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# A GUIDE TO BETTER TEACHING AT UNIVERSITY

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UNIVERZITA KOMENSKÉHO V BRATISLAVE

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A Guide to Better Teaching at University

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*To my dear children, Helene, Ole, Dag,  
Jostein and Benedicte, who every day are living proof  
of how much fun it is to learn and whose zeal  
and dedication teaches me a lot!*

## TABLE OF CONTENTS

<b>PREFACE</b> .....	7
<b>INTRODUCTION</b> .....	8
<b>PART I – THEORETICAL BASICS</b> .....	11
<b>Motivation and Learning</b> .....	11
Carol Dweck – Differences in Mental Attitude .....	13
<b>Intrinsic and Extrinsic Motivation</b> .....	20
Martin Covington – Self-Worth Theory .....	25
Deci and Ryan – Self-Determination Theory (SDT) .....	30
<b>Teaching and Learning</b> .....	34
<b>Lectures and “Medlesning” (Cooperative Activities)</b> .....	35
<b>The Importance of the Etterlesning (Post-reading)</b> .....	41
<b>Knowledge as a Community Activity</b> .....	43
<b>Good Teachers</b> .....	43
 <b>PART II – TIPS FOR THOSE WHO TEACH</b> .....	53
<b>Introduction</b> .....	53
<b>THE LECTURE</b> .....	58
Tip 1. Begin your preparations by checking out the classroom .....	58
Tip 2. Learn from the actor and move into the role of teacher .....	63
Tip 3. Do not use irony or try to be funny at students’ expense .....	67
Tip 4. Repeat students’ questions / answers .....	70
Tip 5. Do not panic if you miss with preparations .....	74
Tip 6. Involve students and create activity .....	77

Note-Taking Form.....	85
Tip 7. Use the blackboard with purpose .....	86
Tip 8. Avoid absolute certainty .....	88
Tip 9. Use technology with purpose .....	90
Tip 10. Make time for feedback.....	97
Tip 11. Do not say Yes to everything the students request! .....	102
<b>THE MEDLESNING (Cooperative Reading)</b> .....	105
Tip 12. Interview a Professional / Expert .....	105
Tip 13. Equip students with an “education account” .....	111
Tip 14. Try out Team-Based Learning.....	114
<b>THE ETTERLESNING (Post-reading)</b> .....	119
Tip 15. Specify a set of defined criteria .....	122
FEEDBACK FORM – WRITTEN WORK .....	125
Tip 16. Give concrete and sufficient feedback.....	126
FEEDBACK FORM – WRITTEN WORK .....	128
<b>PLANNING OF TEACHING</b> .....	139
Tip 17. Consider the students’ time when planning teaching .....	129
Study Workload Calculation Sheet applied to a hypothetical 10-ECTS course at the undergraduate level. ....	131
<b>FINAL REMARKS</b> .....	135
<b>References</b> .....	138



## PREFACE

In my years of working with university pedagogy and training new university teachers, I have many times been challenged by participants to present, if not a recipe of how to teach, at least some concrete advice and tips on how to go forward. Until now, I have been reticent to do this mainly for two reasons. First, there is no right way to do things, no cookbook recipe to suit everyone in all contexts. We are different, the student body changes over time, and the situation varies. What is true in one context may not be appropriate in another. The second reason is simply that those who come to our courses and participate in our training have a lot of experience that it is important to recall and listen to. As we reflect together on these various practices, we can all learn and develop. For this reason, we have laid emphasis on establishing a framework around our courses that makes it safe for individuals to try out new things. I have written this book because I feel a need to draw more university teachers into a discussion about teaching, not only those who come to our courses. More and more new things are happening in the technological field that challenge us as educators, that challenge the whole question of what we should understand about teaching. And we constantly meet new groups of students with expectations, wishes and demands that challenge us. My desire is to contribute some thoughts, some advice and a few tips into what should be a debate at all of Norway's institutions of higher education. The focus of this book is primarily on teaching large groups of students, primarily because this is where I see the most and biggest challenges. My own thinking on these issues is influenced by a number of people. This time I would like to mention the good cooperation I have had with my Finnish colleague, Dr. Asko Karjalainen. Much of what I write about planning teaching is inspired by his work.

Bergen in February 2013

*Arild Raaheim*

## INTRODUCTION

Through my years at the University of Bergen, I have had many discussions with colleagues from different disciplines on issues related to learning and teaching. We have often been quick to disagree. About how teaching should be organized. About the necessity to acquire and document a special kind of knowledge in a certain way. About exams and other assessment arrangements, and who is fit to study which subjects. Sometimes the differences in perspective (and assumptions) have been so great that the boundaries of academic objectivity have been stretched to a point that has approached breaking point! This controversy notwithstanding, none of us has ever been in doubt that *the aim of all education is for students to learn*.

As educators, we probably have different opinions about the importance of our own role, and about how much we can or should influence or control what students learn. There are not necessarily clear-cut answers to questions about whether students learn what we want them to learn, or whether they are learning what we think they are learning, and what our contribution as educators primarily consists of. Sometimes it may be that students learn what is necessary in the discipline in spite of how we convey it. Other times arises a special – but hard to define – chemistry that produces very positive results, and (therefore) gives rise to beliefs and myths about how talented students in a specific cohort was, or how clever teacher X or Y was. Still other times it may be that the students, as well as, learn something about how their presence in a particular learning environment is valued, or what it means to belong to a particular scholarly community. As educators, we act also as important role models and as representatives of a particular self-understanding and



professional culture. Whatever we may think about these issues, it is beyond doubt that *learning happens best where one is motivated to learn*.

The learning environment, in terms of how it works and is perceived by the individual, is essential for well-being and thereby learning. A good, inclusive learning environment is an environment that challenges students. By challenging students, we also show that we respect them as co-producers of knowledge. But even if knowledge is undertaken jointly with others, learning is necessarily an individual matter. *It is the individual student who learns*. Collaboration is important. The assignments that form the basis for evaluating competence are also important. Within higher education, we have a lot to go on concerning the use of teaching and assessment forms that not only encourage, but also create the practice of collaborative learning. This does not mean that we should reject all testing of the individual. *The student must still document what he or she has learned*.

Teachers reflecting on their role as educator and how and what students learn is an important element in any description of “good teaching.” Before I describe and justify any specific inspiration, I will begin with a brief review of some key motivation theories. After that, I will cover teaching terms and discuss the form that teaching has traditionally had in higher education, before I touch lightly what research has shown characterizes good teachers. Perhaps the most important advice is not available in the overview. It is this: *discuss your own teaching with colleagues*. Teaching has been for far too long a private matter. Many educators do not feel comfortable being “overheard” by colleagues, and do not like to invite views on their teaching (beyond required student evaluation). This is strange. Not only because we thus close an opportunity to learn and develop as educators, but also because most of what we otherwise do within academia is about getting feedback from colleagues. We have good practice in getting scientific articles commented on (and rejected). We apply for project funds and to have our research findings put

forward at national and international conferences. And every time one of our PhD candidates submit their thesis, we and our efforts are also assessed. How is it then that so many of us seem to be comfortable with the fact that so many students dropping out, or that the failure rates in certain cases is high?

## PART 1– THEORETICAL BASICS

### MOTIVATION AND LEARNING

“The money is not the driving force.” This statement could have been taken from an interview with a top athlete, who in addition to doing well in their field, was known to make big money. Many people would, probably, doubt the athlete’s honesty and believe that he was not being entirely sincere. From what we know from research about the relationship between motivation and achievement, doubters would, however, have to reconsider. There is no necessary contradiction between performing and getting a reward for good performance. But the likelihood that a person will achieve top results and become the best in their field solely because of a financial reward is very small. The money, the external reward, is a side effect. It is certainly not insignificant, but if wealth and fame had been the athlete’s main focus and sole impetus, most of what we know tells us that he would not have performed particularly well. This example illustrates something about the main difference between *intrinsic* and *extrinsic* motivation, but also something of the challenge that lies in such a distinction.

The term “motivation” has its origin in the Latin “movere,” which means to move. Motivational psychology is therefore the part of psychology that is concerned with describing the motives – causes – to human actions and behavior. Disregarding the type of movement that can be described on a purely physiological basis (i.e., reflexes), the way to understand our actions is via our thoughts. The answer to why a person behaves as he does in a particular situation lies, in other words, in that person’s understanding of the situation

and of himself. Whether a person responds to a particular challenge by diving into it and trying to find a solution, or by withdrawing, depends on what expectations he holds: expectations of self-efficacy and expectations of outcomes. If the person has low expectations about his own opportunities to master the challenge, while counting it unlikely that the outcome will be as desired, they will probably remain passive. High self-efficacy in itself is not sufficient. This is something everyone who has worked to try to get people to change a specific behavior (e.g. quitting smoking) has experienced. If the person in question believes that it is unlikely that the expected result of the efforts (e.g. better wellness) will be achieved he/she will, probably, not do anything, even if he or she knows that he / she will be able to stop. Other times, he or she might make a more or less half-hearted attempt in response to social pressure. Or, to use an example related to the subject matter of this book, a student who considers it unlikely that active participation in his or her education will lead to better learning will be less likely to answer the teacher's questions or challenges. He or she will relate more hesitantly. It is not enough that the teacher points out the importance of being active. In order for students to experience this as true, and not something the teacher does in order to pass time, they have to experience it for themselves. Instead of saying how important it is to be active, and to encourage activity, teachers need to ensure that students' involvement and activity creates better learning. What many educators mistakenly do when they experience that students are not answering questions, is to lower the bar and ask simpler, more elementary questions. This will only create embarrassing experiences for both parties. The problem is usually not that students do not know the answer to the question, but rather that they (a) find that the reason teachers ask a question is to create a breathing space for themselves or because teachers have learned that this is pedagogically correct, or (b) that their experiences indicate that this takes time away from and is not conducive to learning. If we maintain that motivation is about understanding cognitive activity, it is not meaningful to say that

a person is not motivated. Thus, we cannot distinguish between motivated and unmotivated students. The fact that a student does not behave as we want or expect does not mean that they are not motivated. It means, rather, that they (a) have their attention directed to other things than the rest of us, or (b) that he or she is focused on maintaining a certain image of themselves and do not like to stand out. As to the question about the relationship between formal feedback (grades) and achievements, we know that a good grade can actually give rise to greater problems than a bad grade. This may be true for individuals who are accustomed to receiving low grades, and for that reason do not have high expectations for themselves. One unexpected element of the opposite, that is, a good grade, breaks with a familiar and accepted pattern, and can cause some sort of disturbance in these individuals' conception of themselves. The result is greater uncertainty, which can result in procrastination. Other times, a person will avoid responding to challenges in fear of losing face if he or she has not mastered the task, or fear of not achieving equally good results (grade) as they usually do.

### **Carol Dweck – Differences in Mental Attitude**

The American motivational psychologist Carol Dweck shows how a person's mental attitude (mindset) is shaped and influenced by the surroundings. In turn, an individual's mental attitude affects his or her behavior in specific situations, for example when he faces various learning challenges. When the person explains to himself (and to others) why the outcome was what it was, this is done in accordance with their mental attitude. These mental attitudes are to be understood as implicit theories about who we are, what we are capable of, and why we master or not master certain challenges. Dweck shows how one's mental attitude directly affects grades and results on tests of ability (Blackwell, Trzesniewski & Dweck, 2007; Dweck, 2008). If we wish to affect a person's behavior, we may,

in other words, do this by affecting their mental attitude. Dweck distinguishes between two different mental attitudes: fixed mindset and growth mindset. First, we will discuss fixed mindset. According to Dweck, this attitude is characterized by the notion that abilities and skills are determined once and for all and are thus unchangeable (i.e., “carved in stone”). When one is doing well on the exam or another academic context, it is because one is especially gifted. Abilities are understood, in this case, as something one has been given, to a greater or lesser degree, by nature, and that they are constant and unchangeable. People with this attitude are keen to confirm the image they have of themselves. They look at challenges as competitions where it comes to prove themselves and their intelligence. Dweck describes it as follows: *“Every situation calls for a confirmation of their intelligence, personality, or character. Every situation is evaluated: Will I succeed or fail? Will I look smart or dumb? Will I be accepted or rejected? Will I feel like a winner or a loser?”* (Dweck, 2008, p. 6). People with this attitude have difficulty handling defeat. A bad grade on an assignment (D or E when one is accustomed to getting B or A) typically gives rise to negative self-assessments and may, especially if the situation repeats itself, cause a person to shy away and avoid trying again. It is also typical of such people that they constantly compare themselves with others. As long as it goes well and they are the best, everything is fine. Problems arise when they encounter resistance in the form of others who are just as good or better. This is characterized in educational situations when there is strong competition for study places. A person who, while growing up, has been used to getting good grades in school and being praised for their skill, and for that reason regard themselves as particularly bright, will in some cases have trouble coping with a situation where he or she is no longer the best, and their performance is in the middle of the crowd. Dweck describes how people who are characterized by an fixed mental attitude evolve from being able students to being “non-learners.” These people come to a stop and do not develop further. To illustrate some of the characteristics of

people with a fixed mindset, she uses an example, that in a somewhat modified version looks like this:

Close your eyes and imagine (that you are a student and) that you have just had a very bad day. The day started when you got an assignment back from the teacher of the subject you are studying. You like this subject a lot, are accustomed to receiving positive feedback on your work, and always get good grades. This time, the feedback is far from positive, and your professor suggests that the assignment barely passed. Your disappointment is huge. And then things get even worse. On the way home, you are stopped by the police and get fined for riding without lights on your bike. Back home, full of frustration, you call your best friend to talk about what has happened and to get support. You are, however, rather brusquely rejected, and the call does not last long. How would you respond to this? What would you be thinking and what would you do?

When Dweck presents this example to students and asks them to describe how they would feel, it is typical that people with a fixed mindset respond by perceiving themselves as a total failure. “I’m not worth anything.” “I’m a loser.” They saw, in other words, what happened as a direct result of competence and self-worth. Not only feeling themselves to be a failure, it is as if the whole world is after them. “The world is out to get me.” One may wonder if this is characteristics of individuals with low self-esteem, or people who have a pessimistic basic attitude. No, says Dweck; “*When they are not coping with failure, they feel just as worthy and optimistic – and bright and attractive – as people with the growth mindset*” (op. cit. p. 8). In response to the situation and what has happened, someone with a fixed mindset responds with what one within stress research has described as *emotion focused mastery*. Instead of focusing on the situation and what they can learn for future events, they focus on the discomfort, on pain and defeat. “Hide myself under the covers, never to appear again.” “Get drunk.” “Lock myself inside my room and listen to music.” Such statements, which represent the types of responses Dweck got to questions about how people

would handle the situation, demonstrate just how focus is given to emotional discomfort. Let's take a little escapade into the sports world. Imagine that one of the boys on the Norwegian ski jumping team, known to be among the world's best, in one run after another does poorly and barely makes it into the final round. How do you think the person would have reacted? What do we know about how he will answer the sports reporter's questions? He's probably unsure about what exactly did not work 100% in a given case, but a typically response would be that he knows he will get back into the formula, and that he just "must focus on the task at hand." We, as outsiders, might regard this call to "focus on tasks" as a rehearsed standard answer, as something said to avoid more impertinent questions. If we think more closely, however, we come to understand how this represents a proactive and appropriate attitude. Challenges are there to be mastered, and there are many lessons in adversity and setbacks. By focusing on the overall process and making small adjustments, it will be possible to rectify the situation. He does not look at the lack of results as a threat to himself and his self-esteem, but rather holds on to the certainty that what it takes is training and feedback, followed by some correction and even more training. One is, of course, not guaranteed new success, but the opposite: giving up when things get too difficult is incompatible with athletes at this level. One simply will not end up on a top national or international level if he experiences hardship and setbacks as threat to himself and his own self image.

To be "tough on the outside" is a Bergen expression for a type of given, yet hollow affirmation. It is a type of assurance that disappears rapidly when one encounters difficulties. Being "tough on the inside" is something completely different. This is to hold onto the knowledge that adversity is to be mastered, that focus should be directed on the assignment and that "practice makes perfect." It is partly this that characterizes individuals with the other kind of mental attitude, what Dweck gives the designation "growth mindset." *"This growth mindset is based on the belief that your basic qualities are*



*things you can cultivate through your efforts. Although people may differ in every which way – in their initial talents and aptitudes, interests, or temperaments – everyone can change and grow through application and experience“ (Dweck, 2008, p. 7).*

Dweck shows how people with a growth mindset differ from people with a fixed mindset in that they feel an intense pleasure by persisting in a particular activity, whether this concerns athletes, educators, musicians or business leaders. People with a fixed mindset revolve mostly around results. If the result is good, you are good. Otherwise, you're a failure. Or you can gloss over a bad result by blaming others. When the world does not relate to us the way we want or as we are used to, there must be something wrong with the world! Then, says Dweck, it becomes easy to resort to a strategy where we surround ourselves with like-minded people, or yes-men. But then we also rob ourselves of the opportunity to change the situation, to learn. Here is advice from Dweck: *“Next time you're tempted to surround yourself with worshipers, go to church. In the rest of your life, seek constructive criticism”* (op.cit. p. 53).

Since the reactions we receive from our surroundings are of great importance for how we perceive ourselves and what happens to us, the message to us as educators is clear. Although it is natural that individual differences exist and not all of our students will develop to become Nobel laureates, it is important that students have every opportunity to learn. If they do not perform as expected at any given time, they will eventually, through constructive feedback, encouragement, and by meeting a committed and demanding teacher, learn to master different types of challenges. Feedback is an important term. When we give feedback, it should be constructive and focus on effort. When the result is good, we should praise for effort, not ability. When the result is not good, we should point out opportunities and areas for improvement and refrain from more or less hidden clues about why the result was not good enough. A study conducted by Rheinberg (referred to in Dweck, 2010) shows that the attitude with which we, as educators, meet our students will have

a direct impact on student performance. Teachers who assumed that academic achievement is a direct consequence of intellectual abilities (“tell me what IQ you have, and I can predict how it will go with you”), which in Dweck’s terminology would be said to have a fixed mindset, had their assumptions confirmed at the end of the year. At the beginning of the year, students were placed in groups based on a preliminary examination. At year-end, the rankings were unchanged. The good were still good and the less good were less good. The interesting thing about this study is what happened in the classes that had a teacher who believed that skills can be developed, and that everyone has the opportunity to improve. The individual differences were not eradicated, but the differences between groups were zeroed out and all pupils ended the year in the best group. The example is perhaps striking, but also emphasizing something we have always known, which is also supported by studies by Hattie (2010): Good, unprejudiced teachers are important!

In my practice I have met many students who have experienced adversity and defeat, whether in the form of a failed exam or not performing up to their own and / or others’ expectations. In one case, I was approached by a young man who had failed the same examination five times (it was in a time when there was no limit on the number of attempts). He came with a very clear order: he wanted me to swing the wand and help him to get a better memory. Apart from this examination, the person had always done well. In school he used to be the best, and in his university studies – within the same subject – he had previously achieved good grades. In line with what Dweck describes as typical of a fixed mindset, he firmly believed that past successes were a result of his peculiar genius. Therefore, it was particularly difficult for him to understand, and accept, the defeat he now experienced. Through conversation, it emerged that he had received a lot of feedback from students and teachers that he should change study techniques. He had also made efforts in that direction, but he described how this led to a feeling of lack of control. He turned, therefore, back to what he was used to

and what had been a recipe for success so far, namely memorizing. He had always spent many hours in his books and read the material many times. He described to me how he now read more than ever. He stayed up even well into the night and put in some extra hours before he positioned himself in the reading room when it opened at eight o'clock in the morning, where he would stay until it closed 12 hours later. I listened to this description with a mixture of admiration and despair. Admiration for a special stubbornness, but despair for so much wasted energy. So much effort spent in such a pointless way, strength that should have been used to live, to enjoy learning. In an attempt to cope with the situation, he defined it all as a capacity problem. It served no purpose for me to tell him that the problem probably was not due to a bad memory. Even the best mnemonist would have had problems in memorizing a curriculum of several thousand pages! My understanding was strengthened when I asked him to describe the key challenges and issues in the subject. It proved to be an impossible task for him, and he responded by reproducing fragments of the curriculum. As part of efforts to get him to acknowledge the problem and the solution as not primarily focused on poor memory, I asked him to read an article taken from a completely different field. I asked him to read the article before the next time we met and then reduce it by 40% without the main message being lost. The next week, we met as agreed, and he was very eager to show that he had done as I requested. He was clearly disappointed that I did not immediately want to check his "homework." Towards the end of the consultation, I asked to hear how the work on the article had gone. Proudly he brought out his copy and showed how he conscientiously had crossed out words and sentences and managed to reduce the amount of substance with exactly the desired 40%. "Nice," I commented. "For next week, reduce the remaining by 50%, still without the author's main message being lost." Somewhat crestfallen, he promised to do as he was told. The following week the session repeated itself. He was very eager to show what he had accomplished. I steered the conversation to other

topics, and only at the end of the consultation did we come to work on the article. He was then asked to reduce it further. The frustration was evident in his eyes. He was very surprised at our next meeting when I praised him for being “disobedient.” He had not bothered to count the words to make sure that the task was completed. At the conclusion of this exercise, I asked him, as we sat together, to spend 10 minutes formulating the main message of the article in one sentence. He did not need 10 minutes. Later, we worked with the course material.

My choice of strategy may be open to question, but I was very clear on two things: I had been given an “order” of pedagogical character, and the young man had – to use Dweck’s description – a fixed mindset. These two things hung clearly together, and the challenge for me was finding a way to relate to his needs while simultaneously having a strategy to influence and change his mental mindset. The conversations we had told me something about his understanding had changed, but whether it was his understanding of himself, his mental mindset, or whether it was the understanding of the challenges he saw himself able to master, I am unsure. In the years to come, I had only sporadic contact with him. After our meetings, he left the university. Instead, he went to a university college, where he completed a 3-year degree in a related subject with very good results. Everything indicated that this was a happy choice for him.

## **INTRINSIC AND EXTRINSIC MOTIVATION**

The example of the successful athlete who said that money was not the driving force illustrates both the importance of making a distinction between extrinsic and intrinsic motivation, but also that there are some challenges with such a distinction. Put in simple terms, we see external motivation for behavior that is controlled by an external reward. For example, students who work hard to achieve

educational distinction or parental recognition. Intrinsic motivation is, on the other hand, for behavior that is not controlled by an external reward, but where the driving force is, for example, interest or curiosity. The behavior is rewarding in itself. Just as we make a distinction between different *forms* of motivation, the intensity of motivation can vary. The desire to achieve recognition can, just as one's interest, be so strong that the behavior is maintained over a long time. Even in cases where a goal is not reached to its fullest. It is, for example, not inconceivable that the young man, who was referred to above, held out as long as he did in hopes of eventually achieving a result that could convince his surroundings.

