Summary of
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submitted by
Hermanus Jacobus Rousseau.
M.A., B.Ed., D.Litt.,
South African Native College
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P.U.K. vir C.H.O.

Promotor: Professor Dr. J. Chr. Coetzee
The thesis of which this is a summary is based on study in South Africa and Britain; on visits to educational institutions in South Africa, Britain, U.S.A., Netherlands, Belgium, France, Switzerland, Italy, Germany, Poland, Russia, Lebanon, Palestine, Egypt, and Austria; on discussions and correspondence with many teachers and educators of teachers; on questionnaires sent out over a number of years (especially one sent to South African high school teachers during 1950); and on experience of training teachers over a period of seventeen years.

The writer owes a debt of gratitude to many who have helped him, especially his own teachers, among whom he is proud to number Sir Percy Nunn, Sir Fred Clarke, Dr G.G. Cillie, Dr E.G. Malherbe, Dr A. Kerr. He particularly thanks his promotor for inspiration and help; the Carnegie Corporation of New York for enabling him to travel 30,000 miles in 1949 and 1950; the University of South Africa for special facilities in connection with his questionnaires; and the National Council for Social Research for a grant.

It is hoped to publish the thesis with emendations & additions towards the end of 1951. Its purpose is mainly to raise problems for more thorough investigation. Its theme is the need for wise living in a world and a country in which human relationships are decaying into explosive chaos - a need which must be met, at least partly, by wise teaching in high school and college.
HISTORY

Is Education made for Men or for Subjects?

Teacher training is about 150 years old, university teacher training about 50. For the first 4,000 years that schools existed, anyone who knew something of a subject could teach it, and the bulk of teachers were ill-educated and well despised. This, and the Greek belief that general mental discipline fits one to solve any problem, made university men contemptuous of special teacher training. When about 1800 the training of elementary teachers started it was usually so mechanical that this contempt was strengthened. Though university teacher training began on the Continent it is still considered unnecessary in most Continental countries, while it is not compulsory in England. Even in Scotland, the Dominions and the United States, where it is usually demanded, the universities and their graduates seldom respect it highly. Education professors in traditional university fashion tend to stress facts and fancies at the expense of practice, to impart these by the massed verbalism of lectures, notes and books, and to test them by written examinations, at the expense of individual, first-hand dealing with real problems. In this way university men, like their professors, collect much inert knowledge and tend to become subject-centred specialists who impart facts to be measured by examination and who lose sight of the fact that education is made for man. In short, university teacher education, by generally disregarding human nature and needs in favour of academic respectability, and by using academic methods of teaching and testing, fails to practise the philosophical and psychological principles that it preaches.

Here and there, however, voices of protest are being raised, especially in America, and teacher education is being modified to meet the real needs of communities and individuals. Thus the gap between university Education departments and teachers' (training) colleges is closing in a variety of ways; there is increasing stress on democratic living in college (personal staff interest in every student, cooperative staff-student planning and self-discipline, etc.), on adapting courses to real needs, on using methods that facilitate lifelike and active contacts and dealings with real people and their problems and that make
individual progress and development possible, and on evaluation not so much of a few examination papers as of actual conduct and competence over the whole course.

FOUNDATIONS OF TEACHER EDUCATION

It is impossible to plan a teacher education structure unless its foundations are first decided upon. The writer proposes the following as basic philosophical and psychological principles:

Philosophical

1. Amid the chaos of to-day we need a firm "assurance of faith". The teacher education staff must have and live such a faith and must help every student to evolve his own philosophy of life and of education to guide him through his problems. This can be done neither by preaching nor by planlessness: "Universities to-day," says Sir Walter Moberley, "lack any clear, agreed sense of direction and purpose." In the light of a vital and functioning philosophy must the smallest detail of our programme be decided: we must practise what we preach.

