a good teacher must first of all be a good specialist in his profession, but also an open-minded human being with good partnership relations to his students.

Gdańsk University is now offering the following courses which are obligatory in order to complete a full-time five years master degree education:

- **pedagogics**
  - 45 hours lecture
  - 45 hours seminars

- **psychology**
  - 45 hours lecture
  - 45 hours seminars

- **didactics of chemistry**
  - 45 hours lecture
  - 120 hours laboratories and conversatorias.

Psychology comes first starting at the 3rd semester, as the second course comes pedagogics at the fifth semester; the third course, didactics of chemistry, is offered together with pedagogics at the sixth semester. All together pedagogical education takes 330 hours and two four-weeks pedagogical practicums at schools. All this is obligatory and ends up with final exams or tests.

All three subjects mentioned above are connected in order to teach the methodology of teaching. These relations are well illustrated on the following drawing:
According to the above, the program of pedagogics is adopted to achieve the following goals:

1) Presenting pedagogics as knowledge and as a result of long historical experience;

2) Learning some essential pedagogical rules and methods;

3) Learning how to observe and understand classroom behaviour;

4) Presenting scientific methods and performing experiments in order to analyze the goals, the material, and the requirements;

5) Preparing the future teachers to create effectively learning opportunities and organize a properly functioning, coherent classroom system;

6) Inspiring the future teachers to their own concepts and methods together with their personal responsibility;
7) Emphasizing the role of tutoring and upbringing;
8) Preparing the future teachers to function in the democratic society and to treat their students fairly;
9) Building up theoretical basis and foundations to create a long-term and short-term (one lecture) study plans;
10) Preparing the future chemistry teacher to the open or confidential, systematic and objective evaluation of their students’ achievements.

These goals were basic in order to select the proper teaching material. Lectures and classes included in their programme:

- Pedagogics as a social science connected with psychology, sociology, theory of organization and management, philosophy, theory of communication, etc. The basic pedagogical terminology, methodology and methods of research;
- General characteristics of school teaching, learning terminology and chemistry laws, basic difficulties in studying chemistry;
- Collecting information on students during upbringing, observing phenomena of group cooperation, students’ opinion, their moral standards and aspirations, their attitudes to school teaching;
- Influence of a chemistry teacher on his class, autocratic and democratic styles of managing a class;
- Characteristics of selected educational systems (e.g. traditional and modern school systems) from the point of view of philosophy and psychology. Student’s and teacher’s positions in the process of studying, methods, organizational forms, general concepts of teaching. Positive and negative influence of these systems upon traditional Polish school system.
- Review of most important concepts of education of the second half of the twentieth century;
- Interpretation of educational goals with an application of various taxonomies;
- Historical background of contemporary teaching, typical material classification and spiral structure method in chemistry teaching;
- Analysis applied to examine teaching material (graph and matrix analysis);
- Psychological background of tutoring process and methods;
- Proper teacher-student relations. Specific teaching methods, their selection and effectiveness from the point of view of sciences, and especially chemistry. Interrelation between methods of teaching and students' activities;
- General rules of teaching and tutoring, their various backgrounds and characteristics: from algorithms to heuristics;
- Place and role of teaching rules in the teacher's workshop, the role of experiments and demonstrations in chemistry teaching;
- Most popular organizational forms in the Polish teaching experience, their values and specific features;
- Psychological, sociological and tutoring points of view in evaluating student's achievements. Functions of evaluation, ways and criteria of school evaluation;
- Measurements of school achievements and their interpretation, special testing and evaluating student's achievements in chemistry;
- Student's failures, their recognition, definition and treatments;
- Long-term planning of teacher's activities, short-term planning and flexibility, preparing students to their first pedagogical practicum.

The full psychology course creates the theoretical background to most pedagogical problems, especially: to the theory of personality, theory of motivation, psychology of child's development together with theories of learning and the elements of psychological methods and the humanistic psychology concepts.

The lectures of chemistry didactics include among others: the role of chemical experiment in teaching chemistry in secondary schools, colleges and universities, organization of a chemical laboratory, appli-
cation of various audiovisual methods and tools, the role of chemistry in environmental studies.

The full time chemistry course plan is included in Figure 2.

