Abstract

This article shows and argues that it is not clear whether or not there is now established a body of knowledge of how to teach and which knowledge is being transmitted to students of Faculty who, presumably, will become school teachers. If this is so, then, Faculty of Education, as a member of an academic community, the University, fails to fulfill one of its tasks, namely, to transmit knowledge. Consideration of the possible components of such a body of knowledge follows. The development of such a body of knowledge is the one distinctive contribution of Faculty of Education to the University and to the teaching profession.

Evelina Orteza y Miranda*

Faculty of Education and the Development of a Body of Knowledge of Teaching

As a member of a University, a Faculty of Education has obligations and commitments toward meeting the requirements of such a membership, or else its status in the academic community may be questioned. At the same time, however, Faculty,[1] as a professional school, has to attend to its own immediate professional objective, which is teacher training. It is a common view that the main purpose of a Faculty of Education is teacher education/training.[2] Therefore, to evaluate a Faculty is to evaluate its teacher training programme. In particular, it is to find out if those who are enrolled in the programme find it relevant, to mean necessary, such that without it they will not know and be able to do what they ought to do when they become school teachers, in particular, to do what they ought to do in the classroom when they teach. It is to say "My studies in the Faculty were of direct use to me with my problems of teaching; without these studies, I could not have managed my class, or taught my subject matter. Indeed, I could not have taught at all".

The professional commitments and university requirements are, of course, not necessarily incompatible. They are, however, sufficiently distinguished from each other and serve different interests. Where Faculty, as a professional school, for example, teaches teachers matters of how to teach and to teach, suggesting that Faculty knows some of the truths regarding teaching, the University, which includes Faculty as an academic unit, continues to investigate whether or not what Faculty knows/claims to know regarding matters of how to teach should be accepted because they are true of/about teaching, or because there is an increasing credibility to these claims. The interest in teaching training may be called practical, which says that Faculty should get on with its teaching training job; the investigative interest may be labelled *academic* or *intellectual* and says that Faculty should get on with its job if and only if its teachings are shown to meet conditions of verifiability, validity, and justifiability. When the correct relationship between these demands is not properly perceived, then, some problems of Faculty, as an academic unit of University and as a professional school, arise.

---

* Faculty of Education, University of Calgary

This paper contends that by attending to its academic commitments and responsibilities to the University, Faculty, charged with the responsiblility of teacher of teacher education/ training, contributes significantly to the clarification and understanding of the problems of teaching activity and of the teaching profession because such clarifications and explanations are results of knowledge inquiring, knowledge inventing, and knowledge discovering activities of Faculty. To the extent that these clarifications and explanations are defensibly classed as knowledge claims, then to that extent they are true of the teaching activity and of the teaching profession. They are also, therefore, dependable. In other words, the claims of Faculty as a professional school regarding the practical activity of teaching are credible only if they are supported by research findings of research activities of Faculty as an academic unit of University. To show the significance of this contention regarding the relationship of the demands mentioned above, two questions need to be inquired into, namely, (1) How well does Faculty meet its obligation to the academic community, of which it is a member and (2) What distinctive contributions can Faculty, as a member of the academic community, give to teacher education/training. This paper, however, deals only with the first question and restricts its focus on the development of a body of knowledge of how to teach.

Faculty and Its Obligation to the University

To be a member of the academic community, the University, must mean that Faculty has met certain necessary requirements for membership which requirements necessarily distinguish the academic community from every other community. If we consider these requirements as specifying or identifying functions of a University, what are these functions and how well has Faculty fared with them?

The days of being able to encapsulate the activities of a University in a definition are gone, of course. Nonetheless, in many talks and discussions, articles and books on the functions of a University, there is agreement on the necessity and centrality of education which is, strictly speaking, knowledge. The formulations of such functions are varied but they can be summarized in three points: (1) transmission of knowledge, which is teaching, (2) further inquiry into knowledge and knowledge claims resulting in acquisition of new knowledge, which is research, and (3) the application of knowledge, which is public service.

On point (1), the question is, if teaching is transmission of knowledge, is there knowledge of/about how to teach that is being taught by Faculty to its students, admitting that the transmission of such knowledge is the exclusive responsibility of Faculty? Taking knowledge to mean propositions which are either necessarily true (logical/analytic truths) or contingently true (scientific/empirical truths), it may be said that *it is not absolutely clear* whether or not there is now a body of knowledge of/about how to teach which is similar to a body of knowledge of mathematics, of geology, of biology, of linguistics, of sociology, of literature, etc. that is being taught. If so, what is being taught to students by Faculty about how to teach that is true of/about it? To answer the question 'teaching' must be unpacked in order to isolate the particular aspect of the problem of teaching is pertinent to Faculty and is being discussed in this paper.

When one says 'I am a teacher', any one of the following questions may be asked: (1) What do you teach? or (2) How do you teach what you teach? and (3) Why do you teach what you teach in the way you teach it? Question (1) is answered by referring to anyone of the subject matter fields, the teaching of which (to any prospective school teacher) is, usually, the task of Faculty of Humanities, of Science, and of Social Science. The problem of

Faculty on this point is to decide on which courses and how many units a student should be required to take from any given area relative to his major interest before he may be considered knowledgeable about it. Sufficient knowledge of a given subject matter, however, does not necessarily mean that the student automatically knows how to teach it and is enabled to teach it. Faculty claims that relative to this matter, there is a body of knowledge of how to teach which is *in some ways* independent of knowledge of subject matter which is its responsibility to teach to prospective school teachers. Moreover, the body of knowledge of how to teach is the basis for judging success or failure of practice of teaching and practice teaching. Without it, judging success or failure of practice of teaching is a farce since there is, in the first instance, no way of knowing whether or not the practice is true of/about teaching. Knowing how to teach, summed up in questions (2) and (3) above, is the interest of Faculty.