Traditionally it has generally been believed that behavior is either internally or externally motivated, and that the introduction of an external reward, where behavior is basically driven by interest and desire, causes the behavior to be reduced or cease. This last is well documented in research (see eg. Deci, Ryan & Koestner, 1999). When this is the case, it may be because there is a change with respect to the experience of control. When we do something because we are curious and follow our interests, it is we who have (full) control. We decide when, how often and how much effort we put into the activity. When someone outside introduces a reward, this changes the picture and we no longer have the same degree of control. Given our special focus, this raises the following question: Will the fact that students are evaluated and get rated on their work affect their motivation? Will grades result in a decrease and / or complete lapse in one's initial curiosity and interest? The answer to the first question is almost certainly a yes. But that does not necessarily mean a change in form, for example, from inner to outer motivation. It is more likely that this will affect the intensity, and then just as easily in one as the other direction. The answer to the second question goes probably more in the direction of a maybe. Sometimes, introduction of grades may result in the joy of performing a specific activity to be reduced, but not necessarily. It depends on many things, like the person's mental mindset, if the grade is good or not so good, whether

the grade is in harmony with the person's own assessment of their performance, or when and in what context it is given. Here it should also be mentioned that situations rarely exist as unidimensional. Although our behavior in certain situations is basically internally motivated, we will also often be faced with some form of external acknowledgement. A student who thrives in his studies, and who is driven by curiosity and interest, will never be able to free himself from the attention of others or from feedback from the environment. Proud parents will always brag about their kids! Conversely, where the assignment is considered boring and is performed more out of duty than of desire, an extrinsic reward could contribute positively and perhaps even lead to one's perception changing.

Covington (2000) discusses the questions above. He refers to research that documents how one's inner drive to learn can be affected by external rewards (grades) in different ways. In line with what has been mentioned above, the fact that one *also* gets a grade – or another form of attention – will not play a decisive role in situations where one is driven by desire and interest. But when students who first become accustomed to getting a grade on their work experience that grades are no longer given, this could cause a decrease in the activity, even though the grade was not the most important factor in the first place. There is also evidence that introducing a reward for performing an activity that basically is driven by desire and interest may affect the propensity to perform the activity. An example often used to illustrate this is children playing. If an outsider were to chime in and comment, offering advice and praising the kids to do things a certain way, the play activity could quickly subside. In the research literature, this is referred to as “the overjustification effect.” When we perform an activity, we will automatically seek to explain (justify) for ourselves why we do what we do. Introducing an external reward will affect our way of explaining the behavior. Where we basically said to ourselves that we carried out the activity because we found joy in doing that, we will now get to say that we do it (also) because there are other rewards for us. When it affects

the propensity to perform the activity, it may have something to do with our changing sense of control. Doing something because we want to and where we experience control, is different from doing something because others ask or demand it of us. These conclusions are supported by a meta-study by Deci, Ryan & Koestner (1999). A total of 128 studies that explored the effect that extrinsic reward had on intrinsic motivation were analyzed. In their summary, they write the following: *“Although rewards can control people’s behavior – indeed, that is presumably why they are so widely advocated – the primary negative effect of rewards is that they tend to forestall self-regulation,”* and further: *“When institutions – families, schools, businesses, and athletic teams, for example – focus on the short term and opt for controlling people’s behavior, they may be having a substantially negative long-term effect”* (op.cit. p. 659).

The special thing with grades – unlike many other forms of external rewards – is that they are performance-based. High marks are given for good performance. Under normal circumstances – and “normal” here means “frequently occurring” – there are limitations with regard to the occurrence of various grades. Not everyone will be able to get the best grades. This means that the grade is not only a reward for a job well done, but is also an expression of victory or defeat in a competition. These are essentially different things. In competitions it is the victory that is celebrated, not the way it came on. And in competitions there are far more losers than winners. Grades can increase motivation, but not necessarily motivation to learn. Perhaps, motivation to win or motivation to avoid losses. The potentially undesirable thing with grade lies in the fact that attention is turned away from learning. If the competition element becomes too dominant, this may in the long run result in discouragement and reluctance to learn. This is also true for those who normally get good grades. However, this picture is not complete unless we take into account how each student assesses the situation and the importance of getting good grades, as well as what weight they put on the grade. A student who works hard and who sees the grade as a confirmation

that he or she is on the right path, finds himself in a completely different situation than a student who is considering grades as an expression of one's social status and value as a human being. In other words, it is not the grade itself or a student's quest for good grades which primarily has (negative) impact on learning. Rather, it is the student's original mindset and grounds for learning, together with the meaning he or she ascribes to the grade that will be crucial. The pedagogical implications seem obvious. Although a course cannot adapt the teaching to everyone's individual interests, and although not all students will always be able to achieve their goals, there is a point in downplaying the competitive element. According to Covington, it's about establishing an atmosphere where the focus is not to outperform one another. It implies that one move away from a relative and over to an absolute understanding of grades and grading. The grades – also the best – are thus seen as expressions of certain absolute standards, and as something everyone may achieve. In this way the grade will also be understood as an expression of the quality of teaching.

Regarding the question of whether grades help to reduce an initial intrinsic motivation, we see that the answer is not a clear yes or no. Something that is crucial is how the students consider the grade and what the grade on a given learning context is an expression of. It follows that it is not necessarily an antagonistic relationship between intrinsic motivation and (the introduction of) an external reward.

By what has been said above it follows that one cannot simply take away grades and replace them with a pass / fail. If one replaces the grades with a pass / fail where students over time have been used to getting grades, without also making certain changes or adjustments in the teaching program and in the teaching, the expected result is that the students' efforts will be reduced. They will, probably, from a cynical assessment of what it takes, put in just enough effort to pass.

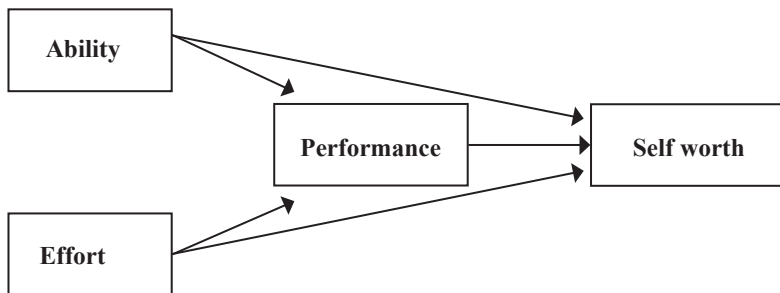


## Martin Covington – Self-Worth Theory

Martin Covington is known for presenting a theory of achievement motivation known as self-worth theory. The figure below is a representation of this theory. In line with the theory, achievements can be best understood as being based on the individual's perception of themselves (self-perception) and of the reasons why things are as they are (causality). Our behavior is governed largely by the need to achieve success and avoid defeat. This reflects a cultural characteristic that indicates that we are what we achieve in different situations, i.e., that our value as human beings is related to what we are able to perform in different situations. Because there is a widespread societal belief that performance is related to capabilities, our perception of our own abilities is important for our understanding of ourselves. In line with the theory, this is a primary source of our experience of our self-worth. At the same time, it is clear that our achievements are many times related to the effort. Just as our understanding of our own abilities have both a direct and an indirect influence on our sense of self-worth, the effort we put forth will be important. When we achieve what we have set ourselves a goal for achieving, we also recognize the efforts we have put forth. A student who has put much effort into her studies will probably also appreciate how her environment demonstrates a recognition of her efforts, and not only that the good results are attributed to their capabilities. This said, Covington stresses that the important thing is that we achieve success and not how it happens; “... *human beings tend to embrace success no matter how it occurs*” (Covington, 1984, p. 8).

The arrows in the figure describe the causal connections. As stated, there is a direct and an indirect connection between abilities and self-worth. Because the belief that capabilities underlie achievement is so prevalent in our society, and since good achievements are valued very highly, an individual's own perception of herself as intelligent will have a direct impact on her perception of self-worth. To

paraphrase a famous phrase: “I am intelligent, therefore I am.” The indirect route suggests that good performance in itself contributes to the perception of self-worth, whether these are the result of ability or effort. Although the model assumes a certain degree of stability with respect to performance, we cannot ignore the fact that even special cases – where good performance is more a result of circumstances / luck – could also have a positive impact on self-esteem.



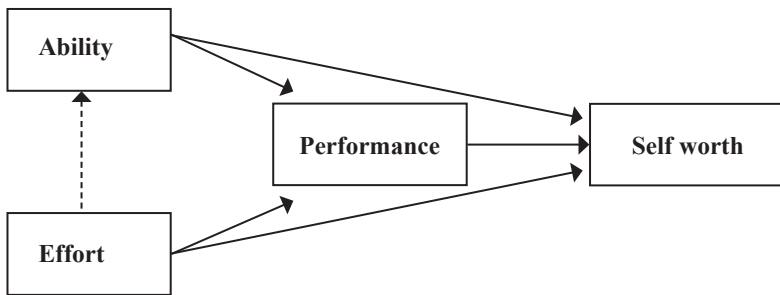
*Figure 1.*

*Schematic diagram of self worth model. Retrieved from Covington, 1984.*

As can be seen from the chart, there is a direct connection between effort and self-worth. In some cases, for some people, the experience that one has performed one's best may – regardless of whether this gives rise to what may be a socially recognized outcome – lead to a positive experience of self. But just because one knows for certain that the ability to perform is so highly valued, one will – like Dweck also describes – under special circumstances find that the individual fails to do something. The fear of defeat is greater than faith in success. According to Covington (1984), children (preschool / primary school) often attribute self-worth to effort. Somewhere along the way, however, a change happens, much because of the way the school and its surroundings react to the child's behavior and the way feedback is communicated. Older children and adults will increasingly connect self-worth to abilities. This also means

that (young) children will not, as is the case for older youths, experience a lack of mastery and defeat as threatening to one's future opportunities. Covington explains that this change in their experience happens between childhood and teenager / adulthood and includes an increasing focus – in school and elsewhere – on social comparison and competition.

Based on what we can derive from a general psychological understanding and based on years of experience working with students, I would suggest a possible deepening of this model as shown below.



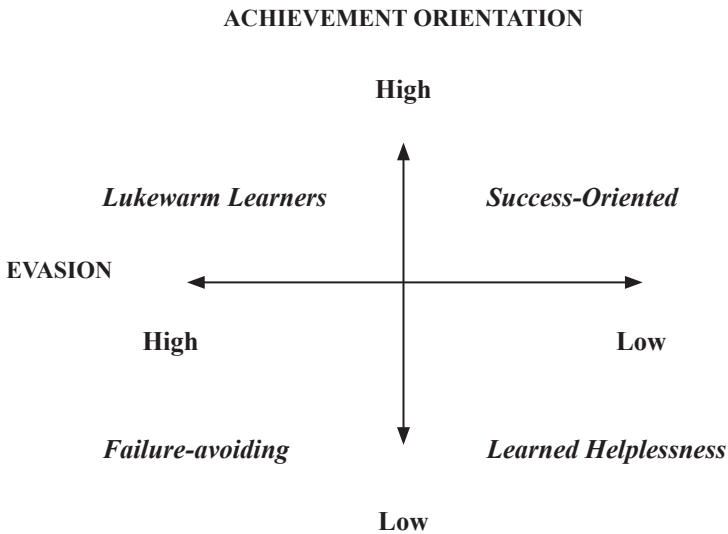
*Figure 2.*

*Schematic diagram of an expanded understanding of self-worth*

As we see in the figure, the alteration is the introduction of a direct connection *from effort to ability*. As argued in another context (see Raaheim, 2011, pp. 132-140), the special effort put into finding the solution to various problems will increase one's experience base and thus one's problem solving ability.

Covington describes how performing is perceived as a two-edged sword. On the one hand we are keen to show what we are capable of. But at the same time we will be affected by the threat any defeat is to our own self-worth. Based on the two dimensions “performance orientation” and “avoidance,” Covington recognizes four different learning types or approaches to learning; success oriented learners, lukewarm learners (or “overstriders”), failure-avoiding learners,

and those who have developed learned helplessness (or “failure accepting learners”).



Students described as success oriented take pleasure in performing and are less dominated by fear of defeat. These are individuals who experience high degree of control, typically driven by curiosity and interest, and are less swayed by external pressure. Such an approach corresponds to what Seifert (2004) describes as a mastery-oriented behavior pattern. Mastery-oriented students are flexible and adaptable. They have a positive engagement in learning tasks, are purposeful, have high self-efficacy, are confident in themselves, and look at different types of feedback as an opportunity to learn.

So-called “overstriders” – what I have termed lukewarm learners – are students who are at the same time highly performance-oriented *and* highly defeat focused / evasive. This may seem like an oxymoron, but as we have seen elsewhere, e.g. described by Dweck, this is something that is typical of individuals characterized by a fixed mindset. They have a desire to achieve and to prove themselves, but

because they are also afraid to make mistakes and fail, they behave somewhat hesitantly. Failure-avoiding individuals will typically try to avoid challenges and tend to perform poorly in situations where others are present. These are students who are low achievement-oriented, but correspondingly very defeat oriented. In cases where they have to perform, they will be happy to choose one of two strategies; either grapple with easy tasks as they know they will succeed, or try their hand at tasks that are so difficult that no one – including themselves – expects they will succeed. The so-called “failure acceptors” are characterized by being low achievement-oriented and low defeat oriented. If they have not completely given up, they have largely accepted a destiny as “incompetent.” Many of the students I have encountered in my practice have expressed such fatalism and are characterized by a form of learned helplessness. Tragically enough, these are students who initially – as they came to the subject – had a completely different attitude about themselves and their potential for success. One student who tried to get into the professional studies program in psychology said it this way in an interview:

*“People give up and start another course or disappear from the university. You lose confidence when it comes to studying. I’ve taken the same exam three times and 2.27 on average, but am not good enough to get in. I feel that I’m not worth anything. Psychology is my first subject. I can not take it any more, and I think I will quit studying”* (Raaheim, 1999, pp. 3-4).<sup>1</sup>

***Another student put it this way:***

I can do things better now, but I’m getting a lower grade. What’s going on? I don’t feel like I have any control. I feel helpless. Psychology is producing new clients (op. cit. p. 3).

<sup>1</sup> This was before the introduction of the ECTS scale, and at that time admission to professional study was based on the best mark (with two decimals!) from different introductory courses.

“The solution,” which many in such a situation will come to, is to expect little of themselves and not make much of an effort. For as long as one does not try too hard, there is nothing to fear. In line with what Bandura (1998) describes, the success-oriented students – students with high self-efficacy – will do better on different cognitive tasks, regardless of any initial differences in abilities. It is, in other words, not unreasonable to assume that self-esteem affects performance in a positive way by influencing efforts as well as abilities.

### **Deci and Ryan – Self-Determination Theory (SDT)**

Richard Ryan and Edward Deci have in a number of studies focused on the relationship between intrinsic and extrinsic motivation, and describe this in what they have termed Self-Determination Theory (SDT). A main point of these researchers is that we have traditionally had a too simple view of motivation. One has typically viewed behavior as either internally or externally motivated. Moreover, they argue that extrinsic motivation is perceived and described in a too one-dimensional way: *“In the classic literature, extrinsic motivation has typically been characterized as a pale and impoverished (even if powerful) form of motivation that contrasts with intrinsic motivation”* (Ryan & Deci, 2000, p. 55).

People are by nature equipped with a tendency to engage in pleasurable activities. Where research has traditionally focused on the kind of individual conditions governing intrinsic motivation (needs), SDT additionally focuses on the factors in the social environment that promotes and inhibits intrinsic motivation. This is described in a separate sub-theory, known as the Cognitive Evaluation Theory (CET). According to this theory, social / interpersonal relationships (e.g. reward, feedback, communication and interaction with others) help to strengthen one’s perceived competence and lead to a stronger intrinsic motivation, but only if the individual feels to have

a certain degree of autonomy and control (internal perceived locus of causality). The experience of mastery (self efficacy) is, in other words, not enough in itself. For intrinsic motivation to be maintained and strengthened, and for the behavior to continue, it is essential that the individual be involved in the task for themselves (self determination). When studies show that different kinds of external rewards – made depending on a give performance – have a negative impact on intrinsic motivation (Deci, Ryan & Koestner, 1999), this is because these rewards are undermining the individual's experience of autonomy and control. In addition, threats, stringent deadlines, a type of commandeering instruction (directives) and competitive pressures transform the motivation from intrinsic to extrinsic. This happens because these things are seen as something that deprives the individual of personal control. *“... the CET aspect of SDT suggests that classroom and home environments can facilitate or forestall intrinsic motivation by supporting versus thwarting the needs for autonomy and competence”* (Ryan & Deci, 2000, p. 59).

In the theory of self-determination (SDT) Ryan & Deci describe various forms of extrinsic motivation and show how some forms are close to intrinsic motivation. Students can undertake externally motivated actions with resistance and a lack of empathy and engagement, but they also argue that students can do it with a more positive attitude, which also involves a form of internal acceptance of the value and benefit from doing what one does. These different forms of extrinsic motivation are described in a separate sub-theory known as Organismic Integration Theory (OIT). Depending on the extent to which the individual takes on (internalizes) and makes his own (integrates as part of the self) the motive for a particular behavior, we can describe what happens along a continuum, from resistance / reluctance (externally regulated) via passive acceptance to active involvement (intergration). According to Ryan & Deci, active involvement is the most autonomous form of extrinsic motivation, but it is nonetheless extrinsic motivation: *“...they are still extrinsic because behavior motivated by integrated regulation is done for its*

*presumed instrumental value with respect to some outcome that is separate from the behavior, even though it is volitional and valued by the self”* (Ryan & Deci, 2000, p. 62).

The pedagogical implications of the theory seem obvious. Because many of the tasks we want our students to perform are not necessarily perceived by them as equally meaningful and interesting, it is important that we have a huge repository to choose from. That way, we can prescribe a type of reward that involves a form of internal acceptance, rather than an experience of external control or being made passive. Extrinsically motivated actions are not performed because we start out curious and interested, but rather they are triggered in response to one or another action / challenge outside ourselves. The most obvious reason why we are willing to respond to such challenges is that this is important for someone who is important to us, for example parents who have certain hopes for us. Or we respond to the challenge in order to gain entry into a group that we want to be a part of. If we as educators want to influence students’ motivation – getting them to share a set of professional values – it follows that we should make sure to include them in a community. We should show them that we value them and respect them as legitimate partners in a learning environment by showing them respect and care. The best way we can show our respect is by challenging students. These challenges should then be followed up in the form of constructive feedback. We must show – not just tell – that we expect something more from them than just reproducing what at a given time is the current knowledge. It means that we look critically at the learning outcomes for our courses. Personally I am of the clear conviction that what is described in the Norwegian National Qualification Framework on essential points (knowledge descriptions for 1st and 2nd cycle) is setting the bar too low. If we set the bar low and have low expectations for students, it will not only have a bearing on their accomplishments. It will probably also affect their perception of their competence and in turn their identification with and empathy for the subject. Ryan & Deci put it as follows:



*“Adopting as one’s own an extrinsic goal requires that one feel efficacious with respect to it. Students will more likely adopt and internalize a goal if they understand it and have the relevant skills to succeed at it. Thus, we theorize that supports for competence (e.g. offering optimal challenges and effectance-relevant feedback) facilitate internalization”* (op.cit. p. 64).

As stated in the above remarks, autonomy, competence and belonging (relatedness) are key concepts in the theory of self-determination. If a student experiences influence and control over what happens, and believes that he has what it takes to master the professional challenges and experiences to be recognized as part of a joint learning environment, everything is set that the intrinsic motivation is maintained and strengthened. As Patrick & Williams (2009) show, there is simply no guarantee that all of these conditions are present. This is often because the teachers have trouble letting go of the control they have been so used to having, control they see as necessary to guarantee the quality of the candidates they deliver themselves.

The basic assumptions of the theory of self-determination have broad empirical support, not only through Ryan and Deci’s studies, but also many others. It is, for example, documented that students who have teachers, who in their practices underpin students’ autonomy and self-determination, perceive themselves as more competent, more creative, and to be stronger and have more personal involvement in learning tasks. They are more intrinsically motivated, achieve better academic performance and have lower dropout rates than students who encounter a teaching environment and teachers characterized as more controlling (Reeve, 2006). Studies conducted by Kyndt et al. (2011) show that intrinsic motivation has a direct effect on learning strategy. Students who experience heavy workload (demands), but also a high degree of autonomy, employ a depth-oriented learning strategy (overview / understanding). A high workload coupled with a low degree of self-monitoring and few choices leads, on the other hand, to a detail oriented learning strategy. Similar findings are

reported in studies conducted by Guay, Ratelle & Janel (2008) and Katz & Assor (2007). This is also well documented in that part of the research literature that has looked at the relationship between learning strategy and learning outcomes (e.g. Biggs, 1999; Prosser & Trigwell, 1999; Trigwell, Prosser & Waterhouse, 1999). Based on results from various empirical studies, Reeve (2006) presents a number of suggestions on how teachers should behave towards students. One of these concerns how we address students, for example how we express ourselves when we give students feedback on their work. We should employ an informative and non-controlling language, he argues: *“Noncontrolling language revolves around using communications not to push, pressure, or coerce students into compliance with the teacher’s agenda but, instead, using communications to help students find ways to coordinate their inner resources with their moment-to-moment activity”* (Reeve, 2006, p. 229). The same recommendation is offered by Kjeldsen (2006) where he describes how we should proceed when it comes to giving feedback on written texts. As academics, we are trained to be critical and find mistakes, he argues. This is not very constructive, and many of us need to practice giving positive and specific feedback, feedback that is based on a set of given criteria. For, as he points out, *“Good feedback is specific and criteria based”* (Kjeldsen, 2006, p. 166).