2. Our knowledge and understanding of the Universe are infinitesimally small, our imperfection great. Hence both staff and students must realize their ignorance and imperfection and humbly and diligently seek to approach nearer the truth which will make them free: Nobody knows the best way of doing anything. We must therefore never rest satisfied but be prepared to change curricula and methods. Avoiding dogmatism we must encourage criticism of our own ideas and respect others' views; have ourselves, and stimulate in others, the desire to keep on learning; train students in the best ways of finding out (studying, experimenting, etc.) and of thinking; cooperate with other teacher education staffs in pooling experience, conducting experiments and other research, exchanging instructors, conferring, visiting one another's classes, pooling equipment, publishing a magazine. Realizing our ignorance and inability to predict the future, we must not try to determine every detail in advance but believe that if we are on the right lines God's plan will become clear as we proceed.

3. However wholeheartedly we seek the truth, we can never grasp all the facts of the Universe or achieve perfection; but we can trust the love and wisdom of God, our Father, who alone sees the whole plan of existence, which He made. His love and wisdom are most clearly mirrored for us in
the life of Christ. Staff and students must therefore follow Christ in spirit, aim, and method, for instance by seeking the guidance of God together, by loving God and their neighbour (who may be the most hated or despised group in the community), and by community service.

4 In God's sight every individual, even "the least of these", is of supreme value and must be enabled to enjoy God's blessings to the full. Like the Sabbath, education is made for man, but "most schools....are still too little concerned to develop worthwhile people" (UNESCO). Teacher education must therefore be not subject- but student-centred in its promotion of the welfare of every individual student. This will be shown by a cheerful, enthusiastic, helpful staff who respect and have a personal interest in every student, who with the students form a democratic community cooperatively working out the aims and objectives, content, methods, and evaluation of the teacher education courses and of the students, who take responsibility in carrying out jointly agreed measures.

5 God wishes every individual to "have life and have it more abundantly". This means that teacher education must both guide the student towards life abundant and show him how to guide youth towards life abundant, which embraces all aspects of body, mind, spirit and personality in day-to-day living. Instead of making real life seem humdrum and remote times, places and events exciting and romantic, education must make it as vital and challenging to our young people as it is. Unless education helps to create a better world, it is a sheer waste and a lulling opiate and it will be blown to bits when the inevitable human explosion comes. Staff and students must therefore work out jointly a list of the aspects of life abundant that are particularly important to teachers, such as: a unifying and vitalizing faith (including a sincere belief in the worth of teaching), mental health, health, a liking for and understanding of boys and girls, a liking for and understanding of the community they live in, attitudes and skills needed for clear thinking, and so on. These features of the ideal teacher are then the objectives of the whole teacher education programme, and of every detail and every student in it.

Psychological

6 All people desire life abundant, all-round, not next year, but now.
To be effective, the teacher education programme must satisfy this need of pupils, students and staff for physical well-being and mental security and achievement. As suggested in par. 5 above, this must be worked out in terms of concrete activities promoted by the whole programme and motivating students and staff to joyous effort by a sense of personal worth, by interest, by maximum self-activity, by practical real life problems and presentation (especially teaching), and by generous proofs of success like praise (seldom criticism) - all these instead of the more usual extrinsic motivation of exams., marks and medals.

All people are essentially self-centred, interested mainly in their own welfare and tending to desire self-preservation even at the cost of the welfare of others. Teacher education programmes must guide this powerful urge into the service of others by promoting ideals and self-discipline, and utilize it by building the work around students' needs and capacities (e.g. through individualized teaching instead of lectures and notes). To improve the inflow of candidates for the teaching profession and raise standards, it is necessary to improve salaries, pensions, working conditions, status, rather than to make propaganda appeals.

