



Research Article

**COMMERCIALS AS PART OF DAILY LIFE SITUATIONS -  
IMPULSES FOR CHEMISTRY TEACHING AND FOR  
METHODICAL REFLECTIONS OF MS-COURSE STUDENTS  
OF THE HO CHI MINH CITY UNIVERSITY OF  
EDUCATION/DEPARTMENT CHEMISTRY IN NOV./DEC.2018  
(PART 1)**

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**ABSTRACT**

*This article describes possibilities of higher education didactic to qualify the students' professional knowledge about pupil behaviour in the frame of the teacher training. The article is a plea to teach Chemistry more pupil-orientated than presently. The conception "pupil orientation" is considered in actual education policy-initiated efforts in Vietnam. The author concretizes his previous explanations in the "Journal of Science (HCMCUE)" about "pupil-orientation" relating to own experiences of a methodological seminar for master students. At the same time, a Didactic of the Didactic of Chemistry is emphasized. **Part I** focuses organizational frameworks and theoretical foundations. The achievements of the master's students are documented and appreciated.*

**Keywords:** didactics in Higher Education; conception pupil-orientation; learning processes of master students; teacher training in Chemistry Education; advertisement

**Personal Foreword**

*The article is dedicated the Dean of the Department of Chemistry of the Ho Chi Minh City University and two colleagues of the Division Chemistry Methodology. Associated Prof. Dr. Vu has supported explicitly my research – and teaching activities in the time from 2013 until 2019. Time and again he has encouraged me to teach the students the topic pupil-orientation – in all facets. My colleagues, the Methodologists Ms. Dr. Minh and Ms. Hoa, M.Ed., have assumed a lot of diverse translating activities over time. Common discussions about intercultural perspectives of Methodology or Chemistry Didactic have enriched my seminars on the HCMCUE. Intensively I have debated with Ms. Hoa the importance of a popular Chemistry teaching in Vietnam based on her differentiated research results.*

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## 1. Occasion and starting point – the quality of teaching

In general: The quality of teaching at the universities is discussed worldwide. Competence centres of Higher Education Didactics research the conditions of teaching and support the teaching process. Teaching becomes to the object of researching (Becker, 2019a and 2019b). The quality of teaching has a special significance for every universities focused in Germany in the term “quality campaign”. This term expresses the resoluteness to optimize the quality of university teaching. Considerable financial and personal resources are made available from the Educational Government. “Good teaching” is the condition for researching. Independent from support all university lectures have different opportunities to reflect the own personal teaching situation including the students’ perspectives and assessments.

Of course and exceedingly, the teacher training is obligated to professional teaching and to reflect its own university teaching practice. Concretely, students have to learn to develop and boost the learning processes, the understanding of the chemical knowledge and the chemical interest of the pupils. The Methodologists have to practice their own teaching in the same entitlement. Then, the teacher students can be convinced to adopt pupil orientation in their future teaching activities. Therefore, the teacher students can expect that their imaginations about chemistry teaching are respected by the Methodologists. So, the students can construct professional knowledge reconstructing their imaginations: A student orientated teacher training provides to teach pupil orientated. At the same time: The Methodologists can strengthen their own competence to reflect boosting the quality of the university teaching practice (Becker, 2018, Becker, & Hildebrand, 2004).

At present, the awareness is increased to improve the quality of the Vietnamese teacher training caused by the reforms of the educational system in Vietnam (NAV, 2005, CCCPV, 2013; Becker 2018; VNS 2018). Methodological research projects follow up with the reality and the future of the teacher training (Nguyen, 2017/2018, chapter 5.4.). In general, the interest to boost the teacher training is pronounced, so my impressions after a long standing research and teaching activities in Vietnam. Self-monitoring respectively evaluations are inspired. For example, the members of the Department Chemistry on the HCMCUE had discussed in special seminars the quality of their teaching – intensively (Becker, 2019c). The English-speaking newspaper *Vietnam News* reports about perspective and problems of higher education for the general public – periodically (VNS, 2019a).

