EDUCATIONAL FOUNDATIONS FOR CURRICULUM DEVELOPMENT:
LEARNING BY UNDERSTANDING

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I. Introduction

This conference has brought us together to reflect on "a *better* higher education in hospitality and tourism". We are asked to contribute to the question how "the *quality* of the academic programs" can be improved. In other words, the improvement of the *quality* of the training at the Jordan Applied University and at similar institutions is at stake. Or in a more general view, the question of *quality* arises: What is a *good* cook, a *good* receptionist, a *good* hotel manager, a *good* tour guide? And what constitutes the training towards those professions to make it a *good* training? What has to happen with the student in the course of his or her study in order to allow us to call him or her to be a *good* professional when he or she finally graduates? - In the following, allow me to refer to the male form only, fully recognising that both genders are subject of our considerations.

My personal background is neither hospitality as a profession nor am I a teacher in this field. I can only be considered a guest of hotels and restaurants or a client of tour guides with various experiences in this respect. However, my background is philosophy of education. This allows me to reflect on the educational process as such and to give a few basic answers to the quality aspect of this process.

What distinguishes a graduate from a freshman? What is the *quality* of a good graduate compared to a freshman? What has - hopefully - changed to the better in the course of his study? Is it an increase of information, of skills, of qualifications that can be examined? Or is it all this *and* something more? Do we not have to see this 'more' in the person as a whole and whether the personality of the student has changed in the course of the study? If this determines the *quality* of the academic training in hospitality and tourism, then there must be room for the *person* in the process of the study. How can the lecturer, the teacher, the educator address the student as a person? In other words: How can the training become more than a teaching and learning process by being an *educational* process?

I want to answer this question by this basic thesis:
Besides facts and information, the educational process must impart *sense* to the students. **Teaching and training have to be sense-oriented.**
To clarify what is meant here by 'sense', imagine you receive the following SMS on your mobile: MEET YOU AT NOON. - Does this SMS make sense? We can understand the sentence as such. However, there is a lot missing to understand its

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full sense: Who writes this SMS? Does he mean me? Where shall we meet? Why should we meet? This message makes only sense when we can answer those questions, when we know its context, when we are part of the story behind. - In the following, I will talk about this dimension that is beyond the simple, superficial message, about the dimension of sense in teaching and training with respect to curriculum development.

With respect to the training in hospitality and tourism, the teacher has to clarify, e.g.: What is the sense of a quick and clear response to a room reservation? What is the sense of using a certain herb in a salad? What is the sense of a Roman temple? My position is: To inform about the pure facts in those cases is not enough.

In the following, I will elaborate on my basic thesis by highlighting four aspects:

(1) Learning is a *circular* process.
(2) Learning by *understanding* the *sense.*
(3) Training should be based on *doing,* involving the *senses*.
(4) Training that involves the person as a whole is an *educational* process (*'Bildung'*).
Finally, we will ask which consequences those aspects have for the *curriculum* design.

II. Learning is a *circular* process

Let me draw your attention to an interesting phenomenon. For that, we analyse what is happening right now. You are listening to my lecture (or you are reading the paper). You have come with a certain knowledge about the subject matter, with experiences in curriculum design or teaching in hospitality; you have expectations and questions. Let us call this preparedness your *pre-knowledge* of the subject matter. With this, you listen to the lecture; based on your pre-knowledge you understand and interpret what you hear.

[See figure 1: **Circular Learning**]

By listening to the lecture and interpreting its content, your pre-knowledge is changed, transformed (PK_2). Some aspects become clearer, others raise new questions. Your pre-knowledge of the subject matter is no more the same as before the encounter with the lecture; you have a different perception of the subject matter, another perspective on it. It is crucial to recognise that this is more than intellectual knowledge of facts. (All this does not mean that you have to agree on what you hear; but maybe your own position has become clearer.)

In a following step, you may want to go back to the lecture with your changed pre-knowledge, e.g. by reading the paper. What you will understand then and how you will interpret its content, will differ from the first hearing or reading (L_2). And again, your pre-knowledge of the subject matter will change (PK_3).

This process of encountering and interpreting a text or a lecture can be visualised by a graphic.

We may not be aware of this process. But it happens all the time: You receive an email; you read it with a certain expectation; a question arises; you read it again - and you discover that your first reading did not catch its full sense. You cannot see a film or a theatre twice in the same way. You read a book a second time, and it reveals new dimensions.

Students of hospitality are in exactly the same situation:
A girl has her personal expectation and understanding of a waitress - and she is taught things which she has not considered before. Her pre-knowledge of being a waitress changes, and she interprets the following teaching from a new point of view. A student of tourism has the task to read a book on Petra, a historic site in Jordan. He opens it with some knowledge and expectations about it. From there, he understands the book. By that, he will know more after reading it. But studying the book from the beginning again, will give him a deeper insight about Petra.
In every case, we could apply the scheme as shown before.