All people can and must change, but such change is usually gradual. Teacher education must on the one hand have faith that such change is possible and on the other refrain from trying to force development quickly; a one-year post-graduate course of teacher training is bound to be ineffectual. The need for and possibility of change also means that we must educate teachers who will not only be able to teach well within the present framework (with respect for older teachers and practices) but who will help to mould it nearer to life abundant. At the same time, remembering that perfection is impossible, we shall not expect education to create a heaven upon earth. Because change is gradual, we must carefully select candidates who already possess the desirable qualities in some degree; spread the course over several years; clearly adapt our courses to our objectives (e.g. by ruthlessly selecting content on the basis of proven value); give students and staff time and leisure to live, to think, to develop; and employ methods which maximize motivation, realism, activity and individualization.
People change mentally, i.e. learn a new way of feeling, thinking and acting, only by actually experiencing and doing it and seeing the sense of it - not by doing something else but by understanding and doing the life abundant thing itself. The whole life of the teacher education institution must therefore be so organized that staff and students actually practise the life abundant and the education that makes for life abundant. Thus through constant real, first-hand experiences, students will be guided to the underlying principles: theory must develop out of experience to improve subsequent experience. To provide many opportunities for this, teacher education institutions should be residential. It is because of our over-emphasis on theory imparted by lectures and books that our former students tend to consider it hot air without any application in real schools. If we want our students to live and teach in certain ways when they leave, we must ensure that they live and teach in those ways while they are with us.

Both the Universe and people are infinitely complex and changing. Hence teacher education dare not be rigid, uniform, mechanical, but - adhering only to general principles - must always remain freely and flexibly searching and learning. While it is impossible to work out a universal system of teacher education, we must follow right principles even if their outcome is not now clear.

Questionnaires which the writer sent to South African high school teachers and principals, white and non-white, Afrikaans and English, produced rather uniform responses. Most high school teachers and principals conceive their basic task to be that of imparting specialist subject knowledge to be tested by examinations, and consider university teacher training to be too theoretical; on the one hand the staff are remote from real schools and provide inadequate teaching practice, and on the other hand they preach too many theories which they do not and cannot practice. While agreeing that teacher education should develop basic qualities like faith in teaching, liking for boys and girls, or democratic living and rational thinking, they doubt that teacher education can do that; and while agreeing that we learn anything best by personally experiencing and doing it, they tend to oppose, in the academic tradition, such applications of this principle as doing the teacher edu-
Despite their previous "cultural" education, they are concerned with use, with direct applicability of what they learn in the teacher training course, to teaching. Most of them believe that teachers have little concern with community life and progress and that there is no time to include such matters in the course.

In the following pages, applications of these principles will, if already made, as far as possible not be repeated but must be understood.

**ADMISSION TO TRAINING**

Because it is almost impossible to change students in one postgraduate year, it is necessary to start with promising material. But because few university graduates want to become teachers and because universities are primarily concerned with knowledge, the admission of graduates to training is almost automatic. The following measures are proposed to recruit, select and guide candidates:

**Recruitment:** Salaries and conditions comparable to those in other professions, in industry and in commerce ("conditions" include such things as normal rights as citizens).

- High school teachers (especially alumni) encourage suitable pupils by conversation, class discussion, visits to the teacher education institution, interesting films and brochures, etc.
- Publicity to make citizens realize the importance of teaching and the need of improved salaries, etc., and to attract recruits, e.g. from among non-academic workers; parent-teachers' associations and the like, and teachers' competent participation in community affairs will raise teachers' prestige and attract recruits.
- Local education authorities (like school boards) may be made responsible for recruiting candidates equal to the annual loss from their schools. Inspectors and vocational guidance officers should also help. Academic staff at the university likewise.

**Selection** should start in high school via cumulative record cards, giving pupils opportunities of helping teachers and of teaching, of working with younger children, etc.; this should continue during the undergraduate years. High school staff, inspectors, Education staff and the like submit confidential information about candidates, including ratings of candidates.

Far more research is needed into what makes an ideal teacher but the following factors are almost certainly important: intelligence rather above the average, health, stable personality (pupils like teachers who are patient, fair, helpful, friendly and cheerful), speech, character, knowledge and experience of life and children, previous teaching experience (especially for a one-year course). Candidates interview and are reported on by 2-3 high school principals other than their own, a psychologist or psychiatrist, an inspector, Education instructors, etc.

At the teacher education institution they are interviewed, tested by verbal tests and try-out experiences like group discussions, contacts with children, etc., and rated by means of scales and checklists.

