EDUCATIONAL CHALLENGES FOR FUTURE GENERATIONS

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Abstract: The paper describes present condition in education system in regard to current social circumstances, both national and foreign ones. Also, the issue of unpreparedness (at all possible levels) regarding the impact of foreign “interested parties” is treated. Specific interest exists for the possible innovation of university teaching and the active engagement of both academics and students.

Research issues are accessed via interdisciplinary and international approach and orientation. The principle of interactivity between academics and students in higher education is a guarantee of good quality performance and correct promotion of the significance of intellectualism. A special importance is given to systematic professional development and further education of academics, and to students’ competences. It is indicated that there is a need for a more intensive development of higher education of academics, assistants and students via programming, organizational, communicational and other activities.

Keywords: interdisciplinary approach, international experiences, professional development, university teaching, higher education.

1. Introduction

It is common knowledge that inconsistency in the conduct of any social or economical process or in the development of educational process is a standard problem which evolves as a long-term phenomenon. The fact is that education development, higher education included, is discontinuous, inconstant, unobserved, unshaped, not established, unvalued, and not conducted at appropriate levels. What could be the reason for that?

There are many answers to that question, which are the result of stale and incomplete social measures (especially in legal sense) for a good quality, engaged, operative and functional implementation of education, especially of higher education. It is, as we are aware, conditioned by numerous foreign documents, conclusions, and contracts. At the same time, it is in contrast with national, traditional values formed by many generations, whose professional status and development has been influenced by them.
2. Inconsistence in the continuity of higher education development

Opposites do not attract in this case, but have a hard time finding the way to the hearts and minds of the youth. Importantly, there are no reasons or basis for such a coexisting consolidation process. Consequences are obvious in the neglect of local values and traditions, whereas foreign experiences are insisted on, despite different history and therefore different application possibilities, in accord with the different social, political, economic and educational circumstances. It is quite logical that the results are different in such different settings.

Possible interaction built on interdisciplinary and international approaches may leave an impression of being successful, perspective, and efficient; but that is exactly what it is – an impression. To be able to reach a satisfying level of quality in higher education, having good academics, assistants, students or other participants in the teaching process is not enough. It is necessary to have profiled experts with some knowledge in the domain they are formally politically in charge of. Only then may we speak about possible perspectives in the development of the basic value category – education. What is usually missing in the creation of prosperous educational policies is the matter of being interested and willing to take appropriate action. The lack of the latter is becoming more and more obvious (in the experience and from the point of view of the author), and it directs towards careful distribution of status, functions and (negative) energy in action. Therefore, the lack of general or segmental strategy in educational policies is not surprising; the structural concept cannot be created out of such circumstances, or appropriate education system. Qualitative and quantitative guidelines, as well as vertical and horizontal educational progression are vaguely and falsely represented.

To look at these processes and not consider their historical dimension, that is still the guideline of teachers’ education, would not make much sense. Traditional orientation towards the build-up of competences of teachers, whatever they have implied and in whatever ways they have been implemented, were crucial for creation of various profiles of experts who have taught for decades.

3. Historical approach to the acquisition of pedagogical competences

Today the term pedagogical competence is protected by various legal guidelines, and it means the acquisition and development of numerous skills which are important in teaching. Teaching is actually a pedagogical vocation
because its major goal is education of students and students. If a teacher who deals with young people is not highly educated, an acceptable transfer and influence on young people is difficult to be expected. This role of a teacher was recognized in the 19th century, and teachers were educated in institutionalized frames of departments, seminars, institutes, and departments of Faculty of Philosophy in Zagreb. The other geography centres were not established to conduct such continuous activity at that moment, regarding neither organization nor staff.

The professor of the Faculty of Humanities and Social Sciences in Zagreb Franjo Marković taught the first pedagogy and didactic courses after the faculty establishment in 1874. Pedagogy courses and exams were the beginning of pedagogical education. After the Department of Theoretical and Practical Philosophy in 1894 was founded within which pedagogy was developed. Educationist Đuro Arnold was included and he introduced the systematic pedagogy courses for students. In 1896 Arnold founded Pedagogy Seminar which introduced future high school teachers to the obligatory teaching practice based on the scientific discoveries in pedagogy and didactic disciplines. The founder of this seminar had continuously taught pedagogy and lead pedagogic-didactic practice lessons for the students of the Faculty of Humanities and Social Sciences.