The Epistemological Status of 'Know How to Teach'

What comments may be made on the above claim of Faculty regarding its possession of knowledge of how to teach? Within the academic community, the claim is either rejected as false (the body of knowledge of how to teach does not exist) or, if accepted, it is held epistemologically suspect and it is doubted whether or not Faculty is any more knowledgeable about it than Faculty of Humanities, of Science, etc. Notice, for example, that on problems about how to teach and its improvement, Faculty is seldom consulted by disciplinary faculties. They simply go ahead with their own evaluation procedures of what they consider to be 'teaching', 'skillful teaching', 'effective teaching', etc. independent of advice from Faculty which is supposedly the epistemic authority on how to teach. If Faculty is consulted its comments are not usually given serious considerations.[3]

In *Teaching in the Universities* (1974), only two out of twenty three contributors are formally connected with Faculty; only five had formal training in pedagogy (four in teaching-training institutions, one in the army). Not one contributor remarked on the need to know what they call 'methods'.[4] Their statements on teaching range from: ". . . teaching is giving yourself . . . a love affair between the teacher and the students",[5] to, to teach is ". . . to strike sparks, to build fires, so that the student's own enthusiasm will carry him through those dreary stretches that exist in all learning,"[6] ". . . to impart the known and to foment in the receiving mind a desire to know — what the teacher does not yet know",[7] to the more commonly heard aims of teaching," . . . to impart knowledge in an understandable fashion, to arouse interest in this knowledge, to stimulate curiosity about associated areas of knowledge and to generate independent, critical thought on the part of students"[8] and ". . . to train the student to think and to make judgments".[9]

Most of the contributors admitted difficulty in describing what they did and the manner in which they did what they did which they claimed was teaching. It is, one says, ". . . like trying to explain how you breathe".[10] From his description of teaching, however, it seems to be a talk that may be labelled *wandering through*. He asks:

> How do I teach? Frankly, I am not quite sure. At the beginning of each period I get up before students and talk for a while; then the students talk for a while. After this I talk some more, and usually ask some questions until the period ends. In this manner we wander through a representative sample of the material which the course is designed to cover. I hope that at the end of the term the student will emerge from this exercise knowing more about the subject than he did at the beginning.[11]

Most of them view teaching *as* an art and without arguing why they consider it to be so, they talk not about teaching but the qualities of a good teacher, such as, enthusiasm for his field, love for his students, a flair for dramatics, even some theatrical antics, etc. The

successes or failures of teaching, they suggest, are dependent, to a large extent, on personality, attitudes of the teacher, and human relationships, but not on knowing that which is true of/about how to teach.

On the other hand, if some believe that Faculty knows something about how to teach, such knowledge is held in low intellectual regard. The claims put forth on behalf of teaching procedures and their improvements are too banal to be considered worthy of epistemological examination or, as someone puts it, "amusing".[12] He says that university instructors, desirous of improving their teaching manners in the classroom, are ". . . put off by the advice (they are) given concerning the teaching process and how to improve it. (They are) amused, if not downright antagonistic, to much of what (they) read from the proponents of teaching as a science, with their talk of specifying objectives, developing modules of instruction, obtaining feedback, programming instruction, arranging formative and summative evaluation, computer assisted instruction, criterion referenced tests, and the like".[13] He cites CAUT's survey that revealed 13 institutions which offered some form of a course, organized seminars and conferences for university teachers on the question of the nature and function of teaching. Often these are organized by Faculty and ". . . just as often they are unsuccessful for this very reason."[14]

Those who have studied teaching and its problems may react with amusement to these statements and reject them outright. After all, the statements are usually made by some members of Faculty of Humanities, of Science, of Social Science. Even so, enough doubt has been cast to the claim of Faculty that it is the epistemic authority on how to teach. If this is so, then, consider what faculty members themselves say regarding the status of knowledge claims of/about how to teach.

> The simple fact of the matter is that, after 40 years of research on teacher effectiveness during which a vast number of studies have been carried out, one can point to few outcomes that a superintendent of schools can safely employ in hiring a teacher or granting him tenure, that an agency can employ in certifying teachers or *that a teacher education faculty can employ in planning or improving teacher education programs.*[15]

Current research literature on this problem reached the same melancholy conclusion:

> More than a half-century of research effort has not yielded meaningful, measurable criteria around which the majority of educators can rally. No standards exist which are commonly agreed upon as *the* criteria of teacher effectiveness. The dearth of adequate effectiveness criteria is largely responsible for our ignorance of the factors which account for success in teaching.[16]

A reason for the dismal failure of these researchers in how to teach effectively is the employment of the wrong approach, for example, the psychometric approach.[17] It assumes that there are common and stable factors in the teacher and in his environment. This may not be necessarily so. It could be that teaching is a complex activity, with so many interrelated steps in it designed to secure certain desired learning ends on the part of the learner. And the problems of relationships between the different aspects of how to teach and of learning remain not clearly known. That the psychometric approach has been employed suggests that researches were done, supposedly, on manners of teaching regardless of whether or not they have been sufficiently known, clarified and understood such that the characteristics necessarily true of how to teach are first established and on the basis of this knowledge one can say 'this is a case of teaching and this is not'. Not knowing what teaching is, whether or not it is a disjunctive or conjunctive concept,[18] whether it is a unitary occupation or a complex task consisting of a variety of skills, each of which must be mastered either in isolation or in relation to others, is also not to know what teaching effectiveness is and is not. How can one talk of 'teaching effectiveness' without knowing what 'teaching' is? Consequently, judg-

ments made on it differ widely from, if they do not contradict, one another.

> There is plenty of evidence to indicate that different practitioners observing the same teacher teach, or studying data about her, may arrive at very different evaluations of her; this observation is equally true of the evaluation experts' starting with different approaches, and using different data-gathering devices, they, too, arrive at very different evaluation.[19]

In other words, there is no agreement on that which is central and necessary to the teaching activity, what distinguishes it from every other activity and what every observer claiming to observe teaching activities and its effectiveness must observe. That evaluators observe different aspects of the teaching act and employ differing types of evaluations suggest they differ in what they consider to be necessary and central to the teaching activity. And to say that there are different kinds of teacher effectiveness for different kinds of institution, for different kinds of programmes, for different kinds of subject matters, of learners, of levels of learning, etc. may be correct. But it does not follow that it is impossible to develop a common standard for judging any and all teaching activities. To say 'each teacher can only be judged, therefore, has to be judged in his own way' is odd.

