

S.J. Preller
**UNIVERSITY DIDACTICS
IN FUTURE PERSPECTIVE**

1. Introductory remark

According to the title of this paper three matters especially come into consideration, viz. *didactics*, the *future* and the *university*. For this reason it is necessary to give a brief orientation to each of these. After that an attempt will be made to view university didactics in future perspective.

2. Didactics

This paper does not afford the time for a complete discussion of the science of didactics and therefore we shall have to limit ourselves to an overview of certain essential facts concerning didactics.

The concept “didactics” can be defined as “*the science of teaching*”. As such it entails the theory as well as the practice of teaching. On the one hand it can be regarded as a branch of educational science (it must be kept in mind that during the course of its development didactics was defined in various ways, and even today a certain amount of difference in opinion exists about the concept of didactics), and on the other hand it is simply used as a synonym for “teaching”. In actual fact, however, it encompasses both the theory and practice of teaching, including its own reflections on the nature of the phenomenon known as “teaching”, reflections on what teaching actually entails and what its ultimate aims are. It also includes the conditions and the principles which are regarded as universally valid for effective teaching, also the strategies and methods of teaching, the pupil, the act of learning and all aspects concerning the pupil and learning, the

teacher, the content and the construction of curricula and syllabi, the diverse teaching institutions, teaching aids and techniques, discipline, evaluation and remedial teaching. In the execution of this task didactics makes ample use of the scientific findings of the philosophy of education, the psychology of education, sociology of education, the history of education and comparative education. Of course, use is also made of the results of the didactician's own investigations and thought. All the didactician's activities are aimed at the realization of the most effective teaching in the class room. Didactics also includes investigation of the method of teaching and therefore it understandably has a greater scope and task than teaching method as such.

Since didactics is also concerned with *teaching*, attention should briefly be paid to this concept as well. Teaching should be seen as an event, something that takes place between people and which is directed at the achievement of educational aims. For this reason all teaching is education at the same time. In every teaching situation there are at least one person who learns (the pupil or the student) and another who assists him or her in his or her endeavours to learn (the teacher or the lecturer). Both these persons are active parties in this event which is known as teaching: a dynamic – and essentially psychological – interaction takes place between them. This event of teaching is aimed at the achievement of much more than the mere transfer of knowledge, methods and techniques from one party to the other. Teaching should much rather be seen as the “opening-up” of knowledge in order that the student may be in a position to make it his own. On the other hand, teaching should be seen as the “opening-up” of the student himself in the sense that he becomes activated by teaching to such a degree that he is able to apply the knowledge, methods and techniques which he has made his own for the sake of the development of new methods and techniques and of the exploitation of new sources of knowledge.

The abovementioned interaction is however always and unavoida-

bly accompanied by reciprocal influence between tutor and pupil. In didactics, though, one is interested in much more than just casual, incidental and random influences: in this process of “opening-up” of self and of knowledge, and also intrinsically interwoven with it, there should always be present an intentional, purposeful, planned, continuous and orderly process of forming, improvement, leading towards God of the student by the teacher or lecturer. All the lecturer’s efforts should be directed towards the aim of rendering the student a more complete person – in other words, at the realization of a pre-established educational ideal. In this event or process of “opening-up” of the student and of the knowledge (i.e. in this event or process of teaching) the lecturer uses the following as instruments: the content, the example of the teacher, the methods and techniques which have to be implemented, and the discipline which is employed.

From the above exposition it is evident that the *student*, the *content* and the *lecturer* are the cardinal components of (educational) teaching, that all (educational) teaching is intrinsically aimed at the future, that it is a continuous deed or process (continuous, that is, from the pre-school stage, through the primary and secondary stages up to the end of the tertiary stage, and even past that in the form of life-long, further education).

Usually, a distinction is drawn between *general* and *special* didactics. University didactics must be considered a form of special didactics which has as its field of investigation all the above-mentioned matters and events which take place at a university, or as may be seen in even wider perspective, in tertiary training.

3. The future

Reflecting on the future is no more flight of fancy. The past, the present and the future form a continuum in which the present

may be regarded as the culmination point of the whole past. For this reason it is always wise to visualize the future while constantly taking into account the influences which are the determining factors of the nature of the present, and also all the influencing factors which played some or other role in the past. But, in spite of the fact that the responsible futurologist takes all these precautions and goes about his task in a scientific manner, and also despite the fact that he has many reservations about his prognosis, his view of the future may nevertheless be distorted or even cataclysmically destroyed – by wars, natural disasters, economic revolutions, political revolutions, drastic demographic and political changes, surprising scientific and technological discoveries, etc.