**DIDACTICS OF CHEMISTRY**

(165 hours)

<table>
<thead>
<tr>
<th>Semester 6</th>
<th>Semester 7</th>
<th>Semester 8</th>
<th>Semester 9</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 h lectures</td>
<td>15 h lectures</td>
<td>15 h lectures</td>
<td>30 h seminars</td>
</tr>
<tr>
<td>30 h laboratory exercises, school experiments and demonstrations</td>
<td>30 h laboratory exercises, school demonstration techniques</td>
<td>30 h exercises at school, student's teaching experiments</td>
<td>Four-weeks training at secondary school</td>
</tr>
<tr>
<td>Four-weeks training at secondary school</td>
<td>Four-weeks training at secondary school</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 2. Full time didactics of chemistry in Gdansk University.

The following elements are included in the basic lecture: general goals of learning, upbringing and motivation. Effectiveness of chemistry teaching, methods of chemistry lectures, curriculum characteristics, methodology of chemical calculations, elements of history of chemistry as a science with special reference to basic laws and chemical theories.

Seminars are devoted to create skills in chemistry teaching, such as: creating programmes of chemistry, writing reports, using microcomputers, films, cameras and video-cameras, chemical models, trans-
parencies and phasegrams. Work with delayed students and with especially intelligent ones.

Laboratory exercises include: independent performance of most important chemistry demonstrations and those described in text-books. The students can also individually plan and create their experiments and demonstrations.

School practicum is devoted to: observing the classes carried on by experienced chemistry teachers, and two or three individual students' classes, being observed by both experienced teachers and other students. The results of these classes are then discussed and commented by the group. These classes are also supervised by the University professors and evaluated on the base of students' reports and students' writing materials.

Table 1. Results of questionnaires among the students of the fifth course of chemistry at Gdańsk University.

<table>
<thead>
<tr>
<th>Questions</th>
<th>Yes (%)</th>
<th>No (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Should psychology, pedagogics and didactics of chemistry be included in obligatory course of studies?</td>
<td>42.5</td>
<td>33.3</td>
</tr>
<tr>
<td></td>
<td>51.5</td>
<td>28.5</td>
</tr>
<tr>
<td>2. Did lectures on psychology, pedagogics and didactics of chemistry give you introductory abilities to work at school?</td>
<td>76.5</td>
<td>11.5</td>
</tr>
<tr>
<td></td>
<td>78.3</td>
<td>7.5</td>
</tr>
<tr>
<td>3. Are the sequence, selection and performance of the programme correct?</td>
<td>75.0</td>
<td>13.3</td>
</tr>
<tr>
<td></td>
<td>78.3</td>
<td>8.6</td>
</tr>
<tr>
<td>4. Evaluation of the performance of lectures of psychology, pedagogics and didactics of chemistry (average) at Gdańsk University in 1991/92</td>
<td>&quot;5&quot; (%)</td>
<td>&quot;4&quot;(%)</td>
</tr>
<tr>
<td></td>
<td>&quot;3&quot;(%)</td>
<td>&quot;2&quot;(%)</td>
</tr>
<tr>
<td></td>
<td>(max)</td>
<td>(min.)</td>
</tr>
<tr>
<td></td>
<td>5.5</td>
<td>7.5</td>
</tr>
<tr>
<td></td>
<td>33.3</td>
<td>7.5</td>
</tr>
</tbody>
</table>

The anonymous questionnaires were distributed among the students of the two consecutive courses of pedagogics (after 9th semester,
that is after the full cycle of training. The results of these questionnaires are presented in table 1.

The above results suggest that the majority of chemistry students are interested in pedagogical studies. Many answers suggested that many students understand, during the course of their studies, how important and time-consuming is proper training to be able to work as chemistry teachers.

NOTES

12. Niemierko B., Pomiar sprawdzający w dydaktyce. PWN Warszawa 1990
PREPARATION OF TEACHERS TO THE EDUCATIONAL APPLICATION OF COMPUTERS.

Computers more and more often get into Polish schools. Yet, their application for educational purposes is still causing great disagreement. Some people simply disqualify computers in education while others expect them to solve all the educational problems. Neither of these opinions can be accepted. It is obvious that a computer will never substitute a teacher nor will it help to choose the right educational conception. Computer is to help both a teacher and a pupil to carry out the tasks of modern school. These tasks keep changing simultaneously with the development of science and technology. Computers perform a lot of functions in education. Some of them are connected with lessons, others not. The computer may be a didactic device or a method of teaching. Teachers are very often of the opinion that computers are useful only for natural sciences. Is is completely wrong to think that the best application of computers in school is to use them for complicated calculations.