It was the beginning of continuous theoretical and practical education of students at this faculty, and the starting position for the implementation of this activity in the work of other universities 100 years later. Social and political circumstances that influenced educational system of all our regional centres were crucial here as well.

With time the key initiator of Croatian pedagogy was replaced, so from 1924 Stjepan Matišević became the main figure in the studying system change at the Faculty of Humanities and Social Sciences and he separated Pedagogy from Philosophy in 1928. At that moment pedagogy became the obligatory course for all students who were to become high school teachers of various subjects. In 1940 Vlado Petz and Stjepan Pataki took over the key roles. After the war (1946) Pedagogy Seminar became Pedagogy Institute of the Faculty of Humanities and Social Sciences of the University of Zagreb. The last determinant (University) makes us conclude that the role, importance and application of pedagogy started spreading to other components of the University of Zagreb (Vukasović, 1998).

Educational activity was intended for:
- All students of the Faculty of Humanities and Social Sciences and Faculty of Science and Math in the function of educating for successful teaching and organizing pedagogy studies;
- Further pedagogical and methodical development of high school teachers;
- Studying and development of education studies in theory and practice, along with its supporting sciences;
- Publishing results of scientific observations and research.

Pedagogic Institute was a scientific and teaching unit, and pedagogic education and research that resulted from its activities were reflected in the pedagogy and teaching education of all students of teaching faculties. Year 1946 turned out to be crucial because natural sciences became a part of newly founded Science-Math Faculty, and social sciences remained a part of the Faculty of Humanities and Social Sciences. Both teacher training faculties, which educated future secondary school teachers for natural and social group of subjects, received pedagogy education through the provision of Pedagogy Institute of the Faculty of Humanities and Social Sciences. Two departments derived from it: Department of General Pedagogy with history of didactics and pedagogy (which was in charge of pedagogy and theoretical education) and Department of Practical Pedagogy (in charge of applied didactics, teaching and school work). Courses within the former department were offered at the first and second academic year, and the practical part of teaching occurred at the third and fourth academic year. Teaching practice took place in partner schools and was analysed by the experienced educationists in the profession (Vukasović, 1998).

That was the beginning of today’s Education and Teacher Training Agency and the very studies of pedagogy as a vocational and scientific branch were a result of their activities. Pedagogical activities spread and all higher education institutions and faculties of philosophy formed their pedagogy departments. Due to the shutdown of certain parts of the Pedagogy Institute, pedagogic competence acquisition was stopped. Later, when pedagogy profiled activity was restored, some departments and their members suggested that they were the ones who were the pioneers in teaching competences acquisition. But it needs to be said that the today’s Education and Teacher Training Agency was the first and the most important factor in the establishment of scientific pedagogy as we know it today.

Due to social issues or unacceptable behaviour of youth, new higher education institutions (such as Music Academy, Arts Academy, Higher School of Special Education / Education-Rehabilitation Faculty, Higher School for Physical Education/Faculty of Kinesiology) felt a need for better pedagogic competences of both students and teachers who were expected to deal with the problems. Therefore, apart from pedagogy and didactics, the course psychology was included, which was based on the western literature. Modalities of these programs later became parts of the Bologna Process implementation (European influence), with possibilities of free choice of awareness in developing courses. Based on social development and needs of
future teachers and the society, a number of optional courses were offered, such as: Education Philosophy, Speaking Skills for Teachers, Information Technology in Education; Life-Long Learning, Sociology of Education, Gifted Students, Special Needs’ Students, some phonetic subjects, etc. (Reinalda & Kulescza, 2005).

The programmes, shaped differently, with a narrower format, were incorporated into existing contents; they were found in the topics such as: knowledge and educational competences; competences and positive competitiveness; innovations in educational international contacts; social standards and educational competences (international comparison); development of educational abilities within the frame of professional possibilities; integration into European education; education policy - policy of education (correlation at international level); development of human potentials and job application; research in higher education with qualitative and quantitative evaluation; good quality speech in teaching; social communication and application aspects; globalisation knowledge – interdisciplinary studies; science and technology; social intelligence; positive psychology; etc.