While fully taking the abovementioned reservations into account, it can be expected that current tendencies will be accelerated and that the future will be characterised by mainly the following features:

- * An exponential increase of knowledge with the accompanying problems of the mastering, organisation, availability, retention and application of such stores of knowledge. This increase of knowledge of course also brings about wider and deeper knowledge of the physical, psychological and especially the biochemical and biophysical bases of memory, thought, motivation and heredity.
- * Ever-increasing specialisation which stands in direct relation to the tempo at which science, technique and industry develop.
- * Improved and ever-increasing inter-individual, inter- and intra-national communication in every sphere of life.
- * An increasing struggle towards international co-operation, harmony and a world-government, particularly as a result of an ever-increasing population and the disproportionate distribution of wealth and natural resources.
- * The accelerated exploitation of natural resources, accompanied by concerted attempts to conserve these resources in order that optimal use can be made of them.

- * The increasing growth of the populations of developing countries, a levelling-off and even decrease in the populations of developed countries and the accompanying problems of inter-human and international relations.
- * The ever-increasing process of urbanisation and the accompanying phenomenon of man's estrangement from the reality created by God.
- * The increase in leisure time with the accompanying problems of utilising such leisure time in a glutted community.
- * Increasing emphasis will be laid on education at all levels, also at the tertiary level.
- * The ever-increasing filing-down of inter-human and international differences with the accompanying processes of democratisation and socialisation which take place in direct relationship to the rate of increase in population and decrease in natural resources.
- * The ever-increasing sense of selfsufficiency of a man who seeks his own salvation in the achievements of science and the state (government) with the result that man becomes increasingly estranged from God and religion.
- * The ever-increasing improvement in the standard of living and of living circumstances which, in turn, should stimulate physical, psychological and especially cognitive development.
- * An ever-improving and an ever-increasing number of technological appliances, methods and techniques aimed at the improvement of teaching, and also of productivity and entertainment.
- * The ever-increasing diversification of occupations: new occupations will be established, some others will be renewed and still others will eventually cease to exist. All of these changes will be accompanied by increasing emphasis on vocational guidance, vocational training and extended, almost life-long, education.
- * The ever-increasing search of man for direction in life, a life which shows rapid changes and in which problems are becoming ever more comprehensive and complicated and which will place a high premium on leadership.

If it is accepted that the abovementioned will be features of the future, then university didactics should already in our day be tuned to meet the demands of the future – because the university is at present busy at its task of preparing people for that future.

4. The university

The university is no medieval institution which has been left unaffected by all the events around it as the centuries passed. It is a human institution which is situated in the pulsing life of its narrower and its wider community, which is reciprocally connected with the latter in countless ways, which is totally dependent on its community and, vice versa, which lives with the community as part of the community and, as such, exerts influence on life around it and supplies guidance founded on scientific grounds. Should the university deny these responsibilities, it runs the risk of being rejected by its own community.

But since the university is part and parcel of a developing community, and being itself a developing institution, it is involved in a serious struggle (together with its community) to meet the challenges which come to the fore from within itself and which are put to the university in all spheres of life. The university poses questions to itself and is also questioned by others, it is correctly used and sometimes abused (at times by itself). In the course of its development it was (and still is) extremely difficult to define the term “university” in terms generally acceptable, since the university (that which is designated by the collective noun “university”) showed (and still shows) a great diversity – especially in its outward appearance. But concerning its inward being (one could say: its true being) it is quite evident from reports by committees of investigation in a great number of countries and from an abundance of literature on this subject that there exists at least one common factor, *namely that the university is an institution devoted to the practice of science and*

to the teaching of students. However, even this seemingly simple definition is operationally interpreted in a number of ways, mainly because any such interpretation of it is religiously and/or philosophically determined. For this reason it is well nigh impossible to generalise about the university and it therefore becomes the task of each individual university to decide for itself what it really is in actual fact and also what its aims are. Only when the didactician knows what the university's true being is and what its aims and functions are, is he in a position to design a didactic pattern or model aimed at the achievement of the goals of the university and at the fulfilment of the functions of the university.

5. University didactics in future perspective

Since university didactics is both science and practice both these elements will have to feature in the following paragraphs in which university didactics is viewed in future perspective.

5.1 The science of university didactics viewed in future perspective

Firstly attention is paid to the past and present –

In the past universities were devoted (by means of their faculties of education) to the study of all aspects of teaching *in schools*, and this is very much the case in the present day. Only very recently were they shocked by the realization of the fact that they also had to pay attention to all aspects of their own teaching and training of students – to all aspects of tertiary training. Within a few decades chairs for the study of tertiary teaching were established at universities all over the world, institutes and bureaux for tertiary teaching were formed and various courses in tertiary teaching were presented. All these very recent events resulted in a stream of literature which today flows very consistently.