## 2. The seminar – Orientation in the frame of education in University teaching

### 2.1. Organization

My statements refer to mine English- spoken master course “Some Issues of Didactics in Chemistry - Class: Master course Theory and Methodology of teaching

(Chemistry – K28)”, implemented in November/December 2018. All methodical and medial arrangements have been determined by the bilingual teaching situation (Becker 2018). Permanently student are encouraged to answer, to describe, to discuss, to question, to write in English and thus to exercise the language by practice (Becker, & Kemper, 2018). Difficulties of the students was negotiated by switching between English and Vietnamese arranged by the translator respectively interpreter Ms Chu Ngoc Mai. Helpful switching is the international trend – at present.

## **2.2. *Basics and Performance***

The message of this seminar is to plan and perform chemistry teaching pupil orientated. This concept should boost interests, to generate positive attitudes to chemistry teaching and chemistry, to improve effectiveness of learning processes, to realize and to enhance learning activities. Connections between cognitions and emotions are high and significantly. The chemistry teacher has to take into account this important correlation (Becker, & Nguyen, 2014; Becker, 1991a). In addition: Daily-life contexts as a content of chemistry teaching are pupil orientated. The learners are interested to question and to interpret the substantial daily-life and environment in a chemical and scientific perspective needed for orientation in the pupils’ whole life. Simultaneously, daily-life situations must be communicated, understood, evaluated - and taught. Commercial are realities in the daily life. Chemical elements of knowledge are represented by commercials in the Vietnamese television. Moreover, special TV features offers programs to be active in a chemical way.

## **2.3. *The didactic of the methodological seminar***

The seminar should make the students aware of pupil orientation as a didactical conception (Becker, 2018), expanding the more subject orientated teacher training. The dialectical comparison qualifies respectively relatives both conceptions – in a multi perspective and objective approach. Basics of both conceptions were compared with opposite and contrasting pair of terms as

- Planning and situational
- Control and intuition
- Imbalance and versatility
- Generalisation and specialisation
- Integration and differentiation
- Openness and coherence
- Structure of Learning and structure of discipline
- Static and dynamic.

Resting upon my experiences I have anticipated that the English spoken communication doesn't run smoothly and the conscious for professional terms, generated from European or western expertise, has to involve. However, resting upon my experiences I have expected that the bilingual teaching could support the process of cognitive understanding fixed on linguistic negotiations of the terms' meaning. Learning time was included to realize these learning activities.

#### **2.4. Contents and subjects**

The contents were differentiated: methods, conceptions, teacher behaviour, teacher training, chemistry textbooks, educational laws in Vietnam, the structure of the discipline Chemistry, belletrist literature including science fiction, media, learning difficulties, pupil attitudes, pupils interests, pupil popularity concerning chemistry teaching, Chemistry Education, comparing between Germany and Vietnam, respectively science literacy (Becker, & Nguyen, 2013a and 2013b). Philosophical questions of the science Chemistry Didactic was discussed phrased by the Why-, What for-, What- and How-question regarding chemistry teaching.

#### **2.5. Situational teaching**

Situational means to perform the lectures flexible, variable, arranging intuitive, inspired of the moment, actual orientated, changing or restructuring the planning. Master course students should be sensitized for these teaching necessities (Becker, 2018). Decisions and/or modelling structure of lessons planning could turn out to be inaccurately. Temporal they were taken before the teaching. These teacher skills are necessary to refrain from didactical, methodological and educational determinations lacking the coincidence with the real teaching process. Again and again I could observe that teachers and teacher students could not arrange the teaching process in a "new style" consistent to the current teaching situation. This professional possibility is not easy to realise – of course. In my sight situational behaviour is the most important condition for "good" teacher behaviour – and a challenge for the teacher training.

### **3. Commercial as occasion for methodological reflexions – a student Homework**

#### **3.1. General perspective**

Commercials are product advertising illustrating their functions and effects. They are a source of income for public media and networks. The products or labels are promoted everywhere in Vietnam. Often the product's active substances are clarified in a chemical sense. The relevant literature concretizes commercials a moment of the daily-life (Becker 1993; Becker, & Pompetzki, 2006). It was decided to expose "TV – Commercials" advertising cleaning and washing products in lecture 6 of the seminar:

- Many commercials reflect a chemical background;

- Some commercials are media and a content of teaching;
- Such Commercials waken and boost interests by the pupils.