The development of calculators have brought about the invention of new programming devices which are used by professionals. Computers can be used to teach all subject. There are interesting programs for teaching foreign languages, history, geography, mathematics, fine arts, music. Chemists, physicists, biologists can model processes which cannot be carried out in laboratories.
place in the microworld, eg. in the atom, to those which proceed very quickly, eg. molecules movement, or those for which you have to wait millions of years (astronomical phenomena, radioactive disintegration etc.). The computer can be used not only for lesson purposes, but may also be a cognitive tool for a teacher, for pupils or student organisations, school administration. A teacher who has got a word processor or a data base can do computer analyses of the achievements of her or his students, surveys, prepare tests and reports. He can prepare statistical calculations of absenteeism and store them in the computer's memory. The computer can also retain educational programmes and tests in all subjects. There may be versions of tests for different levels, presenting different degrees of difficulty. They would constitute essential methodological help both for a teacher and a pupil.

Pupils could verify their mastering and understanding of the covered material by means of computer tests. In the USA tests are produced by Educational Testing Service. They are very popular and widely used. They are not only easy to use but more reliable and accurate than those prepared by teachers. A pupil who has got an access to a computer and a set of tests can systematically control and evaluate his school achievements. Nowadays Polish computer users have many educational games which enlarge pupils' knowledge, develop their imagination, train reflexes and perceptivity. Well prepared games bring about joyful experience and stimulate creative thinking. Such games are particularly valuable at the beginning of school education when there is a lot of learning through playing. Pupils community councils may use computers to edit and print a school magazine, bulletin. Computers may help keeping accounts in a school shop, remember the data of the members of a school organisation, and timetables of coming events. School administration may gather different information in the computers memory from personnel data to financial and administrative information, or legal regulations in education. School accountancy may be kept through ready made computer programmes. Most applications of computers are based on such programmes.
Polish computer education has got a lot of problems now. There is a shortage of good educational software, hardware and the methodology of teaching computer science is still in its early stages. Nevertheless computers are entering Polish educational system and with the development of computer science there will be more and more applications of computers at school. Teachers should follow the changes in this field.

Basic computer education for future teachers (students of pedagogical faculties of Gdańsk University at present) is carried out during 30 school hours 45 minutes each. Preparing students for a wide use of computers in education was preceded by defining goals of teaching informatics. Goals in motivational and cognitive spheres were pointed out. Detailed emotional goals were defined on the basis of Professor Niemierko's "ABC" taxonomy. There are four categories of them:

A. Participation in action.
B. Undertaking activity.
C. Readiness to act.
D. System of actions.

The following operational goals for the programme realized in the pedagogical faculties were set up in respective categories:

A. A student takes part in the action if he/she:

1. carries out the instructions on connecting a computer to the mains and starting it,
2. retrieves programmes suggested by a teacher,
3. looks over the ready made programmes which are in the laboratory,
4. participates in the programming lessons in the language suggested by a teacher,
5. while working on a computer concentrates on the task set without trying out other possible functions of the computer,
6. asks for help when a problem appears.
B. A student undertakes activity if he/she:
1. is eager to take part in classes, comes to extra classes,
2. is keen on enlarging his computer knowledge and it makes him happy,
3. gets involved in the tasks,
4. tests the equipment, wants to know its possibilities,
5. suggests himself what educational programmes to use,
6. is happy if he/she solves an informatical problem.

C. A student is ready to action if he/she:
1. looks for better solutions, is critical about himself,
2. boasts about the solved problem in front of his friends,
3. thinks that computer education is indispensable now and wants to convince others about it,
4. chooses more ambitious and more difficult programmes,
5. suggests changes in the subject (the language of programming, the range of material etc.).

D. A student acts accordingly to the system of principles accepted by himself if he/she:
1. highly evaluates the computer in comparison with other didactic methods and devices,
2. is tolerant in his computer group work,
3. is able to explain his conception of solving the problem,
4. overcomes difficulties on his own,
5. is accurate, reliable, hardworking and honest during classes,
6. evaluates programmes accordingly to the criteria he has accepted,
7. applies the computer science approach to problems in other spheres.
Detailed goals in the cognitive sphere for a 30-hours course were set on the basis of Professor Niemierko's ABC taxonomy. According to this taxonomy there are four categories of these goals:

A. Remembering knowledge.
B. Comprehension of knowledge.
C. Application of knowledge in typical situations.
D. Application of knowledge in problem situations.

In informatics it is not only important to know the theory but to operate a computer as well. This requirement has been taken into account while forming goals of education. The following detailed cognitive goals have been set in teaching computer science at pedagogical faculties.

A. A student has remembered knowledge if he/she:
   1. knows how to assemble parts of computer equipment,
   2. is able to operate a computer,
   3. knows and understands basic computer terminology (parameter, recurrence, iteration, procedure etc.),
   4. knows the key words of the programming language chosen by the teacher.