One notices however the tendency to regard tertiary or university didactics as the remedy for most of the problems and ailments of the university. One can say that the choice of remedy was correct, but it must be admitted that the fact was disregarded that didactics is nothing more than only a single branch of the totality indicated as *educational science*, and that didactics is always exceedingly dependent for its own development on the other branches of educational science. This will always be the case with didactics. With regard to teaching in schools the science of didactics has grown and developed through the centuries to become what it is today, and in this process of development it has constantly made ample use of the rich source of knowledge supplied by the philosophy of education, the psychology of education, the history of education and – more recently – comparative education and the sociology of education. All this has of course taken place apart from the knowledge which didactics has exploited of its own accord. Consider for instance the following example: through the centuries thought was given to, and research conducted on the phenomenon of education, the pupil, the teacher, school and schooling systems, curricula and syllabi, the aims of teaching and education in schools, discipline in schools, methods and techniques of teaching in schools, etc. With very few exceptions this research was limited to events in or at schools, with the unavoidable result that very little systematised and verified knowledge was acquired on the tertiary counterparts of these matters mentioned above. One could make the statement that a building of science was erected of which the top storey was completely lacking or then at least sorely neglected. This state of affairs was transferred to the training of teachers at tertiary institutions, with the result that teaching at universities and other tertiary institutions hardly or never figures in such training. Since this is tantamount to a disregard of the continuity of education, it should be regarded as a possible cause of pupils' difficulties in the transition from secondary school to university.

While this was the case for a very long period of time, it was ex-

pected of didacticians to establish a complete system of university didactics practically overnight. It was expected of them to design a system of university teaching while simultaneously paying attention to the efficient training of university lecturers. In order to do this they of necessity had to resort to general didactics as a starting point, to the theory of philosophy of education, the history of education, psychology of education, sociology of education and to comparative education – all disciplines of educational science that were up to that point mainly concentrated and focused on the child and the school. Apart from this, university didacticians were also forced to seek for the required knowledge in the shortest time possible. Looking back today however, it is possible to say that commendable work was done in these two respects.

And now a look at the future –

Since all present indications are that ever-increasing demands will be made of university didactics (as a science as well as a practice) in future, it is a fact which we have to face that this science of didactics will have to be developed with every means within our reach, and also that it will have to be established on a very sound foundation of basic knowledge. The point is, however, that all this cannot be regarded as the duty of only one person or even of a single academic department.

On the contrary it can be stated that if this ideal must be achieved it is of the utmost importance that the entire faculties of education of universities should regard the matter of university teaching as their combined duty. *Philosophy of education* should apply itself to all aspects of tertiary education in very much the same fashion as it does to aspects of pre-primary, primary and secondary levels of teaching. In doing so, it should supply the theoretical or philosophical foundation for tertiary education in the same way as it does for all the other levels of teaching just mentioned. This suggests that reflection on the metaphysical, epistemological, ethical, religious, logical,

psychological, sociological, political, physiological and other foundations of teaching should be extended also to the tertiary level of teaching.

Also the fundamental questions about teaching on the tertiary level should receive serious attention: questions about the true being or essence of the university, the functions of the university; its educational aims, the nature of the student, the content of what is taught at the university, punishment and discipline, and eventually also the system and organisation of teaching on the tertiary level. In very much the same way *Psychology of education* should cover the complete area of tertiary teaching in the sense that it extends its study and investigations of the phenomena of growth, development and the act of learning also to university level, i.e. extends its investigations and research also to the student. *History of education* again should grant the university and the diverse aspects of tertiary education their rightful place in its inquiries into the course of the development of education and teaching as the centuries went past. *Comparative education* should also include university education in its task of comparing educational systems, while *Sociology of education* should, among other things, devote attention to the problems of the university with regard to the community in which it is situated. Finally, it must be expected of *general didactics* to include the university in its reflections on basic principles and designs which may guarantee effective teaching at tertiary level.

It is not intended to insinuate by what has just been stated that nothing at all has been done up to the present moment in the areas mentioned pertaining to university teaching. The intention of what is stated in the previous paragraph is far rather to stress the fact that the university and university teaching should be granted their rightful place in the investigations of the various disciplines of educational science. Furthermore, it should be stated that a specialist need not necessarily be appointed in each of the abovementioned academic departments to apply all his

energies to tertiary education, or even that a special lecturer should be appointed in each department to pay all his attention to the tertiary level of teaching. The fact that must however be underlined is that the scope of each of the disciplines of educational science should be extended in order to include also the tertiary level of teaching insomuch as this is not already being done. Once this is being done, we can rest assured that university teaching will figure in a properly balanced manner in all research, publications and in lecturing programmes. Also tertiary education will assume its natural place in the process of training of lecturers (and teachers) and one can expect the acquisition of a teaching diploma by lecturers to assume more meaning and sense.