## TEACHING AND LEARNING

The teaching provided within higher education should be research based. As shown in another context (Raaheim, 2012), research-based teaching is defined in various ways. Upon closer inspection, we find that these definitions are largely variations on the theme “those who teach must have research competence” or “teaching must be based on and be consistent with latest research results.” Personally, I have chosen to propose an alternative definition, namely that research-based teaching is teaching that is

based on, and takes into consideration, what research has shown leads to good learning. By this it can be seen that teaching is not the same as presentation, but rather some form of research activity. Together, through the various contexts and practices we participate in, teachers and students develop and establish a common understanding. Knowledge is thus not something that is transmitted from one individual (the expert) to another (novice) through a set of clever rhetorical moves. Knowledge is developed, shaped and changed through active attempt and dialogue. Instead of looking at students as passive recipients who must be “filled up” with established truths and recent opinions (“bucket theory”), we must deal with them as partners and co-producers of knowledge. A good communicator is not necessarily a good teacher. It follows also that we do not necessarily have to be rhetorical prodigies to be good teachers. Having said that, we may, however, do well in thinking through our own strengths and weaknesses, and discuss with colleagues who best fits various teaching assignments. No doubt, the good rhetorician also has something to provide others.

## **LECTURES AND “MEDLESNING” (Cooperative Activities)**

The preferred form of teaching at university has been and still is lectures. This will, probably, be the situation for many years to come, despite the fact that the traditional lecture represents the least student active teaching method we have. Those of us who had expectations that new technologies would change this situation and bring with them new, creative teaching methods have to realize that this has not happened. At least not yet. Most of what is presented as innovations can best be described as boring, traditional and out of step with much of what we know about learning. Old – and sometimes very old – wine in new bottles, in other words. When one chooses to film traditional lectures to be posted online, this testifies not only a lack of creativity, but also a lack of understanding of what is driving

students' learning. Today's students are strategic, as students always have been. This means they do not necessarily behave as we think they should do. What characterizes us as teachers and researchers is that we have worked within our subject for many years, that we have been socialized into an academic community, and that we have developed an identity as professionals. Students find themselves in a very different position. They are at the starting point of their academic career. What awaits them around the corner is an exam (most probably several). Where *we* feel at home in our own field and have a clear professional identity, *they* have a feeling of the various aspects of student life and have, or are in the process of developing, an identity as students. Where *we* have plenty of time to work with professional challenges, *they* have a few short weeks or months to acquire what it takes to pass an exam. What some of us have spent years of our academic life developing and writing down, they have but limited time to demonstrate that they have reached an overview. No wonder that students are strategic. There is, in itself, nothing wrong in being strategic. But it would be wrong if we as teachers and teaching environments introduced a practice that gives nourishment to a strategy that reduces students' own activity. It is less labor intensive to listen through a lecture with embedded answers to specific tasks than to read, solve puzzles and take notes. And it's easier to take out copies of the teacher's PowerPoint charts than take notes. If students use their time to watch the same lecture again and again, accompanied by the teacher's voluptuous notes, rather than to work with the curriculum or to search for alternative sources, we risk not only getting our own formulations verbatim back, but we also risk that students are left with a rather fragmented knowledge base, and sometimes even one-sided and localized expertise. The difference between written materials (textbooks and scientific papers) and lectures, is, among other things, that the written material has been through rigorous quality review. Given the above scenario, we cannot subsequently complain that our students do not show independence or that they are not critical enough.

All planning of teaching must be based on the fact that learning takes place in the students' time, through the activities the students are involved in. That does not mean other students are not important, or that learning is a private activity, but it does mean that the teachers cannot learn for the students. As students spend most of their time outside the auditorium, we should assume that most of the learning happens there. But it is of course dependent on what the students do in this time. Such an acknowledgement has implications for the education we offer students, not only for the form and content, but for the number of hours we will occupy of students' time. We should, in other words, exercise some restraint in filling too much of students' time with teacher-led and student-passive activities. And we must make sure that the time we spend with them in real terms contribute to their professional development and learning. To get there we need to find ways to cope with two challenges. The first of these is about our perception of the subject's status. I have never experienced a professor voluntarily agreeing to cut the teaching of their subjects, for example, in conjunction with study plan revisions. On the contrary, it is typical that professionals are the ones who fight to maintain what are well established practices and understandings. I have more than once referred to the professor who got fewer hours available just after a curriculum revision, but who insisted that the students had to go through the same curriculum. The way he solved the dilemma was to lecture faster (Raaheim, 2008). There is also great reluctance to give up the traditional exam in the subject, for example in favor of an integrative exam. This seems to be caused by a fear that the subject would be marginalized, and that one's own and the subject's status reduced. To this, it must be stated that a subject's status is undoubtedly related to many things other than its visibility on a timetable. The notion that students can learn something only as long as we teachers have said it is probably ripe for revision.

Sometimes it can seem as if the lecturer had preferred that students were not present in the room, as the following story is an example of (the description is taken from Raaheim, 2012): *"In a recently*

*held seminar for educators at some university colleges, where I was invited to speak about motivation and learning, and about how to use the new technologies in teaching, one of the participants shared her frustration with us. The person in question had lectured within the same subject for many years and wanted a return to a time when students did not have access to all the world's new technology and really sat quietly and listened. The problem with today's students is that they do not necessarily accept what the teacher says, this teacher argued. "As soon as the lecture starts, they open their laptop computer, and instead of following and accepting what I put forth, they check the details online and correct what I say." My immediate response was: "Wonderful. But then you have what we all should wish for, namely active students. Can you not use this pedagogical opportunity? What if you just gave students an assignment to pay particularly close attention and look for various ways to correct and supplement where they discover something that is wrong, difficult or unclear? "Even the teacher can risk to learn something under such conditions!" (Raaheim, 2012, p. 25).*

The second challenge is about how one justifies and argues for more teaching resources. As a rule, the number of positions is tied to and justified by educational programs and teaching load. In the accounting of teacher's time allocation, lectures are weighted far higher than seminars, tutoring and other kinds of teaching. Lectures provide, in other words, far greater impact in teaching accounting than other types of teaching. This is true, despite the fact that the lectures – with the exception of the first time they are held – usually require less preparation and less reworking than guidance and teaching seminars. Here we see how what might be sound pedagogical solutions are hampered by systemic conditions. Today's basis for standardization, which gives lectures far greater weight (one hour counts as four hours in the lecturers' book), helps to maintain what are, many times, bad educational solutions.

The lecture's biggest advantage is that we are able to reach out with a specific message to a large group of people simultaneously.

Since students both have books available and good access to other relevant learning materials, a lecture should not be a review of the curriculum. If we lecturer for small groups, some of that advantage also disappears. Therefore, the lecture should be reserved for large groups. In principle, there are few restrictions as to the number of listeners, beyond that related to more obvious conditions (such as room size, or access to technology). Based on an understanding that the purpose of the lecture should be either – (i) to inspire students to seek more information and more knowledge on their own / with others, (ii) to guide students through a more or less unknown territory, or (iii) to present a structure where chaos or uncertainty prevails – we can distinguish between two types of lectures. An expert / guest lecture and a survey / structure lecture. Where the first contributes inspiration and encouragement, the second contributes to better coverage and understanding. None of them should occupy many hours during a course, and each lecture should not last more than 30 minutes. In the event that such lectures are filmed and posted online, they must be given a professional layout. When one chooses to do this, the lecture can be given to large groups of students outside of the course, and the class time a lecturer saves on not holding the lecture “live” can now be used in other ways. The appropriateness of filming lectures and posting them on the web must also be considered in relation to what is already available online. We can save considerable time and effort by cooperating with other educational institutions, or by using some of the materials published by others. What we as lecturers with 100% probability can assume is that somewhere out there somebody else is able to convey the same as us in a better way!

When we reduce the number of lectures, change their form, and reduce the lecture from the current standard of 2 x 45 minutes, this has several implications. It requires that we open up for the following recognition: Not all educators are suitable for this format. That does not mean that those who wish to lecture should not be allowed to do so. Nor does it mean that we should not offer training for those

who need it. But it does mean we need to have a much more diligent attitude toward those who want to be excused. The lectures are too important for too many students to let vagaries prevail. And we have to introduce a new type of teaching.

This is where “*medlesning*” comes into play. The term is an innovation that does not translate well into English. It is a play on the Norwegian word for “in front of” (*forelesning*), where the prefix “fore,” which means “before” and in this case would imply leadership, is replaced by “med,” which means “with” and would imply collaboration. It has been chosen to bring out the point that students take an active part in and share responsibility for what happens. A *medlesning* may include different types of activities that teachers already have in their toolbox, but they will be framed differently. The aim of the *medlesning* is to involve and give accountability to students. When students are pulled more heavily on, when they are involved as active participants and responsible for their learning, the role of the teacher will also change. The teacher goes from being a professional who conveys a particular material to a group (passive) audience, to being a professional who facilitates learning. A *medlesning*, in other words, is a type of educational activity where students are taken on board, where active participation is demanded, and where the presentation aspect of the classroom is toned down.

A *medlesning* takes place in smaller groups than lectures and require flexible learning space solutions. Where the number of listeners in a lecture could be several hundred, a good *medlesning* works best for groups of less than 100. A typical *medlesning* will include several items and activities that are familiar from other teaching situation, including from the lecture. It can, for example, involve a combination of mini lectures (10-15 minutes), a presentation of a case, an interview of an expert or representative from business/society, artistic performances, or individual reading. Each such *medlesning* is reviewed based on specific goals and learning outcomes descriptions. We can discern elements of seminar teaching, but with two obvious differences. The *medlesning* takes



place in larger groups than the traditional seminar, and participant involvement happens there and then in structured tasks and not primarily in terms of prepared contributions. It is obvious that the traditional lecture hall is not suitable for all aspects of this form of teaching. The ideal is a room where it is possible, within minutes, to reshape it into a learning laboratory, or a lecture hall with an adjacent learning laboratory. Web access is a necessity, as well as access to other learning resources.

### **THE IMPORTANCE OF THE ETTERLESNING (Postreading)**

Regardless of how skilled the lecturer is at presenting, most of what is said in a lecture will be forgotten in a short time if the students are not digesting its substance afterward. The same applies to a medlesning, although we here can hope that more of the material stays longer with the students as they are activated in different ways. However, there is a difference between remembering and knowing. We have achieved little if what separates a medlesning from a lecture, first and foremost, is how much is remembered over the short- or long-term. Our aim must never be that students will remember as much as possible, which they, in turn, repeat back, orally or in writing. Our goal must rather be that students will understand what is being communicated in such a way that they can use it, both in the search for new knowledge and for applying it in practice. If our goal is just to enable students to remember a certain amount of material in terms of reproduction, it would probably be a sensible solution simply to equip them with copies of what is said and presented in class. Here we can even lend support from the works of Hermann Ebbinghaus who, in the 1880s documented that repetition and overlearning (i.e. studying a concept or skill beyond mastery to ensure retention) are effective ways to boost your memory. But learning is something more and quite different from pure storage of information. And even if we were to be of the

opinion that students, at an introductory level, must cram lots of details before they can proceed to comprehend, we would have trouble arguing that convincingly. Within memory research, it has been well established that our memory is active, creative, and that sometimes, especially when we face something we do not have the language or ability to immediately understand, make adjustments to the material at hand. The result is that what we remember is something different from what we were initially presented. Other times, our memory can be affected by new information, such that past memories are altered. We are, in other words, not guaranteed that what is measured to 100% accuracy at a given time, will remain unchanged despite many repetitions.

For reasons stated above, but also because we know that many fail to do so, we must make arrangements to ensure that students engage in what here is described as “etterlesning,” which, like medlesning, is based on the Norwegian word for lecture, except that “etter” means “after” or “post.” An etterlesning consists of two elements and can be implemented in two parts, first as an individual event, and secondly as a shared exercise. The whole process takes no more than 10 minutes. The first element is that one writes down some keywords based on the following questions: What did I learn from attending this lecture or medlesning? The next item is about reflecting on how this learning can be put into practice or what one needs to investigate further, and then creating a plan for further processing the materials. When one has done this on one’s own, one can proceed to exchanging thoughts with one or two other students. If the answer to the question of what one learned from going to lecture or medlesning turns out to be “very little,” the student must evaluate whether it is appropriate to continue to participate. Too many students seem to define learning and work effort as passive participation in teacher-led activities. In order to capture important information about what students learn and how lectures or medlesning sessions work, we also need educators to set up procedures for exchanging information. More on this in Part 2.

## KNOWLEDGE AS A COMMUNITY ACTIVITY

The historical background of lectures dares to be known. Before books were in the public domain, we were dependent on readers to gain access to existing knowledge. Here was a person who had the clearest voice, and that could keep going for a while, paid by listeners to read from what was often the only handwritten copy of a given text.<sup>2</sup> This, in fact, is the reason for the root of the Norwegian word for lecture, “forelesning,” where “lesning” means “reading.” When we nowadays hold on to this practice and this form of higher education, it is interesting from several angles, not least because of the implicit understanding of knowledge and knowledge development. The notion that knowledge exists in a given form ready to be picked up and conveyed to new individuals is central to this understanding of knowledge as given truths. The expert’s role is two-fold. First, it is to lead the novice to the source to let her behold the knowledge on her own. Or inviting the novice into the auditorium to tap into the instructor’s expert knowledge reservoir in hopes that something is transmitted. In the next phase – when the novice will be tested on how much knowledge she has acquired – the expert takes on a new role, that of controlling how much of this given knowledge she has been able to obtain. In its modern version, the background of this kind of understanding is based on behaviorist theory where the expert not only has the task of deciding what should be taught and how, but also the task of standardizing the test situation to establish objectivity and control. The relationship between expert and novice is characterized by distance (in knowledge), and where rhetorical skills are important in the expert, the ability to listen and

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<sup>2</sup> After 45 minutes of speaking out loud, the reader needed a break. Since, after the printing press and after the speaker was replaced by the scientific community, we have held firmly to the format, and even now it is very rare that a lecture is nothing more than two 45-minute recitals separated by a break of 15 minutes, the same as with football matches!

to remember is important in the novice. This is also referred to as “the bucket theory of learning.”

There is an alternative, what we call the participant model. In line with this, knowledge is a result of certain community activities. Knowledge is established through the activities of different participants. That does not mean everyone is equal, that some don’t have more relevant knowledge than others, and that everything everyone does is equally appropriate for a specific objective. But it does mean that everyone contributes, everyone learns and that the situation – with these specific conditions applying – is important for learning. Since the activity is important for what is learned, each participant’s understanding of the situation is in many ways decisive. Our understanding of the situation, and what the purpose of our participation is, has implications for how we perceive our own role and how we subsequently perform. Where the first understanding is closely related to behaviorist theory, the participant model has a background in social anthropological thinking. Central to the participant model is, thus, the community activities that take place within an interpreted frame; a given community of practice. During the process, as a result of our active participation, not only our assumptions change, but also our understanding of ourselves. We gradually develop a stronger professional identity and sense of belonging to a professional environment. We go from being legitimate peripheral participants to full participation in a community of practice (Wenger, 1998).

A “community” can accommodate quite different things, as described by Kaufman & Mann (2012). We may, for example, distinguish between interest communities, goal-oriented communities, learning communities, and communities of practice. Depending on the community one has in mind, the answer to questions about what activities are taking place, what the purpose of the community is, and what is learned and how learning occurs, will vary. In an interest community, information is exchanged between various parties who (incidentally) share a common interest

in a particular phenomenon. The parties do not need to meet each other face-to-face, but can just as easily exchange information asynchronously. The learning happens individually and remains a personal matter. Who achieves what and to what benefit therefore remains an open (or rather closed) question. A learning community is similar to a community of practice in that knowledge is established through certain community activities, but different in the sense that, here, the aim is to find the right solution to specific assignments that are presented by an instructor / teacher. In a community of practice, learning happens as acculturation. The best of the formal teaching activities in higher education occur within what here is referred to as a learning community. If we go to professional programs and look at the way practice teaching is organized and functions, we find examples that are in line with what has been described as communities of practice (Vågstøl, Skøien & Raaheim, 2007; Skøien, Vågstøl & Raaheim, 2009).

## **GOOD TEACHERS**

There is no clear recipe for how to teach students. We are different as people and therefore as teachers. Students' needs will also vary. The same is true of situations. The question of what is being demanded of students, and how this is tested, will undoubtedly have a large significance for which expectations and preferences the students have for their instruction. The size of the room and the number of students will, on the other hand, have a bearing on how we tackle the role of being teachers. In addition, there are many other factors that have to do with the relationship between teacher, student and situation. What level are we on and what prerequisites do the students have? Is attendance compulsory or not? Is the curriculum clearly defined? How experienced are we as teachers, and how well do we thrive in the role of teaching? Is the teaching part of a larger package or a free-standing lecture? Will students document,

now or later, what they have learned in the form of an exam or other form of assessment? These are just some factors that could prove to be significant. Having said this, and despite the fact that we as teachers are different and that these differences are with us where we teach, we know from various empirical studies that some conditions and characteristics are more important than others. One of the hallmarks of good teaching practice is that teachers reflect on questions like those above.

If we go to the research literature, we find that there are two factors that typically recur when students are asked to describe good teaching: enthusiasm and concern. An enthusiastic teacher is one who has a passion for the subject, who loves to teach and who manages to infect students with their engagement. Concern is about several things. It's about whether the students feel welcome and appreciated. And it's about whether they feel that teachers care about them as people and whether they are present or not (you can compare this to the theory of Ryan & Deci and what they say about belonging). Epstein (1981) summarizes it in the following way: *"What all the great teachers appear to have in common is love for their subjects, an obvious satisfaction in arousing this love in their students, and the ability to convince them that what they are being taught is deadly serious"* (op.cit., p. xii). Carpenter and Tait (2001) give an account of the results of an interview survey among teachers at three different faculties at an Australian university. On a question about what characterizes good teaching, participants responded that it is teaching that is student-centered and innovative. That it is student centered means that the focus is on the students to learn. Innovative means that the facilitator uses various technological aids. There are many who say that they experience a pressure in the direction of using different technological means because it is an established fact that this is something good teachers do. But because many teachers feel uncomfortable with new technologies, the result is the opposite, what Carpenter and Tait call inferior teaching : *"... rather than promoting a 'progressive' pedagogy, the use of technology in teaching*

*actually appears to reinforce traditional teaching techniques*“ (Carpenter & Tait, 2001, p. 191). In their conclusion, they write, among other things: *“While new teaching technologies have the potential to reorganise the way in which knowledge can be accessed, and by whom (as seen in the success of many distance-education programmes), their deployment within the bounds of the academy itself has yet to produce any tangible changes in the directions intended”* (Carpenter & Tait, 2001, p. 202).

Norton et al. (2005) demonstrate in a broad survey that there is often a disparity between what teachers think about learning and the way they end up teaching. On a question about what they think about learning, teachers typically responded that learning happens best when students are actively working with the material. Meanwhile, they practice teaching in line with the idea that knowledge can be transferred more or less directly from active expert to passive recipient. Hativa, Barak & Simhi (2001) summarize much of the research that has been done in the field: “Exemplary teachers enjoy teaching, show enthusiasm for the subject, have excellent command of the language and good delivery, inject humor, and introduce dramatic elements. They make an earnest attempt to promote students’ learning, and actively involve them in the learning process through questions and discussions ... They offer clear, organized, and interesting presentations, and they communicate positive regard to students and motivate them .... A review of observational studies on effective classroom teaching behaviors ... found enthusiasm/expressiveness, clarity of explanation, and rapport/interaction to be the main effective teaching characteristics” (op.cit. p. 701). Similar conclusions are drawn by King & Watson (2010). These researchers argue that teaching is both science and art and that being good at teaching requires dedication, perseverance, creativity, support, and collective effort. In other words; we can all get better at teaching, but here, as elsewhere in life, it’s about will and about training. And just as elsewhere in life, we depend on support and feedback. It requires that we are willing to open up and invite colleagues to

provide feedback. It also requires that we, to a far greater extent than is often the case currently, discuss various issues related to teaching and learning with colleagues. As educators, we are accustomed to our teaching being evaluated by students. Such evaluation is part of the educational quality assurance procedures. The practice is well established, but whether it has any value above and beyond satisfying regulatory requirements is more doubtful, especially if institutions do not follow up by, for example, offering courses for teachers who repeatedly receive feedback that their teaching does not measure up. The question of what effect student evaluations have on the quality of teaching has been examined by Marsh (2007). He poses the question as follows: Do university teachers, like good wine, improve with age? To investigate this, he took a closer look at student evaluations that 195 teachers from different disciplines received over a period of 13 years. In total, this was more than 6,000 student groups (classes), which corresponds to an average of 30.9 per teacher. The answer is a clear “no.” Teachers who receive feedback from students that their teaching is not good enough semester after semester do not get better. Maybe because they do not care about what the students say. Or maybe also because various student groups point out different issues, which can create a degree of confusion. The study also shows that teachers who get good feedback early on continue to get good feedback. In other words; bad teachers are not helped by such evaluations, but good teachers will not get worse! Marsh concludes as follows: *“Whereas there were substantial individual differences between teachers in terms of their teaching effectiveness, these individual differences were also highly stable over time”* (op.cit. p. 775).

Schmidt et al. (2010) demonstrate how important it is to plan what form teaching should take, based on some of the knowledge we have about how learning occurs. The study covers all medical students in the Netherlands that began their program in the period 1989-1998 at the country’s eight medical programs. In all 13,845 individuals. The eight educational institutions had organized their teaching programs



in somewhat different ways. Two of the universities practiced problem-based learning with a lot of independent activity (self-study) and relatively few lectures. Two of the universities organized their teaching as a combination of work in small groups and lectures, while the other universities had a more conventional approach with a high proportion of traditional lectures. Schmidt and his colleagues looked closely at differences in the completion rates and the question of how long students take to complete. The results show that although the completion rates are high, on the whole, there are clear differences in the various programs. The main findings can be summarized as follows: completion rates are clearly related to time allowed for individual study. The more time students have to self-study, the higher the degree of completion. Lectures had a negative correlation with the level of completion: “...*the more lectures were given, the lower the completion rate*” (op.cit. p. 293). In cases where much of the teaching was given in form of lectures, the completion time was higher than where students had more time for individual study. “*Generally, students who were part of a program that allowed for more time for self-study completed their training faster and in larger numbers. These effects were sizable. ... Our findings also demonstrate that number of lecturing hours has a strong negative effect on self-study time and through it on graduation rate*” (op.cit. p. 296).

An interesting study by Trigwell, Prosser & Waterhouse (1999) shows how different approaches to teaching have a direct effect on students’ learning strategy, and in turn the students’ learning. What they call a “teacher-focused strategy with the intention of transferring knowledge to students,” has a direct connection to a surface oriented learning strategy for the students. A “student-focused strategy aimed at assisting students to change their understanding” has, in turn, a connection with a depth-oriented learning strategy (Raaheim, 2001). The question of what characterizes good teachers is also discussed by Kreber (2002; 2003). She makes a distinction between excellent teachers, expert teachers, and scholars of teaching. Here,

she uses the first term to refer to a skilled mediator. This is someone who thrives on standing in front of large crowds and manages to keep the audience in the spirit. The person need not necessarily be an expert in the discipline. The expertise is primarily linked to an ability to convey information. The second type is an expert in the subject who does not have the same (natural) talent to convey, but who, because of professional excellence and an ability to organize the subject matter, helps the students learn. The last type, the scholar of teaching, is both academically proficient and has good communication skills, but is also characterized by having a lot of knowledge about teaching and learning, knowledge that is expressed in the way the teaching program is structured and in the use of varied teaching and assessment methods.