**Guidance** continues after admission by means of an introductory orientation period which may include such things as tests, group and individual discussions with staff, experiences like teaching and contacts with young people, and by means of similar activities throughout the whole course, of which guidance must be an integral part. Different
ratings must be correlated with each other and with later teaching success to discover which are most accurate.

The aim of guidance must be to diagnose and then remedy weaknesses and develop strengths, or in extreme cases to lead students into other careers where they are more likely to succeed.

Periodic self-evaluation by students under staff guidance is particularly important because it constantly highlights basic objectives, makes for close contact between staff and students, makes the student ready to accept the facts about himself, motivates him to improve, and promotes self-direction and continued improvement after completing the course.

THE SPIRIT OF THE INSTITUTION

The qualities of the Education staff are so important that the staff must be selected and treated with the utmost care. They must possess the qualities of the ideal teacher listed on p. 6 (such as a sound philosophy of life and of education); and they must enjoy good salaries, time to study, travel, visit schools of all kinds (particularly former students'), confer with staffs of other institutions, write, do research, and have many contacts with their students out of class, in addition to performing the usual teaching functions. To make this possible, there must be one instructor to about 10 students; moreover, the institution must practise what it preaches. For instance:

Its philosophy must be in line with the best modern thought (e.g. in psychology), must be sincere and practised in every detail (cf. par. 1, p. 2, & par. 9, p. 5), and must be worked out cooperatively by the whole staff and if possible by staff and students; University Teacher education practices have not kept pace with modern thought; in consequence students go out unable to use progressive practices but feeling guilty about using old practices. Such a philosophy will stress lifelike learning to live wisely by living wisely, as individuals worthy of respect, in a community worthy of respect, through the pursuit of truth.

Lifelike learning (v. par. 5, p. 3) means first-hand experience of people (young and old) in all sorts of life situations but particularly in situations with educational possibilities: Schools, home, college, church, agricultural and home-making clubs, Scouting, playgrounds, juvenile courts, etc. Staff and students must keep in close contact with actuality by means of films, visits, surveys and investigations (e.g. case studies of children), living and working in real schools and communities (e.g. members of staff after about 3 years in turn take the place of high school teachers who return to the institution for study or teaching), by seeking contact with persons who have such experience (e.g. school inspectors, welfare workers, health officials), by sociodrama (play-acting), and the like.

Out of the needs of such real situations must grow the content of the course; e.g. race antagonisms should lead to the psychological and philosophical study of group prejudice, the teaching of lessons to counter prejudice, the writing of schoolbooks stressing the contributions of different groups.

"Wise living" means that in the teacher education institution, in the schools, and in the community staff and students should not only practise tasks currently required but progress beyond present practice (cf. par. 8, p. 4).

Respect for the individual (v. par. 4, p. 3; par. 7, p. 4) implies such
practices as the following:

Staff encouraged to use their initiative in the
democratic running of the institution and in their teaching,
in order (inter alia) to develop better teacher education.

Interest in and friendship towards every student, as
shown by (1) welcome and orientation procedures on arrival;
(2) obtaining students' cooperation by consultation on all
institution matters affecting them or at least explaining
their rationale; (3) expecting and using individual dif­
ferences and views even when these differ from those of
the staff, e.g. students are asked to help adjust courses
to their needs by unsigned criticisms, by group and indi­
vidual discussions, and by helping the staff to take action
accordingly; (4) encouraging student self-direction and
self-discipline by having the fewest possible rules, by
promoting informal staff-student contacts (e.g. committee
room arrangements in class, informal seating, small-group
and individual discussions; out of class - having tea or
going camping or undertaking educational projects together),
by quarterly or half-yearly student self-evaluation on the
basis of agreed objectives embodied in self-rating forms or
"planning papers", by flexible organization, and by thus
leading students to accept responsibility for running their
own lives wisely; (5) helping each student to develop a
sound philosophy of his own in this Christian and democratic
atmosphere; (6) providing facilities for self-expression
also in creative activities like art, craftwork, drama,
speech, writing, music.