The process that we have described reveals two important issues:
Firstly, understanding and learning are *based on a person's idea* of what he has to understand; he comes from somewhere, represents his personal history, has a certain correct or wrong knowledge, has expectations, prejudices concerning what is to be understood. "Learning always refers to earlier acquired knowledge and to earlier practised skills. Everyone comes with his biography of knowledge".[1]
Secondly, because of this, the learning process happens in a *circular* way[2]. It does not happen in the way how a wall is built by adding one brick to another or how a computer disk stores innumerous bytes. It happens by starting with the given personal situation and knowledge of the student which is the pre-condition of absorbing new knowledge which, on the other hand, is transforming the pre-knowledge, expectation

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[1] R. Kahl: Der gute Lehrer; in: Die Zeit, 25 July 2007.

[2] In a technical term the described mental process is called *"hermeneutic circle"*. It is a circle in a logical sense as the interpreter has to have understood in advance what he is going to interpret; this is a logical paradoxon or a vicious circle. Following the graphic scheme that represents the mental movement, it is also called a "hermeneutic spiral" (Klafki). Or Schleiermacher describes it as a "moving back and forth" between interpreter and text. Here, in our context, the hermeneutic approach is applied to learning and to the educational process, by that, we are going beyond the strict reference to hermeneutics as text interpretation. See: H. Danner: Methoden geisteswissenschaftlicher Pädagogik. Einführung in Hermeneutik, Phänomenologie, Dialektik. München (Reinhardt) 2006, 5th ed., pp. 60 - 67; H. Danner: Hermeneutics in Educational Discourse: Foundations; in: Ph. Higgs (ed.): Metatheories in Philosophy of Education. Johannesburg (Heinemann) 1995; H. Danner: The hermeneutic approach in Educational Theory and Practice; in: P. Higgs (ed.): Metatheories in Educational Theory and Practice. Johannesburg (Heinemann) 1998.

and even the personal situation of the student. Learning is a circular process. Or in another metaphor: it is widening the mental horizon of the student.[3]

III. Learning by understanding the sense

Are those descriptions of learning not too far from the reality and, therefore, too idealistic, too alien? Is this not the normality: Teachers in schools and even at universities present the content of text books to their students. Those 'learn' this information by memorizing it. In regular exams, they repeat it as well as possible. Who has a good (short-term) memory is considered to be a good student.

There is no doubt that we are able to receive information in form of facts, that we learn them, store and reproduce them. It is also a proven fact that we forget this kind of information rather quickly, usually latest after an exam. As a consequence, employers complain about graduates who have done nothing else during their school and university time than memorizing facts. They are considered to have 'learnt nothing'.

Obviously there are **two major forms of learning: memorizing and learning by understanding.** What is their decisive difference? Memorizing - even if it is systematic and putting one fact on top of another - does not really involve the learning person. Those facts do not mean anything to him and to his life; he does not have a relationship to them. Memorized facts remain superficial to him, they do not 'touch' him.

But it happens - so to speak *in spite of* the memorizing style of teaching and learning - that a student is finding a personal interest in a subject matter. For instance, a student may be fascinated by animals and is collecting pictures of animals, reads about them or has an aquarium where he takes care of fish. This may happen out of school and, as I have said, in spite of the typical school learning. What happens with this kind of a student? First of all, he has discovered a personal interest in issues that were presented to him as facts to be memorized; he has established a *relationship* to them. Secondly, those facts have got a *meaning for* the student. The fish in his aquarium are something different for him than the fish in the biology book. What has importance for us, we cannot easily forget. The simplest example for this is a telephone number. You *will* know by heart the number of your lover, but hardly remember the number of the tax office.

This kind of importance of subject matters will probably - or hopefully - be present in students of hospitality. They have chosen to become a professional in this field. At least, they are seeking a way of future income. From there stems their interest and motivation; in this sense, the subject matters have meaning *for* them. This is a psychological and maybe existential aspect of a relationship of a person to a subject matter.

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[3] K. Giel: Learning - Widening the Mental Horizon; in: H. Danner (ed.): Hermeneutics & Educational Discourse. Johannesburg (Heinemann) 1997.