Many times we see that research and teaching are set up as two opposites. In Norway, after the introduction of the Quality Reform, many academics expressed that they spend a great deal of time teaching and that this goes at the expense of research. Other times, people advance an argument that there is a clear connection between research and teaching, in the sense that active researchers also are good (the best) teachers. The latter has been the subject of a number of empirical studies. Marsh & Hattie (2002) show that the relationship between the quality of teaching and research is very low. In a meta-analysis that included 58 individual studies, they found that the correlation between teaching and research was .06. The low correlation remained when controlled for discipline and different measures of research (quality, number of publications, number of citations) and for various measures of teaching quality (student evaluations, colleague ratings). The same was the case where a comparison was made of different types of university (research vs liberal arts). The conclusion that Marsh and Hattie draw in the study is that “...*the common belief that research and teaching are inextricably entwined is an enduring myth. At best, research and teaching are very loosely coupled*” (op.cit. p. 606). Marsh and Hattie discuss various possible explanations for the lack of connection

and perform a variety of analyzes to test these out. They find, for example, that the amount of time spent is an important factor. Those who spend a lot of time teaching publish less, but teaching is not for that reason considered better. Those who spend a lot of time on research publish more, but they score no higher than their less productive counterparts on teaching quality. The fact that the correlation between research and teaching is close to zero, does not mean that there are no examples of good researchers who are also good teachers. But to the extent these exist, there are others who are either good researchers or good teachers, or not so good scientists or educators. The picture is thus quite complex. In another work by Hattie & Marsh (2004), they are critical of what eventually evolved into a common practice at different universities, namely to reward good researchers for research and excellent teachers for special teaching efforts. As part of efforts to underscore that both things are important, and that universities need people who are both skilled researchers and skilled teachers, they argue that universities should rather introduce another reward system, *“a reward or recognition system that requires a minimum quality threshold of activity in research and teaching, and a de-emphasis on rewarding one or the other”* (Hattie & Marsh, 2004, p. 7). Prince, Felder & Brent (2007) take up the thread and argue for drawing students at bachelor level into being actively involved in research, and not just letting teaching be the dissemination of research results. Not only will scientists be able to benefit from this, but the teaching could be improved, and the dropout rate among students will be reduced. The latter supports the viewing of a comprehensive study conducted among 24,000 undergraduates at 300 different educational institutions. Where students are actively drawn into research, the dropout rate is lower and satisfaction with teaching and self-development is higher.

Time seems to be an important variable. If we spend a lot of time teaching while maintaining a clear distinction between teaching and research, there is less time for research. And, if we primarily define ourselves as scientists and consequently spend a lot of time on our

own research, the teaching could possibly be perceived as something that steals time. No matter how the picture looks, we could do well in examining how teaching and research activity is organized and coordinated. To get more uninterrupted time for research, we need to take some sensible moves when it comes to teaching practices. There is, probably, a need for more knowledge about alternative teaching methods and alternative ways of assessing students, but this is not enough. We need also to act on such knowledge.

If we look beyond the individual level, we see many examples of outstanding research environments that also do very good teaching. We also find that environments that are rewarded for teaching quality maintain a high level in research. This last is documented in an evaluation of the Finnish system of centers of excellence in university education (Raaheim & Karjalainen, 2012). In Finland, there has been a system of centers of excellence in education from 1994 to 2012. Our evaluation shows that many applicants were successful several times during this period. Successful applicants had typically had a special focus on education and teaching quality, involving students actively in the development of new educational programs and research, and they had a research-based approach to their own teaching practice. That means that a teacher doesn't base his work on assumptions about what good teaching is, but systematically examines various issues related to the teaching and learning of the discipline. It is also evident that successful applicants score high (and higher than average) on research quality (Research Assessment Evaluation score).

## PART II – TIPS FOR THOSE WHO TEACH

### INTRODUCTION

Later in this section, I will examine some specific tips that hopefully can be of benefit to all who teach at the college and university level. Before I get into that, however, I will start with some general recommendations. First:

- *Do not fall into the trap that many of your colleagues set out for you about how the students were so much better before!*

Why not? Primarily because there is little to indicate that it is true. Admittedly, the student population was made up of a more selective portion of applicants ten years ago, but the notion that yesterday's students knew so much more than today's students has existed for as long as educational institutions have existed. The fact is, rather, that today's students know something else and maybe even something more than yesterday's students. The development of knowledge in society has not stood and is not standing still. The problem is that those of us who are (not always so very much) older see everything that is new in light of what we had to go through, and what at that time was regarded as important and correct. If we meet the new students with an open mind, we might also see that we have something to learn from them. The opposite contributes, in any case, to create a larger gap, and at worst, distrust. What we can affirm is that the student group today is more heterogenous than before, and that one of the most important parameters in this respect is motivation. My starting point is that we are very privileged that each semester we can accept students who have chosen to study the discipline we are

passionate about. The challenge for us is to ensure that students are not demotivated along the way. Here we have much to learn from what Deci and Ryan say about the meaning of autonomy, competence and belonging. The society has also changed. We live under more changeable conditions than ever before. On the positive side, this opens up greater opportunities for individuals with regard to career and career choices. But it also means that the choices students and we jointly make are not always and necessarily optimal for a more circumstantial future. This would imply that we were attentive to the societal changes taking place and that we, without losing grip on key professional values, are able to make the necessary adjustments.

My next recommendation reflects a basic recognition that learning takes place in the students' time through the activities students engage in. Be sure to:

– *Take advantage of the resources our students actually are!*

There have been major changes in higher education in recent years. Subjects are modularized and new forms of assessment are being put into practice. A lot of these new developments mean that many faculty spend more time doing teaching related tasks today than was previously the case. As the evaluation of the Quality Reform showed, much time is spent providing written feedback on student submissions. In isolation, this is good. We know that feedback is important for learning. But this also creates some new challenges. Students expect, rightly, to get feedback on their work where we, for example, have introduced portfolio assessment. The challenge for us is two-part. First, we must ensure that students actually receive or take the trouble to retrieve / read feedback, and secondly ensure that they are actually using it to improve their work. What many of us do not think about, or do not do because we do not believe that it works, is to use students to provide feedback to each other. There is a huge learning potential in giving feedback to others, both for purely academic reasons, but also in terms of conveying disciplinary

knowledge. If we choose to use students for this, we must make sure to provide them training in giving feedback. Then we can also add the requirement that students must document that they have provided feedback to their peer(s) and how they have dealt with the feedback they have received.

- *Do not believe that you are a better teacher just because you are not as nervous as before, have been teaching a long time, and are able to tackle all types of questions!*

As we get older, we gain experience dealing with many situations: Equipment not working, students getting up and leaving the room in the middle of a lecture, not being adequately prepared (too much / little substance), receiving puzzling questions and comments from the audience, and much more. It is, of course, positive that we are now able to cope with different situations, but the danger is that we become “too clever,” that we are able to talk about nothing and everything and that we therefore create distance between us and the audience with empty and unnecessary expostulations. We must be humble enough to realize that we can always be better, and we should be diligent in relation to the age difference between us and our students, which necessarily increases as the years pass. Age and age difference are not a problem per se, but we must be open to the notion that each new class of students is new. They have other conditions, other experiences and certainly other expectations than previous students. Some of the preliminary work we do before we start teaching should include reflecting on these kinds of issues. It may also be wise to invite a close colleague to attend our teaching so that they can provide feedback.

- *Reflect on your role as teacher. What do you enjoy, what are you good at?*

As educators, we have to enter several different roles. Sometimes, we lecture for large gatherings, often with several hundred students

in the audience. Other times, we teach smaller groups, and often quite small groups. And then we supervise students. In small groups or one by one. All this is done in relation to students at different levels (bachelor, master, PhD), and at various points in what we might call the students' journey towards understanding and excellence. Being responsible for the introductory lectures for new students is, for example, different from meeting the same students a little later in the semester, after they have worked with professional issues for a while. Obviously, these different situations require different things of us as educators, and we probably thrive and work better in some situations than others. Personally, I thrive teaching large groups of students, but I have experienced that I am not as proficient when I face small groups or am in one-to-one instructional situations. We have to be honest about this. If we know our own strengths and weaknesses, we can actively do something about the situation. We can discuss with colleagues and reach an agreement on who does what, or we can take action to become more familiar with the kind of situation we have not mastered as well. And so, We all have something to learn from having a more active posture toward our role as teacher. We are not actors or stand-up comedians, but we can learn a lot from the way actors prepare for and take on their roles. When we enter the classroom, whether it is an amphitheater-like auditorium with subdued lighting and lectern, or it is a more ordinary classroom, we take on a new role. Let us therefore think about the opportunities this role gives us. How can I convey the joy I feel for investigating the discipline? What do I have to play on? Is there something I absolutely should not do?

My next recommendation is a continuation of the above point. What we as educators do in different situations contributes to, and defines, what role the students enter. The role of the student is, in other words, to a great extent prescribed. By being conscious of what and how we want students to learn, and how what we do affects the way they are dealing with the subject, we can guide them in the desired direction.



– *See yourself as an educational leader.*

Too often we hear teachers complaining about students when things do not go as planned, whether this concerns a lack of completion, dropping out or failing the exam. There are, of course, many reasons why students drop out, fail exams or take longer to complete their studies than the norm dictates. Sometimes it is evident that the cause is lack of effort, maybe because they do not know quite why they wanted to study the subject. But to assume that this is always the case and then always direct the charge against the students, is too simplistic. In some cases, we see that the academic community “over books” and takes in more students than there are places for, because experience shows that many students drop out. Often this is done without knowing for sure what the reason for dropping out is. In such cases, we run the risk of a self-fulfilling prophecy, and such practice has little in common with our academic ideal. If we look at ourselves as educational leaders, one of our main tasks is to ensure a reasonable and good use of resources. When failure and deviation occurs, we must try to find the reasons why. Sometimes the reason why students do not follow a normal progression can be found in the way the study program is organized or in the way instruction is conducted. As educational leaders, it is our task to ensure that the conditions are arranged in such ways that everyone gets an opportunity to bring out their potential. We know that there is much to gain by giving students extra attention early in their studies. This would suggest that we put the absolute best teachers to teach at the undergraduate level.

In what follows, I present some concrete tips and advice. I have chosen to organize these by various teaching methods. I’ll start with the lecture and follow up with other forms of teaching that I have discussed previously. Various tips will naturally have a more overarching nature and apply to different forms of teaching, as is the case, for example, with the first tip under “lecture.”

## THE LECTURE

### TIP 1.

### **BEGIN YOUR PREPARATIONS BY CHECKING OUT THE CLASSROOM**

When we prepare for teaching, we are typically in our office or perhaps even at home. But it is not here that teaching takes place! We are, in other words, in one place, at leisure and under conditions which we control, and prepare for something that will happen somewhere else under totally different conditions. This may, of course, not constitute any problem, especially not if one has some experience with teaching and is familiar with the room in which one will be teaching. But for inexperienced teachers, or teachers who are aware that they can easily become nervous or who feel uncertain, there may be a point to check out the venue in advance. Even if the group one is going to teach is small, and even if one has been in the room earlier. Walk into the empty room. Sit in one of the seats and try to imagine how it would be to sit there and follow the lecture. How easy or difficult will it be to spot the lecturer and what is projected on the screen? How do you want students to experience you? Will you dress up in a certain way? Go forward to the lectern or podium and try to imagine how it would be to stand there in front of a full room or an auditorium packed with students. How is the space equipped and how is it designed? How are the lighting and acoustics? Is there a long distance between you and the front row? Can you see all the pews without getting a stiff neck? How easy or difficult will it be to make contact with and activate the students? What opportunities do you have to move around the room or on the podium?

When you feel that you know the room – perhaps you could sneak in to see another lecturer teaching to experience how it is with the audience present – you can go back to the office and carry out the preparations. Close your eyes and recall the image of the room. Do not limit the preparation to the subject matter. Think also about what you will do and when. Should you be nervous if one or more students get up and leave the premises? What do you do if one of those sitting in the front row falls asleep or clearly shows that this is boring? Should you panic if you suddenly cannot remember what you were going to say or what you meant by one of the points on the PowerPoint slide? It is possible to also prepare for such things! We cannot predict everything that will happen, but we can imagine different scenarios and to a great extent decide how we will react. If you are unable to physically see a room before going to teach – sometimes we are asked to lecture at other universities and colleges – you can still “go into the room,” and prepare for the situation you will encounter. In these situations, be sure to obtain any relevant information you can about the room and the group you are going to meet.

As academic professionals, we are usually good when it comes to the academic preparation. We plan what to say and how much material we will need to fill the allotted time. Many times we are preparing also by going through the presentation in advance, especially in cases where we are invited to give a lecture at a conference. I say “usually” because there are more than enough examples of poorly prepared lectures. Lecturers who have too much material and take the audience breathlessly through a slideshow without thought of what is being learned, or lecturers who have too little material and fill the time with monotonous repetition. We are often not as good at preparing ourselves for all these other things. What do we do, for example, where we are participating at a conference and the presenter right before us goes beyond her allotted time and uses up most of the time we have for our presentation?

For my own part, I would say that the most important preparation revolves around preparing for the situation. I always check the

room in advance and try to get to know it and take time to imagine how it will be to lecture there. At times I have laid out “markers” in the room beforehand. These markers – e.g. a chair that is placed in a certain way or a colored sheet lying on the table / podium – whose mission is to remind me of certain things I am to do or say. It could also be that I avail myself of other markers, such as a picture on the wall. As it happens, every so often I am invited to lecture or give a talk in another place, and naturally, because of where I live, I am not able to check out the venue in advance. In those cases, I take some time to imagine what the room looks like and what it will be like to lecture there. Many times, the room I find is not consistent with the image I have formed in my mind. It may be relatively small things, like that there isn’t a table where I can put my notes. Or it may be larger things, like the organizers have invited many more people than I was originally informed about, and they, for that reason, have moved it all into a giant auditorium with fixed seating and tables instead of a smaller and more intimate room as originally agreed. For me, this just feels a little uncomfortable because I do not like to use a microphone. It takes me a few minutes to readjust myself, however, before I feel comfortable. An episode I experienced some years ago may illustrate the importance of preparing for things other than purely academic matters. I was invited to Trondheim to deliver what I thought was a contribution at a meeting of a small group of health workers. Three hours were set aside for my session. I thought that would be okay, because I (a) knew the material well, and (b) thought I could play on the audience and bring about a dialogue. I arrived at the city and the hotel late the day before, and began to sense a certain unease the next morning because there were so many people who swarmed around with name tags stuck on their chest and conference folders under their arms. All were moving in the same direction as me. I snuck into the back of the hall and was shocked by what I saw. The room was enormous and bursting with people. The lighting was dim. A giant candelabra was placed on the big stage, and a quartet from the city’s professional

orchestra performed a lovely piece of music. After the applause, I was announced. In such a situation, there are three options: (I) You can turn to the door, hoping that no one has spotted you and run! (Ii) You can be completely put out of nervousness, give yourself a lot of negative self instructions, take the stage and assume that it will go very badly. In that case, you are probably correct! (Iii) Or you can choose to take it as a challenge. Say to yourself that this is so utterly different from what you had imagined that it simply will be fun to try. In my case, I chose the latter option. The feedback indicated that I was not the only one who had fun.

The reason for this advice is to be found in what we know about situation-specific learning. The greater the similarity between the situation we find ourselves in when we learn something (in this case when we prepare a presentation), and the situation we find ourselves in when we will document what we have learned (present a lecture), the better the performance (memory ) will be. We can also learn a thing or two from the way top athletes prepare for competitions. When our national football team plays an away match, they don't arrive the same day, just before the match starts.<sup>3</sup> They arrive long before with good time to prepare and adjust, and hopefully they get to hold some of their training in the arena where the match will be played. When we see how ski jumpers and slalom specialists prepare for their events, the importance of mental training and preparation becomes obvious. Such preparation helps to create a sense of control and calmness through predictability.

When I work with students who have had trouble coping with exam situations, I have many times created exercises based on the same realization. In some cases, the students recounted a strong discomfort related to the examination room. One student expressed

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<sup>3</sup> Here they have learned a great deal since I first started following caps on radio and television. In my boyhood days, it was not uncommon for the team to come at the last minute and thus not have enough time to adapt. But they also always lost the games!

it this way: “I know that if I am to sit in Turnhallen, I will throw up!” The thought of taking examinations in the same premises she had been in before (and failed) produced gagging and expectations of new failures. In such cases, the first step on the way toward mastery is to ensure access to a neutral location where one can subsequently practice at the physical and mental levels (Raaheim, 2011).

**TIP 2.****LEARN FROM THE ACTOR AND MOVE INTO THE ROLE OF TEACHER**

As part of my job as a university educator, I have held a number of courses for teachers. One of the courses that has received the best reception is what we have called “Oral Communication”. The participants are divided into small groups (max 4) and get to participate in various training exercises. Some of these are videotaped. Based on the feedback participants receive from the others in the group, they get the opportunity to try again. The course runs over two full days plus a follow-up where I show up in the participants’ ordinary teaching. This is videotaped, and immediately after the class is over, I give them relevant verbal feedback. The recordings made of each participant are recorded onto CD and sent to the individual. We typically get very good feedback on this course, and this focuses on several things. The main reason is that the participants experience a kind of liberation and possibly even an affirmation. This is often the first time they have “opened up” or “laid bare themselves” for colleagues or that they have been filmed, and then they experience that they a) get positive feedback, b) learn by trying out new things, and c) that they take command of their role. The recording gives very direct feedback on whatever they worry about or think about their own performance. The nervousness they might have felt does not show up, for example, on the recording.

At the beginning of each new course, I emphasize at the outset that when we go into the classroom, we do not only move from one location (office) to another. We also go into another role. We go from being the researcher or private person Ola to being the teacher Ola. Teacher Ola has other things to play on than researcher Ola and that places quite different expectations on the two different roles.

“Be aware that the change of role is happening and try to think of yourself a bit like an actor,” I say. It is not seldom that I get feedback of this type: “We are researchers, not actors.” My point is not that we are or should be actors, but we can learn a lot from the way the actors prepare for and enter into their roles. The classroom is our theater and the rostrum is our stage. We must dare to offer different sides of ourselves. This is how we will develop ourselves. I am not the only one who thinks this way. Halleraker (2012) describes the lecture as a form of theater: “*The lecture has namely all theater ingredients in it. It has an actor – lecturer – a theater – auditorium – an audience – students, and a script – the subject matter to be reviewed*” (op.cit. p. 172).

Halleraker places a lot of importance on the script: that it is well structured and that we are well prepared and know the material well. But that is not enough. We must also have passion and radiate genuine interest, he argues. Personally I would say that this last is the most important. We can be as well prepared as we possibly can, but if we don’t have the passion, intensity and infectious enthusiasm, the performance will not be good. And if the performance is not good, if we fail to infect students with our commitment, they will not actively participate and therefore not have significant success in their studies. The most important thing we have to act on is ourselves, our body, our eyes, our gestures, our voice. A teacher who stands motionless behind the lectern, who has his nose down in his notes or eyes turned up to a point on the ceiling (as if the answer to all questions is up there somewhere), can rarely engage. The same applies to teachers who turn their backs to the students and mechanically read the words on PowerPoint slides.<sup>4</sup> Keep your eyes up and forward. Let them wander among those present, and look at the person who has a question or

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<sup>4</sup> Be aware of what we might call “the human tropism,” a trend where we turn automatically toward a given light source. In my studies – where the newest development on the technological front was the overhead projector – the presenter stood with his back to the students and spoke to the canvas on the wall without having anything other than white light to behold!



answers a question you have asked. Perhaps you should also move or bend toward her. Visual contact and physical distance are two of the most important non-verbal signals in human communication. By using these actively, we can signal our interest and commitment. Move around. Do not stand stock-still. Move around and use your body (arms) actively. You will also naturally come to modulate your voice. Use your voice to emphasize key points. Do not be afraid to raise and lower your voice. It is a very effective instrument. Make sure you make use of it!

Other times you may want to take a break. Stop and let a few seconds pass without saying anything. One of the most effective instruments we have is silence. Stop (count to 20) and then repeat what you want students to commit to memory. “What did I just say? Yes, .... And why is it so important? Well, because ... “. We are not actors, but we can loosen up a bit and free ourselves somewhat from the more serious – and perhaps solemn – researcher role. We are not stand-up comedians, but a little humor does not usually hurt. According to Ramsden (2002), there is a widespread misconception that humor does not fit in. On the contrary, he argues. Humor can help increase learning outcomes from the lecture, but not malicious humor or humor at the expense of the students (e.g., someone who raises her hand and asks a question). My point of view about the actor or stand-up comedian – such as Dagfinn Lyngbø – is not that we should copy them or use some of their jokes. But we can learn a little from them about the importance of preparation, the voice and body use, the gestures and the timing. I mentioned Dagfinn Lyngbø. He has had great success and is a celebrated entertainer. What is it that makes him so special? In my eyes, it lies in two things; charisma and timing. The man exudes an extraordinary joy and enthusiasm that cannot avoid touching us. It is obvious that he loves what he does and that he is delighted to convey that to us. Yet he has complete control. He seems spontaneous and unrestrained, while we know that everything is carefully orchestrated. And wonderful timed. The response from the audience gives him the confidence he depends

on in order to continue to shine. Teaching is not so very different. Enthusiasm and passion are important in our context too. Timing is as well. Both rest on the confidence we have in the strength of our solid disciplinary knowledge, and by virtue of the experience we gradually acquire when we experiment a bit with form. My personal experience has taught me what to say in different contexts to achieve a particular reaction from the audience, for example laughter. It's about pressing the right buttons at the right time. Of course, things do not always go exactly the way I expect. When that happens, it is important to sit down and reflect on why. What did I do and say that led to a certain (lack of) response? What can I learn from this? Do not react by saying to yourself: "Never again." If we never dare to challenge ourselves, but stick to more formal behavior from fear of losing academic credibility, we perhaps fail to develop ourselves as educators.

