

Minimal teaching skills for higher education teachers – a global debate amongst experts in higher education teaching and learning

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Abstract: What are the minimal teaching skills for a novice teacher in higher education to successfully survive the first years of teaching? After 19 years working as an academic advisor in Switzerland and abroad, the author of this article has attempted to summarize the essentials in a publication called “Competence-Oriented Teaching and Learning in Higher Education – Essentials” (Bachmann, 2018). To verify the appropriateness of the selection in the book, a survey was conducted amongst 25 higher education teaching and learning specialists from Europe, the Americas, Australia, Asia, Middle East and North Africa. This article presents and discusses in detail the feedback obtained.

Keyword: higher education teacher development / minimal teaching skills/ novice teachers / self-study guide

In search of the holy grail

What is needed to be a successful higher education teacher in today’s globalized and rapidly changing world? Is it at all possible to define a minimum that is valid for all kinds of teachers? Regarding the diversity amongst different universities, the variety of subjects and backgrounds of teachers and students, one might discard the idea as being presumptuous. On the other hand, there is a need for orientation in the ever-increasing flood of new publications in the field of higher education teaching and learning. Overwhelmed by the amount of information, novices look for guidance and support. The book “Competence-Oriented Teaching and Learning in Higher Education – Essentials” is an attempt to help them.

In the ECTS Users’ Guide (2015, p. 22), the term competence is defined as the proven ability to use knowledge, skills and personal abilities in work or study situations. To this effect, a generic model was developed, which describes the teaching competences needed for a higher education teacher (see Figure 1). As Argyris & Schön (1995) write:

“For competence management it is very important to identify and analyse the competences of experts in order to develop and renew them systematically and recruit new experts when needed” (cited after Kallioinen, 2010).