However, subject matters can have quite a different dimension for a person, namely the dimension of sense. We have to be aware of that all human things, products, institutions contain sense. Whenever we encounter something human, we spontaneously ask for its sense. We may not discover its sense or we may judge that it is sense-less, it does not make sense. But it is sense what we expect and what we want to understand. **In the field of hospitality and tourism everything is related to human beings, to individuals, to customs, to history, to cultures; last but not least, the concept of hospitality itself contains sense that varies from culture to culture. All this is to be interpreted and understood with respect to its sense.**

We have to be aware of a peculiarity of the English language: The word 'meaning' is used in two ways, i.e. as 'importance' - the meaning *for* us -, and as 'sense' - the meaning *of* something. Before, we were talking about the meaning *for* the student. Now, we concentrate on the meaning *of* a subject matter that has to be understood. To avoid confusion, I will stick to the term 'sense'.

We have asked: What is the difference between memorizing and learning by understanding? We may now state:

- **Memorizing facts *ignores* the dimension of sense.**
- **Learning by understanding *focuses on* the sense of facts[4].**

Let us come back to the examples that I have briefly mentioned at the beginning and look at the difference of memorizing and learning by understanding: A future receptionist may have to memorise: "A quick and comprehensive reply has to be given to a room reservation." But it will be more enlightening for him to understand the sense of this rule and to hear that, for instance, this will establish a good relationship to the customer and it is necessary for the management of the hotel. An apprentice of cooking may have to 'learn': "Add basil to a salad!" However, experiencing the taste of a salad that is spiced with basil will reveal the 'sense' of the recipe.

A future tour guide may have to learn the structure of an antic temple, e.g. that there is an entrance hall with stairs and columns and an inner chamber with a shrine. He can learn this structure by heart. But the temple will become a sense-ful, i.e. understood construction for him only when he hears about the antic world of gods, the purpose of a temple, how and by whom the worshipping of a god was performed, etc.

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[4] This is the *structure of understanding*:
(1) *perceiving* something physical with our senses;
(2) recognising it *as* something *human;*
(3) understanding its *sense.*

See figure 2: "Structure of Understanding".

See H. Danner: Hermeneutics in Educational Discourse: Foundations; in: P. Higgs (ed.): Metatheories in Philosophy of Education. Johannesburg (Heinemann) 1995, pp. 231-233.

These few examples already show that the sense of something can be disclosed in different ways - e.g. by the rules of a working process, by the senses, by a historic religious context. What does this mean for teaching?

To avoid a misunderstanding, we have to concede that understanding is not always a smooth process; often we do *not* understand at all. Sometimes there may be no clear sense. I remind you of one specific site in Petra. It is not decided whether the structure has been a temple or an assembly hall. What is its sense? The urge to get the sense of the ruin is a stimulus for archeologists to do more research. In general, teaching must not and cannot reveal the sense of everything. But it has to *provoke* the question for sense.

A practical consequence of learning by understanding is the principle of **exemplary learning.** What does it mean? The idea behind exemplary learning is that one can show the principle, the concept, the type of something through one or a few examples; one does not have to study *all* existing possibilities.[5] An apprentice of cooking does not have to learn, i.e. memorise, all recipes of soups. He must have understood the composition of types of soups - and he will be able to create any soup. The same applies to a student of tourism. Also, he does not have to learn by heart all existing temples of Jordan. He must have understood the religious and social function and the architectural outline of one, and this will enable him to understand any other temple and to grasp its peculiarities. If exemplary learning would be applied in schools and in higher education, the quantities of what students have to learn would become much less. On the other hand, teaching and learning would become more demanding.

Teaching the pure facts of something that can be mechanically memorized remains on the surface. However, disclosing the sense of the same facts shows - so to speak - the 'real thing'; it opens up a deeper dimension and the *context* of the facts. Students who understand what they have to do and what is the sense of the various subject matters will develop a relationship to them, at least there will be a greater chance that they will do this than through memorizing. For, subjects that they have understood will be meaning-ful *for* them. What does not make sense to them, they will not care for. But what has meaning *for* them will be integrated in the context of their perception of their future professions. They will care for it because it has become part of them. They will not easily forget it. They will even be able to rediscover it on their own. Asking for *quality* in the training of hospitality and tourism cannot exclude teaching by making the students *understand* what they have to learn; in short: teaching and learning have to be *sense-oriented.* For, hospitality as a concept and idea is loaded with cultural and social values, with ideals of quality.

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[5] Exemplary learning is based on the hermeneutic circle of a part and the whole, of something specific and the general. E.g., a specific temple is taken as a model for temples in general. When this general model is understood, it will help to understand another specific temple. It is a "moving back and forth" from the specific to the general. A specific temple represents the principle of a temple; the principle of a temple helps to understand the specific temple.

Tourism and hospitality are dealing with human beings who have expectations. This has to be understood.

IV. Training by Doing

So far, we have seen that learning happens in a *circle*, i.e. fruitful and successful learning that is based on the *understanding* of the *sense of* the subject matter.