**TIP 3.****DO NOT USE IRONY OR TRY TO BE FUNNY  
AT STUDENTS' EXPENSE**

Under Tip 2, I showed that one of the most important things we as educators have to act on is ourselves. We have of course also students. I will come back to how we can proceed to activate them. Before that, I will, however, warn against a practice that I too many times have witnessed and which does not contribute to creating the dialogue a teacher wants to achieve. I am thinking of the tendency some lecturers have to make a joke at students' expense. Sometimes through the use of irony, other times by simply making fun of them in the form of derogatory comments. My experience is that we should be very cautious, and avoid altogether, the use of irony. Especially where we lecture for large groups it can be unfortunate, because the distance between lecturer and student is so great, and irony requires a certain kind of reciprocity and equality. The physical distance makes it difficult to catch corrective nonverbal signals. The contact between lecturers and students in such situations is characterized as formal (hierarchical) and impersonal. It is quite another thing to be in a smaller room with a smaller group of students that one gradually gets to know the names of and has developed a more personal relationship with. The reason for this tip is thus not that students do not understand irony, but that the situation does not encourage it. The lecture situation is basically so special, with challenges related to creating contact and dialogue, that one should not do anything to increase students' experience of detachment.

As part of my practice, I have attended many lectures in different subjects in order to provide feedback to the lecturers. This is often because the lecturers have received multiple negative student evaluations and consequently have been put under my supervision.

These are skilled professionals who would also convey the subject matter in a relatively straightforward manner, but where something goes wrong. In such situations, I feel that something recurs with many teachers, namely a rather awkward form of communication. This becomes evident when the lecturer goes from presenting subject matter to answering questions or responding to the students' answers. Response or comments like:

“Hah, so that was new to you, wasn't it!”

“You have no clue, do you!”

“That question does not deserve an answer!”

“Is *that* the best you can come up with?”

“I imagine that *you* are wondering precisely that!”

“Even your grandmother could answer that!”

“And you're supposed to be the best Norway has to offer!?”

“Where in the world were you when the teachers in elementary school covered this!?”

Lecturers who meet students with comments of this nature should not be surprised that students eventually do not answer questions, or that the turnout for the lectures goes down. Sometimes I wonder if the reason why the lecturers resort to such comments is to cover up their own insecurity. If so, there is much to gain by being conscious of the negative impact this could have, and getting help with how one should communicate. Other times, these reflect a type of cynicism and arrogance that are not easily influenced or changed.

The rationale for the tip has two parts. The first is simply that we must act in line with what are considered normal manners. These require that we interact with each other with respect. Personally I have no respect for academics who allow themselves to get upset over students who come late to class, or students who otherwise do not behave as expected, but at the same time answer students' questions in a sour and ironic way. Respect goes both ways! The second rationale is related to what we know about which conditions apply to learning. If we are in a positive mood (e.g., happy, proud,

optimistic) learning goes better than if we are in the opposite mood (e.g., sad, angry, anxious). The literature describes this as state-dependent learning and memory (mood congruent learning / memory). A negative mood also affects our memory in the sense that we have a tendency to remember negative self-relevant information. We will thus have a tendency to recall memories of situations where we didn't master the challenges we faced. This will in turn lead to reduced ability to master a presented task in that we "talk ourselves down" in the form of negative self-instructions (Bower, 1981; Rusting, 1999).

Trigwell, Ellis & Han (2012) show that there is a connection between emotions related to the subject on the one hand, and learning strategy and learning outcomes on the other side. Students who have strong positive feelings related to the subject (hope and pride) are characterized as having a deep-oriented learning strategy. Students who have more negative emotions associated with the course (anger, boredom, anxiety and shame) are characterized as having a detail-oriented learning strategy. Students with a deep-oriented learning strategy score higher on various performance measures. In other words, there is much to gain from ensuring that students experience their academic situation as positive.

## **TIP 4.**

### **REPEAT STUDENTS' QUESTIONS / ANSWERS**

Many lecturers want to involve students and make their classroom a kind of question and answer session. Sometimes it works well, sometimes not so well. Whether it works well or not is related to a number of different things, such as room size, the number of students, the distance between the lecturer and students, whether it is part of the culture to answer questions or not, and the types of questions asked. What we have just touched on under Tip 3 will of course also be important. What we many times seem to forget is that an answer given by a student who sits in the front of the auditorium is not heard by others, at least not by others who sit far from or far behind the person answering. In similar ways, we as lecturers easily hear a question from the audience, while many other students do not hear what is being said. The tip is therefore very clear: Repeat students' questions and answers so that everyone can take part in what is being communicated.

The following is taken from a lecture I recently attended. The lecture took place in a large auditorium that accommodated 450 students. It was jam-packed, and I sat way in the back (and high up). The lecturer, who stood at the whiteboard (below), asked a question out into the hall. That we all heard. The lecturer used a microphone. A student sitting in one of the foremost rows, down and to the right of me, raised her hand:

Lecturer: "Yes?"

Student: "... ..".

Lecturer "No, that was not exactly what I had in mind."

Student: "... .."

Lecturer: "Yes, but it does not apply here."

Student: "... .."

Lecturer: “Maybe not in this context. We will come back to it at a later occasion.”

The session was not particularly rewarding for the vast majority of listeners. The instructor went on to tell what he had in mind and consequently what answer he was looking for. What the student thought and responded remained a mystery. Learning for the rest of us was therefore not the same as it could have been, if the teacher had done his job and repeated student responses. Unfortunately this is an all too typical example of a form of dialogue and activity that lecturers resort to. Many lecturers who question the students are also characterized by being too hasty. They ask the question, but don't take time to wait before they answer themselves. Therefore; if you really want students to answer, wait some seconds before you proceed. Slowly count to 20, and then give the answer yourself if none of the students have given it a try. And remember: Avoid sour comments to students' lack of response. (“Wake up! You're in class now, not home in bed!”)

My experience suggests that if students have not been drawn in by your teaching early on, for example, in terms of answering questions, it takes a lot to get them involved later. It is as if a group norm has developed that says not to stick our necks out. Therefore, I make sure that I prepare for questions and answers or other activities early. On one occasion – at a time when I was younger – I allied myself with a colleague who sat among the students (about 200 first year students in psychology). We had an agreement that he would raise his hand and pose questions / answers if no one else did. In addition, he should stand up, approach me at the podium and refute me on something I had said. This he did. Then he took over command, asked me some critical questions, and led the way in what became a continuation with two speakers who took turns speaking. Students, after a moment, figured out that this was agreed upon beforehand. Many students participated later in the discussion. The success was so great that in the remaining lectures in the semester we both took turns

speaking and challenging each other. These were the introductory lectures in psychology. When I now, years later, look back at what we did in that semester, there are two things that strike me. First, we were brave to have dared to challenge the usual lecture format and deviate from the practices of far more renowned lecturers. But more importantly, through dialogue and through constantly challenging each other, we illustrated one of the characteristics of the learning process and the way knowledge is developed. This was recognizable to students and probably helped to ease their own entrance into the discipline, and to their understanding of the historical development of the discipline.

There may be many reasons why students do not answer the lecturer's questions. Sometimes the answer to the question is so obvious that you feel stupid if you respond. Other times, the question is so vaguely worded that it isn't possible to understand the meaning. At other times again, the students understand that the question is not really seriously meant, but that it comes as a result of the lecturer having finished presenting and there are 10 minutes left before the scheduled break. I have experienced lecturers who want to involve students and who, at the same time, comply with students wish to be handed PowerPoint slides ahead of the lecture, which include the questions of the hand out. Even if the students had not prepared for the lecture and thus first discover the questions as they turn through the copies along the way, this is a practice that largely guarantees that no one will answer! Students are adults who do not like to be perceived to be fawning. Besides, such a practice takes away the spontaneity a lecture must always contain, even when the lecturer has prepared a script.

Then of course we have the opposite situation, namely some students who are overly active, and who pose many and often peripheral or totally irrelevant questions. What do we do with them? My advice is that we do not stop them from speaking in other students' presence, or that we choose a strategy where we overlook them. The first is, no matter what, inappropriate, and the other can



soon backfire. Some individuals simply cannot be ignored, and even though we do not address their questions, they steal a lot of attention. Either take the person aside during the break and say something along the lines of; “It’s positive that you are active and contribute with questions, but I also need to let others get a chance. Besides, we have much left to cover. Much of the time I will, therefore, ignore you. It is important for me to let as many as possible speak.” It is possible that he will take such a notice to heart, and that he will choose to stay away from the lectures, but the chance of that, I think is small. By choosing such an approach, you show clear and respectful leadership that also makes it possible for the student to change without feeling that he or she will lose face. If he still feels offended and decides not to follow the rest of the lectures, that is entirely his choice.

## **TIP 5.**

### **DO NOT PANIC IF YOU MISS WITH PREPARATIONS**

I was 22 years old when I started lecturing at the university (introductory course in psychology). I can still sense the uncertainty I often felt. Not just in terms of my own professional knowledge and understanding – I was many a time in doubt that I fully understood what I was presenting – but mostly in terms of whether I had enough material to fill the allotted time. I always prepared thoroughly and had ample notes. Right as it was, I would become struck by a panicky feeling that time was moving slowly. The notes ended long before the time bore witness to the 15 minute break. Eventually I became better at the allocation of time and material, but I also became confident with myself. Not least because the students apparently, and despite my own negative self-evaluations, appreciated my efforts. My early experiences taught me two things: Students do not necessarily perceive your own nervousness. They cannot see or hear what you are saying to yourself, so stop denigrating yourself. And secondly, it is not so bad if your allocation of time is off a little. Take a break when you have said what you intended, and when it's appropriate, or quit when you are finished, even though it is 5 or 10 minutes until the scheduled time. That is much better than if you try to drag out the time by either speaking slowly (!) or repeating part of your presentation. Of course you can also prepare so that the time you spend on a single lecture may vary depending on the circumstances, and that you, therefore, have prepared a specific activity that you can apply in certain situations (see next tip).

Now, 34 years later, the challenge is the opposite: I often have so much at hand that I must prepare myself thoroughly for not overrunning the audience, and not to forget to take breaks. Today we are facing a special challenge in the fact that many people use some form of

presentation tools, e.g. PowerPoint. The problem is not necessarily that the slides are overloaded or that the designs are too colorful and imaginative – although we probably still see some examples of this. It was probably a bigger problem earlier, when lecturers were not only keen to reveal the message, but also needed to demonstrate how clever they were to design fancy slides. Now the problem is rather that the lecturers have too many slides, or they linger too long and associate freely around more and less interesting bullet points.

Many “bullet point presentations” reflect that the preparation work was done a while ago, either by the teacher becoming very associative, or by the simple fact that the teacher forgot to remove / change the date at the bottom corner. Although students know the teacher held the same lecture series earlier, they live under a notion that the lecturer is constantly updating and offering the latest in the field. Presenting what is obviously two-year-old slides is liable to deprive the teacher something of his / her authority. Even worse, if the lecturer, as Parks (1999) describes, runs a slideshow with emphasis on showing a great amount of slides without considering that students are not prepared to digest such a large amount of information. They don’t even have time to read what’s on one slide before the next one comes.

A while back, I was contacted by a concerned technical coordinator when his department had hired a person to lecture at an evening class for adult students. The instructor was to have three lectures, and had sent the technical coordinator a copy of his PowerPoint slides and asked him to copy a set for each of the students. The coordinator was worried if the students really would be able to get anything out of the lectures, and asked me for an opinion. For the three lectures, this lecturer had prepared 427 fairly congested slides. He might as well have made a slide presentation of the entire book!

The panic we as lecturers can experience is, as we have seen, usually two-part: a horror of having too little material, or a horror of not being able to present all that we have prepared – or everything that is on the slides!

We can all miss with regard to the preparations. So it may be a good idea to keep in mind that most of the students' learning takes place outside the lecture hall. Learning doesn't happen by being a passive recipient in the auditorium. Besides, students do not know what we had planned to say, but did not have time to say. They assess us on what we actually say and do, not on what we don't say. A lecture that ends before we have said all we had planned – e.g. because the students asked many questions – is, in other words, not necessarily a bad lecture. Perhaps rather the contrary.

## **TIP 6.**

### **INVOLVE STUDENTS AND CREATE ACTIVITY**

When the Quality Reform was introduced in 2003, one (of several) of the principal objectives was to introduce more student active learning. Norwegian higher education had been criticized (e.g. by the OECD) for being too concerned with the measurement and assessment of students, and too little concerned with teaching for learning. OECD described Norwegian educational institutions as “exam giving institutions” (OECD, 1997). As to the question about which pedagogical repercussions the reform had, we found that the biggest changes were made with regard to assessment practices (Dysthe, Raaheim, Lima and Bygstad, 2006). New assessment forms were introduced, but it was also typical that these came in addition to existing arrangements (the school exam). In addition, we found that many subjects had introduced various forms of work requirements, for example compulsory written work before one could be eligible for final assessment. The evaluation also showed some other interesting features. We found, among other things, that the daily attendance at the institution fell from 56% in 1998 to 41% in 2006.

There is no doubt that students after the reform have become more active. They write more, both as part of portfolio assessment and in connection with the mandatory coursework. However, as stated elsewhere, there is a difference between being active and to be activated (Raaheim & Karjalainen, 2007). If the students do not engage in organized teaching and in discussions with fellow students, and rather sit on their own and author texts as part of efforts to meet the compulsory exercises, it is not necessarily a good thing. What we need is active, researching students who involve themselves in critical thinking and writing. In order to achieve this, we need to

develop routines and systems that allow students to be engaged in the development of good learning communities and communities of practice. We should take care, not to contribute to an understanding that learning is memorizing standard answers to specific assignments. It is important to challenge and engage students to take an active part as early as possible in their introductory studies. How can we do this in the lecture room, where we often have large groups of students?

The first thing we must do is accept the following acknowledgment: students do not learn a particular bit of material just because, or just as long as, we have said it. In other words; it does not matter if we spend a few minutes of the lecture doing other things than just lecturing. It's not a waste of time if we, for example, require that students spend a few minutes to discuss with each other. If we accept this simple recognition, then it is only our own imagination – or courage – which sets limits.

Many are gradually becoming familiar with utilizing so-called Think-Pair-Share exercises. Lecturers stop and ask students turn to the person(s) sitting closest to them and discuss a particular issue or question related to what has been covered. One or two minutes is enough. The point of this task is not to obtain answers from the audience and make a summary at the lectern. The purpose is rather to stop and let the students get an opportunity to reflect together with one or two others on some of the information imparted. In this way, they can try out their own understanding, and possibly get an idea of what they need to work on or try to clarify. Allowing students to sum things up for a minute or two not only sharpens attention, it also creates a break – and the possibility of consolidation – in what otherwise might be something (sleep-inducingly) monotonous. Personally, I tend to encourage a loud hum: “so high that the roof lifts off!”

Another way to involve students is to ask them to submit questions in advance of the lecture, and then set aside a few minutes at each lecture to go through and answer some selected questions. Or, have them submit questions after the lecture is over, and then take a few

minutes of the next lecture to revisit a couple of them. If there are very many students, it may, of course, be a lot of work just to go through and figure out what questions one should answer. It can be helpful if you restrict access to submitting questions. One may, for example, let those who have a last name early in the alphabet submit questions in advance of or after the first lecture, and then take it from there. Even if students have the opportunity to ask questions in seminars (led by advanced students), or if there exists some form of “oracle service,” such a practice would be favorable. Not least for the lecturer as this may provide a certain feel for what students are struggling with. This is also a way for lecturers to receive continuous feedback on their teaching.

I have many times practiced a scheme where I have, ahead of the lecture, placed some colored sheets on random chairs in the auditorium, for example ten red and ten yellow sheets. Then, some time into the lecture, I stop and ask the class: “Are there any of you who noticed a red sheet on the chair? Put your hands up.” If ten hands don’t come up, it is just as well if six or seven students raise their hands. “You are to form a group tasked to come together during the break, discuss the first part of the lecture, and ask me a question which I shall answer at the beginning of the second hour.” A similar number of students will raise their hands when I ask whether they have a yellow sheet. These are told that they constitute an evaluation group, and they are asked to stay a few minutes after the lecture to give me feedback. If we choose to use the same procedure on the next lecture, there is an obvious danger that students might “shy away” and not sit near the colored sheets. If we want to involve students in subsequent lectures, we can therefore use a different strategy. We may, for example, stand at the entrance and hand out some sealed envelopes to random students as they enter the lecture hall. On the outside of the envelope, we have written: “Open only when directed.” The envelopes, can, for example, be numbered. On our instruction, an envelope is opened and the student reads the contents aloud (and we are sure to repeat so that everyone hears

what is being said). And what can the contents be? Well, it's up to us to decide. It can be a call to do a specific activity that will take place there and then, for example summing up a particular issue or an instruction to come to the lectern and read the content (which may be an academic question, a quote from a textbook or an extract from a newspaper article). Depending on what you choose, you can arrange a follow-up activity. Or there could be information on where one can go to obtain more information about that topic, and suggestions for how they can keep working after the lecture is over.

I often hear the objections: "This will be more show than academic preparation!" Well yes and no, but remember what was said earlier: Learning happens in students' time through the activities they do on their own or engaged with others. Besides, we are not guaranteed that students will learn what we want them to learn by sitting passively and listening. We are not even sure that they are actually listening to what we say!<sup>5</sup>

An alternative to the above suggestions is to introduce some short writing sessions. This can be done in any variety of ways. The easiest way to proceed is to ask students at a given point in the lecture to spend a few minutes to write down all the things they associate with a particular question or problem. Here they are encouraged not to censor themselves, but to associate freely and write as much as possible. You can then encourage them to edit this notation after the lecture and use it as a starting point for their own reading. For this purpose, one may use a variation of the note sheet presented below. To increase engagement and learning outcomes, one can add a little twist. The students are asked to write about a given question, a problem, or maybe just a keyword. When time is up (2-3 minutes) the students are requested to turn to the person(s) who sit closest to them. Now you can choose two variants: either the students can take turns reading aloud what they have written (in groups of two or three), and after that discuss the issue in their group, or they can

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<sup>5</sup> Not all students who have a notebook are using it to take notes.



go straight to a discussion. This takes no more than 5-6 minutes. The lecturer claps his hands and then asks students individually to write all that they now associate with the question / problem / keyword for 2-3 minutes. When time is up, the lecturer as a final point asks students to count the number of words in the two notes. Most likely, the second note will be more detailed than the first. The point of such a writing session, which does not take more than 10-12 minutes of lecture, is to involve students and open up for more active participation, to demonstrate the importance of cooperation and dialogue, but also to assist students in acquiring a tool that they can apply in their own studies. This tool may come in handy both in those parts of their study program where they must submit texts of various kinds, but also in their daily efforts to penetrate more and less difficult reading material. The associative text may be a way to get started and may function as an initial “conversation” with the author. The conversation – the text – is changed (edited) gradually as it is tested in different contexts, and as one’s own understanding increases. Somewhat similar to the lecturer who discovers new aspects of a particular material and comes to understand things differently as he or she lectures about it.

Innovations in the area of technology also allow for other forms of involvement and participation from the students, for instance the use of so-called clickers. Students will be given a wireless device that communicates with the lecturer’s computer. The lecturer can, for example, present a question on the screen which the students then, using the device, answer by clicking on a specific answer. The data is transmitted to the lecturer’s computer, and the distribution of responses can instantly be presented on the screen. Not only does this provide students with opportunities for active participation, the lecturer will also be able to get fairly immediate feedback on whether the material is understood. When there are many who answer incorrectly to a particular question, it is clear that the phenomenon needs to be explained in a better way. The system can also be used to provide feedback on the lecture. By using this actively to seek

feedback the lecturer can make necessary adjustments along the way and not wait for the students' final assessment. Used in this way, the problem of a low response rate in connection with student evaluations of teaching is reduced / eliminated. When clickers are used in teaching the feedback from the students is positive<sup>6</sup> (See also MacGeorge et al., 2008).

Whether one should go a step further and directly involve students in participating in the delivery of the lecture is a question that each lecturer must decide, on the basis of expediency and opportunity. Personally, I have had good experience doing it, but while in small groups and with students who eventually know each other pretty well. In such cases, we have signed a contract for the distribution of work beforehand. Only once have I experienced that students didn't keep their part of the contract (was not prepared as agreed), with the consequence that no lecture was given.

An alternative to make students partly responsible for the teaching can be practicing twin lectures. This is something more and more teachers have good experiences with. A twin lecture is, in brief, a situation where two lecturers share time and speech. This can be practiced in various ways. One option is to enter into a role distribution where one of the lecturers is responsible for presenting the subject material, while the other is primarily tasked with asking clarifying questions and involving students in various ways. This was partly described under Tip 4. Another option is to divide the lecture into two; first a round where the two lecturers discuss a specific text that all those present have been assigned to familiarize themselves in advance, which is followed by a public discussion with input from students (either prepared or more spontaneous). From my own time as a student, I remember such a twin lecture very well where two professors with different perspectives discussed

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<sup>6</sup> See for example, experiences from teaching at the Faculty of Medicine at the University of Oslo <http://www.med.uio.no/for-ansatte/aktuelt/aktuelle-saker/2011/klikkere-i-undervisningen.html>

a book on the syllabus. One of the professors was positive toward the content, while the other was more critical. For us students, this was a fantastic session to witness. Not because we were asked to join the discussion, because, to be honest, we weren't! But the fact that two professionals could disagree so strongly taught us several things, including that what is written in the textbooks should not necessarily be perceived as "the ultimate truth." We learned the importance of reading academic material with a critical eye, but also that it was possible to understand and interpret a particular text in various ways. By adding up the lecture as a discussion, the two professors demonstrated what is meant by academic and critical discussion. I'm also not sure that the two professors didn't learn something, and then we – as Warhurst (2006) also describes – are where we probably should be, namely in a situation where teaching is a form of exploration for the benefit of all parties. If one chooses to try out such a solution, it is important that the two professors know each other well, that they are well prepared, and that they are careful in dividing time between them. This is not a competition where you have to get in the best point or demonstrate how knowledgeable you are. Almost the contrary. The point is to demonstrate how knowledge is developed through discussion, by bringing forth more voices and thus a greater diversity.