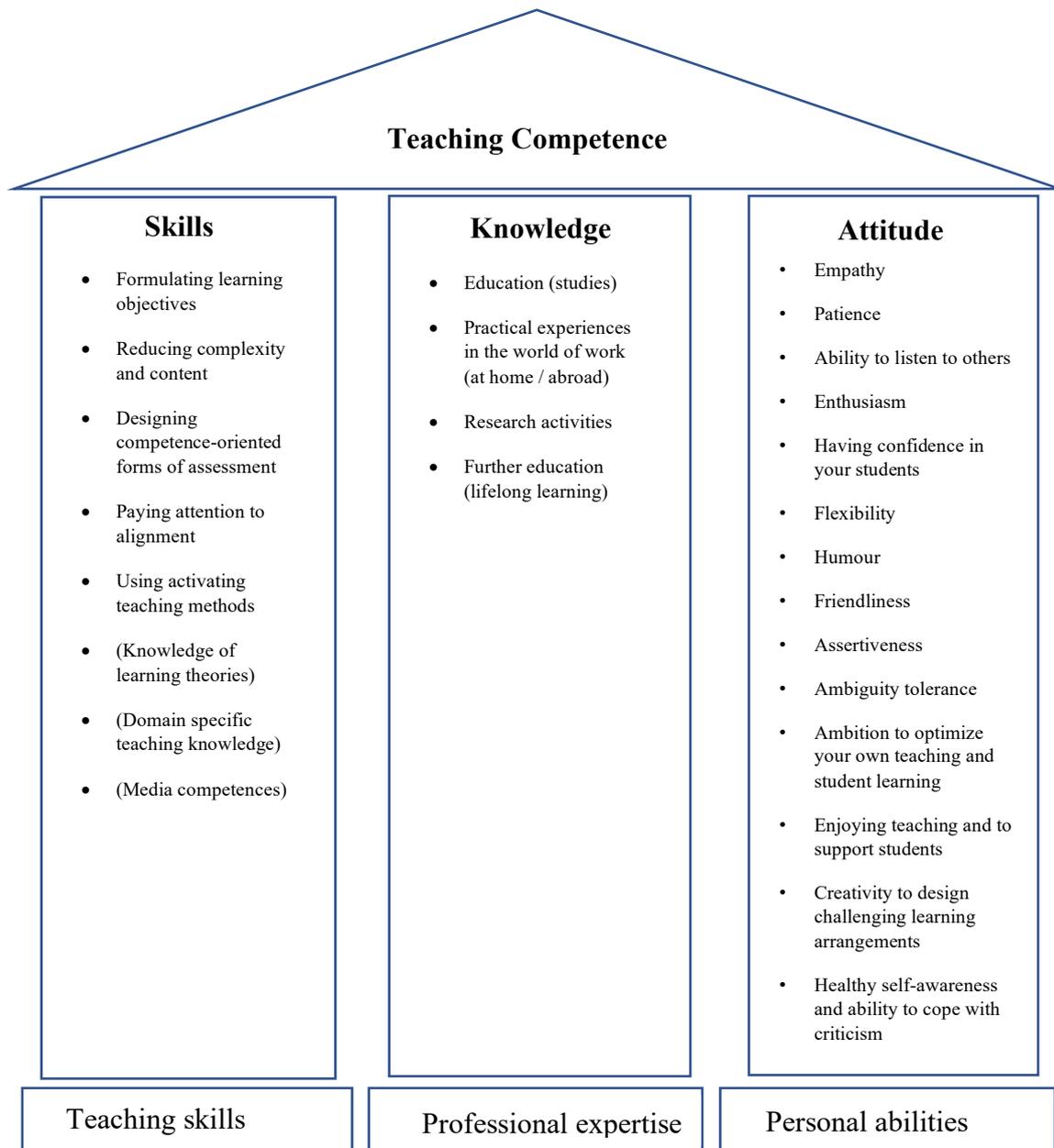


Figure 1. Generic teaching competence model for teachers of higher education with constituent elements (translated from Bachmann, 2019a)

Competent teachers need to be experts in their fields; they should have a thorough and comprehensive understanding of their subject. Their professional expertise is the result of their own studies, work experience in relevant fields at home and preferably also abroad in an international environment, their own research and continuous, lifelong

learning. For students the personality of a teacher also plays an important role (Hattie, 2009; Bain, 2004; Goleman, 1995). Empathy, patience, respect, humour etc. are important elements to facilitate student learning. How to foster attitude is a long-term endeavour and definitely one of the biggest challenges in teacher training, but it is not a topic in this article. The scope here is confined to teaching skills (see Figure 1) with a focus on learner orientation and competence orientation in the classroom.

It is undisputed that there are many other factors that can compromise successful teaching (Hattie, 2009; Helmke, 2008). For example,

- missing resources (time for preparation of classes, ill-equipped classrooms...)
- large groups of students
- overloaded curricula
- lack of professional expertise of the teacher
- lack of personal skills on the side of the teacher and/or the students
- lack of learning competences among the students etc.

Higher education teacher training courses are not appropriate for solving these particular problems. Regarding the development of teaching skills, however, the situation is very different. Skills can be trained effectively and should therefore be part of any higher education teacher's career.

Minimal teaching skills

Academics in higher education are, apart from their teaching commitments, often active researchers. Additionally, many of them also work part-time in companies. Switching between these various roles has obvious advantages but often limits how much time academics can afford to spend on their teaching obligations. The situation is aggravated by the fact that traditional ways of teaching are being challenged today by the professional competences needed in the rapidly-changing world of work. For a very long time, the expertise in one's own discipline has been the most respected feature of a university teacher (Postareff et al., 2007). Therefore, newly-appointed teachers still strive to become experts in their field of study and invest a large proportion of their time into research. Hopefully, during their career in higher education, they will place more and more emphasis on teaching.

Taking these circumstances into account, an attempt was made to select topics

considered to be the bare minimum for effective teaching and learning, and to publish them in a small book with not more than 140 pages. They comprise:

- a contextualisation of the paradigm shift from teaching to learning
- guidelines for formulating competence-oriented learning outcomes
- strategies to reduce complexity and amount of content
- strategies how to design competence-oriented forms of assessment
- ideas how to activate students.

The selection of the topics is the result of literature research (e.g. Ramsden, 2003; Campbell & Norton, 2007; Biggs & Tang, 2011) and a baseline study conducted at the University of Teacher Education, Zurich (PHZH) (Bachmann, 2009). In this study the behaviour of students and teachers in over 60 different classrooms was recorded with the help of the VaNTH observation system (Harris, 2002). Furthermore, continuous feedback from teachers who attended a certificate course in higher education teaching at PHZH was collected. In their feedback, course participants evaluated the usefulness of the imparted skills for their teaching tasks. Finally, a tracer study amongst former participants eight years after the introduction of the above-mentioned higher education certificate course was conducted to analyse the longer-term impact of the teaching development programme (Bachmann, 2015).

Survey

To verify the appropriateness of the chosen topics, the book was distributed amongst higher education teaching and learning experts (researchers and staff developers) from different countries. They volunteered to read the publication and to answer the following online questionnaire by March 2019.