The practical question arises now: *How* can this sense-oriented learning be achieved? We remember, circular learning means that understanding something new is based on *existing* understanding and knowledge.

(See figure 1: "**Circular Learning**".)

This existing, previous knowledge has to be taken in consideration when students are to understand something new. But how should this be possible? For, everyone comes from a different background and experience. Everyone has a different history of experiences. The existing knowledge to understand something new is different from student to student. However, a teacher cannot know these individual backgrounds of knowledge and if he knew them he could not individually take care of them.

How can justice be done to the existing individual forms of knowledge to allow the most efficient understanding of something new that has to be learned? Existing knowledge is best recognised and involved when a student gets a chance to *conquer* the new subject matter *on his own*, when he can *discover* the new subject *himself,* i.e. when he is learning and understanding *by doing.*

Let me quote of few figures which demonstrate the efficiency of the learning by doing:

Students remember:
- **90% of what they *do* themselves,**
- **80% of what they *explain* themselves,**

- **10% of what they *read,***
- **20% of what they are *listening to,***
- **30% of what they only *see.***

- Compared to doing and explaining oneself, only 30% are remembered through reading + listening + seeing.
- Only 10% of the students learn (efficiently) by being *taught*.
- They learn *more* in a *shorter* time when they learn on their own.[6]

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[6] P. Struck: Die 15 Gebote des Lernens. Darmstadt (Wissenschaftliche Buchgesellschaft) ²2007, pp. 133-137.

These figures speak for themselves and put a big question mark to the usual kind of teaching by lecturing. I can confirm for my time of studying at the university, that those papers that I had to elaborate myself are today more or less the only memory I have of my studies - not the many lectures and seminars I have attended and not the numerous books I have read. Another striking example is to learn to drive a car; you have to *do* it; you cannot learn it from lectures or from a book. Taking this experience and those figures seriously, provokes the question what consequences this would have for the ways and forms of teaching, also in the field of hospitality and tourism. If lecturing is an inefficient form of teaching, what has to be changed to improve the training?

Let me give you a few very simple examples:
Instead of a lecture on how a table has to be laid out, let a *group of students* try to do it and let them correct and teach each other. Then, afterwards, the teacher can come in and give his comments.

Organise a *role play* for receiving guests at the reception desk or at a restaurant. Discuss it afterwards with the students.

Again, instead of a lecture, have a group of future tour guides prepare a certain site; each one has to describe and *explain* a part of the site to his colleagues.

Groups of *two students* of tourism *get tasks* to discover Jerash: Which architectural styles can you distinguish? *Draw* and *describe* them. - Which kind of buildings do you recognise? Find out and describe their function and draw them. - Draw a map of a temple...

What we see from these examples, is, that the teacher/class constellation is dissolved. It is the *individual student* who explores, discovers, who is active - not the lecturer. It can also be a group of two - in *partner learning* - or a bigger group - in *group learning*. In the group, the students explain to each other, raise questions, discuss among themselves, correct each other. When students are allowed to discover on their own, they are sent onto the path of trial and error. They are allowed to make *mistakes* - and learn from their mistakes. The attitude towards mistakes usually is negative; mistakes are seen as a catastrophe and have to be punished. However, errors and mistakes can also be taken as a positive chance to indirectly show what has to be learned.

Wherever it is possible and makes sense, *drawing* is an excellent means of discovery; one has to observe very carefully and by using one's hand to bring the observed object to paper one must struggle with the object and with the ability to create a personal expression of the object. This is not meant to produce art; the quality of the drawing is of little importance. Important is this kind of struggle.

By the way, what does happen to the *role of the teacher* or lecturer when this kind of learning is applied? I can only raise this question and have to leave the answer to you.

What is the educational advantage and value of training by doing? When the students have the chance to discover by themselves, they leave their usual passivity behind and become active; many of their **abilities are challenged**; they get

emotionally involved; by that, their **motivation will increase**. They are interested and personally engaged in a subject matter and create a **personal relationship** to it. The question of **sense, understanding and context** arises continuously. The quantitative mechanics of memorizing facts is replaced by a **qualitative mental process**.