There is one last thing that needs to be mentioned – which in these days of extensive use of PowerPoint and distributing copies of the speaker's slides seems to be forgotten – and that is to give students advice on how to take notes. Of course this is not something one should do at every lecture, but perhaps at the start of a lecture series. Set aside five minutes at the first lecture to inform students about how to do this. You may use a form like the one below (maybe even hand out a copy of the form to each student). The form is divided into three sections: a section (memo field) where students continuously write their notes, and an associations field, where they jot down thoughts and fancies that arise, which can, for example, be instructions for themselves about what one should check up on. The

third field (edit box) is used when students revise their notes after the lecture is over. An alternative would be for students to receive a copy of the PowerPoint slides from the lecturer. Personally, I believe this is a worse option, because it usually means that students do not write very many notes, and because the lecturer is processing the material and not the students. A solution may be to distribute slides that are less detailed and that have assigned space for the students' comments. This pushes students to take their own notes. Than again, we run the risk that students only take down the rest of what's on the lecturer's slides, and that they, consequently, do not fallow along and therefore do not write down any of what the lecturer says. If so, we are right back where we started! Or maybe even worse off than if the students got an exact copy of all the slides. That leaves one last option; make sure to vary the lectures. Give some lectures without using PowerPoint (or other presentation tools), and some lectures with it. We know that variation with regard to teaching techniques has a positive effect on students' learning.

When we consider what form of activity we want to involve students in, it may be wise to think through what Struyven et al. (2006) show, that student active learning can result in the opposite of what one wants (superficial learning rather than depth learning), if the workload for students is too great. Sadler (2012) shows in an interesting study that lecturers sometimes do not invite students into teaching, but cling to the traditional *reading of* the lecture. This applies in cases where someone is giving a lecture in a new subject that he or she has more limited knowledge about – because they are afraid of the questions that may emerge – or where the theme “invites it” (where the lecturer experiences that it is some things students “simply have to know”). I think that many will recognize themselves in this, but it says also something about how easy it is to disappear into our own insecurities and forget what the purpose of teaching is.

**NOTE-TAKING FORM**

<b>Lecture:</b>	<b>Page:</b>
<b>Memo Field</b>	<b>Associations Field</b>
<b>The edit field should have more space, and have no vertical line.</b>	

## **TIP 7.**

### **USE THE BLACKBOARD WITH PURPOSE**

Many lecturers swear allegiance even now to chalk and blackboard. Others fluctuate and use the blackboard to supplement the use of slides (PowerPoint). It is obvious that chalk and blackboard in some contexts has its advantages. One of the biggest advantages is that students are given time to pay attention and the teacher usually forced to slow down the tempo. In this way, one can ensure that students actually attain what one is aiming for. Some subjects and topics lend themselves far better to blackboard use than others. It is, for example, not many semesters ago that the Faculty of Medicine and Dentistry at the University of Bergen gave their teaching award to one of their lecturers who exclusively uses chalk and blackboard. Students described how they appreciated the teaching, not least because the way this teacher imparted the subject matter in a way that increased their opportunity to really learn the material. Evidently, the use of chalk and blackboard invites some special challenges, especially in large rooms. We have to be aware of the problems students may have with reading what has been written with chalk on a wet board. I have fresh in mind a lecture in sciences I attended as part of one of our courses. The lecture took place in a smaller auditorium with about 30 students present. The lecturer stood with his back to the students most of the time and copied his voluptuous notes (calculations) to the board. It went at a furious pace (in Norwegian with a foreign accent and facing the board). Typos were quickly ironed out by hand. The board was filled before he was finished with his notes. He then went over of the board with a sponge and continued at the same pace as before. Not only was the pace high, we who followed it all had difficulty seeing what he was writing, partly because the lecturer stood in the way, but also because

what eventually emerged on the board was somewhat smeared and blended with some remnants of previous tablet remnants. All in all, it was a rather bizarre performance. Here the lecturer could have advantageously chosen a completely different strategy, for example handing out a copy of the notes and then discuss the calculations with the students. That would also allowed him to avoid the typos that can easily occur when a using the blackboard in this way. Typos, but also difficult to discern writing (and speech).

It is amazing to witness how little reflective people who use the blackboard often are. Small handwriting in large auditoriums. Sloppy handwriting. Use of colors that aren't discernable to anyone beyond those who sit in the first few rows. Text that cannot be read by those who sit high up (in large auditoriums) because the lecturer uses the lower part of the board and overshadows it all with their own body. Text that cannot be read because a table (lectern, PC monitor or something else) stands in the way. Text that is difficult to read because the light from the projector is thrown towards the same surface. One may question the value of using the board under such conditions. If we want to use the board, we must ensure that what we write is actually seen and understood. If we also use a computer and projector we need to make sure to turn it off when we go over to the board (for example, by pressing "b" or "." on the keyboard). In this way, we control the students' attention. Away from the light and PowerPoint slides and over to the board. Perhaps we have already written something on the board before the lecture started that we now want to reveal (some auditoriums have a system with multiple boards that can run up and down). When we proceed in the lecture and want to show new slides, we repeat the command (in this case "b" or "." on the keyboard), and the light comes back. To sum up, we need to be conscious as to how we organize our presentation in order for students to learn what we want them to learn.

Some of the challenges described above may be resolved if we use a smart board instead of conventional blackboard. More on that below in tip 9.

## **TIP 8.**

### **AVOID ABSOLUTE CERTAINTY**

“We were never in doubt!” The statement is taken from a newspaper headline where a professional (psychiatrist) spoke about an offender in a criminal case. What “we” never doubted was the mental state of the perpetrator and that the diagnosis “we” had set was correct. Never in doubt. Never?? Assuming that the newspaper quoted this professional correctly, and provided that he actually meant what was written, this strikes me not only as an expression of a lack of reverence for human diversity, but also as a breach of key scientific and academic ideals.

Part of what we want to convey to our students is the importance of having an open and critical attitude towards knowledge. This is to avoid prejudice (biases) with subsequent self-fulfilling prophecies. To not be bombastic, but listening, debating. That does not mean that there doesn’t exist knowledge that is absolute, that is true and that applies no matter what else might vary. But it does mean that we must always appeal to wonder, even where we are faced with incontrovertible truths. We as lecturers must have this wonder ourselves, and we must express it in the lecture hall. We can entrust the simple presentation of facts to the textbooks or other reference books. The lecture gives us room to go behind the facts, to ask questions, to discuss, to present different arguments and to explain why something is to be understood in a certain way. As lecturers, we must stand out as examples of what we hold up as academic ideals. We cannot accuse the students of not being critical enough, while we, in our behavior, emerge as cool, dismissive and closed-minded professionals.

Arrogance is closed-mindedness’s twin, and arrogant lecturers do exist! An arrogant and closed-minded lecturer achieves



possibly a certain respect in the short term, but in the longer-term consequences are probably rather negative, both for the individual lecturer, but also for the discipline as such. Closed-mindedness and arrogance often have the (unintended) side effect that they foster corresponding absolute certainty among some recipients. Where this is perceived as unreasonable in the face of seasoned professionals, it will be downright unpalatable in the mouths of students or graduate candidates. As lecturers we should of course not conceal our knowledge and our discipline's commonly held understanding, but there is a point in presenting and demonstrating this in an open, inspiring and inviting way.

Both novice and more experienced lecturers will sometimes experience a situation where they are asked a question to which they do not know the answer. Rather than refusing the one who asked, or pretending that we know the answer and serving up a long and rambling account, we should admit that there are things we do not know. But if we say that we will investigate and get back to the question, we must make sure to keep our word! Either we come back to the question at the next lecture and convey what we have found out, or we post an answer with references to current sources on the web. But then, each of us have to decide for ourselves what kind of promises we give our students (see also what is said in the next tip).

## **TIP 9.**

### **USE TECHNOLOGY WITH PURPOSE**

Even though it is not very many years since computers became common, it is difficult to imagine life without them, not least for those of us who work in higher education. The computer is for many of us one of the most important tools in our work. Not only to be a word processor and to help with processing different kinds of data, but also as a medium for information retrieval. The World Wide Web has literally opened up a whole world of opportunities for us as educators. Easy access to information, to research results, and to teaching materials is one aspect of this. Another, and perhaps equally important aspect is the opportunity technology has given us to actively participate in national and international networks, with exchanging and co-producing knowledge from our own office chair, so to speak. The computer is also an important tool for students. During many years of school, they have used it in connection with the handing in of work of various kinds. It is no wonder then that they want to use their computers when they come to university, for example at the exam. Many educational institutions look favorably on such requests (and demands), but they still struggle to get out of a very traditional and old-fashioned way of thinking. Instead of taking advantage of the opportunities technology offers, they put in measures aimed at recreating an obsolete word processor that has more in common with the typewriter than the modern computer. The following is taken from the website of the University of Bergen. As part of the project DigUiB (Digital aids and support for education at the University of Bergen) there is a pilot project on the use of computers for the school exam:

“Use of computers at a school exam requires that you have suitable premises with enough desktop computers connected to the

University's network. Students will not be able to use their own computers. Suitable premises with infrastructure such as network cables, power outlets, PCs and partitions are therefore the biggest challenge that should be able to offer examinations on computers on a larger scale. We have developed a special "exam mode" solution for computers at UiB with Windows 7 as the operating system. When the PC is set in "examination mode," students who log on to their computer can access only a limited set of preapproved software (e.g., Word). The examination mode blocks all access to the Internet (including inquiries to online dictionaries, etc.) and the use of USB inputs (memory sticks, etc.) on computers."

<http://www.uib.no/ua/ressurser/diguib/digital-eksamen/-PC-paa-examination>

The starting point for students is that they are used to typing on a computer and not so accustomed to using pen and paper. Therefore, they ask for permission to use a computer at the exam. If we want to meet students' demands (which is not necessarily always self-explanatory), why establish solutions that create new challenges with respect to control, that invite new forms of cheating and that also do not resolve some of the old problems with the school exam? Why not use a computer with all its possibilities and at the same time take the opportunity to change the way students are assessed? If seen as necessary, we can stick to a solution that requires students to sit in the same place over a specific number of hours in order to solve one or more tasks. However, instead of unilaterally assessing whether students are able to reproduce and apply a particular type of knowledge in a certain way without the use of aids, we should look at the sources they've chosen and assess how well they are used in a discussion of a particular question. This would be cheaper for educational institutions. Students could bring their own PCs. Even memory sticks or books if they wish. We have today a situation where large amounts of information from very many different sources are available and easily accessible. In such a situation, the ability

to critically analyze and assess information becomes important. Expertise is, in other words, something far more than knowing which buttons to press, or whether one is able to reproduce something one has read or heard. Such an exam will challenge the examiners in completely different ways than in the past, and who knows, perhaps they will learn something as well. When and where this (and other kinds of) assessment is suitable, remains to be considered. This lies outside the framework of this book, but is a matter one needs to take on, computer or not computer.

Very early in my career, I participated in a joint project between the Open University and the Norwegian Navy. During initial service they began to offer privates introductory courses (*examen philosophicum*). Together with two colleagues from the Department of philosophy, I taught courses at the naval base in Bergen for those in boot camp. Privates who had finished boot camp, and who were stationed on a ship or at a location along the coast received, at the time, no instruction, but were referred to individual studies or correspondence courses. Many dropped out, and only very few took the exam. Our project was to remedy this situation. We recorded all of our lectures on video. These videos were then sent to all the privates where they were, and the Navy made sure they could play them. We kept in touch with students via letters, and for each lecture they could submit tasks and questions. The project was very successful. Far more privates completed the course and graduated. A little later I got experience in teaching “live” from a television studio to different groups of university college students who were at various locations in Norway. They saw me, but I neither saw nor heard them. The only thing I saw was the camera and myself on the television screen. Afterward, group representatives could call in and ask me questions. This was a useful experience for me, but while I saw the first project as meaningful, I felt that directly transmitted distance learning was very unsatisfactory. The first was meaningful because we contributed structure, overview and inspiration for individual students or small groups of students, and because this contributed

in a decisive way to their learning. The second was unsatisfactory primarily because I could not see or hear the audience I spoke to, but also because I (partly for that reason) did not know how or in what way I possibly contributed to the students' learning.

As indicated several times already, educational institutions apply pressure on us to shoot and publish our daily lectures online. Students want to obtain a copy of the lectures so they can repeat the material whenever they want and as many times as they want. The argument is partly that this will assist them in preparing for the exam. Many comply with students' desires. There are many sides to such practices. Once again we need to ask how this contributes to students' learning. And what they learn. There exists a great deal of research in this area. Bassili (2008), for example, shows that students who perceive the discipline as important and interesting, and who are keen to do well at the exam (extrinsically motivated) are more positive about podcasting than others. When it comes to the question of who actually uses the opportunity to watch the lecture online, it turns out that students who do not like working with others, and who reflect less on their own learning (monitor their learning) more often than others are active users. Lonn & Teasley (2009) show that students use online lectures in connection with preparation for the examination. Contrary to what many lecturers expect, students still show up at the ordinary lectures in the auditorium. These findings are confirmed by Scutter et al. (2010). Here it was found that students profited from watching the lectures several times where they faced particularly difficult material. McKinney, Dyck & Luber (2009) ask whether podcast lectures are more effective than ordinary lectures. To investigate this, they devised a special lecture (about perception) for psychology students. The lecture lasted 25 minutes. A group of students attended a traditional lecture in the auditorium, and another group heard the same lecture via their own mp3 players. Both groups were given copies of PowerPoint slides. Both groups completed logs of their study activities and attended a specially prepared test ("examination") one week later. The results showed that students

in the “podcasting group” had significantly higher scores on the test than those who participated under ordinary conditions in the auditorium. A new analysis, where students in the podcasting group were divided into two, depending on whether they used handouts to take notes or not, showed that students who took notes did significantly better on the knowledge test. A comparison of the two original groups showed that a large number of the podcasting group did not take any notes, but that all repeated the lecture many times. In the other group, all took notes in one form or another, even if no one took what was termed “extensive notes.” The authors conclude as follows: *“The results of this study are in no way an indication that audio copies of lectures could or should replace actual professors, or even regular class attendance. The advantage the students in our study received was only when the student took notes as they would during a lecture, and when they listened to the lecture more than once. In essence, the same things a student does during the actual lecture, they would need to do to show a benefit of the podcast”* (op. cit. p. 622).<sup>7</sup> The conclusion is supported by a study conducted by Mitra et al. (2010), which concludes that the most important thing is how the teaching and learning environment uses technology and audiovisual material. If the teacher doesn’t illustrate how this can be used to support learning, students will behave fairly passively and just look through the lecture (video). Griffin, Mitchell & Thompson (2009) show in a study that podcast lectures with synchronization of picture and sound (PowerPoint slides that “fall” in the right place and are synchronized with the speech) are better than the same type of lecture where audio and video are not synchronized. Fernandez, Simo & Sallan (2009) show in turn that podcasting is primarily

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<sup>7</sup> Here we should add that the knowledge test was a memory test (50 items sample) which tested how much students remembered from the lecture. Given such an arrangement, it follows quite naturally that students who hear the lecture several times are able to remember more than others. If “the exam” had another form (e.g. if it came later), or if the lecture had been longer, it is not certain that the result would be the same.

useful when students are unable to participate in the regular campus-based teaching program. Their study shows that podcasting primarily contributes to distance learning students maintaining the motivation to study, and that they, through following lectures in this way, feel that they have some contact with the institution even if they are alone and far away. Much the same effect we saw in recruits who received the video of our lectures, in other words. Therefore, as Fritze and Nordkvelle (2003), Mitra et al. (2010), and others show, one must also be aware that teaching in a studio, without direct contact with the audience, is something completely different than teaching where we come face-to-face with students.

The studies referred to above contribute in various ways with experiences related to podcasting of lectures, but one thing they have in common is that they remain within a traditional format. The question of how various forms of podcasting can be used as a supplement to, or replacement of, existing teaching (lectures) is central in all of these studies. Although studies like the one McKinney, Dyck & Luber describe may have some interest, it is hardly here that technology has its greatest explosive force. Rather than adapt the technology to an existing teaching and assessment regime, and to show how useful podcasting can be for the memory of a given topic or how satisfied students are when they get access to copies of what is being conveyed in the auditorium, technology should spur us on toward completely different and new teaching and learning methods. Teaching and learning methods that are followed up with appropriate assessment schemes and evaluation forms. Again, there is big money to save here. Instead of each educational institution purchasing advanced recording equipment with the aim of recording ordinary lectures, different groups across local, regional and national borders could work together to locate or develop good databases. Databases containing examples of literature with custom sound and image, interactive books, examples of good feedback and assessment arrangements, names and contact information of persons or institutions one could contact to book a guest speaker, etc.. More

resources could consequently, be put into making local adjustments, taking into consideration questions related to number of ECTS credits and stated learning outcomes.

Both teachers and students are familiar with PowerPoint (and other presentation tools). Traditionally, a PowerPoint presentation is what we might call a “dead” presentation. This means that what the students are served is developed before the teacher enters the auditorium. This finished product is presented, and the performance follows a prepared and rehearsed structure. New slides may of course be added and developed along the way, but the program is not really particularly well suited to do that. The potential and usability are far better with a smart board. A smart board can be connected to large screens, making it easy for students to follow. Here one may edit and develop pre-prepared presentations in dialogue with the students. The revised presentation may then be made accessible to students. The potential is great, but there are also some challenges. Some of these are common with those previously described under blackboard use. Others are of a more technical nature. The threshold for adopting this technology can be relatively high for many, and we will probably, in an initial phase, see some of the same problems associated with lack of skills among lecturers and in relation to equipment problems that we always witness when new technology is introduced. These are, however, problems that can be solved through training and by working closely with technically savvy helpers. The following question, of course, remains : Will this technology help institutions change and improve teaching, or is it just the presentation that is being changed? In that case, what is it that’s so smart about it?



## **TIP 10.**

### **MAKE TIME FOR FEEDBACK**

A couple of years ago, I was asked by a colleague if I could give a lecture about learning for first year students at the bachelor program in pedagogy. I said yes, and asked at the same time how many students there would be, what they had been through until now, and for an overview of the curriculum. I was informed that there were 40 admissions, but that many (40%) had dropped out. I also got the message that I should not expect more than 14 to 15 students to come to the lecture. In addition to being curious about why so many had dropped out, I was quite surprised at the information about not expecting so many students to show up. I am otherwise accustomed that virtually all students come to my lectures. When I asked why so many students had dropped out, my colleague responded that they were not quite sure, but that they believed that the students had found that this was not for them. I followed up by asking what they did about the situation, and whether they had conducted some research to find out why. They had not, but because they had had similar experiences previously, they made sure to safeguard against this by admitting more students than there was initially space for. I am aware that several departments follow this same practice. That makes it no easier to accept. The practice – which I in another context have given the term the “airplane seat effect” – is, on the contrary, totally unacceptable, both from a psychological as well as a pedagogical perspective (Raaheim, 2011). Those responsible cannot have thought thoroughly through which signals they send out. Not only to and about students, but also about themselves and their own learning environment and community of practice. Instead of basing a particular practice on assumptions about how and why students think like they do, one must examine what may lie behind

and explain drop outs. It is conceivable that the way the subject is organized or is being taught has something to do with this. We know from different surveys in various disciplines that a lack of academic belonging is a contributing factor in poor retention (Westli, 2008; Mikalsen & Strøm, 2009).

As part of their quality assurance procedures, all higher education institutions have a system for student evaluation of teaching. That is all very well, but the knowledge gained from such evaluations is quite split. Not least in terms of how they are monitored and what consequences the results have. The challenges are multiple. Often the response rate is low and many times the feedback is inconsistent, making it difficult to know what or how one should improve. Moreover, such feedback could be of limited value if the lecturer(s) in question does not have the same course the next semester. As indicated earlier, much of the power of such a system is lost when mismatches and deviations don't bring about concrete actions. It is entirely possible that a lecturer could repeatedly receive negative feedback without it having any effect beyond that they are made aware of dissatisfaction, for example in the form of a briefing by their immediate supervisor. In connection with the fact that educational institutions have now changed their curricula in line with the National Qualification Framework, it is obvious that changes must also be made with regard to student evaluation of teaching. Where it had tended to be focused on the lecturer, curriculum and physical conditions, the focus now has to be directed towards the *students' learning*. It will, of course, still be important to ask questions about the lecturer, but now it will be in terms of how his / her teaching has contributed to the students' own activity and learning and what they are left with in terms of knowledge, skills and general competence.

One weakness of student evaluation of teaching is that they usually take place after classes are over. It does not give the teacher any opportunity to make what may be significant changes, but it also creates a situation where teachers do not strictly need to make any changes. Unless the dissatisfaction is clearly obvious, the teacher in

question can, if he or she wishes, and because there is no one there to check on them, be content to veer around the pile next semester. My impression is that many teachers are keen to do a good job and that they want to listen to the students. When many students are dropping out or fail to show up at lecture, that is obviously important feedback. The best way to proceed in order to find out why it happens and to prevent future incidents, will be setting aside a few minutes at an early lecture to get feedback right there and then. On the educational offerings and on the lecture. And then follow up with some feedback rounds in later lectures. In this way, you can secure information as a basis for benefitting students. This requires that the lecturer (1) cares about the students, (2) has the necessary transparency and integrity and (3) follows up the feedback that comes in. As we have examined earlier, such feedback may be collected in various ways. One can use clickers and present the results to the students directly or one can use a variant of what was previously described under Tip 6 (colored sheets located on selected seats). You can also choose to invite a colleague to visit your lecture and provide feedback. This is what we practice in our basic course in university pedagogics. Here we divide the large group into smaller groups of 3-4 people and have them visit each other's teaching and provide feedback. These are people who come from different disciplinary backgrounds, but through the course they have gotten to know each other well. We have also developed a structure for how feedback should be presented. If you choose to invite a close colleague to give feedback on your teaching, it may be wise to make an appointment in advance about what you want feedback on.