Individualized studies, methods and evaluation to
adapt teacher education to the widely varying backgrounds
of graduate students through exemption (exempted students
do more advanced work, help backward students, undertake
individual or small-group projects, etc.), remedial work,
individual study and progress, discussions and projects,
and the like.

The award of a diploma must not depend on "doing time"
but on achieving competence.

Respect for the community is very important for every teacher
because the community shapes his pupils, determines his
school and the educational system, decides whether his
Teaching will be promoted or counteracted out of school,
embraces the teacher himself, and needs the teacher's help
in solving urgent problems like poverty and prejudice.

The best teacher is first-hand experience guided to
underlying principles; therefore both staff and students
should visit and live in typical communities (villages,
towns, &c.), make community surveys, do community projects
like Grambling College, Louisiana, and through discussion
and sociological study be led to basic principles.

Respect for the truth is indispensable for abundant life in any
form. Both students and staff should promote it and
practise its concrete manifestations, such as the following:
(1) Determination to find and face the facts, willingness
to be criticized, to consider others' views; (2) Practising
the features of critical thinking, e.g. starting from real
problems, defining them, suspending judgment, collecting
relevant data and weighing them, formulating a hypothesis,
testing it, and acting on the best conclusion while clearly
realizing that there is no final human truth.

This can best be promoted by first-hand experiences
with people and life (e.g. work in slums or interracial
situations, discussions rather than lectures, small and
large researches), guided towards the principles of clear
thinking.
The university traditionally offers the best environment for the dispassionate pursuit of truth with its freedom of thinking, teaching and studying, and with its special facilities for investigation.

But it has serious drawbacks. The university, bent on "knowledge for its own sake", has no philosophy to guide its search for or use of knowledge and little acquaintance with modern psychology and methods to guide its procedures; it refuses to think critically about education (including itself); traditionally an ivory tower disclaiming any duty of serving the community, it has little respect or money for its teacher training; considering all knowledge of equal value if "pure", its formal education all too often resembles a jumble sale of disconnected subjects producing narrow specialists and inert knowledge.

In these respects some teachers' (training) colleges, like those in Grahamstown, South Africa; Oneonta, New York State; and Dudley, England, promote more all-round and vital education for life and teaching. Many, however, suffer from inadequate intellectual standards, drill for narrow efficiency, and segregation by sex and vocation.

To vitalize university teacher education and to broaden and deepen teachers' college teacher education it would seem desirable to combine the teachers' colleges and the university Education department of a region in an Institute of Education similar to those in England.

The length of the professional education should in any case be longer than one year (see par. 8, p. 4) to give time for students to discover if they are fitted for teaching and to change habits, attitudes, personality. Best would seem to be 4-5 year courses integrating general and professional education throughout and leading to a degree in Education in the same way as a legal education leads to the LL.B. Less desirable seem to be courses, as at Moray House, Edinburgh, and Johannesburg Teachers' College, in which general and professional courses run side by side over a number of years without being integrated.

If this is not permitted, then some professional work should begin at least one year before the candidate's admission to his post-graduate professional training—preferably earlier, as at the South African Native College.

If only a post-graduate year is available, one of the following procedures is suggested:

1) 1-3 months' supervised teaching and work with young people before the course commences;
2) After a brief preparatory course of about 4 weeks during the university's summer holidays, graduates are attached full-time to able teachers in selected schools, who gradually hand over more and more of their work to the students. In the afternoons and some week-ends these students attend a discussion group in their locality under experienced leadership, to thrash out the day's problems, prepare the next day's work, remedy errors in procedure and personality, build up a functional mastery of psychology, and work out their own philosophy of education. During this year they might be paid as uncertificated teachers.
3) The course is divided into two parts: an introduction to education, lasting about 3 months; then the graduate teaches for 2-3 years; after which he does the rest of the course.