Let me make a remark on the importance of the *senses*. When a student discovers a subject matter on his own, he will also involve - besides his intellectual abilities - his senses. This is obvious for a cook; he has to taste, to smell and also to look - his product has to look nice, for, we eat with our eyes. But I think in the hospitality business the *visual impression* is crucial in general. What is the over-all appearance of a hotel or a restaurant? Is the reception desk inviting? Is the room tidy? Is the bathroom clean? How are the employees dressed? These are challenges to the staff; they have to use their visual sense to attract and satisfy their customers. And therefore, the trainers in hospitality should be aware that the *training of the senses* cannot be neglected. Also a tour guide should learn to use his senses and by that become able to guide his clients in observing and using their eyes.[7]

The discussion about and the demand to change the form of teaching is as old as the reflection on education. What we discuss here is well known under the slogan "learning by doing". This is referred to *John Dewey* who about 100 years ago was emphasising the importance of *experience* in education. Education has to be a "development *of* experience, *by* experience and *for* experience", as Dewey says.[8] Another example is the German *Georg Kerschensteiner* who, at about the same time, has stressed the *educational value of working* by introducing a variety of practical activities to school.[9] He also promoted the traditional German vocational training by

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[7] H. Danner: "Senses and meaning, quality and education: Some notes on a workshop"; in: Phenomenology + Pedagogy IV/3. Edmonton, Canada, 1986. - H. Danner: "Die hermeneutische Bedeutung der Sinne in der Pädagogik" ("The hermeneutical meaning of the 'senses' in education"); 11 pp.; in: Bildung und Erziehung 1988.

[8] J. Dewey: Experience and Education. Quoted from the German edition in: J. Dewey: Psychologische Grundfragen der Erziehung. München (Reinhardt) 1974, p. 255. Dewey emphasises two principles of experience:
(1) the continuity of experience, meaning that experience is connecting previous experience with experience for the future;
(2) the reciprocity of experience, meaning that experience is a product of the individual and the environment (pp. 257-269).

[9] Kerschensteiner's educational message:
(1) Reduce the amount of subject matters!
(2) Increase the possibility of independent discovery, observation and creativity!
(3) Allow manifold exercise and use of drawing skills!
(4) Support the development of emotional experiences!
(5) Examine independent abilities versus abundance of knowledge as well as creative perception, demonstration and expression versus petty mistakes!
G. Kerschensteiner: Berufs- oder Allgemeinbildung? (1904); in: G. Kerschensteiner: Berufsbildung und Berufsschule. Ausgewählte pädagogische Schriften, vol. 1. Paderborn

strengthening the vocational training school. This is, up today, the theoretical component of the *dual vocational training* in Germany. There, in about 450 professions, apprentices attend to an on-the-job training for (about) four days per week and the vocational training school for (about) one day per week. In general, this apprenticeship lasts for three years. - I am mentioning these examples because they are a source of educational theory and practice with respect to an alternative form of teaching and learning, promoting the activity and creativity of the student.

V. 'Bildung'

Let me dream: In future, you will apply everything what I have told you here. You consider that learning is a circular process. Therefore, you will give your students time and will address their personal knowledge. You will take care that they understand the sense of the subject matters. You let your students discover on their own, applying group work and role play. Also you stress the importance of the senses.

And then, after a course or at graduation time, you will have to admit that only a relatively small group of your students have become engaged and convincing tour guides or cooks of whom you will say: "They have got it!". The rest may be good, even much better than those who have only memorized for their exams. But - something is missing in them. What has happened? Those few ones whom you consider to be outstanding have accepted your educational offer. This offer consisted in the chance you gave them to make the subject matter to their own concern, to identify with it in a way. Those, who took this offer, did it with their whole person, with their intellect, emotions, interest, engagement, concern, value judgement. Your training has affected more than their intellectual capability. Training has become 'education' in the sense of formal education, refinement, culture, good breeding, or with a German term: 'Bildung'[10]. The other part of your students have decided for themselves to keep a distance to the subject matter - in spite of your endeavours. Don't be disappointed; this is the fate of every teacher and educator. We have to respect the personal freedom whether we like it or not. And still, our educational aim should be 'Bildung'.

What is meant by 'Bildung', formal education, addressing the person as a whole? Let us look at a few criteria of this educational concept:

(Schöningh) 1966, pp. 98-101.

[10] 'Bildung' as a German expression hardly finds an equivalent in other languages. It represents a typical German theory of education focussing on the person as a whole. See E. Lichtenstein: "Bildung"; in: Historisches Wörterbuch der Philosophie, vol. 1, Darmstadt (Wissenschaftliche Buchgesellschaft) 1971, col. 921-937; H. Danner: "Bildung - A basic term of German education"; in: Educational Sciences (Cairo) 9/1994.

- The student develops a ***relationship* to the subject matter**, i.e. he makes it to his own concern.[11] **-** I have mentioned this several times.
- He will be able **to put it into a *context*** - in the context of the world he knows and in the context of his personal life.
- The student becomes empowered **to *take a position*** to what he is taught. He may accept or refuse it, considers it to be good or bad, valuable or worthless, etc.
- To take a position demands from him to have a reasonable justification for his position. The **question of *values* and the striving for *quality*** arise.
- A person, educated in this sense, will **actively *take responsibility***. This means more than doing one's duty. It is "going an extra mile" with reference to a reasonable value judgement and with concern for the society.