Dear colleagues

After 40 years in teaching and many years in coaching and supporting faculty in optimizing their teaching activities, one question that has accompanied me all these years still remains: what minimal teaching skills does a teacher in higher education need to survive his or her first year at the university? To narrow down the scope, I focused on learner-oriented and competency-oriented teaching approaches. I write to you not as a knower but – like me – a seeker. Therefore, I would love to receive your opinion and learn more about your experiences.

1. *What do you think in principle about the idea of attempting to write a relatively short publication about minimal teaching skills for novice faculty in higher education, independent of their field of expertise?*
2. *With respect to these minimal teaching skills, did you miss any topic(s) in our book?*
3. *Considering the aim of keeping such a book relatively short, which topics would you remove or reduce in this book to make room for any additional topics?*
4. *How appropriate do you consider this book in terms of being a self-study guide for beginners? What needs to be considered in addition?*
5. *Personal data (name, academic title, original field of study, university, country of residence, years of teaching experience)*

Country	Name, academic title	Original field of study	University	Teaching experience [years]
Argentina	Gisela Schwartzman (and colleagues), Professor	science education	Instituto Universitario del Hospital Italiano de Buenos Aires	27
Australia	Keith Trigwell, Professor	chemistry	Sydney University	45
Austria	Olivia Vrabl, Dr.	philology, education	University of Vienna and others	10
Austria	Eva Werner, Mag., Professor	Romance languages and literature	IMC University of Applied Sciences Krems	13
Belgium	Ann Stes, Dr.	education	University of Antwerp	19
Canada	Jennifer Godfrey Anderson, Assistant Professor	education	Memorial University	11
Chile	Juan Cristobal Nagel, Professor	economics	Universidad de los Andes	13
Chile	Robert Pardo, Master in Cognitive Psychology & Learning	linguistic	Universidad Adolfo Ibáñez	20
Egypt	Alsaeed Alshamy, Associate Professor	education	Alexandria University	10
Estonia	Katrin Aava, Associate Professor	linguistics	Tallinn University	15
Finland	Liisa Postareff, Associate Professor	educational sciences	University Turku	13

Germany	Manuela Zimmermann, Diplom Ingenieur, MA	architecture, education sciences	University of Applied Sciences Rosenheim	4
Germany	Tobias Jenert, Professor	management education	Paderborn University	10
Hong Kong	Tracy Zou, Assistant Professor	organizational studies	The University of Hong Kong	6
Ireland	Iain McLaren, Adjunct Professor	astrophysics	National University of Ireland, Galway	35
Lebanon	Megan Khairallah, Assistant Professor	education	University of Balamand	10
Liechtenstein	Monika, Litscher, PhD	cultural sciences	University of Liechtenstein	13
Nepal	Basanti Roshan Shrestha, Master of Education	education	Training Institute for Technical Instruction, TITI	19
Romania	Romita Iucu, Professor	educational sciences	University of Bucharest	23
Spain	Georgeta Ion, Professor	education	Universitat Autònoma de Barcelona	15
Switzerland	Dieter Euler, Professor Emeritus	economic education	University of St. Gallen	over 30
Switzerland	Roland Stähli, Professor	agriculture and educational sciences	University of Applied Sciences Bern	22
Switzerland	Roland Tormey, PhD	sociology	Ecole Polytechnique Fédérale de Lausanne, EPFL	23
Tunisia	Amel Meziane Fourati, PhD	applied linguistics	The Higher Institute of Applied Studies in Humanities, Zaghouan	8
United States	James Groccia, Professor Emeritus	educational and counselling psychology	Auburn University	40

Table 1. Survey sample: 25 experts involved in faculty development

Analyses of the results

The answers received were clustered based on similarities and shared opinions. Differences were recorded separately.

Idea of minimal teaching skills

Asked about the idea of publishing a short and concise book for novice teachers in higher education, all (!) participants of the survey welcomed the initiative and considered it to be a valuable undertaking. To give the reader an impression of the answers, four randomly selected quotes are cited below:

- *This is a great idea as time is always a crucial factor and extensive publications risk not to be read at all. The book covers the essential aspects – perfect for a good start for novice faculty, but also a good tool for those who need some refreshment. The book is short, concise and really helpful – even after many years of teaching and running workshops for colleagues it was a pleasant reading.*
- *I find the publication very important and valuable. Our very recent research shows that novice teachers feel a lot of anxiety and stress related to their first teaching tasks. At least in my country's universities, they do not typically have any pedagogical studies before they start teaching, and their self-efficacy for teaching is not very strong. Providing this kind of a short publication about minimal teaching skills is highly relevant.*
- *To start with a general, overarching comment (before running the risk of getting lost in all the detailed considerations): I find this book both worth reading and readable. With the specific target group in mind, it really fills a gap and provides interesting knowledge for those who do expect more than some superficial tips and tricks.*
- *Very good idea. Minimal reading investment. Good overview and ideally a trigger to be hungry for more information and practice.*