South African high school teachers responding to the writer's questionnaire criticized university teacher training as not sufficiently practical (p. 5), opposed a 4-year course of combined academic and professional education, and favoured solution 2 suggested above.
To be able to lead his pupils to life abundant, the teacher must understand and appreciate (a) his pupils, (b) life abundant, and (c) some special areas in life abundant because life is too extensive to be known thoroughly. The teacher education curriculum must therefore consist of the activities that constitute wise living and wise teaching, for the only way of learning a thing is by actually experiencing and doing it, and deriving from it an understanding of underlying principles. These principles imply details like the following:-

1) The curriculum must consist of broad and comprehensive life activities, for the general course must be "an education in the art of living" and the professional course an education in the art of leading others to live wisely. Both the general and the professional education must therefore not only be life-related but as far as possible arise out of real student needs leading to experience, investigation and projects in living and teaching. The teacher education institution must therefore provide continuous opportunities for wise living both inside and outside the institution, e.g. through its institutional life (stressing health; skills of social living - etiquette, dress, appearance, getting on with others, etc.; individual development - art, music, etc.) and through its community projects, e.g. running a school or adult literacy classes, adopting a poor community or school.

Many of the present features of university courses for teachers are antiquated, e.g. the Arts and Science degrees, the stress on the history of education, and the use of unpsychological methods of teaching. If these courses are to improve life they must resemble life, e.g. theory should follow and not precede practice or experience, and its sole purpose should be to improve further experience. We have hitherto been so concerned with "pure knowledge" and abstract "principles" as intellectual exercises that we have on the whole failed to produce high school teachers with broad vision and creative minds - we have even failed to produce an appreciation of "pure knowledge" and abstract "principles". The responses to the writer's questionnaires over a period of years indicate that South African high school teachers of all races criticize most strongly the inclusion in their courses of such "pure" subjects as the history of education, "theory", art, music, handwork, physiology; the reason given is usually "I have never used it in teaching my subject". In the same way the subjects they consider most valuable are those which have been most directly useful in their high school teaching, e.g. psychology of education (especially "learning and intelligence"), methods of teaching, practice teaching, blackboard work. Researches have shown that the only teacher training subjects whose examination marks correlate significantly with later teaching success are subjects like these. In a checklist of specific items from different subjects the highest votes were cast for the inclusion of items like "Maintaining discipline", "Correcting written work", "Planning the year's work", and the lowest for "Plato's education of workers", "Locke's ideas on education", and "How the nervous system works".
Items in syllabuses and subjects in courses should be subjected to ruthless scrutiny and included only if of demonstrated value in reaching the objectives of teacher education (cf. par. 5, p. 3); there should be constant curricular revision on the basis of staff-student discussion and of research. South African high school teachers criticize the overloading of university training courses and maintain that many items are dealt with so superficially as to be valueless and irritating.

Cooperatively undertaken, curriculum construction should consider (a) the present needs of student teachers; (b) ideal or outstandingly successful teachers (contrasted with very unsuccessful ones); (c) the views and practices of prominent thinkers in life and in education; (d) the demonstrable needs of practising teachers; (e) programmes of other teacher education institutions.

Out of this may come an emergent or "project" type of curriculum, developed by staff and students from day to day (cf. p. 93) but including basic essentials of wide applicability.

The integration of the different curricular activities is needed, and may be promoted by cooperation in working out the programme, by reducing the number of "subjects" through ruthless selection and through combining separate subjects (e.g. Educational Principles and History and Psychology should coalesce, and should often provide practice in such activities as "Language", "Elocution" and "School hygiene"), by constantly correlating different subjects, and by having every instructor teach several subjects.

This brings us to

THE METHODS OF TRAINING

Only if the student teacher during his training constantly experiences educationally sound practices can he on the one hand develop soundly himself and on the other help to change high schools into places where boys and girls learn to live better by living better. Briefly, good methods are lifelike, active and individualized.