Due to a hurricane all lectures on HCMCUE were called off on the weekend 24/25.11.2018. The students agreed to think about the methodological perspective of cleaning and washing commercials and to reflect their results as homework. In total: This lecturer's reorientation documented the situational prospect for the teacher students. The lecturer expected to experience the previous student state of knowledge.

### 3.2. *Special perspective*

In detail, it was arranged by the students (Becker, 2018/2019; Becker, & Mai, 2018/2019)

- to view appropriated commercials (perhaps together with family's members)
- to analyse the commercials with regard to explanations concerning the washing or cleaning function
- to interpret information to the cleansing functions in a chemical sight
- to comment the commercials in a methodological view and
- to draw up an English spoken report based by the written preparation.

This work assignment for the master course's students involved a researching order. Therefore I have waived differentiated orders. And furthermore, the master students have been professionalized through long termed experiences and the examinations in the frame of teacher training. The students dispose about competences and abilities to judge the methodological idea "Commercials" in relationship to the Educational laws in Viet Nam. This approach should

- boost autonomy,
- help to learn to think for oneself,
- stimulate methodological creativity and
- strengthen self-conscious and self-efficacy.

Student researching tasks have proved for since a long time - so my experiences and researching results about that (for example Becker, 1998; Becker, & Folwaczny, 2010). In addition: These procedures are possibilities to evaluate the learning of the students in a self-orientated sight. And: considered meta-theoretical the student researching tasks and results are important and powerful information to utilise for the teacher training and to construct and to create a "*Didactic of the Didactic of Chemistry*".

## 4. **Student homework – Content analyses and interpretations**

### 4.1. *Base of the evaluation*

Documentations and Interpretations base on the written homework, on the common reception and discussion in the seminar. The seminar's learning and researching events

was gathered in a sense of participatory observation and action research orientated heuristic – hermeneutical. My interpretations were adjusted on realities of the higher educational situation and – of course – on my expectations mental represented due the action research. Nevertheless: my awareness was open for the thinking and understanding processes of the Vietnamese students.

#### 4.2. *Interpreting criterions*

It was expected that the master students

- think methodological orientated – first
- argument subject orientated respectively subject structural - definitely,
- regard pupil orientation as a methodological conception supplementing the subject orientation – perhaps and
- to adopt pupil orientation in the own teaching situation – prospectively.

These expectations are my working hypotheses – to some extent based on individual experiences of my teaching and researching activities on the HCMCUE and reflected by my seminar conditions in total and the students’ met theoretical positions – in special.

#### 4.3. *Description of students’ homework*

The home works of eleven students are very extensively – partly. Their considerations, individual mind-sets and awareness are **overall** documented without commenting. It is investigated if the homework reflects contents, thus conceptions and intentions of the seminar. Finishing the homework is interrelated generalising. The **original** Citations or references of illustrations in the homework are signed through **bold letters**. The descriptions are made anonymous. Gender and teaching experiences are disclosed.

- *Student 1 (female, teaching experience)*

*Deviating from the assignment, the student calls attention to a TV show in which tips and factual information are conveyed: Products can be made from “natural substances” for personal use. The student reports on a shipment for the production of soap (recipe, substances, equipment). Chemically, the so-called lye saponification is described, i.e. the conversion of fatty oils with sodium hydroxide. The idea of the students to make these instructions usable for chemistry lessons focuses on the so-called product orientation as a concept of chemistry lessons. The production of everyday products is intended to “sensually” expand teaching and learning processes, to illustrate and problematize the content “chemistry of the soap (Class 12)”. “Therefore the students have the opportunity to experience more. Skills, abilities, emotions” are boosted in addition to cognitive skills. The opportunity is emphasized “to make chemistry teaching even more*

meaningful and suitable for pupils”. *But: “Pupil-orientation doesn’t mean to deny chemistry education or chemistry knowledge”. “The roles of the teachers” or their “professional competences” are reflected. The teacher had “to create situations to develop the problem, to help students to identify the problem, hypothesize, clarify and test hypotheses, (to give) conclusions”. The teacher training must prepare students for this.*