First, the different aspects of the teaching activities, noted above, differing from each other, in one aspect or another, are not supposed to share common/necessary basic features, hence, the impossibility of developing a standard common to them all. But the absence of such features, however, does not prevent the different teaching activities from being classed as members of the concept 'teaching', or participating in it. If all these activities have a right to membership in the concept 'teaching', then, it *must* be that they share features which are necessary to 'teaching'. The differences among them do not *constitute* or *determine* their nature such that change of their membership in 'teaching' to something else is warranted. Therefore, it is not necessary to develop different sets of criteria, differing in conditions necessary/central to the teaching activity, in order to judge different teaching activities. The set of criteria needs only to be extended, modified, to account for the special aspects of some teaching activities. But the conditions necessary/central to the concept 'teaching' remain intact.

Second, the conclusion 'each teacher has to be judged in his own way' is comforting, in the same manner that 'each one is beautiful in her own way' is. This cannot be taken seriously. For what it does is to particularize teaching and its problems to the person involved, suggesting that they cannot be isolated, studied on their own independent of the teacher. Of course, some problems may be teacher-person related, but this is not to say that there are no problems particular, indigenous to or that reside in the teaching manner. To discover knowledge and clarifications of problems of how to teach in the person who teaches leads to personality inquiries and not necessarily to teaching. And where some insights may be suggested by such an approach, they may be too individualistic and personalized making their adoption by others impossible. Also, there is something odd in saying 'in the person of the teacher will be discovered knowledge of/about teaching', because 'in the person of the teacher' does not mean 'teaching'. The tasks for Faculty are to identify and discover necessary characteristics of manners of teaching inherent in the teaching activity (this is assuming that a proposal regarding the proper conceptual limits of 'teaching' and 'teaching process' has been accepted for inquiry purposes) and to isolate them from certain variables which are present in the teaching activity, for example, the person of the teacher, but which are not *determinative* of the characteristics of the teaching activity.

It may be counter argued that if there is now no body of knowledge of how to teach, which is more or less established, what of the claims of recent developments in teacher education such as competency-based programmed instruction? Are these not evidences that point to knowledge and understanding of teaching? Such attempts may have something to contribute, in particular, the encouragement to develop clearly stated objects against which both teachers and students can assess their development. Other attempts of competency based programmed instruction may have been successful but success, in itself, does not imply that the successful attempts are instances of successful teaching. For example, when competency forces the relationship between 'teaching' and 'learning', such that to accept the truth of the claim that one has taught, empirical/observable evidences must be shown that one's teaching directly caused certain corresponding specific behavioural differences in the learner, then competency based programmed instruction is eliminating the 'trying' or 'task' feature of 'teaching' arbitrarily, thereby changing its meaning. 'Teaching' or 'teaching activity' now means/is 'competent teaching'. To say 'teaching' is also to say 'competent teaching'. 'Competent' is now a necessary part of the meaning of 'teaching'. This is simply not so. It is sensible and meaningful to say 'This activity is an example of incompetent teaching'. As suggested above, the performance may be competent but whether or not it is *competent teaching* is the question. Claimed successes of competency based programmed instruction will always be questioned whether or not they are instances of teaching or trivialization of it if the following prior conditons are not met: (1) Teaching is clarified, what it is and what it is not, what it is related to and clearly distinct from, what it can do and what it cannot do, and (2) Learning is clearly known and its relationship with teaching discerned. The state of our knowledge of/about teaching and learning, says an authority of teacher education, ". . . is that many relationships (between them) remain ill-defined or at best unresolved. To assume otherwise and develop performance based criteria predicated on a variety of inadequate assumptions is less than defensible."[20] The problem is ". . . there is no widely accepted formulation of what the (necessary) components of teaching are, and without such a formulation it is not possible to identify the core activities of (it) . . ."[21] In a more sweeping judgment, a teacher educator concludes: Teacher education is in a ". . . blissful state of ignorance and irrationality."[22]

Surely, such a judgment cannot be taken lightly. For if this were true, then serious questions about activities of Faculty, as a member of the academic community, are raised, in particular, whether or not it meets function (1) of the University. Moreover, if there is now no body of knowledge of how to teach, which is more or less established, such that there are no true statements of/about it, is there practice of teaching? practice teaching?

To speak of 'practice of teaching' implies that the practice belongs to and is true of teaching. And 'true of teaching' means that 'teaching' is known and understood such that any statement that is claimed to be a statement of teaching can be shown to be either true or false depending upon whether or not it meets the established knowledge or true conditions of teaching. In other words, the body of knowledge of teaching determines the truth or falsity of someone's claim that what he is doing is a member of the class of activities called 'practice of teaching'. This is similar to the expression 'practice of medicine'. There is a body of knowledge agreed upon as medical knowledge on which practice of medicine is based. Anyone who claims to be engaged in the practice of medicine but who fails to show evidence that his practice meets the standards of knowledge of medicine is declared a quack. He pretends to possess knowledge and skill of medicine which are absent. Clearly, if there is no knowledge of teaching, then there is no way of judging whether or not someone's claim

that he is engaged in the practice of teaching is a claim true or false of the practice of teaching. If any claim passes to be a claim true of the practice of teaching, then, there is no practice of teaching.