To counterbalance the very positive feedback some critical remarks have to be mentioned as well:

- *In principle I think that such a concise publication makes a lot of sense. Whether the claim that such a tool works for all disciplines is valid – well, I am not so sure. I think that at least some global distinctions e.g. regarding disciplinary groups would make sense.*
- *The principle is good – a short, accessible and practical book is always welcome. At the same time, it is challenging to make the relevance of the ideas clear to teachers when it is independent of their discipline of teaching.*
- *I think it is a good idea, though hard to implement, due to differences in context. It is needed because in many activities done under the umbrella name of faculty development, we need to have clear in mind those essential issues.*

It seems that some experts have reservations regarding the claim to present topics that are essential for all kind of disciplines. On a higher level the two different sets of answers reflect a longstanding debate about general vs. subject-specific teaching practice (e.g. Klafki, 1994; Plöger, 1994).

Based on the experience of the author, the doubts of some experts are understandable but not justified. In the certificate course at the Centre for Teaching and Learning in Higher Education at PHZH, we have mixed all kinds of university teachers in the different modules and hardly faced any problems regarding the different backgrounds of the teachers. Quite the contrary – the participants welcomed the opportunity to interact with teachers from other subject areas and to exchange ideas (Bachmann, 2015).

At the same time, one has to acknowledge the difficulties newcomers face when transferring theory into practice (Mestre, 2006). Concrete examples from their own subject area, therefore, would be undoubtedly helpful in lowering this barrier. An elegant solution would be to develop “essential” material for each subject area using the same book, but supplemented with examples and suggestions for application from individual scientific disciplines.

Missing topics

The guiding principle of the book was to keep it short and simple. Keeping this in mind the responding experts were asked if they missed any topics. The answers to this question were particularly heterogeneous. Almost everyone had some suggestions for additions:

- *It is a very comprehensive content, there are hardly any topics missing. I would kindly add, perhaps, some sub-topics related to classroom management or group management, but this is an additional topic.*
- *I think that this book should have had a chapter on education technology and the impact this field has had on all teaching and learning. I also think that there should have been a chapter on learning theories connected to teaching approaches and teaching models.*
- *I would have loved more on how to structure a unit, learning cycles and how to structure a semester.*

- *I feel that the topics covered in the book are well selected, representing some of the very basic strategies and skills one might need. If space allows, I might wish to add “how to motivate students”. In the context of my country, I see a lot of new faculty members struggling with motivating their students.*
- *The book is useful and comprehensive guide of the state of the art on teaching and learning in higher education. A section on the syllabus would have been helpful – the syllabus is an important motivating component of any class, and the book does not really talk about this in depth.*
- *It is difficult to answer. I personally could have used more information about problem-based learning or some new teaching and learning methods.*

Interestingly, hardly any of the proposed extra topics were mentioned twice by any of the 25 interviewed experts. A possible interpretation could be that additional themes depend very much on personal context and are therefore not of common interest.

A few teaching and learning specialists reminded themselves of the guiding principle of the book and therefore agreed not to add any topic:

- *The content is complete. Maybe some specific group strategies to enhance active learning would be interesting. However, I believe the book touches the main aspects of a teaching situation.*
- *Actually, no. I think that additional topics would take away the charm of this publication and it would become another must-have but not must-read book.*
- *No. It’s a different style to many of the other sources of information that are typically used in our context. Much of the literature we use is typically from the Anglosaxon-sphere and puts a lot more focus on aspects of “reflective practice”, but at times spends a bit too much on this dimension; many new teachers just want to get started with practical advice rather than diving straight into self-examination and psychoanalysis! This book is brief, but that’s its intention.*
- *No, I felt that the focus on the learner is appropriate and that the key areas are addressed.*

Removing topics

Considering the aim of keeping such a book relatively short, the experts were asked which topics they would remove or reduce to make room for additional topics. Most of them would not remove any topic:

- *I would not remove any topics. Book accomplished its goals. However, I might consider modifying the title to “Competence-Oriented Teaching – Some Essentials”.*
- *I think that the book is excellent as it is. It is an easy read and I don’t see why it should be reduced. The link between the chapters is very strong. Reducing it may undermine its coherence.*
- *I would not have removed any of the topics. They were very well connected.*
- *I would not remove any topics as they are all crucial and cannot be removed to give space to additional topics.*

Still, a few experts were rather critical about Chapter 3 – Strategies to reduce learning content:

- *Chapter 3 is potentially problematic. Although the idea is good, it could be read by some people as “dumping down” the curriculum (which I understand is not the intention). I can envisage some teachers being put off by this chapter (this may reflect different institutional cultures around how “excellence” is defined).*
- *The book is nice, there is little to reduce. I think chapter 3 could have been summarized or integrated into other sections.*
- *Possibly chapter 3 could be skipped.*

The task of any teacher is to think about strategies to reduce the complexity of the information presented to students; differentiating between things students “must know” and content that is only “nice to know” is still regarded as a central component in the teaching and learning context (Lehner, 2012). Somehow this message was not conveyed in a convincing manner for all experts and the chapter therefore needs some revision.

Self-study guide

To have an idea about the usefulness of the book as a self-study guide, a random selection of answers are cited below:

- *I think this is very useful. While it is tricky with edited content, I would recommend that all chapters could be formatted similar to chapters 1&2. These two chapters are organized in such a way that practitioners can easily refer to the quick guides. The other chapters did have very useful tables and diagrams, but more sub-headings and bulleted lists would make them more usable.*
- *I think beginners need a little more reference on different topics, so that they can on their own leap from one topic to the literature that deals with it more in depth. As a self-study guide for beginning faculty members it is good, but it leaves them wanting more.*
- *This book is appropriate as a self-study guide for beginners, potential teachers, trainers and instructors because it mentions detailed information about the advanced organizer, learning outcomes, when to assess, plagiarism, and brief information about feedback. These topics are strongly supported by many diagrams and graphs.*
- *The book can be used individually. Amongst other things, I like some of the graphics and figures very much because they nicely summarize and illustrate different facts. To increase the comprehensibility, one could introduce the chapters with some leading questions to raise curiosity or add additional examples how to apply the presented strategies.*
- *I think that this is an excellent idea but one which also needs to be supplemented with additional, more-detailed information. Beginning faculty members have not usually been provided this information in their discipline-specific graduate studies. I think this book is an excellent resource and would be helpful to many faculty members.*
- *To be a self-study guide, you should include some resources or activities that make it possible to build knowledge in interaction with the text. For example: questions to link what has been read to one's own teaching experience, suggestions to look for examples linked to their disciplinary field, where to deepen this first reading.*

The comments show the usefulness of the book as a self-study guide. At the same time some valuable inputs were given as to how to optimize the text.

Additional comments

At this point the main idea of the book should be recalled (Bachmann, 2018):

What in minimal art has a long tradition – reducing shapes to a bare minimum – is a guiding principle of this publication. What is the essence of good teaching in contemporary higher education? The idea is not to present a comprehensive book with detailed guidelines for all kinds of teaching situations but rather to offer a selection of topics that are considered the bare minimum for effective teaching and learning.

This said, it was never the intention to reduce higher education teacher training courses solely to studying this book. The editor of the book is convinced that additional strategies are needed to support the development of higher education teachers. Several of the teaching and learning specialists questioned came up with ideas how to supplement the book:

While teaching is much more than what happens in face-to-face situations, novice teachers find the public face-to-face sessions most demanding and stressful. A lot of their preparation time is spent finding ways to “stay safe” and this works against the learner-oriented approach proposed in this text. They seem to value opportunities to see how a learner-oriented approach is done. As a self-help guide, including advice on how the novice might arrange to experience the teaching of others in their own fields, or an accompanying source of information on where they can find reflective videos on teaching might be useful additions.

This comment also reflects the experience of the author of this article. The shift from teaching to student learning is not a trivial exercise; commented videos, made during classroom observations, are a good way to demonstrate its application in real-life situations. At our centre we also work with videos we have taped ourselves. An additional advantage is the fact that the observed classroom settings are familiar to our teachers and therefore more easily foster transfer to their own classrooms. An example of such a video can be watched under the following link: [Link](#)

Another colleague recommended complementing the reading assignment with workshops:

In terms of the book as a self-study guide: for real novice colleagues it might be difficult to get the whole lot right – I’d rather recommend linking it with a workshop or a series of short explanatory webinars.