These topics deepen and widen the knowledge related to professional (expertise) and teaching competence, with greater emphasis on communication courses. These topics are not important for future teachers only. These and similar topics are important for the education of experts at higher education institutions of technical, medical, economic, legal or other orientation, because of both content and eloquence (logical relations within a topic, relation of thoughts and words, eloquent speech, etc.). Academics and teaching assistants in these professions also need pedagogic competences, linguistic education, and fluency in communication in order to teach well and give students values that they will need. In that sense, there is always room for improvement using these and similar matters; it is important however to keep up with the needs and possibilities and to apply them in all areas of education. Enacting terms for the build-up of knowledge in teaching have been established by the process of historical movement and development of society, as it was explained above. Since the past is behind us, and the present and future development is based on it, it would be interesting to consider what possibilities are ahead of us and what we are trying to achieve. From a very general point of view, that would be various levels of social, rational and emotional competences of all participants in the higher education process (Standards and Guidelines for Quality Assurance in the European Higher Education Area, 2007).
4. Educational standards – a goal of development

Facts confirm that the proper choice of criteria influences achievements and results contained in the phrase “learning for development“. This means that one should not learn because one day they would get a diploma. The motivation should lie in knowledge, development of skills and their application in work. The choice of criteria is a guide to the choice of content, methods, teaching strategies…; it results in appropriate value standards. The basic standard is the goal we are trying to reach, the goal of development. A system of education values that will emerge will consist of European values (the ones that are good for us) that would be nested and implemented into our education system. Good quality system enables a knowledge gain that leads to market competitiveness. That means that result comparison is encouraged, that of knowledge (educational level) and production (economic representation). Interrelatedness of education, economy and scientific achievements is based on human potentials which stimulate the process of education quality management. Assumptions for further development are ambiguous, and some of the factors are: self-esteem, self-responsibility, curiosity about the new and the different, purposefulness, persistence in goal achievement – effectiveness, interaction, ability to communicate, cooperation willingness, etc. Achieved results and quality applications will imply:

- Pedagogy relationship in practice (between teachers and students);
- Pedagogical culture of a teacher (consistency, criticism, value systems, ...);
- The level of interest of educational institutions in problems and relations;
- Social competences of institutions – in normal and deprived situations.

These are some of the elements that contribute to the level and quality of higher education (desired) standards, although the processes that interact and coordinate the quality belong to the triangle competence – competency – competition. In all the elements of these processes the human factor is crucial, which is stimulating for the development of human potential, the basic human capital. But human capital also consists of personal and social qualifications for assuming duties and creating progress. It becomes the question of national responsibility. Unfortunately, that responsibility is not great because the social-political context has always been reserved, even negatively oriented to educational issues. Academic isolation of students, their teachers and other educational factors at all educational levels is a result of that. Due to that, there has been a long period of passivity and resignation, and finally relativization of the importance of educational standards.
The fact that there is no strategy of development for social and (higher) education policy affects the quality of management system and social and educational processes. Therefore the quality is questionable and susceptible to discussion. In addition, inadequate quality of structure of social and educational processes, which would be a foundation of the firm and flexible construction of the integral development speaks “in favour” of such negative context. Such an integral development would imply the welcome of: innovation, organisational and functional changes, foreign influences, and numerous exchanges of Croatian and foreign experts.

Referential frame for eight key competences, established by European Parliament as a part of CARDS Programme (2006) (not cited here due to its wide recognition), have been proclaimed as a key element for achieving social standards. With that in mind, some other assumptions are believed to be important for reaching standards that determine individual competences. They are the basis for reaching social standards in general, as well as acquiring knowledge, skills and specific competences. Which values are the ones that should be developed and respected, apart from professional competences? Here are some of them:

- Development of communication skills;
- Communication and communication-based socialisation;
- Forming the system of corresponding values (intellectual, moral, work values);
- Stimulating the strength of individual identity (awareness of self-value reality);
- Formation and respect of individual’s authority based on the proven values, knowledge, expertise, professional results; not only through self-allowed and conceited imposing values – so, authority based on personality qualities;
- Pleading and applying reasoned criticism (positive or negative); reasoned and not arbitrary (depending on sympathy, ignorance, or some other reason);
- Developing and promoting the courage to speak one’s mind and present ideas – using public actions for the new and the different;
- Encouraging responsibility towards self and others (which results from the above stated remarks);
- Gradually developing the system of values, criteria and quality evaluation of the achieved results.