*In total: Daily life situations can be brought to the fore creatively and problem-oriented in chemistry lessons, without contradicting Vietnamese curricula or neglecting chemical knowledge. The methodological teacher training must stimulate conceptual diversity, according to the emotional needs of the learners.*

- **Student 2 (male, long-standing teaching experience)**

*“Last night, I watched advertisement about dishwashing liquid on TV, it is named SUNLIGHT”. The components of “SUNLIGHT” are listed and chemically characterized. The student emphasizes the “environmental friendliness” of the product “by modern technology”. “SUNLIGHT is biogradable”, documented by corresponding illustrations from the commercials (about pictures of lemons). The student tests his own knowledge by sketching washing and cleaning functions of the chemical components. Overall, the student is so enthusiastic that he notes: “The advantage of SUNLIGHT makes many housewives so much (happy) and with slogan easy to do and easy to clean SUNLIGHT becomes popular brand in Vietnam”.*

*In total: The product is evaluated in the sense of an environmental orientation. The product is recommended for “housewives”, gender-specific one-sided. Ultimately, this emphasizes the product application in the life context. The article is largely detached from seminar content or own teaching experiences of the master student.*

- **Student 3 (female, teaching experience)**

*The student structures their work so that tasks and (problem) solution become clear. “Beside, I can use knowledge related to concepts of soap and detergents... in grade 12 chemistry programs”. Intentions are clearly accentuated to include commercials in the teaching design concerning to special illustrations from the TV commercials (OMO, LIFEBOYSOAP...). The commercials are also linked with basic chemical knowledge of "soaps", "detergents" and "manufacturing methods". Methodological initial questions of the students are effective impulses, addressing students cognitively and acting and emotionally, for example:*

- “How do use soap to clean our hands” and
- “How do you remove a grease spot (mineral oil, ink) from textiles?”

*In this respect, the learners' previous knowledge and their imaginations on chemical issues must be taken into account. Again and again, the use of own chemistry lessons is evident, also through numerous commercials with methodical variants.*

***In total:** The thoughtful work creates a variety of methodological or didactic recommendations to include commercials in chemistry teaching grade 12. The student emphasizes that the learners' chemical ideas are taken into account in the learning process before learning the chemical structure and function of the soap anion. Essential aspects of the pupil orientation are considered.*

- **Student 4 (male, without teaching experience)**

*The student presents individual photos from a TV product advertisement (OMO). He comments these images in Vietnamese language. The images refer to functioning and efficiency of the advertised product. The cleaning power of the detergent is depicted in the commercial as a mechanical force effect, an analog explanation that occurs again and again in everyday life: A rocket or projectile hits a stain (**picture 1**). The stain is "divided" not loosened (**picture 2**). Another picture shows a surprised and at the same time enthusiastic girl (**picture 3**). The analogous idea, a misconception, is to be corrected by a chemical idea: An illustration of the soap (calotte model) is shown. The methodological problem of changing chemically incorrect ideas is not addressed.*

***In total:** On the one hand, the student recognizes the danger: Simple, plausible, but incorrect ideas about chemical mechanisms of action can be impregnated and thus solidify by commercials. Many international studies show learning difficulties that result from this. On the other hand, research suggests that naive or everyday idea have cautiously to change to the chemical concepts named as so-called "conceptual growth" or "conceptual change". These methodological insights were discussed with the student in a personal conversation.*

- **Student 5 (female, long time teaching experience)**

*A pupil-oriented chemistry teaching must represent (chemical) everyday products in an environmentally friendly way, i.e. draw attention to the interaction of the product with the environment, according to the message of the students. The student taps into a corresponding commercial of a large detergent company. On the one hand, "some products such Glycerine to help smooth skin and to be made from nature-lemon essence", on the other side, some products are "containing SLES (sodium lauryl ether sulphate) (and) contain traces (up to 300ppm) of 1,4-dioxan... classified by the International Agency for research on Cancer as a group 2B carcinogen". The commercial conveys the composition of a detergent: The formulas of components of the detergent are arranged around a drop of the product. They are equated with concrete substances in the commercial (compare **figure "Ingredients of VICO"**). The student notes*



that names and formulas represent different perspectives of chemistry, namely substances and particles.