Should these suggestions be followed, it is more than likely that a specialised course known as "Tertiary teaching" will come into existence alongside of those already included in the curricula for teaching diplomas and degrees. The same applies for the B.Ed. degree and the master's and doctor's degrees following thereafter. Another very probable result of this innovation will be the fact that research will be stimulated along the whole line of university teaching which again will result in the supply of essential knowledge with which to reinforce the foundations and building of the science of university didactics to which reference was made earlier on in this paper.

If universities worked along these lines it will be possible to supply scientists in future who are worthy of the title of *university didactician* and in addition a generation of lecturers and teachers may be supplied who have made a study of teaching as a totality. These persons will be able to make a valuable contribution towards the alleviation of transition problems between school and university.

Since however university didactics is to be regarded as a special branch of didactics, it may be wise to create a specific depart-

ment of, and to appoint special lecturers for, the handling of university didactics. Also, however, it should be ensured that these lecturers are in a position to devote their full attention to their special task.

5.2 University didactics as a practice in future perspective

University didactics may be regarded as the focal point, the clearing house of all the knowledge amassed by the diverse branches of educational science (of course also including itself). It must in the meantime also be kept in mind that the science of education does not amass knowledge purely for the sake of the possession of the knowledge itself. On the contrary, knowledge is sought for the sake of the functionalisation of such knowledge in the fulfilment of one's calling in life. The calling of the university didactician includes among other things that he should utilize his knowledge of education in his own methods of practising science, in the training and teaching of students entrusted to him and eventually also in his attempts at drafting didactic strategies and designs for university teaching. His task also calls on the didactician to be able to identify didactical problems in the tertiary teaching situation and to design didactic models with which these problems can be remedied or solved, to evaluate existing didactical practices, models and designs by means of established norms and principles, and lastly to give thought in a reformatory manner to his own way of practising science and of teaching or lecturing.

From this brief orientation given in the foregoing pages on didactics as a science and as practice, the university as a tertiary institution and on what can be expected in the future we now have to consider the future task of university didactics. This embraces especially the following:

1. Increasing attention will inevitably have to be paid to all aspects of the training of lecturers in the years to come. The aim should be to require of every lecturer not only to be expert-

ly trained in his own special subject in which he will lecture, but also to be adequately schooled in educational science. It should, in view of this demand be fair practice to expect of every university lecturer to be in possession of a teaching diploma, much in the same way as it is currently expected of every school teacher. Such a diploma will then be regarded as evidence of the fact that all the disciplines of educational science have been included in the curriculum and that university didactics was taken as a special subject. Apart from this, measures will have to be taken to ensure that continuous in-service training takes place in order to keep lecturers informed not only of the latest tendencies, methods and techniques of university teaching but also of developments in the organisation and administration of the university.

2. Since it must be accepted as a fact that a university's view of itself, of its essential being and its own functions are determining factors for the didactical strategies employed, it follows logically that every university should continually do research on these matters concerning itself. It is essential to gain complete clarity on these matters in order to be in a position to design a didactical pattern which is aimed at the realisation of previously circumscribed goals and functions. It is the task of the whole university to participate in this study of its own essential being and its own functions and not only the task of those scientists who specialise in university didactics.

3. The university should continually give thought to its *own policy of education and teaching of students* and should come to complete clarity on this matter from time to time. This policy of education should culminate in the formulation of the educational aims of the university, because it is only when this has been done that a didactic approach can be designed with which to achieve such previously formulated goals.

4. Because of the fact that universities have recently thrown their doors wide open to a heterogeneous student population, and will

in all probability keep their doors open, it has become necessary for university didactics to provide for differentiated teaching to a very much greater extent than is presently the case. In order to be able to meet the great diversity of interests, needs and abilities of students it has become essential that curricula, syllabi and didactical designs should be differentiated.

5. In view of what has been stated in the previous paragraph and in view of the greater demands of an ever-growing store of knowledge, it has become of paramount importance to pay constant attention to a didactically sound programme of curriculum and syllabus construction. Each and every curriculum and syllabus should be constructed and, of course, constantly revised according to criteria which have been proved didactically sound. Now, in order to be in a position to do this clear aims should be formulated in no uncertain terms for every single curriculum, syllabus and even sub-sections of syllabi. Once this has been done the subject-matter or content of the various syllabi can be selected with the aim of achieving the goals previously formulated, and only then can the business start of arranging the subject-matter of syllabi according to established didactical principles.