If this is so, then are school teachers not teaching? It is admitted that we say they are teaching. 'Teaching', however, is ambiguous. It refers either to manner or matter. When it is said that teachers are teaching what is usually meant is that they are teaching certain matters of truth, items of knowledge, to the students. What is in doubt is the manner of transmitting such truths, whether or not it is a clear case of teaching because it is true of teaching. One hears of the comment that school teachers indoctrinate or do not teach their students correctly; witness the difficulty high school graduates have in coping with demands of university education. Hence, Faculty believes that the education/training of prospective school teachers in how to teach should not be the sole responsibility of practising school teachers. Faculty unwittingly suggests that it knows what teaching is and how it ought to be done. Of course, the manner by which matters of truth are passed on to students may look like teaching, may even result in learning intended for learners to learn, but from this, it does not follow that what school teachers are doing are activities true of teaching. To verify them as such, there must be a body of knowledge of teaching, which, as contended in this paper, is in doubt and if there is, surely, such knowledge claims are meagre and not established epistemologically nor are they in an integrated, organized, and ordered form.[23]

But if it is doubtful whether or not the manner of teaching is true of teaching, why then do students learn what they are supposed to learn? Granting that the students' learnings are more or less related to the teacher's teaching, it can be said that the students' learnings have been a result of 'hit or miss' claimed practices of teaching or activities other than teaching. It is a miracle! Teachers and Professors frequently say "I am not sure I know whether the bases of the way I teach are correct or not; or, if there are any bases at all! I simply teach". A piece of research on micro-teaching sums up the plight of the teacher: "When things go right, they do not know why they are right, and when things go wrong — particularly when they go wrong — they do not know why they do".[24] It is not, therefore, a surprise when one says "Assuming competence in and enthusiasm for his field and a positive attitude towards students, it is probable that almost any professor (teacher) can (teach), be an effective teacher, in his own way, if he really wants to".[25] To teach effectively, one appeals not to a body of knowledge of how to teach, which knowledge is independent of the teacher, to guide him in his attempt at correct and effective teaching, for, perhaps, there is no such knowledge. To teach in an effective manner is all a matter of "wanting to". You want to? Then, you can.

If there is no 'practice of teaching', may there be 'practice teaching'? 'Practice teaching' means that what is being practised, tried out, or rehearsed, has not quite attained the required standards, whatever they are, of teaching. It is doubtful whether or not what one does when he engages in 'practice teaching' is teaching. One, therefore, endeavours to come up to the standards of teaching such that his practices or attempts at teaching are successful and thus acceptable as instances or cases of correct teaching. But if there is no knowledge of teaching, there is no practice of teaching, then it also follows that there is no practice teaching.[26]

But, surely, this is not completely true. Don't students in Faculty do practice teaching? If there is no practice teaching, what do they do when they are sent out to schools to practice teach? Claimed 'practices of teaching' and 'practice teaching' there may be which pass for

or look like teaching, but, strictly speaking, it is doubtful if all such practices are necessarily constitutive of teaching. Practice teaching experiences, for example, have been observed to be more connected with discovering *workable conduct* where 'workable' becomes characteristically defined as *classroom management;* for example, following fixed schedules of instruction, knowing how to arrange the class into small groups, encouraging use of library materials, simplifying lesson plans, getting through the material, and cutting back on the breadth and richness of the material presented.[27] A study of practice teaching showed that the experience contributed not to understanding and practising the norms of teaching, whatever they are, but to reducing anxiety about teaching and to learning classroom techniques "that work", regardless of whether or not they violate certain taught and accepted notions of 'good teaching'.[28] Elsewhere, students have commented that practice teaching experiences are "a collection of survival strategies", related more to learning the wishes and quirks of the supervisor than to learning the teaching tasks. Perhaps, this is so, for, strictly speaking, the teaching tasks are not discerned.

> The fact (is) that teaching lacks a job description, (reducing) the perennial quest for more supervision, both in training and on the job, to pious cant. If one cannot properly identify the parts of the job and the activities required to perform them, what should the supervisor supervise? (Since the question cannot be answered at the present time) the supervisor will continue doing what they always have: deciding vacuously whether a teacher is "good" or "effective" with only the crudest rules of thumb (at best) or biases (at worst) to go by . . .[29]

Classroom Management as Practice of Teaching

Now, if student teachers are practising practices of classroom management when they engage in practice teaching, this indicates that classroom management is a practice of teaching. To teach is to manage a class or to control its behaviour in order that learning on the part of the learner is facilitated. To teach, in short, is to facilitate learning by managing the class. This answers the question raised earlier on what is being taught by Faculty to students about teaching, namely, classroom management. But this is not good enough. It raises the question, "Is classroom management teaching?" Classroom management is an activity engaged in by teachers and may be properly referred to as a practice of teachers, but the practice in itself is not necessarily teaching. It consists of preparatory activities intended to facilitate the achievement of the teaching-learning ends. Activities preparatory to practices of teaching are not, however, identical to practices of teaching. They are related in that the former is a pre-condition of the latter but the relationship that holds between them is not a logical one. To admit that one has learned to manage a class is not to admit that one has learned how to teach and learned to teach whatever he is supposed to teach. And the crucial question for teaching is "What to do once the room has grown quiet and all eyes are on the teacher".[30]

To allow that teaching is primarily classroom management leads to the insistence of Faculty students that the amount of time they spend in observing actual teaching in a school setting and in engaging in practice teaching be extended. It is in this setting that classroom management problems arise. Moreover, practical problems of classroom management are commonly cited as frequent causes of many teachers' unsuccessful teaching. It is, therefore, assumed that there must be a connection between classroom management and teaching, if they are not one and the same.[31] If one wants to succeed in his practice teaching, and in his practice of teaching later on, he must learn to manage his class. He learns how to do it and learns to do it as he practises it in his practice teaching in the actual setting of the classroom.[32] But as argued above classroom management is not all there is to knowing how to teach and to be able to teach.