*In total: The student is convinced that chemistry lessons must provide guidance to learners. They can control proper behavior in the environment. In this respect, chemistry lessons contribute to the enlightenment. Products of daily life are to be understood by consumers and are to be evaluated critically. The chemistry teacher has to educate assessment skills.*

- **Student 6 (female, teaching experience)**

*The student describes a variety of possibilities to use commercials ("lifebuoy soap") methodically:*

- *as an opportunity to concretize hygiene and health education ("**5 rules of the lifebuoy child doctor**")*,
- *as an issue of "soap" in the framework of the chemistry curriculum in Vietnamese schools ("... it provides a great deal of information about how to use, its function, designs, my students discussion about its chemical composition")*,
- *as a stimulus to activate learning processes ("... **pupils will discuss about...**")*,
- *as an opportunity to combine teaching and learning activities ("... **at the same time both teaching and learning activities...**")*,
- *as an opportunity to generate guidance through chemical education ("... **to synthetizise and to apply knowledge in their life...**")*,
- *as an opportunity to support social learning processes and individual learning activities ("... **learning skills, learning how to activate, be confident in interaction, communicate with teachers and friends, help each other in learning...**")*,
- *as an opportunity to make teacher behavior more flexible ("... **teaching method does not require too much tasks, homework, instead it focus on experiences of culture and life...**")*,

*In total: The work is a plea for pupil-orientated chemistry teaching. The message is clear and stringent. It becomes clear that the master student is convinced about and sensitized to pupil-orientation. The student will recognize in his teaching practice that learners possess "chemical" imaginations of soaps and their functions and that learner will contribute their imaginations to the teaching process.*

- **Student 7 (female, teaching experience)**

*The TV advertisement about "washing powder" (here: OMO MATIC WASHING POWER) is an opportunity for students to discuss the product information on the packaging in chemistry lessons. The extensive and diverse information is structured according to "**Ingredients and uses**", "**User manual**" and "**preservation**". Product information is rated as enlightening for the consumers. "**Moreover, advertising***

information about the product also makes viewers more likely to be persuaded". The applied substance names comply with the rules of the international nomenclature. The meaning of these terms has caused the students to include the product information in the teaching of "Concept of bottles and General washing" (Lesson 3 in the Chemistry 12-basic Program), comparing to Textbook information. "Through the analyses of a real situation... I realized that the teacher could use the facts and phenomena that occur daily to create learning situations for the student. Students achieve sustainable chemistry knowledge and also develop students' abilities". Scenarios from the chemistry lessons of the students are sketched - under the perspective of teacher behaviour. The importance of Pupil Orientation is specified: This conception is "helping learners to become aware of their responsibilities to the environment and society".

*In total:* The student emphasizes very clearly that teacher behavior decides whether a daily life context can stimulate learning of chemistry. The teacher can accentuate his chemistry lessons methodically planning and/or designing in the teaching moment. The student pleads for a methodological versatility.

- **Student 8 (female, long time teaching experience)**

The student looks at Unilever's product range. She describes how product advertising can be used effectively in chemistry classes (here: "Unilever's CIF multifunctional cleaning products"). Teacher behavior is central to pupil-orientated teaching. "Teachers act only as facilitators". Products and/or phenomena from everyday life are not pupil-orientated by themselves; they must be implemented in a methodological perspective. Mental skills are developed: "The pupil will actively experiment, study new knowledge from the commercials" and "improve his ability by self-challenge relatives, do not hesitate to ask questions".-The phenomena of everyday life are the starting point for the chemical acquisition of knowledge: "Students study knowledge which is surrounded and necessary for students".