6. The ever-increasing demands of life as a whole and of occupations in life in particular, and of an ever-increasing mass of available knowledge, renders it all the more necessary for university didactics to apply its energies to the "opening-up" of the potentialities of every student, and to the stimulation and development of those things in him that possess permanent value for life. Mainly for this reason the emphasis in the process of teaching should be shifted: away from the goal of merely *transferring knowledge* to the student, a process in which the lecturer is forced to supply knowledge to the student by means of lectures and literature, towards the process of "*opening-up*" of *knowledge*, a process in which the student is accompanied, aided, orientated, stimulated and motivated by the lecturer. In the latter process the student is allowed the freedom to do research, to select relevant knowledge, to arrange such knowledge, to re-

flect on it, to apply it and also to work creatively in his search for, his application and arrangement of knowledge. In this matter emphasis should also be placed on the demand that the student be equipped with what we could call a *scientific attitude*, an attitude which the student will take along with him *into* life and *into* his eventual occupation, and which will again *sustain* him in the trials of life and of his occupation in years to come. This attitude may be regarded also as his guarantee of being able to exploit sources of knowledge on his own, to develop new methods and techniques and to be a true leader, a person who has the competence to decide on policy on scientific grounds. It stands to reason, therefore, that the student should be equipped during his period of study at the university for his eventual task of effectively assuming a place in the full, challenging and complicated life of the future.

7. What has just been stated in the previous paragraph also suggests that judicious use should be made of existing teaching aids and methods, and that new aids and methods should be developed, all of these being basically directed to the facilitation of the process of "opening-up" of knowledge for the student on the one hand, and "opening-up" of the student's own self on the other. This should be done far rather than only concentrating on the transfer of skill and knowledge to the student.

8. Attention should also continuously be given to the design and careful choice of the most reliable, valid, accurate and economic methods of evaluating the progress of students, to ways and means of determining a student's progress towards the attainment of those goals applicable to the specific student in question. The didactician should also prove his prowess in constantly evaluating those methods of evaluation currently in use in order to achieve a better standard of evaluation at universities.

Universities will be wise if they immediately apply their energies to the tasks expounded in this paper since demands on the

university will undoubtedly increase. If the university – with university didactics as its instrument – should follow the pattern outlined in the foregoing pages, it can be expected to make substantial progress in its efforts to face the challenges of the future.

BIBLIOGRAPHY

BINGLE, H.J.J. 1976. A radical new order? *In*: IAC Christian Higher Education – the contemporary challenge. IBC, Potchefstroom.

COETZEE, J.C. & VAN ROOY, D.J. 1949. *Beginsels en metodes van die hoër onderwys*. J.L. van Schaik Bpk., Pretoria.

I.B.C. 1969. Die atoomew in u lig (the articles of H.J.J. Bingle and S.J. Preller on pp. 254-268 en 296-309) IBC, Potchefstroom.

I.B.C. 1976. *Gesprek met die toekoms – futurologiese verkenninge*. IBC, Potchefstroom.

KERTESZ, S.D. 1971. *The task of universities in a changing world*. University of Notre Dame Press, London.

KRUYTBOSCH, C.E. & MESSINGER, S.L. (ed.) 1970. *The state of the university*. Sage Publications, Beverly Hills, California.

LAWLOR, J. (ed.) 1968. *The new university*. Routledge & Kegan Paul, London.

N.Z.C.E.R. 1970. *Trends and issues in higher education*. New Zealand Council for Higher Education, Wellington.

PAUW, J.R. 1969. *Die taak van die didaktikus aan 'n universiteit*. RAU, Johannesburg.

PRELLER, S.J. 1975. *Die didaktiek in die skool van die 21ste eeu*. *In*: COVSA. *Die skool van die 21ste eeu*. COVSA, Potchefstroom.

PRELLER, S.J. 1971. *Inleiding tot die tersiêre didaktiek*. PU vir CHO. Potchefstroom.

S.A.V.B.O. 1973. *Tersiêre onderwys*. Publikasiereeks nr. 7. SAVBO, Pretoria.

TALJAARD, J.A.L. 1969. *Die universiteit*. *In*: *Koers* 37(6), June 1969.

TRITES, D.G. (ed.) 1975. *New directions for higher education*, no. 9. *Planning the future of the undergraduate college*. Jossey-Bass Inc., San Francisco.

VAN DER STOEP, F. & O.A. 1973. *Didactic orientation*. McGraw-Hill Book Co., Johannesburg.