To sum up, certain procedures should be emphasised on the path to reaching educational, professional and life standards. They are to be based on competences that encompass certain European values, which should not be
taken over completely, but still need to be respected. It might be concluded that:

- Competences have a developmental role on the path to professionalization and life-long learning;
- Goals and methods change constantly, which is influenced by motivation and creative approach to achieve results;
- National and institutional strategies need to be established and mutually connected to improve quality;
- Everything is consolidated by the European network for quality assurance;
- It is necessary to ensure the vertical and horizontal progression of education system, which should not be valorised nor based on criticism;
- It is crucial to establish pedagogical standards for higher education (which do not exist) in the sense of content, personnel, strategy or structure;
- Theoretically approached pedagogical excellence should also practically become the goal of educational policy;
- It is important to establish regulations (of content, instruments, operations) in the sense of result measurement, learning outcomes;
- Education of teachers should become and remain a permanent process – constantly enriched in contents, methods and results;
- Evaluation of education outcomes needs to be standardized to enrich and directly influence the development of economic flow and ensure employment;
- Education needs to be purposeful, have adequate outcomes and make people feel satisfied – which implies that development and educational standards will occur.

Therefore, if it exists, education policy or policy of education needs to take into account the elements that would stimulate or enrich the value of human potentials, content capacity and the use of achieved results. Some of them would be:

- Attractiveness (of content, methods, technologies, ...);
- Mobility (of academics, students, researchers on international level);
- Comparison with international higher education and qualifications;
- Ensuring the quality of higher education between national and international universities;
Recognition of formal levels of education/knowledge as well as the real level of educational outcomes;
Knowledge competitiveness at labour market.

4. Quest for knowledge – an adventurous strategy

Knowledge is wealth; it is the capital for development of an area or individuals aware of their qualities, potentials and educational values. Social responsibility and national responsibility based on economic and educational values are the strategic dimensions of competitiveness. The question is: how to achieve that? International experiences, investments in professional development, and further teacher education are basic for strategic management of all educational levels and human resources. These are the prerequisites for the establishment of human capital and its infiltration into the developmental pores of society. People are basic components of all the processes, functions, and segments of the society. What kinds of people? Educated, enlightened, creative, critical… That and much more is possible if there is personal engagement, learning and work.

The Organisation for Economic Co-operation and Development – OECD defines human capital as knowledge, skills, competences and individual traits which enable the creation of personal, social and economic growth (Keeley, 2009, p. 31). In the same work, there are views of various authors who support the above stated. One of the dilemmas is whether education is stimulated by economic growth or vice versa – whether the economic growth stimulates individuals to devote to education? In practice, this is probably a two-way relationship (Keely, 2009, p. 33). It needs to be taken into consideration that the level of formal education supported by informal general education and culture directly conditions economic growth. Also, economic growth, i.e. the growth of economy and finances, directly fosters acquisition of knowledge. Individuals need to perfect, regardless of the new, higher status. New, greater level of knowledge will lead to higher levels of the development of economic events.

Society of knowledge, as used in a recently popular phrase, is linked to successful future marked by the culture of knowledge (education, civility and cooperation) and the economy of knowledge (knowledge production and global market competition). Speaking about that topic in the widest European context, it appears that the creation of European higher education is not an end in itself, but it is an important prerequisite for the creation of a knowledge-based society. Having that in mind, and drawing on the European documents on higher education and its reform known as Bologna Process, Government of the Republic of Croatia issued the document in 2006 called Strategic Frame of
Development 2006-2013. Here all possible prosperous and, at the same time, priority areas such as education, knowledge quality, productive use of scientific results and information-communication technology can be found. All of them are claimed to be basic for the development and transformation of Croatian society and economy into knowledge-based society. It is desirable to highlight some of the basic goals which will be used to improve higher education (Afrić, 2011), which are:

- *Application of the Bologna Declaration;*
- *Functional integration of university;*
- *Strengthening vocational studies (colleges) through the development of dual (binary) system;*
- *Establishment of systematic monitoring and quality assurance and excellence in higher education and scientific research.*

In the described strategy, assuming that our country is to become a knowledge-based society, two categories of changes are proposed. The *first* relates to the strategic changing of relationship between science and economy. It applies to innovative science, system of generation and commercialization of ideas. It also refers to the development of entrepreneurship as a necessary prerequisite for economic recovery, and to unemployment reduction. The *second* category of changes is directed towards the change of science system which is not effective, and does not encourage creativity and innovation; also, it is not harmonized with the European system (Afrić, 2011). There is a need for change in the system of higher education, which is linked to the possible implementation of changes. Science advancements will be based on the quality of higher education. Such changes therefore include a thorough reform of the whole higher education and life-long learning. All this should provide quality integration into the education system of the European Union.