*In total:* The student advocates flexible teacher behavior as a prerequisite for the variable design of pupil-orientated chemistry teaching. "It is just an opportunity to make chemistry teaching even more meaningful and suitable for pupil". And she continues: "Accumulation becomes the most important part and learners always know what they want, what they do and what they need". The student has reflected her teaching in her long-time teacher activity. She has an awareness of pupil orientation – obviously.

- **Student 9 (female, teaching experience)**

Student considers "cleaning products" in general. She connects commercials of different labels or brands. The presentation of advertising is presented as very similar, regarding the composition and functions of the products as well as their social determination. In its entirety, advertising neglects the socially important environmental

aspect, according to the student. **“Increasing human demand is the reason why more and more cleaning products are born”**. Therefore, commercials need to address the environmental aspect: **“Everyone needs to know how to use it properly so as not to affect the environment, waste treatment”**. She notes that the sustainability of the increasing use of "cleaning products" is socially discussed. **“Education Newspaper has received many opinions of readers are doubts about the use as well as safety of these types of detergents”**. However: The student expresses understanding that **“the TVC (television commercials) cannot have much of this information due to limited time”**. The use of commercials for lessons in Chemistry is considered to be very suitable to enrich contents of the Vietnamese curriculum from a methodological point of view. Initiatives in Vietnamese schools are being urged to teach the topic "soap and detergents" in a science integrated way.

**In total:** The housework reflects a strongly asserted environmental awareness as an aspect of pupil – orientation. **“Pupils need to know in order to prevent and be aware of environmental and health protection”**. In fact, chemistry lessons have to train evaluating skills, to generate thoughtful awareness of materials and the environment and to consider critically advertising for products. The work is structured, thoughtful and balanced concerning advantages and disadvantages of the cleaning products. Her message pupil orientation is therefore extremely sustainable.

- **Student 10 (male, teaching experience)**

On the one hand, advertising for soap commercials is considered to be suitable for highlighting the **"effective marketing strategy"** of corporate advertising. **“The ads are always attractive to the viewers because they are eye-catching, impressive, insight, consumer psychological”**. Because: **“Advertisements exaggerate the effects of products, often focus on appearance and rarely referring to the nature of things or phenomena”**. On the other hand and **“in general”**: Commercials to **"washing products"** enrich the Vietnamese chemistry curriculum. **“For soap... was introduced briefly in the 12th grade Ester – lipid, but today it is part of the reduction (no longer taught). The detergents are mentioned in the article Chlorine Compounds – chapter Halogen Chemical Layer 10”**. In a media perspective, the commercials are compared with content of **“normal”** textbooks. A table shows the advantages and disadvantages of books and commercials. Commercials appeal to consumers' needs, but neglect the **"attention to the nature of the problem"**, in special **“the problem of environmental pollution for sustainable development”**. The textbooks do not take this aspect into account satisfactorily: **“Very little content comes in the program (without) not solve the problem in life”**. However: Chemical aspects of soaps and detergents are detailed in a particular sight.

***In total:** The use of commercials teaches learners skills and competences to evaluate or understand marketing mechanisms or strategies. As it were, they are helpful for learners as future consumers. Overall, the methodological use of commercials is seen as a pedagogic opportunity to give “students the opportunity to solve problems related to real life through the use of Chemistry. As a result, it can cultivate the interest and love of Chemistry”. The critical consciousness of the student is exhausted.*

- ***Student 11 (male, teaching experience)***

*The chemistry “of soaps and detergents” is revealed. The performances are based on printed internet materials in English (by David Katz from 2000). These materials are known to me. In particular, they deepen “experimental procedures”, soap production (lye saponification) and the production of a detergent (mono alkyl sulfate). Processes and substances are assigned chemical particle representations – also in connection with the “Properties of soaps and detergents”. The advantages and disadvantages of the washing-active substances are illustrated phenomenological-experimental-concrete and particle-orientated-abstract, i.e. in a chemically dialectical manner. The corresponding experiments are presented according to the general practice: substances, equipment, instruction and declaration by formula. The described experiments are more laboratory experiments than teaching experiments. The copies of the Internet materials remain uncommented.*