I have on several occasions met representatives of different subjects who say they are struggling with poor attendance in their courses. In some cases, they have introduced compulsory attendance. Others say they plan to do the same. This is welcomed in various disciplines in professional studies (eg. Nursing education), where the educational institution is obligated by an overarching framework (e.g. Curriculum for nursing education). A study conducted by Dollinger,

Matyja & Huber (2008) shows that it is difficult to predict which factors determine participation in teaching (who participates or not), but that there is a tendency for talented students to participate more often than others. Here it might be appropriate to refer to some early studies that were conducted at the introductory course in philosophy (examen philosophicum) and an undergraduate psychology course at the University of Bergen. The background was a situation where the attendance at lectures gradually deteriorated throughout the semester, with a small “hops” just before the exam, and where the failure rate was relatively high (ranging between 20 and 40%). On the basis of research showing that students want teachers who care about them (e.g. if they came to class or not) and who like to teach (enthusiasm), various measures were implemented. The results were very positive. Attendance in classes held at a stable and high level (near 100% participation throughout the semester) and the failure rate was significantly reduced (it actually zeroed out), even where the group was comprised of a total of 900 students. There was also a clear and positive correlation found between the exam grade and participation. Those who participated in all teaching activities (lectures, student-led discussion groups, trial exams) did clearly better than others on the exam (Raaheim, Wankowski & Radford, 1991; Raaheim & Raaheim, 1996).<sup>8</sup>

Credé, Roch & Kieszczynka (2010) show in a meta-analysis that “participation in teaching activities” is the variable that has the clearest relationship (positive correlation) with exam results. Mandatory participation in education has a positive effect on the grade of students who do poorly on the exam, but not on the grade of talented students. Drop-out rates are neither higher nor lower in cases where attendance is mandatory. Nevertheless, in their discussion of the results, these researchers urge a certain sobriety when it comes to interpretation of data. It is not certain that participation in teaching

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<sup>8</sup> I have firsthand knowledge of these studies, partly because I was responsible for conveying written feedback to all students who participated.

activities and grades have such a strong connection because participation in teaching activities leads to better learning, but that lecturers bring in information that goes beyond what is in the books, and that *“Such unique information may include instructor expertise that extends beyond textbook material but may also contain explicit or implicit information about what questions are most likely to be asked on tests and exams or how assignments should best be completed or approached”* (op.cit. p. 286).

The question of whether one should introduce obligatory elements is complex. But here it is important to emphasize that obligatory education is not synonymous with obligatory attendance. With various technological aids, and in line with what has been said about the importance of exploiting the resource students bring, it should be possible to find good solutions to ensure that students learn what they are supposed to without having to be present in the auditorium at specific times. But then one must not forget to make a more systematic review of the question: Why do many students choose to be absent from lectures / teaching? The studies by Dollinger, Matyja & Huber, and Credé, Roch & Kieszczyńska show that some students choose not to come to the organized teaching sessions because they feel they are getting more out of the work they do on their own, or because there are other matters that take up their time (e.g. paid employment). Dobkin, Gil & Marion (2010) are, in turn, very clear in their conclusion. These researchers examined what effect the introduction of compulsory attendance at lessons would have on students who had many absences early in the semester. *“Putting it all together, our results suggest that if instructor’s objective is to increase academic achievement, then it is worth considering a mandatory attendance policy”* (op.cit., p. 575). For the record, maybe we should add that these researchers found that the most frequent cause of absence was that students overslept. That makes us wonder whether we just as easily could have achieved the desired effect by moving classes to a different time of day?

**TIP 11.**

**DO NOT SAY YES TO EVERYTHING  
THE STUDENTS REQUEST!**

As educational leaders, we have an important task in leading the learning process. Our ability to lead this process comes from our work in the discipline for many years. We have good knowledge of the reflections underlying the way the subject and various educational topics are organized, we have experience from teaching and working with exams, and we are conscious of what it means to have the knowledge and the ideals our academic activities are based on. Then it remains to go into different leadership responsibilities with the seriousness and the gravity that are needed. It means that we cannot simply say yes to all that students ask of us.

When students ask to be given copies of our PowerPoint slides before the lecture, when they pray that the assignment key or other materials used in teaching are posted online, and when they want unlimited access to audio and video of the lectures I do not have trouble understanding them. They have essentially a learning horizon that extends until the next assignment, the next presentation or next exam. There is a lot competing for their attention. Usually they have several parallel courses, and course activities are not always coordinated. This means that the requirements to perform periodically pushes against the time available. Anything that can help make their studies easier, clearer and straightforward is, of course, desirable. We teachers often have a slightly different perspective. We would prefer that students see the subject as we ourselves see it and that they learn with regard to understanding and future application. These two things are not necessary opposites, but they may soon become that if we always comply with students' requests. When I, in different contexts, have been challenged to say something about

how we should relate to the students' many wishes and requirements, I often deliver the following short and apt wording: Students do not always know their own good! This generally leads to some chuckles (among teachers), but the underlying message is serious. It is our task to know what is most appropriate in order to reach defined goals and learning outcomes. Whether we choose to publish relevant teaching materials in advance of (or after) the lecture, or otherwise comply with what students want, our decisions have to be based on what we know is relevant for, and what guides, learning.

When students would ask me if they could get a copy of my slides, I usually answered no. Not to be obstinate, but because I believed (and still believe) that students profit more from making their own notes. Other lecturers will disagree with me and say that they hand out copies because this makes it easier for students to follow what is being said from the lectern. Still others may choose an intermediate solution where they hand out slides with less detail and that they thus force students to take notes. As noted earlier (see Tip 6), this may not be a good solution, if the students just spend their time recording the rest of what's on the slides as they are presented. If we choose to hand out slides and do not expect or require the students in any way to document that they have made the most of them, it is perhaps because we perceive our role as being purveyors of knowledge. Personally, I believe our role is entirely different, namely, to be a facilitator of learning. When I have put forward my views and arguments for the students, I have experienced that they have understood my point of view. It does not mean, however, that they have not made negative comments about this in their evaluation of the teaching. But I have taken that with great composure. We should, of course, avoid being rigid, and sometimes students' arguments are better than ours. At those times, we need to make sure to make adjustments, but it must never be fear of bad results on student evaluations that guides our choices as educational leaders.

As mentioned in Tip 9, there are many good arguments for adopting various technological solutions and aids. But this must be

done with care, and the crucial question must always be what will best serve students' learning. It follows then that we as educators have reflected on what it is we want students to understand in the subjects we teach. Probably most of us will agree with Rowley (2006), where she maintains that wisdom is something other than the possession of – and reproduction of – more or less organized knowledge.



## THE MEDLESNING (Cooperative Reading)

### TIP 12.

#### **INTERVIEW A PROFESSIONAL / EXPERT<sup>9</sup>**

As mentioned earlier, the main point of a medlesning is to energize and grant accountability to students. Medlesning is the key element in the teaching and takes place, in principle, in smaller groups than a lecture, but may very well be carried out in relatively large groups. What matters is that the instructor initially - at the start of the course – establishes an agreement with the students about how the teaching will be conducted. In the example below, I envision that the medlesning is implemented for the same group that meets for lectures. The starting point is a lecture (30 minutes) which covers a specific issue related to one or more learning outcome descriptions and refers to a limited part of the curriculum. This is followed up over two meetings / medlesnings. The outer frame of each of these meetings is 2 x 45 minutes. In order to penetrate the specific issue and this part of the curriculum, a professional / expert in the field is invited to class. Students have to prepare and conduct interviews and discussion with this expert. The specialist has been asked to make a brief summary of his/her contribution to research in this

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<sup>9</sup> The expert does not have to come from outside the institution. On the contrary, it will be an advantage if the person is internal. An expert brought in from your own environment will help to ensure that students get better insight into what is happening locally and that they will have an awareness of what your university's or your national contribution to the field of research consists of.

area (2 pages) in advance. Thus, a teaching plan could look like this:

First medlesning:

1. Teacher picks up on a thread from the lecture and gives a brief summary of this.
2. Teacher introduces the expert: who is this person: what is he / she known for, what is his / her specialty, which publications are central to their work, where does he / she stand in relation to other researchers, which tradition they can be placed in, etc.
3. Students read and familiarize themselves with a summary of the expert's own work, or other literature (an article the expert has written).
4. Students are put together in groups of two or three and discuss all presented information, and are asked to formulate a question for the expert. The questions are collected and delivered to the teacher.
5. The teacher goes through the questions in plenary and groups them. He or she then selects some key questions in cooperation with the students and an agreement is made on who will ask the questions to the expert.

Second medlesning (next week or later in the same week)

1. The expert meets in plenary. He or she is familiarized with the introduction the teacher has previously presented, and has been given an overview of the plans for the course. The framework for the meeting has been made clear to the expert. He/she is, for example, informed about how many questions the students have prepared.
2. Implement the Q & A session. Have a plan beforehand on how this question session will be organized to create the greatest possible engagement and outcome.
3. The teacher leads (administers) a panel discussion after completing the round of questions based on some key topics.

4. The panel discussion ends and students get into groups of two or three to sum up the day, based on relevant learning outcomes descriptions.
5. If using portfolio assessment, one may ask students to enter their (group) written summary (about one page) in the folder. Alternatively, one could have a round of presentations of some summaries with subsequent comments from the expert.

I guess many will argue that a system like the above is not feasible with large groups. Both because the group becomes too large, and because the venue is not suitable for this kind of activity. It is obvious that challenges are greater the larger the group, but the way I see it, this is primarily about logistics. And about establishing a contract with students. Personally, I have had good experiences with implementing a medlesning for groups up to 200 students (Raaheim, 2012). What largely determines whether students get into the program and actively contribute, is how this is presented to them and to what extent they actually experience learning something that is relevant (e.g. in connection with the assessment / exam). In other words, what kind of contract we make with them. But I share a wonder associated with lecture halls. As noted earlier, the traditional lecture hall (auditorium with fixed chairs and tables) is not particularly suitable for such teaching activities. The ideal would have been a flexible classroom which could, with relative ease, be transformed from an auditorium to a learning laboratory. Either that or an auditorium with an adjacent learning laboratory. It is discouraging to witness how conventional architects, builders and representatives of educational institutions think when new buildings and classrooms are planned and equipped. Let me give an example from real life. The number of students in a bachelor's program at one of the country's educational institutions is very high (about 450-500). The program has some mandatory courses. The institution does not have a room which can accommodate that many students. The institution is building and planning new classrooms. What

happens? Based on conventional thinking that teaching is about dissemination, they build a large auditorium – with fixed chairs and tables – that can accommodate the required number of students. The auditorium is equipped with the newest and most modern technologies available, both in terms of filming (recording high quality sound and images with the possibility to record both lecturer and what is presented visually) and presentation (audio / acoustics and smart board solutions). The room is not equipped with “old-fashioned” technologies such as a blackboard or whiteboard. And what does the institution see as the biggest challenge? That lecturers learn to master the technology, and that they master lecturing in large auditoriums for so many students.

Many institutions in a similar situation would have thought the same way. With a different starting point, in line with what is a recurrent theme in this book and in accordance with what has been said above about medlesnings, the challenge could have been handled differently. The basic premise is the same: 450-500 students who are going through the required courses. One great thing about the new technology is that not everyone in a particular course has to sit in the same premises at the same time. We don’t necessarily need, in other words, rooms that can accommodate 500 students (and what if the number of students increased to 600 in a few years?). If we – for a reason that is not necessarily easy to understand – believe that it is important that all students hear the same message at the same time, there is nothing to say that we cannot film and transmit to multiple locations simultaneously. Maybe even to individual student’s computers. The lecturer can, for that matter, be filmed when he or she is in his/her own office. In this way we will undoubtedly reduce the nervousness many feel as they stand in front of a large audience in the auditorium. With the opportunities technology offers in terms of framing and background, it is our imagination (and budget and our performances) that sets limits. The contact between lecturers and students can be addressed by teaching assistants, just like we currently do in large lecture halls.

An alternative would be the following: The most important thing is not that all are in the same room or that they listen to the same message at the same time. What matters is that students learn something, and what they learn. One or more (shorter) compulsory lectures can be made available for students. Students can choose whether they want to see this alone – via their computer – whenever it suits them (within a specified period), or whether they will organize a group viewing in a smaller space. In the latter case, they might also have the opportunity to have a teaching assistant present. To ensure that all students actually see the lecture and use it actively in their own learning, they must complete a specified writing exercise (individually or in groups). The product can either be submitted (to the teaching assistant) for approval or submitted in connection with a follow-up activity as part of a medlesning. The medlesning is, as I have argued previously, the key element in teaching. A group of 450-500 students dictates that we must have 4-5 (parallel) arrangements with medlesnings. A system for a reasonable use of competent teaching assistants ensures that the teacher does not get overburdened by teaching responsibilities.

The benefits of a system like the above are several. We ensure learning outcomes for students in a positive way through keeping them active and making them accountable. It would have us require students to do more than be at a given location at a certain time, and ensure that they in this manner will take on more responsibility, but also greater control over their own learning. And we get a far more flexible teaching arrangement. If there is one thing we can affirm with certainty, it is that technological progress does not come to a halt. Not everything that new technology brings will be equally suited for educational purposes, but there is little reason to believe that smart board technology is the last thing in that area. Technological innovations also change people. People's possibilities, habits and expectations. Tomorrow's students will probably have many similarities with today's and yesterday's students, but there is reason to wonder whether they will settle for passive participation

in large auditoriums. When a building is first erected, it will stand there for many years. There is reason to believe that the room defines the users' understanding of and practices related to teaching and learning. It is far more difficult to write off this room / building as a bad investment than what may be the case for an alternative educational program.

**TIP 13.****EQUIP STUDENTS WITH AN “EDUCATION ACCOUNT”**

Early in my career, and for many years, I taught psychology as part of the introductory training at a nursing college in Bergen. The lessons were spread over the first two semesters, 90 hours general psychology in the first semester and 30 hours of social psychology in the second semester. In the years after I joined as part-time teacher, I have on several occasions been invited back, partly to discuss issues of teaching and learning with the staff. Not long ago, I was invited to initiate a staff gathering. During the discussion, the teaching staff reacted with a mixture of shock and disbelief, interspersed with a bit of envy when they heard that I had had 120 hours at my disposal. Several of those in attendance told about a situation where they had gotten a drastic reduction in the number of hours, while amount of information – and reading – had increased. One of the teachers described it like this: the area she taught had had a rapid development in recent years. A lot of exciting research and new knowledge had been made available in international publications (books and articles). In addition, there was all that was available on the internet. The curriculum had expanded, not least because the new knowledge revealed connections to other parts of the discipline. All this, while the number of teaching hours had simultaneously been reduced. The situation was very frustrating and difficult. To ensure that students learned all that was required, she had put a lot of work into creating a program of instruction that was as structured and tightly packed as possible. That meant that there was less time for discussion and “extra-curricular activities,” since she had so much she had to cover.

I have no doubt that this teacher obtained a good overview of the field and learned a lot by preparing her teaching. I am more unsure of what students were left with. They probably learned enough to get

through the exam. As I see it, this teacher stepped into the classic trap that consists in assuming that it is the facilitator who is responsible for the students' learning and not the students themselves. What could she have done differently and simultaneously ensured that students really learned what they should? In order to answer this question, we must look at what resources this teacher had at her disposal. Time is mentioned, and it is notoriously limited. This teacher is, of course, a great resource, first and foremost because she knows curriculum and regulatory requirements, and also because she has a good overview of the field *and where one can go to acquire knowledge about the field*. The study plan – which includes descriptions of what students are expected to be able to do after completing the course – is another resource. The same goes for the syllabus, the library, and various internet sources. And then we have the students themselves – a very important but often untapped resource. What if the facilitator had done the following:

1. Started with a teaching session where she:
  - a. Gave an overview of the field (development, key issues, points of contact with other disciplines, etc.).
  - b. Went over the course plan and walked through the expected learning outcomes with the students.
  - c. Turned to the syllabus and what other sources the students could go to in order to acquire knowledge about the course description (preferably a list of sources, including references to where lectures are available on YouTube or elsewhere).
  - d. Instructed students to spend time getting an overview of different sources and to organize themselves in groups to get an overview of the material. She could help them in the process by way of presenting some central questions to discuss. Moreover, she could urge students to choose a meeting place to discuss issues related to the course material. Only when they failed to find the answer themselves, or when they wanted more information on a particular topic, could they contact her and book a lecture or other form of teaching.



- e. Enlightened students about how many of her hours they had at their disposal (e.g., 20 hours “on account”) and that she had to have a few days to prepare when they wanted a contribution from her.
2. Came to the classroom and gave a lecture / presentation on the agreed topic / problem. Or she could answer questions or provide feedback on something the students had prepared. Each time the students took advantage of this, the number of hours spent would be deducted from the account, and students would be made aware of how many hours remained.
3. If there was something she did not feel competent to teach, she could ask a colleague to teach (this should be possible to arrange with a certain exchange of services).

One of the strengths of such a program is that students get more responsibility, but also more control over their own learning. In addition, this will ensure that the lectures/teaching meet the students actual needs, and more so than what is otherwise the case. If the teacher had chosen such an approach, she would also need to choose an appropriate way to assess the students. Here it would be wrong to use a traditional exam. This would, in many ways, have stolen the positive benefits from such a teaching arrangement that, to a large degree, envisages autonomy and control. Instead of arranging a traditional exam, one could, for example, arrange some sort of conference where students gave group presentations on selected issues (in the form of posters) and where a short written report was submitted for assessment or credit.<sup>10</sup> What is appropriate must be seen in relation to what kind of activities the students otherwise are engaged in, and what other teachers do. It is, in other words, important that different teaching elements and teaching programs are coordinated so as to ensure that the workload of students is not too heavy.

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<sup>10</sup> For a concrete example of how this can be implemented, see Raaheim, 2011.

## TIP 14.

### TRY OUT TEAM-BASED LEARNING

Team-based learning was developed by Larry Michaelsen, a professor at the University of Oklahoma's Business School in the USA, in the early 1990s. Michaelsen was struck by how little individual students contributed when they, as part of the teaching, were put to work in groups. He was also interested in how much the students got out of traditional lectures. In both cases, the students were to a lesser degree pulled in and made responsible. He wanted to do something about this. Team-based learning is a structured way of working that empowers students, and that hands over a lot of control for learning and the assessment process to students. According to Michaelsen (Michaelsen & Sweet, 2008; 2011) team-based learning is built on four pillars. The first is about establishing permanent teams. These will consist of 5-7 students working together throughout the semester / course. This means that the teacher must focus on putting together good, complementary teams. The team can decide how it may allocate roles and decide any limits on communication. The next pillar is about organizing the teaching program in a particular way, in keeping with what Michaelsen calls the *readiness assurance process* (RAP). This is a four-step process that involves:

1. *Prereading*. Students preparing for teaching / joint meeting (can, for example, be that they have seen a video / podcast or a lecture about a relevant problem or that they have worked with certain written material).
2. Students meet in team gathering and take first an individual multiple choice test (MCQ) associated with the material they have used in the preparation work (referred to as *individual readiness assurance test* / iRAT).

3. In the next step, the team takes the same test as above and must agree on common responses. It is important that the team gets immediate feedback on their performance (can be made using a “scratch-off” card where the answer options are revealed by scratching the surface). This section is referred to as *team readiness assurance test / tRAT*.
4. *Appeals*. If the team feel that they have good arguments for their choice of incorrect answers, they can submit a written appeal where they refer to and argue from the material they have used in the preparation work and the process in teams.

When all the teams have responded, the teacher takes a reconnaissance lap where answers are reviewed and discussed. This can be done in various ways, for instance in that the team who answered all questions correctly could go over their answers and discuss with the other teams why they are correct. They could perhaps also say something about how they arrived at answers. Or the teacher could summarize and explain why certain answers are correct and what is wrong about the incorrect answers.

The next and third pillar is about getting the teams to start applying the information. Here, the teams follow a structured plan that has four features (referred to as *4-S application activities*):

- S-1 Working with relevant – Significant – issues that demonstrate how different concepts can be applied.
- S-2 Make Specific choices based on different options (which option (a – d) is the best example of phenomenon X? What argument would researcher XX be most likely to agree on?)
- S-3 All teams work on the Same problem. This way you will make sure that all teams are interested in listening to each other’s arguments and justifications for the choice of solutions.
- S-4 Simultaneous reporting. All teams answer the same question at the same time, for example by holding up colored sheets where different colors represent different answers.

The fourth and final pillar – *peer evaluation* – consists of members in each team giving their team members individual feedback. This is done in a structured way (there are examples of forms that can be used). Each member first describes what she or he thinks about the team's other members. All team members thus receive feedback from the others in the team. The feedback is related to how well prepared for the teamwork the others were, what they contributed and how they contributed (were they, for example, flexible or rigid, and did they contribute in a positive or less positive way to the team's work). The second part of the evaluation is to give points to each other. Each team member has 25 points available. These should be allocated to each of the other (4 or 6) members of the team in relation to two dimensions: a) specific characteristics / circumstances where another member deserves large praise, and b) specific things one would have liked the other member to have contributed more on. The result – each team member's score – is to be taken into account when the teacher grades the students.

Team-based learning is perhaps not so well known in Norway, but it is widely used in the United States, primarily within the "business disciplines," medicine, and sciences (Nieder et al., 2005; Espey, 2008; Parmelee, 2010; Thomas & Bowen, 2011; Vasan, DeFouw & Compton, 2011). It is a learning- and teaching strategy that is suitable for large groups, but that can be difficult to achieve in the traditional auditorium with fixed seats or seating arrangements. Espey (2008) shows the significance the venue has for implementation. Because each team needs to work relatively shielded from other teams, but also needs to be able to communicate with the other teams, the room layout and the way the program is organized is very important. "... *student attitudes about team-based learning improve with both comfort and physical ease of communication within teams*" (op.cit. p. 764). Nieder et. al. (2005) show that both students and teachers are in favor of team-based learning. Teachers felt that they were able to have better contact with the students, that they got good dialogue, and that this contributed positively to student learning. Students, in

turn, found that this way of working meant that they had to work steadily throughout the semester, and they got a better insight into the key medical issues (courses in anatomy and embryology for medical students). *“Indeed, discussions with students both during and after the course showed that they felt they had to “keep up” with the material on a daily basis, in contrast to the more usual mode of “cramming” the last weeks before an exam”* ( op.cit. p. 61). On the negative side, the students said that they hated to grade each other (points) as part of the evaluation round: *“... they loathed having to score their peers for grading purposes. In particular, there was objection to the required discrimination between team mates (i.e., students could not give all their peers the same score)”* (op.cit. p. 62).

Colleague assessment (peer evaluation) is a central and important part of team-based learning, and acts as a way of assigning responsibility to the students. But that does not necessarily mean that the grade the individual receives is made dependable on the score one gets from the other team members. There is reason to believe that this will also create some resistance in a Norwegian (and, more broadly, a European) context. One can, of course, choose not to let students' evaluations of each other be included in the grading, or one can choose only to deal with the first, descriptive part of the evaluation. No matter which strategy is decided, it is important to let the activities that take place in team-based learning count in the assessment of students. What other additional forms of assessment are included, and how the various elements should be weighted, must be considered in each instance. Personally, I am inclined to think that when one first chooses to introduce team-based learning, the activities that take place there should be weighted relatively heavily. That way you can choose to have a shorter examination with the aim of adjusting the grade.