To achieve the aforementioned higher goals of strategic development of the society, it is necessary to define lower level targets which include the development of scientific and higher education system, and a dozen tasks that must be accomplished at the level of *responsibility.* They will not be mentioned here because demands like these have been accepted many times before. Still, we would like to emphasize three requirements whose implementation ensures further development of these activities, and thus society.

- One of the requirements is an *increase of budgetary and other investments in science* in order to reduce the growing gap between our country and the developmentally successful countries
- The second requirement implies *intensification of participation of Croatian science in the international exchange of knowledge.*
- The third requirement is to encourage decentralisation and regionalisation of scientific development, which is already somewhat reflected in the formation and work of universities in the region, and which directly stimulates the development of the region, science, expertise, and employment in the same region.

A requirement (which is never mentioned) should be added for the necessity of "fragmentation" of large universities (e.g. Zagreb), whose faculties could act as universities themselves. That would enable polycentricism, development of the future university units (which are now faculties). That would be one of the major contributions to national and European science and centres of higher education power. In addition, it should be noted that in the European context and beyond, universities exist as active and well operating units of higher education. For these reasons the mentioned Strategy pleads for the following two basic roles of higher education:

- Increase of the human capital and human resources through the growth of highly educated population which is reflected in an increased number of students in the developed countries of the world;
- Basic education of future scientists, which is difficult to carry out because the contemporary requirements emphasize flexibility, interdisciplinary approach, creativity and life-long learning; however, for the advancement of science (comparing the persisting and the trendy developments), our higher education system is inadequate, hardly comparable, and incompatible with the European higher education system.

The Strategic Development Framework 2006-2013 cited some reasons for such a situation, related to another fundamental role of higher education:

- Lack of development vision and short-term and long-term development programs;
- Uneven development of the system, whose main feature is the concentration of institutions in the capital;
- Insufficient investment in physical facilities and scientific and technical equipment in higher education;
- Unfavourable age and gender composition of teachers;
- Lack of evaluation of study curricula;
- Lack of teaching quality control (surveys exist, but they do not represent a balanced and credible model of teaching monitoring);
- Discouraging conditions of progress;
- Unconnected educational institutions, which prevents the development of interdisciplinary approach;
- Negligible mobility of university professors;
- Resistance to change and innovation, slow realization of change;
- The absence of life-long learning programmes;
- Neglect of internationalisation, which is reflected in a very small number of programs in the English language (usually run by private educational institutions);
- Insufficient integration into the knowledge market;
- Examples of unethical behaviour of teachers, especially when it comes to treatment of students;
- Long-lasting process of social marginalisation of science;
- Lack of a strategic plan of scientific development and associated priorities;
- Generally ineffective, non-stimulating and outdated system of undergraduate and particularly postgraduate education

Each of these points deserves elaboration which would certainly bring about many other shortcomings that we see and feel daily.

In perspective, from the pedagogical point of view, one should adjust enrolment policy to labour market needs and develop and promote models of university management in order to strengthen the university autonomy, accountability and internal management of the institution.

However, in the Strategy some advantages of the earlier system of higher education are listed (before 2006 when Strategy was created):
- A number of distinguished scientists and scientific institutions;
- Croatian science has motivated well-educated young scientists who are ready for change and have an entrepreneurial spirit;
- Renowned Croatian scientists who work abroad;
- The existence of several academic centres of excellence and successful R&D institutes in the economy;
- The existence of (a small number) of successful higher education programmes that include modern teaching methods, encourage active participation of students and provide a broad theoretical knowledge necessary for contemporary trend of interdisciplinary approach;
- The total existing infrastructure (related to personnel, institutions and technology), although lagging behind world standards, provides a basis for the necessary changes.