B. A student shows comprehension of the learned material if he/she:
   1. is able to write into and start by keyboard a programme in the chosen programming language,
   2. is able to format a flexible disk, write and read from a flexible disk,
   3. is able to work with operating systems and in a network,
   4. is able to build procedures,
   5. is able to work in different modes: defined mode, graph mode, editional mode.
   6. is able to use software.
C. A student is able to apply the acquired knowledge in typical situations if he/she:

1. is able to solve tasks with the application procedures,
2. knows screen dimensions in different modes,
3. is able to change colours of paper, border, ink and to write simple music programmes,
4. can change programmes if necessary,
5. uses parameter procedures,
6. is able to react properly to the information about typical errors.

D. A student applies knowledge in problem situations if he/she:

1. notices and specifies problems which can be solved through a computer,
2. uses recurrent procedures and is able to programme fractals,
3. is able to plan a didactic situation in which he will use educational programmes
4. evaluates the method he has applied by applying such criteria as: correctness, usefulness, cohesion, complexity,
5. analyses and evaluates educational programmes,
6. reacts properly to the information about system faults,
7. is skillful and inventive at work with computer.

On the basis of the goals set for education in informatics an adequate syllabus was worked out. It includes the following items:

1. Basic instructions for operating microcomputers.
2. Making use of ROM (read only memory).
3. Operating system (DOS, CP/J).
4. Starting, analysing and evaluating educational programmes.
5. Basic programming in the chosen language.
6. Individual work with a computer.
Educational tests have been used to evaluate to what extent the cognitive goals have been achieved. These tests consist of 32 questions in the four-goal categories. A self-evaluation questionnaire has been used to evaluate the results of achieving motivational goals. Students get 0 or 1 point for their answers. Direct and indirect indicators are used in the questionnaire. Students are given it at the beginning and the end of the computer science course. The answers to the questionnaire show students' attitudes to computer science and how it has changed after the course. The questionnaire was created a few years ago and verified ever since. Here is the 1992 version:

QUESTIONNAIRE OF SELF-EVALUATION IN THE SUBJECT: "Elements of Informatics".

In the answer sheet write + or - near the number of the question:
+ if you agree with the presented opinion
- if you disagree

1. Informatics is easy for students of non-computer faculties.
2. I feel lack of lectures in informatics.
3. Informatics should not be compulsory at non-computer studies.
4. Informatics lacks humanistic approach.
5. Informatics is an unavoidable evil for me.
6. I willingly take part in computer classes.
7. I think about informatics with aversion.
8. The amount of computer classes is too small to master computer technique.
9. Informatics is necessary in my future job.
10. Time passes very quickly when I work at a computer.
11. I am not interested in informatics.
12. I associate computer science with present-day requirements.
13. I am satisfied with successes in the work with a computer.
14. I am not keen to be efficient in my computer work.
15. I am fascinated with computers.
16. Informatics should not be a compulsory subject.
17. Too much publicity is given to computers.
18. Computer education should be widespread.
19. Computer science is not connected with my studies.
20. I would not like to use a computer in my future work.
21. It is possible to do well in the present world without any knowledge in informatics.
22. I am bored with informatics.
23. Having finished the computer course at the university I am still going to develop my knowledge in this field.
24. I think I am not able to master informatics in a satisfactory degree.
25. I like to read something on informatics from time to time.
26. I would like to have computer equipment at home.
27. Computers should be widely used during the course of studies.
28. I would like to be able to solve complicated informatical problems.

Lessons with computers are connected with emotional involvement of students. This interest manifests itself as spontaneous reactions to successes and failures in the work with a computer. Students are keen to meet more often than it is planned. Results of teaching are the measure of the degree of acceptance of educational goals and contents. In the course of the educational year 1990/1991 all students who have taken part in lessons (215 persons) reached more than the basic level of achievement. Similar results were noted in the motivational sphere. The analysis of the questionnaire of self-evaluation proved that only 4% of the surveyed group have neutral or negative attitudes to the
subject "Elements of informatics". 96% of the group belong to the A category of the used taksonomy. The reliability of used tests is in good agreement with norms. Reliability coefficients for all tests are better than 0.6.

The best test of students' preparation for using computers in educational praxis would be their future work. Then it will reveal if they have mastered the use of computers in school, also for teaching their own subjects. The skills based on the objective attitude to computer science must be supported with a continuous education in this field. The presented model of education is being modernized. The trend of changes is connected with the development of hardware and software.

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