This concept of education or 'Bildung' aims at graduates who have and represent *quality, not only qualifications*. It aims at more than a big amount of knowledge.

In the context of hospitality and tourism this concept of 'Bildung' could mean the following: A waiter will be concerned to make his guests happy, that they are advised properly, the food served quickly. A tour guide will have enthusiasm for what he has to show and to explain to his clients. A room maid will report a defect in a bath room. The hotel manager will be proud of a decent environment and a smooth process of hosting his guests.

VI. Consequences for the curriculum design

At the beginning, I have maintained: "Besides facts and information, the educational process must impart *sense* to the students. Teaching and training have to be *sense-oriented*." Which consequences does this approach have for the curriculum design?

Let us first look at the *structure* of a curriculum.

(See figure 3 "**Curriculum 1**".)

The whole training process is aiming at the *'final goal'* which is here the trained, educated professional. Several decisions and expectations determine the final goal:
- Above all, there are expectations and demands by the professional world, by the employers, by the hospitality and tourism industry, i.e. the expected *qualifications;*

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[11] The German poet Goethe says "What you have inherited from your fathers, *acquire* it in order to possess it!" In other words, what we receive through the tradition, what we have been taught, does not automatically become ours. We have to struggle before we can call it our own; it is a process of identification. Otherwise, it remains alien to us although we may think it is in our possession.

- The *lecturers* have an image of the graduates they intend to discharge from the college, often based on their own experiences;
- The *students* pursue their personal aims; they have an idea about their future profession.

Ideally, all of them should strive to realise the idea of *hospitality.*

Every step -

- from the actual situations of teaching and learning
- to the immediate goals that are defined for a lesson or a learning unit
- to the intermediate goals that have to be achieved by the end of a course or a semester -

every step is aiming at the final goal, has to be a representation of the final goal, has to be done in its spirit.

The aspect of 'Bildung' - formal education, refinement, culture - demands that the final goal will be more than a 'trained' professional; he is expected to be 'educated'; the lecturer is supposed to be an 'educator'; the student is expected to co-operate in an active, creative way. For, the training cannot be reduced to a mechanical process with a 'product' that can be manufactured like a car. It is to be an educational process with the over-all goal of educated professionals.

Thus, the final goal represents an ideal, a qualitative result, that can neither be mechanically achieved nor quantitatively measured. In a curriculum, the *sense*, the *quality* of the final goal has to be represented in the intermediate goals and in the immediate goals as well as in an actual learning situation.[12] - This is the first essential consequence for a sense-oriented curriculum.

The second consequence is the following: A curriculum has to present the subject matters to the students under the perspective of their *sense.* It has to be sense-oriented, making the students understand the sense of the subject in correspondence to their own horizon of sense. Or in other words: The curriculum is the *mediation of sense* between students and subject matters. This applies to all steps of the curriculum, from the actual learning situation to the final goal. Who designs a curriculum will have to indicate the reason, the purpose, the quality, the sense of each component of a qualification the curriculum is supposed to achieve.

The third consequence can be seen in a number of **methodological principles** which derive from our reflections. I want to call them principles as they are no strict instructions; they are to be considered continuously and applied whenever they will support a sense-ful learning process. They may be related to specific steps in the curricular process although there is no rigid allocation. In the following, I can only present a summarised overview.[13]

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[12] The relationships between actual learning situation and immediate, intermediate and final goals and between immediate, intermediate and final goals could be understood as hermeneutic circles, i.e. as circles between the whole and a part. Every 'higher', more complex, goal would be the 'whole' in this context.

[13] See also P. Struck: Die 15 Gebote des Lernens [The 15 rules of learning]. Darmstadt (Wissenschaftliche Buchgesellschaft) ²2007: "Selbstlernen statt Belehren", "Lernen durch Handeln und Sprechen", "Lernen mit neuer Fehlerkultur", "Lernen braucht Zeit", "Lernen in

(See figure **4 "Curriculum 2**".)

On the level of the actual teaching and learning situation we may remember that:
- Teaching has to be *sense-oriented,* especially in a context where the subject matters are related to the dealings with human beings and the basic idea is hospitality, an idea loaded with sense and quality.
- Learning is a *circular* process.
- Therefore, the position and the *pre-knowledge* of the student has to be referred to.
- Learning is fruitful as learning by *understanding.* Non-understood facts remain on the mental surface of a person and have to be avoided in teaching.
- In order to challenge the activity and creativity of the students they should learn by *doing*, by discovering, by using their senses, by explaining, by drawing, etc.