Team-based learning can be used in combination with other methods of teaching and is thus a good example of what I mean by medlesning. It is, for example, quite feasible for the teacher to keep a (short) lecture at the forefront of every team session, and that the

teams are presented with a task / problem that they will work with up to the team gathering. A team-based teaching structure might look like this:

1. Introductory meeting where the plan is presented and the composition of the teams is determined. Here you can give a collaborative task that will contribute to team building (1-1.5 hours).
2. Introductory lecture on the field with the presentation of some key issues in the discipline (30 minutes).
3. The teams work on given problems in the period before (next) class meeting / team gathering.
4. First team gathering where the focus is on the problems according to the structure described above.

Steps 2-4 are repeated a number of times during the course / semester. The last team gathering is a round of evaluation similar to that described previously. It all ends with an exam. This may be individual or team based. It may be written or oral, practical or theoretical.

## THE ETTERLESNING (Post-reading)

Too many students seem to define “learning” and “work effort” as showing up to and sitting through lectures. Many times students would clearly benefit from using more time for private study. Even in cases where students encounter an enthusiastic and accomplished presenter, the benefits will be relatively limited if students are not processing the material after the lecture. We know that many students do not. Moreover, many students attend the teaching sessions without spending appreciative time to prepare. Ideally, in order that learning outcomes can be the best possible, students should have familiarized themselves with the material beforehand, take notes along the way, and spend some time after the lecture processing notes and correlating this with the reading list. Because we as educators know this is important, and because we have reason to believe that many students do not do this, we should organize our teaching in such a way that we encourage such activities. We should, for example, start by giving an overview of the teaching, the problems we’ll be taking up and examining, showing where in the syllabus this is covered and where students can go to obtain further information. We should do this for the whole lecture series, but also at the start of each lecture. We can afford to spend five minutes at the beginning of each lecture to repeat some key points from the previous lecture. Maybe start by saying the following: “Pull out your notes from the previous lecture. What was the last thing you wrote? What was it we looked at? Well, it was....” Not only will this help to give students a quick update, it will also be a reminder of the importance of taking notes.

I have previously touched on the importance of taking notes and provided an example of what a notes page might look like (Tip 6).

As mentioned in Part 1, we can also help students become more aware of making what I have called *etterlesning* by providing a structure for how this can be done. An *etterlesning* consists of two sub-processes or elements. The first consists of using a few minutes to reflect on, and then writing down a few sentences on what they learned by participating in the lesson. The next is about making a plan for how to proceed. “What was it that was unclear to me? Where can I go to learn more about this? How is what I have just been through related to what the other teachers on the subject have covered? Is there anything of what was reviewed that is not particularly relevant?” Such questions are important for students to ask themselves. If we meet the students several times during a course, we don’t have to set aside time at the end of every teaching session for this, but it might be wise that we do it a few times in the beginning and then encourage them to continue. We might even follow up later and present the students with an opportunity to show how they have conducted an *etterlesning*, for example, as part of a *medlesning*. Again, it is worth emphasizing that even if this takes some time, the potential impact on learning outcomes is huge. If we introduce team-based learning, much of what has been said above will be taken care of by the specific method and structure of the program.

Research has made clear that feedback is important for learning. According to Hattie & Timperley (2007), learners need an answer to the following questions: (a) where am I going (feed up), (b) where am I (feed back), and (c) where to next/ how do I proceed (feed forward). Feedback helps reduce a gap between a here and now situation as experienced by the learner, and a desired understanding. By providing students with a structure for *etterlesning*, as mentioned above, we help students take control of their own learning and assist them in becoming someone who gives feedback to themselves. It does not mean that feedback from others is not important. On the contrary, the feedback students get from fellow students or the teacher is important in that it reprimands their own understanding, and helps



to increase learning outcomes. But it requires that the feedback is specific and fairly elaborate. Feedback of the type, “Good!”, “No!”, “Wrong!”, “More on this”, “Check the book” or something similar, has limited value, as it doesn’t provide the learner with any specific information.

With the introduction of new forms of assessment, such as portfolio assessment, many teachers spend a lot of time reading through and giving feedback on various assignments. In order for students to learn as much as possible, and for feedback to function as intended in the students’ etterlesnings, it is important that feedback gives direction for further work. Below, I give two different examples of how we as teachers may provide written feedback.

## **TIP 15.**

### **SPECIFY A SET OF DEFINED CRITERIA**

In the period 1999-2003, I conducted a project on psychology (introductory course) at the University of Bergen where the aim was to try out alternative forms of assessment. As part of the project, students could choose to replace the traditional 4-hour exam with, for example, portfolio assessment, written assignment work combined with multiple-choice tests, or conference participation. Each of these forms of assessment represented clear breaks with what the students were used to. The fact that I hadn't always thought through all details, I got to experience the first time I introduced portfolio assessment as an alternative. The extent of the folder (three written works of 1,500 words each plus a reflection paper of 500 words) was carefully planned. It approximated the number of words the average student produced on a 4-hour exam. I had not, however, put much thought into the fact that the students were not used to writing such short assignments, with so much time at their disposal. I received many questions from the students, like the following: "What should such a paper look like?" "How should we write (to get good grades)?" It was clear to me that the students needed more information, particularly about what criteria would be used for grading their work. I designed an information sheet and gave each student a copy. This described and briefly explained the assessment criteria. In addition, those who wanted could participate in a separate writing seminar where they had the opportunity to write parts of an assignment that they received feedback on. I also developed a standard feedback form, and instructed examiners on how this should be used. To indicate to the students whether they were on the right path, the feedback form contained information about this. The students received feedback on the first two papers. In addition, the main examiner filled out

a feedback form for the overall folder after the final results were clear. At this point, it was important to describe to students how they had evolved from the first to last assignment. Typically, many students chose not to retrieve this feedback. They contented themselves with the feedback they got along the way, and with getting their grade.

Below is the description the students received at the start of the course and the feedback form that was used along the way. The criteria by which a paper and a full folder will be assessed, must be decided on in advance. Here one has to rely on what a specific subject emphasizes, which is stated in the learning outcomes. My example is taken from a first trial of portfolio assessment with students who were accustomed to writing completely different texts.

### **Instructions on Portfolio Assessment**

Participants in the course will not prepare for an exam in the traditional sense. Passing the course is based on an assessment of the participants' individual folder. This folder shall consist of three written research assignments (term papers) and a shorter reflection paper. Participants will receive a given theme for the three written assignments. The work should include a minimum of 1000 words and a maximum of 1500 words. One of the works could be a joint project between 2-3 participants. In such cases, participants each turn in their (identical) copy of the work.

The assignments should be typed, 1.5 line spacing. On the assignment's cover, the following must be stated: title of the assignment, student number, the number of words. In cases where two / three people have collaborated, the student number of the other person(s) one has worked with should also be included. The reflection paper is not to exceed 500 words. Here the participants should describe in their own words what they perceive as the most important thing they have learned from doing the work collected in the folder.

The grade (A to F, where A is the best, last passing grade is E and where F is fail) is set on the basis of an overall assessment of the three tasks. The reflection paper does not affect the grade, other than that if one does not turn this in, one will not pass the course.

Participants will be offered feedback on the first two papers. The feedback will be provided in the form of a standardized form that describes the paper based on the following conditions: (a) Structure / Content: This relates to the coherence of the writing, balance between different parts and balance between details and the whole, as well as academic shortcomings / unclear presentation. (B) Language: whether the presentation is understandable; fluency (not primarily typos, but sloppiness will be pointed out), (c) Reflection: How the literature is employed, whether one shows that one understands what one is writing, (d) Summary: Here the focus is on the overall picture; what was good and what could be done to make the outcome better. The feedback will also include an assessment of how necessary it is that the student makes a revision of the assignment before final submission.

Two examiners will assess the folders at the end and give a grade for the folder as a whole.

## **Submission**

The first assignment will be posted on (date). Those who want feedback should turn in the assignment on (date) and will get it back on (date). Assignment number two will be handed out on (date). Those who want feedback should turn in the assignment on (date), and will get it back on (date). The final deadline for submission of the folder is (date). Assessment results will be available normally three weeks after final submission. Completed folder should be delivered in two copies at (place). It is not possible to deliver the folder via the internet (e-mail). Participants should be sure to keep a copy of all material submitted. The final written feedback can be collected (location, time).

**FEEDBACK FORM – WRITTEN WORK****Subject** \_\_\_\_\_**Candidate** \_\_\_\_\_**Structure:**

This relates to the coherence of the writing, balance between different parts and balance between details and the whole, as well as academic shortcomings / unclear presentation.

**Language:**

Whether the presentation is understandable; fluency (not primarily typos, but sloppiness will be pointed out).

**Reflection:**

How the literature is employed, whether one shows that one understands what one is writing.

**Summary:**

Here the focus is on the overall picture; what was good and what could be done to make the outcome better.

Must be improved ( )

Can be improved ( )

Acceptable as it is ( )

## **TIP 16.**

### **GIVE CONCRETE AND SUFFICIENT FEEDBACK**

We know that giving written feedback to students is challenging, even when we use a standard feedback form as mentioned in the previous tip. Reading through the answers goes fast, but it takes time to write down comments and suggestions. We also know that the more specific we are, and the more complete our feedback is, the better it is for the learner. My experience, after using a form similar to that described for several years, is that it is very laborious, but that students greatly appreciate receiving such feedback. It works well where we do not have too many students. I have positive experiences with letting student assistants give feedback, but do not have experience with letting students give feedback to each other. Under the condition that they receive training in giving feedback, it is clear that students could do a good job. In that case, teachers can have a more general function, and ensure, for example, that the work gets done in a careful and responsible way by requiring that each student folder contains an example of feedback given to a fellow student.

If we choose not to involve the students, do not have the opportunity to use student assistants, but are confronted with large groups of students, it is nevertheless clear that we can give every single student written feedback. Then we can, for example, use a form that is a variation of the one described below. This is a form that contains a number of standard formulations, based on what we have experienced are common problems / challenges for students at this level. Forms must of course be adapted to the relevant written work (theoretical work, empirical). The example on the next page is created for the occasion and is for illustrative purposes only. Here, the work of teaching consists of checking the categories “yes”

and “no,” putting a circle around some options (e.g. *unclear* under the point of the problem), as well as providing some references to students’ text. If one has checked “yes” for “too many repetitions,” one can imply that in the text with a red pencil and in the form point to the relevant page. Under the point about hypotheses, we can draw a circle around the problem (this can, for example, both be “too many” and “unclear”). By using a feedback form similar to this, we can provide comprehensive and accurate feedback to many students in a short period of time. Sharing the form in advance and going over this with the students will also function as a description of what you expect of students.

<b>FEEDBACK FORM – WRITTEN WORK</b>		
Candidate _____		
	<b>YES</b>	<b>NO</b>
The paper is too extensive / too many words in relation to the assignment description.	X	
The paper is obscured by numerous typos – use a spell checker!		X
Too much repetition. This creates poor overview and understanding for the reader.	X (p.7-9)	
Many sentences appear as incomplete / garbled. Check this and write in shorter, more meaningful sentences.	X (p.5)	
Too many and / or too long quotations from books and other sources.	X (p. 18)	
Parts of the text are directly taken from other sources without citations.		X
The preamble is too rambling / unclear. Does not lead naturally to the selected topic.		X
Research question is; too extensive / unclear / no research question but a heading / too many.	X	
Hypotheses do not follow naturally from the research question. Too many hypotheses. Unclear hypotheses.		X
Selected theory unlikely to shed light on the issue.	X	
Imbalance between different parts of the paper. Xxx _____ occupies too much space. Must be cut down.	X (p. 12)	
Use of examples is good, but here are too many examples that are obviously not relevant.		X
Too many bombastic conclusions and statements. Debate, don't conclude! (Refer to an example).	X (p. 23)	
Inadequate reference list. Reference list does not conform to specified standards.	X	
Summary: (Important to emphasize what is good in the text).		



## PLANNING OF TEACHING

### TIP 17.

### **CONSIDER THE STUDENTS' TIME WHEN PLANNING TEACHING**

A recurring point in this book has been that learning occurs in the students' time, through the activities they engage in on their own or with others. Time is thus an important concept. It takes time to learn, and it takes time to understand. When representatives of different educational environments are planning new courses and subjects, or when they undertake revisions of current study plans, they usually begin with a process of looking at what has been. Of syllabi, of teaching, of the exam and assessment arrangements, as well as who usually has taught and offered what. The next step usually consists of making some (often minor) adjustments. My suggestion is to start at the opposite end, namely by asking the following overall question: What do we want students to learn? The answer – which may take a long time to agree on – must be decided before starting to formulate specific descriptions of learning outcomes.

When one has discussed and reached a consensus on this point, it becomes imperative to accept that learning occurs not primarily through participation in teaching, i.e. at / during the lecture. Learning takes place before or after the organized teaching session. Such a recognition has two important implications: 1) If we occupy most of the students' time in the form of organized teaching (compulsory or not), students have less time for their own activity and consequently less time to learn. 2) As teachers, we should be clearer about the importance of and get better at facilitating

students' own work. Let me try to illustrate the above point with an example. We start with a topic that has a scope of 10 credits. We find ourselves at the bachelor's level, first year. This we know: An academic year comprises 60 credits. In Norway, this corresponds to a total workload / scope of 1600 hours. This means, in other words, that one credit has a workload of 26.6 hours. The total student time disposable in a 10-ECTS subject is consequently 266 hours. Within these constraints, all forms of organized and self-initiated activity must take place: lectures, seminars, independent study, writing assignments, exam. Everything. Let us for the sake of the example assume that the students in this case attend a course where the course leader has introduced portfolio assessment. Similar to what I described in Tip 15, students will submit a folder containing three written assignments plus a reflection paper. The assignments will have a length of 1500 words, the reflection paper 500 words. In addition, the intention is to have an individual examination (MCQ) for 3 hours. The first question we must ask ourselves is: how long do students need to write 1500 words? Here we can avail ourselves of the template that has been developed by Finnish scientists, the so-called Study Workload Calculation Sheet (Karjalainen, Alha & Jutila, 2008). In line with this, one may assume that a student can write somewhere between 50 and 200 words per hour, and read (to learn) somewhere between 3 and 5 pages per hour. Since our students are fresh and unfamiliar with writing academic texts, we estimate that they write 50 words per hour. That means we have to calculate 30 hours of work on a task, and 90 hours in total for all the work included in the folder. If we choose to say that our students read 5 pages per hour, we must calculate that it takes 120 hours to get through the syllabus (600 pages). In line with what is normal for a 10 ECTS course, teaching includes lectures and seminars. Twelve lectures (at two hours each) and 12 seminars (at 2 hours each). As we see from the template recommended here, we should add 1-2 hours preparation for each lesson and 1-2 hours post-production. If we agree to 1 hour preparation and 1 hour post-production, it means that

the 12 lectures comprise 72 hours of student time. The same applies to seminar participation. And then there is the exam. According to Karjalainen and his colleagues, we must take into account that students need ample time to prepare for exams, as much as 20% of the total time available. That would imply 50 hours in our case. Then we are left with the following statement:

**Study Workload Calculation Sheet applied to a hypothetical 10-ECTS course at the undergraduate level.**

TIME FRAME GIVEN IN CURRICULUM (IF AVAILABLE)	10 ects
CONTACT TEACHING HOURS (=CT)	48
INDEPENDENT STUDY HOURS RELATED TO CT 1-2 BEFORE CT 1-2 AFTER CT	96
READING THE MATERIAL 40-100 WORDS/MINUTE OR 3-5 PAGES IN AN HOUR	120
WRITING THE ASSIGNMENTS 50-200 WORDS IN AN HOUR	90
EXAMS (IF SEPARATE) 1/5X (ONE FIFTH OF THE TIME FRAME GIVEN IN CURRICULUM)	50
OTHER TIME DEMANDS TAKEN INTO ACCOUNT	
SUM OF THE STUDY HOURS (=SH)	404
CONVERSION TO ECTS-CREDITS SH/1600×60	15,15

As seen in this statement, the total workload adds up to 404 hours, which equates to a little over 15 credits. In other words, an overload

of 50%. The fact that we end up like this may not necessarily be negative. As I have mentioned previously, students could add a lot of extra effort if they find that the subject and the activities they engage in are interesting, and if they feel they have some control over what happens. Before we accept such knowledge, however, we should consider the following: normal study progression suggests that students take 30 credits per semester. Given that 10 credits per course is the norm, that means that they are, at any given time, working with three, more or less parallel course subjects. If we assume that all courses have fairly similar schemes, this means that the total workload for students is very large, and that they will, at times (e.g. in connection with the submission of written portfolio work) feel an overload. The effect of this we can only speculate. It is, for example, not unreasonable to assume that the lack of completion of individual courses and thus fewer completed credits may result. From what we know about the causes of cheating and plagiarism, where time constraints are an important causative factor, it is not unreasonable to assume that questions related to academic dishonesty becomes relevant. What can we do to establish greater consistency between the norm (266 hours) and reality (404 hours)? As I see it, there are two options. The first of these, as many would surely turn to because it is typical of the way a traditional way of thinking attacks such issues, is about “shaving” some off the study plan. This can be done in two slightly different ways, either by cutting out some elements, or planing evenly all over and cutting a little everywhere. If we choose the first, we can, for example, take away the exam. Then we have saved 50 hours. Nevertheless, the scope is still too large. If we cut the seminars, we would save an additional 72 hours. By doing this, we get closer to the norm and are within what we can accept (282 hours). Planing everything evenly, we can reduce some off of the number of lectures, some off of the number of seminars and a bit off the number of written folder works so that we eventually end up with a reasonable number of hours. What characterizes both these solutions and this first option, is that they are based on and justified

by systemic conditions. As if the most important thing is to have a plan that meets specific requirements for what a curriculum should look like.

Option two starts with the following question: how do students learn and what is the most effective way to learn? As I have mentioned many times already, and as documented by others, including Schmidt et al. (2010), learning occurs primarily through the activities the students are involved in. In that case, it is important that we create a good structure around students' work. As I have tried to argue throughout this book, this is the kind of role we as teachers should enter. If we ask students what they see as important in order to get through what they need to get through, and learn what they have to, it is not inconceivable that they would want more teacher-directed instruction (read: more lectures). And probably also lectures posted on the web. Rather than that, we should reduce the teacher-led instruction. If we changed our program and introduced team-based learning, not only would our accounts look completely different, research suggests that students would learn more as well (Zingone et al., 2010). The gain is in the structure: in team-based learning students connect self-study directly to the activities taking place in the teams, both in the period between public meetings and in the general session. We may also want to use the kind of activities that takes place as part of the pre-reading, and those that take place at the team-gatherings, for assessment purposes. We could, for example, let teams' scores on the readiness assessment tests (tRAT) be included as part of the assessment, possibly also together with the teams' written reflections and evaluations where they apply their knowledge (4-S application activities). Whichever solution we end up with will have to be based on which competencies and which learning outcomes one considers important. One must also consider whether one should use graded marks or pass / fail.

If one decides to introduce team-based learning, or another variant of what I have called medlesning, whether one I have described or some other, then it is important that one makes sure

that those who will lead these processes are being trained on how to use them. Equally important is that students are well informed and briefed on the approach. Perhaps one should also invite students to influence the approach, both in terms of structure and content, but also in terms of how the assessment is made and what should be assessed.

## FINAL REMARKS

The teaching of large groups of students offers many challenges. As I see it, these challenges can be grouped into two main categories: 1) challenges related to (specific characteristics of) students, and 2) challenges related to group size. A few words about each of these. As I have mentioned earlier, there is a big difference between teaching new students and students who have some years of experience (in the discipline). The transition from one learning context to another – for example from high school to university or university college – involves major changes. On the one hand this is about easily seen and thus obvious differences, such as far larger syllabi than what one is used to, no homework (in a traditional sense), greater distance between student and teacher, voluntary (mostly) attendance and less direct supervision, just to name a few. But it is also about other and far more difficult to discern relationships, which exist as a set of expectations and assumptions. Expectations and assumptions relating to the role of the student and expectations and assumptions relating to being part of a learning and knowledge environment known at a university or university college. It is often easier for students to relate to tangible things like those mentioned above, than is the case with regard to various expectations and assumptions that are not always clearly articulated. It often takes some time until one manages to “crack the code” on how to be confident in one’s new role and what all the new consists of. Jan Meyer and Ray Land (2005) describe this as “threshold crossing.” The road into the new landscape goes through certain cognitive portals or barriers (thresholds). As one passes these barriers / portals, new opportunities to absorb new knowledge open up, but also new knowledge about oneself (what

Meyer and Land describe as “repositioning of one’s self”). *“A new way of understanding, interpreting, or viewing something may thus emerge – a transformed internal view of subject matter, subject landscape, or even world view”* (Meyer & Land, 2005, p. 373).

Other researchers, such as Kiley (2009), describe this as a sort of ‘rites de passage’. Such transitions apply not only where we go from high school to university or university college, but also where we go from being an undergraduate to becoming a master student, and where we go from being a graduate student to a PhD candidate. Wisker & Robinson (2009) and Kiley & Wisker (2009) show how the penetration of various disciplines and working on a PhD project, also can be described in terms of overcoming certain epistemological barriers (conceptual threshold crossing). We teachers tend to not think about these things: what such barriers may consist of, and the reason why some students sometimes have difficulties getting ahead in their studies. Simply because we did not experience these transitions as particularly difficult ourselves, or because we have not spent much time reflecting on what we ourselves did as students. This means that we do not automatically know what to do to assist students in their academic “penetration process.” The consequences are that we sometimes, also because different students are in different places in their professional development, resort to simple and individual-based explanations (of dropping out, lack of academic progress, or of pre-conceptual reflection), while the cause may just as well be related to what is mentioned above. It is also much too simplistic to explain the above in terms of differences in learning styles among students; that some are more auditory while others are more visual, tactile or one thing or another, and that teaching should be planned accordingly. Which epistemological barriers that exist within different disciplines is an empirical question. If we teachers spend only a little time reflecting on these matters, and be a little more conscious of the challenges students face, we would also be able to clarify things for them, and thus pave the way for mastery. Admittedly, some students are more interested in the subject than



others, some students work more than others, some are more knowledgeable than others, and our personality is more “aligned” with some students than others. This we must live with. Whatever we do, we will not be able to satisfy all sorts of needs or interests.

The second set of challenges is related to group size, and that’s what this book is mainly about. As should be apparent from the foregoing, these challenges may also be split into two. On the one hand, we have the relations between teacher and students: who does what when and how to achieve what is a common goal, namely that the students learn. On the other hand, we have the classroom, the physical and the virtual. The message of the book is that we as teachers have a lot to go on in order to create greater activity and more commitment among the students, and that we must get better at challenging traditional notions of teaching and assessment. To achieve this, we must be willing to let go of some of the control that we as individual actors and an entire system seem to be so concerned about.

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