***In total:** The housework is not referring to the task of commenting or questioning commercials methodologically. The student has elementary English language skills. Chemistry teaching is constituted on the content “science of soaps and Detergents”- a traditional subject-orientated conception. The student, a visiting student from Laos, does not exclude the pupil orientation perspective, even if the report makes no reference to it. In a personal discussion, the student notes that he already has the opportunity to give learners chances to “discuss”, “change and simplify” experimental arrangements and to “perform the experiments independently”. Learners must be activated by learningby doing.*

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#### REFERENCES

- Becker, H. -J. (2019a). *Colloquium “Every Chemist is a Teacher - a Higher Education Perspective”*. Department Chemistry/HCMUE.
- Becker, H. -J. (2019 b). *Colloquium “Is every chemist a (good) teacher? Ready for Assessments and ready to reflect Results!”* Department Chemistry/HCMUE.
- Becker, H. -J. (2018). Guidelines for Chemistry Teacher Students– Methodological Scaffolding for a Pupil – Orientated Context. *Ho Chi Minh City University of Education Journal of Science*. 15(7), 140-150.

- Becker, H.-J., & Hildebrandt, H. (2003). *Standards für die chemiedidaktische Ausbildung, Praxis der Naturwissenschaften – Chemie*, (52), 21-24.
- National Assembly of Vietnam (NAV), K.11 (2005). *Education Law*. Hanoi, paragraph 40.
- Central Committee of the Communist Party of Vietnam (2013). *Resolution of the 8<sup>th</sup>. Conference of the 11th CCCPV, concerning Reformation of education and training*. Hanoi, Chapter B.2.
- Vietnam News (2018). *Education Administrators get international training*. (Issue 31.Oct.).
- Nguyen, M. Q. (2017/2018), *Chemistry Education in Vietnam. Chapter 5.4 Researching activities and Chemistry Methodology*. Script (unpublished). Paderborn/Ho Chi Minh City.
- Becker, H.-J. (March - June 2019c). *Records of meetings to prepare the lectures "Chemistry teaching - Higher Didactic and Evaluation"*. Department Chemistry/HCMCUE. (unpublished).
- Becker, H.-J., & Kemper, A.-K. (2018). Trendbericht Chemiedidaktik 2017 - Sprachaktivierung im Chemieunterricht (Trend Report Chemistry Didactics 2017 - Language Activation in Chemistry Lessons). *Nachrichten aus der Chemie*, 66(3), 341-345.
- Becker, H.-J., & Nguyen, M. Q. (2014). *What is a Good Chemistry Teacher?! - It Depends on the Teacher*. In: *Journal of Science (Ho Chi Minh City University of Education)*, (62), 17-30.
- Becker, H.-J. (1991a). Chemiedidaktische Forschungen - Brennpunkt Lehrerverhalten (Chemical Didactic Research - Focus on Teacher Behavior). *INaturwissenschaften im Unterricht – Chemie*. 10(2), 40-43.
- Becker, H.-J., & Nguyen, M.Q.(2013a). Chemistry Teaching and Science of Education in Germany. Part 2: Pupil-Oriented. *Ho Chi Minh City University of Education Journal of Science*, 50, 38-45.
- Becker, H.-J., & Nguyen, M.Q. (2013b). Chemistry Teaching and Science of Education in Germany. Part 1: Aspects of Chemical Education in Germany. *Ho Chi Minh City University of Education Journal of Science*, 48, 25-33.
- Becker, H.-J (1993), *Verbraucherdialoge im Chemieunterricht – Lebensmittel (Consumer Dialogues in Chemistry Teaching - Food*. Pädagogischen Zentrums Berlin. Berlin.
- Becker, H.-J., & Pompetzki, V. (2006). "Marmelade" - Kinderfreizeitinitiativen und Lernen an Stationen ("Jam" - Children's science fair and learning at stations). *Praxis der Naturwissenschaften-Chemie*, 55(3), 6-9.
- Becker, H.-J. (2018/2019). Seminar-Reader "Subject. Some Issues of Didactics in Chemistry". HCMCUE.
- Becker, H.-J., & Mai, C. N. (2018/2019). *Pupil Orientation – a practical View* (slide 36 of the Power Point Presentation), HCMCUE.
- Becker, H.-J. (1998). *Forschung in der Lehre - ein hochschuldidaktisches Stilmittel (Research in teaching - a conception for teacher training)*. In: H. Behrendt (Ed.), *Zur Didaktik der Physik und Chemie - Probleme und Perspektiven (On the didactics of physics and chemistry-problems and perspectives)*, 298-300.
- Becker, H.-J., & Folwaczny, S. (2010). Schülerorientierungen und der "neue" G-8-Lehrplan. Studentische Kompetenzen und Lehrprozesse (Pupil orientation and the "new" G-8 curriculum. Student skills and teaching processes). *Praxis der Naturwissenschaften-Chemie*, 59(6), 35-38.