In addition to two basic roles of higher education, we would add yet another that is inherently pedagogical, but that is traditionally being avoided and not mentioned in either strategically or systematically oriented document – the process of teacher education (Marinković, 2007). This does not relate to the
pedagogical, didactic or psychological education of students or young teachers from teacher faculties, but to the entire population of academics regardless of their profile. This is because they are also teachers working in the classroom with their students, although they might be of other vocation - agronomists, economists, lawyers, architects, doctors and others. Professional competence cannot replace or override educational, it can only be equated with it due to implementation needs.

Conclusion

There are the historical determinants (previously elaborated), whose developmental path at least partially influenced the actual events in higher education, and there is productive work of temporarily distinguished institutions, faculties, agencies, bureaus, ministries, or universities. It should be noted that together they make up the organisational and structural areas, i.e. science and technology parks with solid assumption of operational development of higher education for future generations. It is left to be seen to what extent the society (in educational, economic, and political context) and young people (today’s and prospective students) will be able to accept and adapt their values (knowledge, skills, abilities, general competences) to the slow arrival of European criteria and the adaptation of our nomenclature of occupations and employment and "floating structure" of educational process to it.

References:

Obrazovni izazovi za buduće generacije

Sažetak: U radu se razmatra stanje postojećega obrazovnog sustava u suvremenim društvenim uvjetima, našim i inozemnim. Ujedno se tretira pitanje naše nepripremljenosti (na svim mogućim razinama) za utjecaje stranih „interesenata“. Poseban interes vezan je uz moguće inoviranje sveučilišne nastave uz kvalitetni aktivan angažman sveučilišnih nastavnika, ali i studenata.

Istraživačka pitanja konkretiziraju se preko interdisciplinarnog i internacionalnog pristupa i orijentacije. Načelo interaktivnosti između nastavnika i studenata u visokom obrazovanju pitanje je jamstva kvalitetne izvedbe i korektne promocije značaja intelektualnosti. Posebna težina pridaje se sustavnosti profesionalnoga razvoja i usavršavanja nastavnika te odgovarajućega utjecaja na socijalne, mentalne i emocionalne kompetencije studenata. Iz toga proizlazi ukazivanje na potrebu intenzivnijega razvoja sveučilišnog visokog obrazovanja – profesora, asistenata i studenata preko programskih, organizacijskih, komunikacijskih i drugih oblika djelovanja.

Metodološki, spoznajama pomažu pokazatelji inozemnih i domaćih istraživanja te usporedna analiza podataka čiji rezultati egzaktno pokazuju činjenično stanje u visokom obrazovanju. Na osnovi takvih pokazatelja vidljive su i implikacije, nekontrolirano uključene, u praksu sveučilišne nastave i njezinih rezultata.

Ključne riječi: interaktivnost, interdisciplinarnost, internacionalna iskustva, profesionalni razvoj, sveučilišna nastava, visoko obrazovanje.

Bildungspolitische Herausforderungen für zukünftige Generationen


Die Forschungsfragen werden durch den interdisziplinären und internationalen Ansatz und Orientierung konkretisiert. Das Prinzip der Interaktivität zwischen dem Lehrer und dem Studenten in der Hochschulbildung ist eine Frage der Garantie der Qualität der Leistungen und der fairen Förderung der Intellektualität. Besonders wichtig ist die systematische Entwicklung und Fortbildung der Lehrer und der angemessene Einfluss auf die sozialen, geistigen und emotionalen Kompetenzen der
Studenten. Darauf folgt das Hinweisen auf die Notwendigkeit einer intensiveren Entwicklung der universitären Hochschulbildung – Lehrer, Assistenten und Studenten durch programmatische, organisatorische, kommunikative und andere Formen der Tätigkeit.

Von der methodologischen Seite helfen den Kenntnissen die Indikatoren der kroatischen und ausländischen Forschungen, sowie die vergleichende Analyse der Daten, deren Ergebnisse die genauen Sachverhalte in der Hochschulbildung zeigen. Auf der Grundlage dieser Indikatoren sind in der Hochschulpraxis und ihren Ergebnissen auch die Implikationen sichtbar, die unkontrolliert einbezogen sind.

**Schlüsselbegriffe:** Interaktivität, Interdisziplinarität, internationale Erfahrungen, berufliche Entwicklung, Hochschulunterricht, Hochschulbildung.