Lifelike learning has already been discussed, e.g. placing students in real-life problem situations at an early stage (like having to run a school), using their out-of-class interests, presenting material in realistic ways like sociodrama, films, situational problems, constant interrelating of students' college work with their life and school experience. Thus the history of education should be studied from the present to the past; the psychology of education should start from work with people, study of children and fellow-students, memories of one's own childhood and youth, sociodrama, experiments carried out by the students; speech training should be given through situations the student teacher faces now or will face as a teacher, like taking morning prayers or interviewing a selection board; teaching methods must be taught by expert teachers in high schools largely through actual demonstration in their classes. The possible range of lifelike situations is as great as those teachers face in living and in teaching.
Active learning is implied in lifelike and in individualized learning. Activity methods in addition to those mentioned are the following: introductory quizzes, brief tests, questionnaires, checklists, problem pictures and questions, quiz sections and quiz contests, brains trusts, symposia, investigations, reports, and the like.

Individualized learning is necessary because no two learners are identical. In addition to the lifelike and active procedures already mentioned, the following facilitate individual development and progress: training students in the best ways of studying and working (how to read effectively, use the library, make notes, weigh up books, etc.); producing self-teaching material on the Winnetka and Dalton model (workbooks, worksheets, practice cards, self-tests, etc.); extended use of exemption (e.g. a graduate who majored in Psychology is exempted from the whole or a part of the psychology of education course); etc.

Many procedures found useful in workshops for serving teachers should be employed in teaching student teachers. Most lecturing is not only boring but uneducational: giving answers to questions nobody asked, it is authoritarian, passive, encourages hypocrisy, tends to suggest that no other studying is needed, and is extremely wasteful. South African High School teachers replying to the writer's questionnaires severely criticize lecturing, note-taking, dictating notes, and not linking theory with practice; they do not want lectures abolished in teacher education but much reduced, and they want more lecture-discussions and individual and lifelike activities.

The lifelike activity which they stressed overwhelmingly is PRACTICE TEACHING but they considered that there should be fewer "show" lessons and more typical lessons, which should not be isolated tours de force but continuous series, say 10 lessons on one aspect of the work. Particularly in the United States to-day it is felt by progressive educationists that in addition to classroom teaching students should engage in other "laboratory activities", like working with young people and with adults in the community. All "laboratory activities" require careful planning and preparation, close cooperation between the college and the community (including its schools), distribution over 2-3 years and several types of schools and communities but largely in good progressive schools, adaptation to individual differences among the students, constant integration with the students' classroom work at college in order to lead to the formulation of general principles, and intelligent supervision.

The following stages have been found effective in leading
1) Observation of good teachers at work; discussion follows to bring out general principles; if continued too long, this stage becomes boring.

2) Demonstration lessons by able teachers in all school subjects, making use of experimental methods; every lesson to be preceded and followed by discussion; such lessons will often be part of the "Special Methods" courses.

3) Rehearsal lessons by students who either teach imaginary classes or groups of fellow-students; discussion follows. These 3 stages must make students conscious of the basic principles of educational philosophy, psychology, method, and organization, and lead to practice in speech, blackboard work, drawing up lesson plans, and the like. They should start at least 2 years before the final year of training - some of (4) and (5) as well.

4) Discussion lessons by students are followed by discussion guided by observation forms; the student teacher should be the first to assess his own lesson; sharp criticism by others must be avoided - praise is much better.

5) Continuous teaching by students in schools away from college; its value is greatly reduced if it is not prepared for by 1-4 and by special discussion of student teachers' conduct, teaching details, discipline, etc. It should also include non-teaching activities in the school and the community, guided and reported on by means of a checklist, specific topics for investigation, perhaps a daily log, etc.

All this is greatly facilitated if the teacher education institution has a demonstration school or schools.

EVALUATION

The usual 3-hour examinations are almost valueless for assessing the competence of student teachers and the success of the teacher education programme. If our aim is to help produce teachers who live wisely and who effectively lead others towards wise living, we must obtain not pious protestations but actual measures of progress towards wise living and wise teaching: Can the student handle life problems and classroom problems effectively? Certain details of good evaluation follow from these principles:-

1) The aims and objectives of the teacher education programme are cooperatively worked out, and then detailed in terms of concrete activities.