It is true that some classroom management techniques may create order in the classroom which is necessary before the teaching-learning activity can take place. It may be suggested, for example, that order may be secured by a teacher's charismatic personality, or presence of someone who looks very authoritarian, or by some factors, such as, threats of punishment, withdrawal of privileges, monetary rewards, etc. Order is achieved by means of factors external to the teaching-learning activity being engaged in. And these factors are used to *control* classroom behaviour. But the school teacher, however, attempts not *to control* the class by employing factors external to the teaching-learning activity, even if they are found to work, but *to discipline* the class by engaging its members in the rules internal to the teaching-learning activity. Order is brought about by the activity engaged in, hence, it is internal to the activity itself. The problem of order in the classroom is integral to the teacher's problem of knowing and understanding the rules internal to the discipline of teaching-learning but which rules are, as of now, not established because teaching-learning, in turn, is still in need of much conceptual clarification.

Classroom Management — Practical Considerations of Teaching

Classroom management may be considered as a pre-condition of/to teaching. It consists of practical considerations. For example, such matters as (1) Personal characteristics, referring to characteristic gestures, posture, modes of action, speech patterns, grooming, all of which are aspects of a prospective teacher's behaviour which may either facilitate or hinder teaching and learning; (2) Communication skills which refer to one's capacity to verbalize, to translate an idea into intelligible speech, to be able to draw upon his store of knowledge at any given point in his teaching act, to be able to illustrate the points he is making, etc. (3) Interaction skills which focus on the patterns of initiation and response. For example, what is the length and character of the interaction sequences between teacher and student? How often is the interaction between teacher and student? Between and among students? In the early experience of a novice teacher, he may tend to ask an "omnibus question" arousing responses from a large number of students when only one of them can be selected and mistaking this to be "extensive participation. Or he may be intolerant of delay, silence, time for thought, believing that rapid interaction with a large number of students is good teaching. (4) Strategy and tactics of maintaining order. For example, it is a practical matter to learn to anticipate and understand situations that may provoke conflict or disorder in the classroom and to know what corresponding resources are available for such situations. Again, one learns to develop a capacity to endure stress and remain gracious in the midst of chaos. One also learns to be tolerant of constructive, although disorderly or boisterous behaviour. Noise is not always bad nor should it be made a cause for one's dislike for noisy students. All these can be taught and learned effectively on the job, considering that they arise out of practical settings of actual classroom teaching situations.[33] As practical considerations requiring applications to specific situations they are not challenging epistemologically.

Other Teachings on How to Teach

There are, of course, teachings that claim to be true of how to teach; for example, certain results from sound empirical studies which claim to be on how to teach. However, such discovered truths, if granted that they are such truths, are far and few between, evidenced by the fact that there is not an extensive technical literature on how to teach to which appeals may be made in judging whether or not certain teaching practices are wrong and certain others correct.[34] Also, as noted previously, where such items of knowledge are available,

they are not organized in an orderly manner. For example, there have been considerable researches done on what is claimed to be on instructional process, on motivation, on classroom control, etc. But ". . . there is not a single area included (in these researches) which has well-known and established modes of proceeding such that means, outcomes, and appropriate conditions can be related systematically. Teaching is still carried on primarily according to uncodified rules of thumb and through accumulated individual experience amounting to little more than lore."[35] The practical suggestions of microteaching are helpful but doubtful if they are of any theoretical import. What the bases are for teacher educators' prescriptions for certain practices of teaching are not always clear. Note, for example, that:

> Teacher training institutions present widely different courses, readings, and pedagogical prescriptions for people to do identical jobs. There is virtually no unanimity on what constitutes correct preparation.[36]

On the contrary, there is the paradox of different institutions training teachers in opposite performance criteria.

> Thus the Far West Regional Laboratory uses Minicourse I to train teachers to repeat students *less* often, while the Northwest Regional Laboratory has a training program in Flanders' Interaction Analysis which lists *more* teacher repetition of student answers as one measure of the preferred 'indirect teaching'.[37]

But are methods courses taught by Faculty not evidences that there is knowledge of how to teach? These courses are always taught in connection with subject matter area, e.g., methods of teaching mathematics, of teaching social studies, of biology, etc. It seems to suggest that knowing how to teach is dependent on knowing what is taught. This raises an interesting question for Faculty, which is: If knowing what is taught dictates how it is taught, may it not be argued that authorities in the subject matter fields are equally capable, or, some may say, more capable, of teaching methods courses in the subject area than members of Faculty? May a member of Faculty, say one concentrating in teaching of biology, be bold enough to teach a biology professor how to teach his course in biology, claiming that he has knowledge of how to teach which the biology professor does not possess? It is not readily clear what the distinctiveness and strengths of Faculty methods courses are.

Bases for Prescriptions on How to Teach

Now, if existence and status of knowledge of how to teach is questionable, what then are taught as bases for prescribing certain claimed practices of teaching? It may be suggested that much teaching on how to teach is of the category of personal experiences and suggestions, well-meaning hints derived from practical experiences. These private, personal experiences, claiming to be true of/about teaching, may be true of, even useful to, the person who has experienced them. But this is not to say that they are necessarily experiences true of teaching but rather true of certain persons claiming to experience teaching. But whether or not they had to do with teaching is the question. To argue that knowledge of teaching is necessarily derived from personal experiences about teaching is to say that what is necessary to knowing how to teach is accumulation of lots of experiences in teaching. But since it is doubtful if there is a body of knowledge of how to teach, how may these experiences be judged whether or not they are experiences true of/about teaching? For them to count as experiences necessarily true of teaching, they must meet standards of truth and evidence which are external to the person but internal to the state of affairs labelled 'teaching'. When truth and evidence conditions are absent in teachings on how to teach, then such teachings are exhortations, pieces of advice, and expressions of convictions.

They function to persuade listeners to accept certain claimed teachings on how to teach in the absence of reasoned argumentations presented for public debate. There is a seeming quasi-moral force in these teachings which tends to lend an atmosphere of unintellectuality about them.