Again, this comment is in line with experiences at our university. For 15 years the Centre for Teaching and Learning at the PHZH has been offering a certificate course in higher education teaching with a workload of 300 hours. The course has also proven to be a valuable source of information about what is really needed in the classroom. A short description of the format, together with a collection of statements from participants about this course, can be found under the following link: [Link](#)

One of the biggest challenges when training higher education teachers is the formulation of learning outcomes or learning objectives. Learning objectives are the starting point for any teaching activity and the point of reference for judging a learning unit. At the same time, it's a topic that many teachers feel they already know and are therefore often unwilling to pay special attention to it:

I think the chapter on learning outcomes is very well written as it clearly presents definitions and examples. From my experience on running workshops on teaching and learning, I have found that this is one of the hardest concepts for faculty outside of education to grasp.

This comment mirrors our own observations. Therefore, an online self-study tutorial was developed to support teachers to tackle this challenge (follow [link](#) for access).

When introducing new ways of teaching and learning in the classroom, teachers may encounter a problem with non-cooperative students. Without explanations why classroom teaching is changing, the students are often averse to new methods that expect them to be more active. To remind teachers and students of their obligations regarding the learning process, we developed a small brochure and distributed it amongst all our first-year students and teachers.

I think the book is very useful. I teach post-degree teacher interns. While they have a degree in their subject areas, they are surprised at the efficacy of different teaching strategies they encounter in the education faculty. I really like your brochure.

A copy of this brochure can be downloaded from the internet together with some guidelines how to fold it into a handy flyer (follow [link](#)).

As a teacher you are not only a professional expert but also a learning specialist. As already mentioned earlier, someone wrote:

I also think that there should have been a chapter on learning theories connected to teaching approaches and teaching models.

In order not to overload the “Essentials” book, this topic was deliberately renounced. But we totally agree with this colleague that over time a good teacher should be familiar with learning theories and their application in the classroom. Learning is a key issue in education. Being familiar with contemporary learning theories, therefore, is an essential prerequisite for education scholars and practitioners alike (Pätzold, 2011).

A short text we use in our courses focuses on classical learning theories and their application in the classroom, with checklists for teachers and students alike (Bachmann, 2019b).

Minimal teaching skills are a starting point for becoming an expert teacher, but it doesn't stop there:

In my opinion the length of the book is absolutely fine. Additional information e.g. about evaluations, feedback culture or concrete methods would be too specific for this kind of overview. But there could be a follow-up with more specific topics.

Also this idea is in line with strategies we use to support teachers in their endeavour to optimizing student learning. Different teaching methods that help to activate students are explained in another publication from our team (Bachmann, 2013) in which we show how to use:

- simulation games
- flipped classroom
- research-based teaching
- problem-based learning
- design thinking
- case-based learning
- cooperative learning

These methods are highly effective in engaging students; they not only convey knowledge but also help to build competences, including soft skills. They are easy to understand but rather challenging in application. Therefore, they are not introduced in a first step but only later after having mastered the “essentials”.

Conclusions

The need for a short introductory text for novice teachers is widely acknowledged by the respondents of the post-publication survey. A book that is short enough to be read

with minimal investment, easily understood but not reduced to tips and tricks, and which lays a solid foundation seems to be highly valued.

To promote the transfer from the ideas in the text to application in the classroom, the inclusion of subject-specific examples is encouraged. A possible solution to this challenge could be to individualise the book for different subject areas with relevant examples from each respective field.

The dilemma to be concise and at the same time knowing that there are so many topics relevant for novice teachers can be felt when the teaching and learning specialists were asked about ideas for additional topics. Even though they made many suggestions, the data collected did not produce any clear agreement about specific topics felt to be missing from the book.

To become a competent teacher is a long-term endeavour and there is always room for improvement. But as in many learning processes, it is helpful to go from the simple to the complex, from the basics to the advanced topics. To define the basics is challenging and at the same time very much appreciated by the learner.

Outlook

Where do you start when training higher education teachers at your institution? What are your priorities and in what sequence do you present them to your novice teachers? What does your list of indispensable teaching skills for acceptable classroom teaching look like? I would love to continue this debate and hear about other experiences!

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second degree in psychology at the University of Zurich, where he also did his PhD, he worked as a teaching advisor and school psychologist. Later, he switched to development cooperation. He currently works as an academic advisor at the Centre for Teaching and Learning in Higher Education at Zurich University of Teacher Education. Additionally, he is employed as a part-time lecturer for inter-cultural communication at the University of Liechtenstein.

In his work, he focuses on:

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