2) Those activities are constantly and realistically practised in every part of the programme.

3) Evaluation is an integral part of the programme from the first day, continuously assessing and guiding both students and staff in the light of the aims.

4) Evaluation must be comprehensive, covering every aspect of the students' total personality and every side of their work on the course throughout their course. This can be done by means of periodical short tests and by "comprehen-
sive examinations" to measure students' grasp of basic facts and principles and their ability to apply and use those facts and principles; and by a wide variety of lifelike tests in ability to use the library or a book, in judging and interpreting research or generalizations, in setting up an experiment to investigate some teaching problem, in discussion and persuasion, in day-to-day living, in community activities, etc.

The (Negro) State College, Fort Valley, Georgia; the State College, Troy, Alabama; the College of Education, Ohio State University; and the Institute of Education, Bristol University, England, do § especially well.

b) Evaluation should be cooperatively undertaken by staff and students (with stress on students' self-evaluation) as well as inter-college committees (including representatives of the state education department) to devise tests, rating scales and the like, and to assess and stimulate one another's work, as at Bristol Institute of Education (in some ways). For these reasons, and to ensure minimum standards of competence, there should be external examiners or moderators supervised by the inter-college committees, who assess every student's work (or at least representative good, average and weak students' work) done throughout the course. Thus teaching ability will not be assessed on the basis of two isolated and unnatural teaching tests.

AFTER-CARE

Teacher education should not end with certification: No factory would spend £2,000-£3,000 on turning out a product and then take no further interest in it; we should at least service our former students for a year, as a typewriter factory does with its typewriters. No matter how good, the teacher education programme cannot prepare its students for every situation they will meet; at best it can only lead its students some way along the general road they should travel. Much of the work of the college or university may be undone in the first few months of teaching. Moreover, changing life and education demand that teachers keep abreast of new developments. From the institution's angle, "servicing" its former students keeps its staff in close contact with real school teaching and constantly reminds them that the real test of their success is not final examination results but actual living and teaching.

Types of after-care which have proved effective are these:

1) First appointment in a suitable school (progressive, sympathetic staff, etc.).
2) Probation for 1-2 years; perhaps combined with rating for promotion, certainly with self-rating.
3) Supervision by school principal, school inspector (supervisor), college/university instructors.
4) Staff meetings in the school, occasionally with a "consultant".
5) Study groups in subject-matter or professional problems.
6) Teachers' "workshops" attended by teachers from a district or region to work at and find help in their individual teaching problems; special facilities are available at the workshop.
7) Vacation courses built around teachers' actual problems.
8) Visits to good schools or teachers, demonstrations of good teaching, exhibits of good work done, films on teaching.
9) Teachers' associations, parent-teachers' associations, subject-matter associations, UN associations, and the like.
10) Teacher education institutions should take a hand in all these; some institutions have extra members of staff who devote (most of) their time to such activities; others make some or all their staff available at certain times for such activities as the following:-
   - Sending a newsletter or magazine to its former students for 2 years after they leave;
   - Offering an extension service of talks, films, consultation, etc., to schools and districts with general or special educational problems;
   - Conducting research and providing an educational clearing-house in contact with similar bodies elsewhere in the country or overseas;
   - Organizing or helping to organize activities 1-9 above, e.g. writing a personal letter to the new teacher's headmaster, asking him and his staff to help the beginner;
   - Making it possible for teachers (especially beginners) to return to the institution from time to time to thrash out their problems and renew their enthusiasm.
11) Government education departments should do likewise.
12) Individual activities engaged in by teachers on their own: study, correspondence, writing articles, making experiments in teaching, etc.

**CONCLUSION**

In review, the basic necessity for the improvement of teacher education at universities is the realization that our work is imperfect, and that we can learn much by self-examination and by cooperation with like-minded persons elsewhere. The writer therefore recommends that those who train teachers examine some of the points mentioned in these pages, and then meet to discuss their problems. Out of such a meeting further projects will flow.