*Note 1:* Dr. Thai Hoai Minh, Chemistry Department of the HCMCUE, has translated title and abstract in Vietnamese. The author thanks Dr. Minh for the support and efforts to find solutions for translating which is faithful to the original text.

*Note 2:* M. Ed. Chu Ngoc Mai, teaching assistant of all nine lectures, has supported me as a translator and interpreter. The author would like to thank for this great support. The support was helpful for the master students to discuss the meaning of special terms in the frame of bilingual teaching.

*Note 3:* The Master's students Nguyen Thi Ai, Thai Ngoc Quynh An, Tran Xuan Dai, Ly Hai Dang, Mai Xuan Dao, Nguyen Thi Thu Hien, Nguyen Hoang Huy, Le Thi Phuong Lam, Nguyen Thi Kim Thi, Nguyen Thi Kim Thoa and Phouangmant van bounlakhone have taken part in the seminar. The author considers the interest in the conception "pupil orientation" and the exchange of experience in theory and practice. Many methodological questions of the students and conceptual discussions have enriched the seminar. The bilingual teaching situation has helped to clear up the meanings of didactical terms - relevant for this special conception. The comparison of subject orientation and pupil orientation has pointed out the dialectic of teaching - again and again.

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**QUẢNG CÁO NHƯ MỘT PHẦN CỦA TÌNH HUỐNG CUỘC SỐNG – ĐỘNG LỰC  
CHO VIỆC DẠY HỌC HOÁ HỌC VÀ SỰ PHẢN HỒI VỀ PHƯƠNG PHÁP DẠY HỌC  
CỦA HỌC VIÊN CAO HỌC TẠI TRƯỜNG ĐẠI HỌC SƯ PHẠM TP HCM  
(TỪ THÁNG 11 ĐẾN THÁNG 12 NĂM 2018)**

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Trường Đại học Tài nguyên và Môi trường Thành phố Hồ Chí Minh, Vietnam

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**TÓM TẮT**

Bài báo trình bày về khả năng lí luận dạy học vận dụng ở bậc sau đại học để đánh giá hiểu biết của học viên về thái độ của học sinh trong khung đào tạo giáo viên. Bài báo cũng đưa ra khuyến nghị việc dạy học Hoá học định hướng vào học sinh nhiều hơn so với hiện nay. Khái niệm về "dạy học hướng đến học sinh" được xem xét dựa trên những nỗ lực về chính sách giáo dục ở Việt Nam. Tác giả đã cụ thể hoá những giải thích về khái niệm này dựa trên tổ chức hoạt động thuyết trình về phương pháp dạy học cho học viên cao học trên Tạp chí Khoa học Trường Đại học Sư phạm Thành phố Hồ Chí Minh. Đồng thời, ditactic về ditactic Hoá học cũng được nhấn mạnh. **Phần I** tập trung vào cơ sở lí thuyết và khung tổ chức. Các kết quả của học viên cao học đều được ghi nhận và đánh giá cao.

**Từ khóa:** phương pháp giảng dạy ở bậc đại học; khái niệm dạy học định hướng học sinh; các quá trình học tập của học viên cao học; đào tạo giáo viên sư phạm Hóa học; quảng cáo