Immediate goals should take in consideration:
- As learning by understanding is a circular process, students shall be given *sufficient time* to understand.
- Understanding will be challenged and promoted by assigning students *individual tasks*.
- Also *partner* work, *group* work or *role play* create unique learning situations through common discovery, discussions, mutual corrections.
- *Trial and error* are to be allowed to encourage independent learning.
- Not only in this context, *mistakes* have positive significance.
- Sense-ful learning will, on the one hand, be supported by *contexts* and, on the other hand, will create contexts.

A few methodological principles can be specifically related to the intermediate goals, i.e.
- The same subject can be *repeated* at different stages as the understanding of the subject changes.
- *Exemplary learning* will concentrate on reduced subject matters; it thoroughly elaborates on one example which will serve as a model for similar subjects which can be understood through the model. Knowledge has to become transferable.
- The whole educational process should promote the *learning of learning* and by that initiate a life-long learning.
- *Exams* should emphasise on what is understood, on contexts, on the *ability of transfer,* and not only on facts and mistakes.

Partnerschaft", "Schüler lernen besser, indem sie zugleich erklären"; "Lernen durch Üben und Anwenden", pp. 132-167.

This summary of methodological principles may serve as a *hint* how the design of curricula will be determined by the necessity to take in consideration the mediation of sense. Now, it would be necessary to go into details and to elaborate on the importance of each single aspect. I have to leave this task to curriculum specialists, requesting them to have sense and quality in mind. For, my intention was only to draw your attention to a few educational foundations that influence the curriculum design.
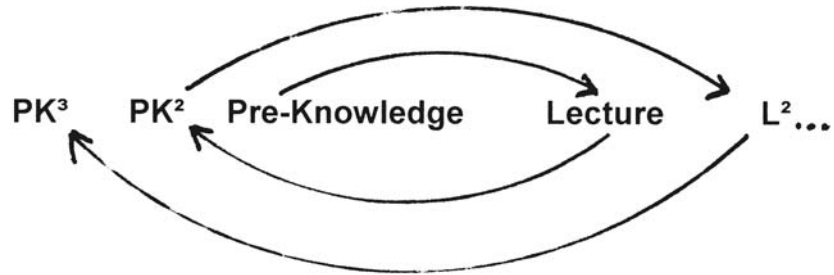
Figure 1:
Circular Learning

$$PK^3 \quad PK^2 \quad \text{Pre-Knowledge} \quad \text{Lecture} \quad L^2 \dots$$

Figure 2:

Structure of Understanding

Understanding

Interpreter —— 1.

2.   3.