Conclusion

With regard to the first function of the University, it appears that Faculty, in its teachings on how to teach, fails to meet standards of truth, evidence for the claimed truth, and logic. It may be said that this is an exaggerated charge. Still, it cannot be dismissed as completely false. Even if there is a body of knowledge of how to teach now, it has to be admitted that it is limited and not quite established epistemologically. Moreover, Faculty is wrong, as the discussion in this paper shows, in suggesting that manners of teaching are primarily management problems, that is, how to manage or control a class. Management problems may involve manners of teaching which have to do with a teacher's personality, for example, peculiar mannerisms, speech patterns, capacity to verbalize an idea, etc. Such manners of teaching, or more correctly, manners of a teacher, however, are distinguished from manners of teaching which are necessarily derived from knowledge of how to teach and from the logic of the matter that is being taught. The former are pre-conditions of teaching while the latter constitute teaching. They are necessarily employed in one's teaching activity. Not to employ them is not to teach.

Whatever Faculty does, its one obligation to the University is to justify its teachings on grounds of knowledge. In the context of formal education/school, what is taught is always conditioned by that which is true. What Faculty should do to meet this one obligation is suggested in the sections that follow. Fulfillment of this obligation is a distinct contribution of Faculty to teacher education/training and to the teaching profession.

The Development of Knowledge of How to Teach

There are, no doubt, numerous researches labelled "on Teaching" or "How to Teach". But if the contention here is granted, namely, that the epistemological status of the body of knowledge of how to teach (if there is such) is questionable, then, verification of these studies, whether or not they are on teaching, strictly speaking, is a problem. Therefore, the first task of Faculty is to devleop in a systematic manner a body of how to teach. To do this, three tasks must be undertaken, namely, (1) The Conceptual Task, (2) The Empirical Task, and (3) The Judgment Task. Only brief descriptions of these tasks can be given in this paper.[38]

(1) The Conceptual Task. Simply put, this task seeks for a *correct* concept of teaching. It is to be clear of what is meant when someone *speaks* of someone else as teaching something. In other words, what is sought is the meaning of the term 'teaching'. This necessitates establishing a set of conditions that must be necessarily present in order for someone *to say* whether or not teaching is going on. The set of conditions are logically derived from the term 'teaching' such that to reject any one of them renders the employment of the term 'teaching' nonsensical. For example, it may be shown that the following conditions must be present whenever one *speaks* of 'teaching': (1) an intention to bring about learning on the part of the learner; (2) an intention to bring about learning in a rational manner on the part of the learner that something is true; (3) an intention to bring about learning in a rational manner on the part of the learner that something is true and which intention the learner recognizes. When any one of these conditions is violated, the term 'teaching' is rendered slightly odd, as in any

one of the following examples: (1) someone teaches that which is false,[39] (2) someone teaches in any way he wants to, or (3) someone teaches in order to indoctrinate. The set of necessary conditions establishes the central/logical or correct meaning of 'teaching' which meaning is used as a guide to discriminate between and among certain activities whether they be clear cases of teaching, doubtful cases of teaching, and clear cases of not teaching. In other words, it is necessary to establish a correct meaning of 'teaching' as basis for someone *to say* whether some activities are teaching and some other activities are not. In concentrating on the logical/central meaning of 'teaching' and its logically derived concepts (whatever they are), the aim is to find out what denotions fall under it or what tasks are paradigmatic, thus must always be present, to the study and practice of teaching in order for someone to say that teaching is going on. For example: record keeping is one of the teachers' tasks but, strictly speaking, using the set of conditions established above, it is not a teaching task. Clarifying the meaning of 'teaching' enables one *to say* whether or not the activities going on are central and necessary to teaching, peripheral or simply associated with it. The ultimate concern in the conceptual task is to establish certain analytic truths of 'teaching' and to generate a true definition (in the sense of equivalence) of it and of other logically related concepts, *if possible.* For now, definitions about teaching are either stipulations, private points of views, or slogans. These do not contribute to the clarification of the meaning of 'teaching'.

(2) The Empirical Task. Establishing the correct meaning of 'teaching', however, does not necessarily establish successful practices of teaching. It shows whether a claim that "x is a practice of teaching" is true or false. If it is true, it cannot show that when x is practised by teachers, the teachers are successful in securing the intended learning ends they had planned for the learners. To find out which practices of teaching secure successfully certain desirable behaviours on the learners' part is the empirical task. The more empirical truths are discovered about certain practices of teaching the more dependable such practices become because they are knowledge based. To the extent that they are supported empirically, to that extent they are true. In short, the empirical task is to discover more and more *facts* about certain manners of teaching which are successful in securing its intended ends. And, as sound empirical generalizations about teaching are established, possibilities for developing them into explanations or *theories* could be looked into.

(3) The Judgment Task. Given that there could be many matters of fact discovered by empirical and social sciences regarding successful manners of teaching, the question of judging which of the successful practices of teaching ought to be implemented remains. That a manner of teaching can be done and can successfully secure its intended ends is not necessarily to conclude that it ought, therefore, to be done.

In sum, a body of knowledge of how to teach consists of: (1) analytic truths, or a true definition of teaching and of key concepts logically related to it; (2) empirical truths regarding certain manners of teaching which are successful in securing intended learning ends; and (3) justifications supporting certain judgments made on empirical truths of how to teach. All attempt to meet the conditions of knowledge, namely, truth, evidence, and beliefs.

Earlier, it was noted that professors had difficulty describing how they taught. The same difficulty, noted among teachers, is reported in a research paper on microteaching: ". . . discussions of teaching rarely get close to what a teacher *actually does* in the classroom . . ." because teachers lack ". . . a more precise means of describing their activities."[40]

From these comments, however, it cannot be concluded that because it is difficult to talk about how one teaches then knowledge of how to teach *must be* tacit knowledge or ineffable. It could, quite obviously, suggest that teachers have not developed a language of teaching which they could employ when talking about their professional activities with each other. The development of a specialized professional language of teaching, however, is necessarily dependent upon the development of a body of knowledge of teaching, hence, the *singular significance* of the above suggested activities.[41]

In recent years, scholars and researchers in disciplinary areas other than those in Faculty have recognized the academic respectability of inquiry into how to teach and how to teach effectively. It may be that these scholars and researchers have joined in the research of such problems because Faculty is not doing a good job of it, if Faculty is doing it at all. Consequently, research in its claimed area of epistemic authority and expertise is no longer a monopoly of Faculty.[42] But if Faculty is to be worthy of its name, it should recognize and accept the responsibility for developing such a body of knowledge, considering that teaching prospective school teachers how to teach and to teach, which presupposes knowledge of how to teach, is the responsibility of Faculty. Such a body of knowledge provides standards for correct practices of teaching for those who engage in the teaching activity at whatever level of schooling and learning. It can also be taught to anyone interested in knowing the phenomenon of how to teach for the sake of knowing the phenomenon. Admittedly, the undertaking is complex but it is not an absolute impossibility.

Moreover, Faculty engagement in these research activities is a necessary means to its fulfillment of the first requirement of the University, namely, transmission of knowledge to its students, in particular, knowledge of how to teach. It also fulfills research requirements of the University, especially as Faculty relates its efforts and contributes its findings regarding how to teach and how to teach effectively to other established and scholarly disciplines in the University. For such findings, if classed as knowledge, must in one way or another relate to other forms of knowledge. In this way, knowledge of how to teach is not isolated from but integral to a larger body of knowledge. The comments of Faculties of Humanities, of Social Science, and of Science, mentioned earlier in this paper, suggest that this is not so now. They believe that there is no body of knowledge of how to teach. If it exists, they have not heard of it and they do not know who its proper epistemic authorities are. One who was generous in assuming that there are such epistemic authorities who can teach him reacted with *amusement* to the kind of statements shown to him that purport to be knowledge of how to teach. It may be argued that knowledge of how to teach exists and only those who teach it know that it does and they are its epistemic authorities. But it is harder to argue that those who are engaged in other forms of knowledge assessing and inventing activities cannot recognize knowledge making qualities in knowledge of how to teach, if it has any.

Studies of Faculty, like any academic study, depend upon and relate to other academic studies. No academic study is ever completely independent of and isolated from other areas of academic study. But the tendency of Faculty studies to be always dependent and parasitic on other studies is an embarrassment. Faculty studies must be a host upon which studies of Faculties of Humanities, of Social Science, and of Science can depend, sometimes. This means that Faculty studies must be grounded epistemologically.

This paper has emphasized the problem of how to teach and of developing a body of knowledge of how to teach. This does not mean that there are no other problems that are

equally important and significant to Faculty and to teacher education/training. It is stressed primarily because how to teach and to be enabled to teach in the classroom is the most pressing problem of Faculty students. To prepare prospective school teachers how to teach and to enable them to teach in the classroom is the most public (open) function of Faculty. So it is also the one problem that has been the source of inquiries regarding the alleged academic incompetence of Faculty. Consequently, judgment on academic competence of Faculty is often made on this basis alone. In the eyes of the public, and, perhaps, the University community, to fail in this task is for Faculty to fail in its one necessary responsibility to them and to the teaching profession. All other Faculty academic competencies will not do. The moral is: Faculty must get at the root of its problem, which is *the shaky epistemological groundings of its claims regarding matters and manners of teaching.*

Notes

[1] 'Faculty' will be used throughout this paper to refer to 'Faculty of Education'. Reference to other Faculties will be specified.

[2] 'Education' and 'training' are used interchangeably in this paper. There are differences between them, of course, but to discuss them is not the interest of this paper.

[3] Chris Knapper, "Improving Teaching Effectiveness", *CAUT BULLETIN*, Vol. 21, No. 1 (October, 1982), p. 11.

[4] See Frederick A. Aldrich, "Commitment is Catching", in Edward F. Sheffield, ed., *Teaching in the Universities*. McGill-Queen's University Press, 1974, p. 39. Also George Setterfield, "Elements of Creativity in Teaching", p. 49; p. 49; A.W. Jolliffe, "All the History of Man", p. 88. One spoke of her "own rule of thumb" when it comes to techniques of presentation of materials. See: Muriel Armstrong, "The Profit and Pleasure of the Protestant Ethic", p. 99

[5] George Galavaris, "Teaching Is Giving Yourself", p. 6. One contributor managed to enlarge on the 'love' notion a bit, "Good teaching", he says, " is a love affair between the teacher, his subject, and his students in which each participant must be terrified of failure". Douglas Waugh, "Education Is a Love Affair", p. 134.

[6] A.W. Jolliffe, p. 89.

[7] Jaroslav Havelka, "From the Known to the Unknown", p. 137.

[8] George Setterfield, p. 50.

[9] Jack L. Summers, "From Situation to Solution", p. 176.

[10] Summers, p. 173.

[11] Summers, p. 173.

[12] Chris Knapper, "There's Hope for Us All but No Room for Complacency", *University Affairs*, April 1975, p. 2.

[13] Knapper, "There's Hope . . .," p. 2.

[14] Chris Knapper, "Improving Teaching Effectiveness", p. 11.

[15] A.S. Barr *et al.* "Second Report on the Committee on Criteria of Teacher Effectiveness", *Journal of Educational Research*, Vol. 46 (1953), p. 657 quoted in C.C. Anderson and S.M. Hunka, "Teacher Evaluation: Some Problems and a Proposal", *Harvard Educational Review*, Vol. 33, No. 1 (Winter 1963), p. 2. See also: Francis Schrag, "Science Progress and Pedagogy", *Proceedings of the 35th Annual Meeting of Philosophy of Education*, 1970, pp. 282-291. Schrag argues that it could be said that there is progress in science but the same statement may not be true of pedagogy.

[16] Harold Mitzel in *Encyclopedia of Educational Research* (3rd edition), New York: Macmillan, 1960, p. 1481. Quoted in James T. Sanders, "Good Teaching — A Disjunctive Concept?" *Teacher Education* (Spring 1972), p. 14.