1. Something
given to
the senses
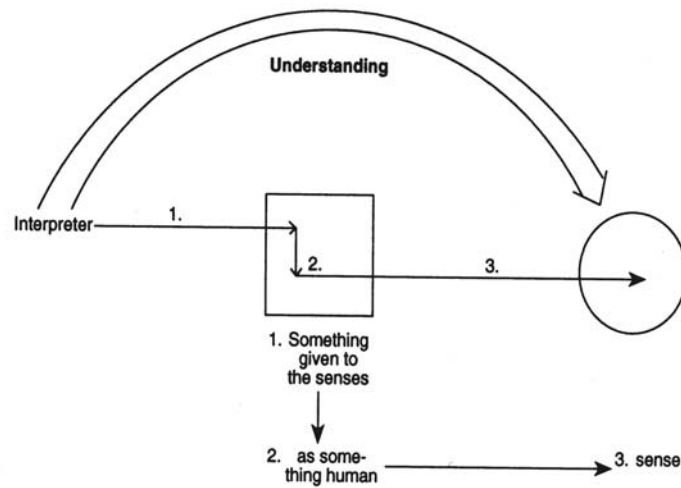
2. as some-
thing human   3. sense

Figure 3
CURRICULUM:
Mediation of meaning between student and subject matter
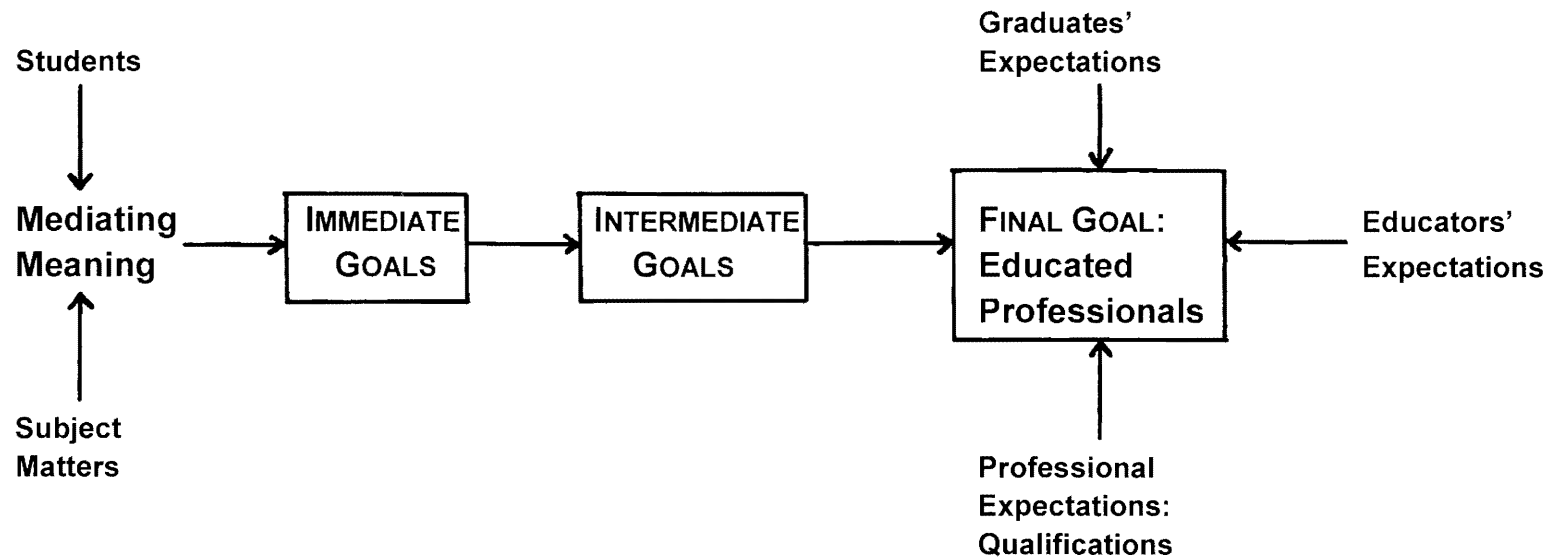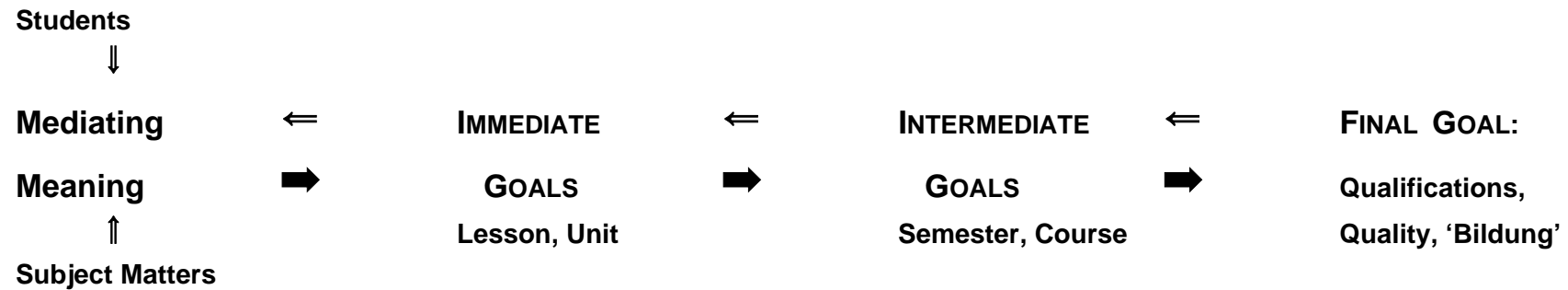**To achieve the final goal: Educated Professionals**

Figure 4:

CURRICULUM (2)

Students

⇓

Mediating	⟸	**IMMEDIATE**	⟸	**INTERMEDIATE**	⟸	**FINAL GOAL:**

Mediating ⟸ **IMMEDIATE** ⟸ **INTERMEDIATE** ⟸ **FINAL GOAL:**

Meaning ➡ **GOALS** ➡ **GOALS** ➡ Qualifications,

⇑ Lesson, Unit Semester, Course Quality, 'Bildung'

Subject Matters

METHODOLOGICAL PRINCIPLES:

Sense-oriented teaching	**Give time**	**Repeat subject at different**
Circular learning process	**Individual tasks**	**stages**
Reference to pre-knowledge	**Partner and group work,**	**Exemplary learning**
Learning by understanding	**role play**	**Teach learning, life-long**
Learning by doing, discovering	**Trial and error**	**learning**
	Positive significance of	**Examine what is understood,**
	mistakes	**and ability of transfer**
	Establish context	