[17] A.S. Barr *et al.*, *The Measurement of Teaching Ability*. Madison, Wisconsin: Dembar Publications, 1945. Quoted in C.C. Anderson and S.M. Hunka, p. 2.

[18] James T. Sanders, pp. 14-19.

[19] A.S. Barr *et al.* "Wisconsin Studies of the Measurement and Prediction of Teacher Effectiveness", *Journal of Experimental Education*, Vol. 30 (1961), pp. 150-151. Quoted in C.C.Anderson and S.M. Hunka, p. 2.

[20] K. George Pedersen, "The Case for Reform in Teacher Education", *Teacher Education* (Spring 1974), pp. 9 and 15.

[21] Robert Dreeben, *The Nature of Teaching*. Glenview, Illinois: Scott, Foresman and Co., 1970, p. 151.

[22] K. George Pedersen, p. 15.

[23] "The school teacher . . . has a . . . relationship to her knowledge base, which is not so much curriculum content . . . but the technique and principles of pedagogy. This content is, however, relatively small in amount and shallow intellectually . . . Nor does it seem likely that the body of pedagogic knowledge that is the teacher's area of prime responsibility will grow much over the next generation," by William J. Goode, "The Theoretical Limits of Professionalization", in A. Etzioni, ed., *The Semi-Professions and Their Organization*. New York: The Free Press, 1969, pp. 286, quoted in Robert Dreeben, *The Nature of Teaching*. Glenview: Illinois: Scott, Foresman and Co., 1970, p. 205.

[24] Dwight Allen and Kevin Ryan, *Microteaching*. Reading, Mass.: Addison-Wesley Publishing Co., Inc., 1969, p. 61.

[25] Edward F. Sheffield, ed., p. 215.

[26] On this point see also: M.E. McPeck and J.T. Sanders, "Some Reflections on Education as a Profession", *Journal of Educational Thought*, Vol. 8 No. 2 (August 1974), pp. 62 and 63. They say: "The practice of medicine requires *medical knowledge*, the practice of law, *legal knowledge*, but the practice of teaching just requires practice". In other words, there is only 'practice of practice'. But this is an illegitimate expression. 'Practice' to be 'practice' must be a practice of something. *But there can be no practice of teaching if there is no knowledge of/about teaching*. Consequently, the claim of practice of teaching is not a practice of teaching but of something else. This raises the question: "What is this something else that is being practiced by those who claim to be engaged in practice of teaching?"

[27] Robert Dreeben, p. 127.

[28] Laurence Iannaccone and H. Warren Button, *Functions of Student Teaching*. St. Louis, Missouri: Washington University, 1964.

[29] Robert Dreeben, p. 152. For a suggestion that the present set-up of practice teaching is *miseducation of teachers*, see: Donald Arnstine, "Apprenticeship as the Miseducation of Teachers", *Proceedings of the Thirty-First Annual Meeting of Philosophy of Education Society*, 1975, pp. 113-123.

[30] Philip W. Jackson, *Life in the Classrooms*. New York: Holt, Rinehart and Winston, Inc., 1968, p. 107.

[31] This assumption is often made without benefit of analysis of 'cause' and 'connection'. Also, to show the truth of this claimed connection, empirical studies must be done on necessary variables that must be considered in looking at the connection, for example, between a teacher who manages his class well and teaches his subject matter poorly and some of his students sometimes learn and sometimes do not learn what they ought to learn. Other cases of teaching could be considered.

[32] This suggests that cooperating schools are the appropriate setting for such kinds of teachings and their school teachers, not faculty members, are appropriately responsible for teaching them. The conclusion is correct but for reasons other than teaching is classroom management. This point will not be developed in this paper.

[33] The points in this paragraph are from Judson T. Shaplin, "Practice in Teaching", pp. 30-32.

[34] See: J.E. McPeck and J.T. Sanders, pp. 59-60.

[35] Robert Dreeben, pp. 87-88.

[36] T.M. Stinnett, *Professional Problems of Teachers*. Toronto: Macmillan, 1968, pp. 59-60. Quoted in J.C. McPeck and J.T. Sanders, p. 59.

[37] B. Othanel Smith, ed., *Research in Teacher Education: A Symposium*. New York: Prentice-Hall, 1971, p. 40.

[38] A fuller treatment of these topics appears in my unpublished manuscript, "A Professional Language of the Practice of Formal Education: An Inquiry".

[39] It is acceptable to say 'Someone teaches that which is false.' However, in the context of formal education/schooling, 'teach' is used programmatically, i.e., it takes on a moral quality, strongly suggesting that 'teach' ought to take only objects which are true.

[40] Dwight Allen and Kevin Ryan, Microteaching, p. 5. See also: Dan C. Lortie, "Teacher Socialization: The Robinson Crusoe Syndrome", *The Real World of the Beginning Teacher.* Washington, D.C.: 1966, p. 58.

[41] Notice, for example, that medical discourse is medical knowledge; legal discourse, legal knowledge. This and other related points are discussed in my unpublished manuscript, "A Professional Language of the Practice of Formal Education: An Inquiry". Coladarci says: "An inadequate professional language results in an intellectual stalemate". He quotes James Thurber, the American humorist: "the scientific genius who labors in linguistic isolation from his predecessors and his successors may grace our planet, but he is necessarily as unknown to his colleagues, and as uninfluential in the development of a science as an Alpha Centaurian physicist". See: Arthur P. Coladarci, "The Relevance of Psychology to Education", in George F. Kneller, ed., *Foundations of Education.* New York: Wiley, 1963, pp. 401-402. First edition.

[42] See, for example, *Theories for Teaching,* ed. by Lindley J. Stiles (New York: Dodd, Mead, 1974). 'For' is used in the title because the theories suggested *for* teaching come *from* other disciplines. The inquiry is conducted by scholars of diverse disciplinary backgrounds. 'For' means that there are no theories 'of', that is, 'belong to', or are 'necessarily true of', teaching. It is, of course, clear that the problem of no theories of teaching is related to the problem of no knowledge of how to teach.