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# LECTURERS' MANAGERIAL COMPETENCIES IMPORTANT FOR STUDENTS AT THE CZECH UNIVERSITY OF LIFE SCIENCES

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## Abstract

*This research identifies the lecturers' competencies which are the most important from the students' perspective at the Czech University of Life Sciences Prague and compares students' opinion and their change over the whole study period. It does not deal with the knowledge competencies of lecturers that students cannot objectively evaluate, but with lecturers' managerial competencies that affect the organization, forms and ways of teaching. The examined competencies are hierarchically organized into three groups of particular competencies comprising of bipolar characteristics. Based on survey of students at the University, the evaluation of importance of managerial competencies using the Analytic Hierarchy Process was performed. The findings show that Innovative education, Good communication skills, Ability of improvisation, and Democratic way of teaching are the most important lecturers' competencies from students' point of view. Surprisingly, Oral based presentation is preferred to IT based one. Knowledge of the most important managerial competencies can help lecturers and universities to increase quality of educational process and attractiveness of the university for students.*
**Keywords**. *Analytic Hierarchy Process, higher educational institutions, lecturer's managerial competencies, students' perception.*

## Introduction

The universities as any other service business organisation are working in competitive environment requiring continual updating lecturer's knowledge and skills. Educational reforms in EU in the last decade cause that the higher educational institutions (HEIs) have to react to changing demand for higher education and its form, lifelong learning, and internationalization of higher education. Therefore, HEIs have to attract students to learning. The lecturers must consider and evolve their role and competencies in the quality improving of education process. In addition to competence in the area of knowledge and pedagogy, the competencies in management of teaching are also very important. Therefore, many universities now establish the training of university teachers primarily for new lecturers with the aim to improve the lecturers' skills, to develop the lecturers' conceptions of teaching and learning, and so to change the students' attitude to learning. The main outcome of these courses is in lecturers' shift from teacher focused to student focused (Gibbs, Coffey, 2004).

The identification of necessary skills to develop professional competencies is widespread and results in better alignment in the educational and work contexts as well as exploiting the synergy between formal education and experiential learning. The competencies are very important for the teaching profession mainly if the teachers have to face the paradigm shift from teaching to learning. University teachers are supposed to be experts in teaching but a conceptual framework for a description of the processes of university teacher's learning in professional practice does not yet exist (Bakkenes, Vemunt & Wubbels, 2010). The lecturers are also supposed to be good in the competencies, which lead to good management of teaching.

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As stated in Dytrtová and Krhutová (2009) the teacher's professional personality impacts on teaching and learning process. The division of the teachers' competencies is not entirely clear, and their classification varies according to different sources (EC-ET, 2013; Koetsier, Wubbels & Korthagen, 1996, Leat, 1993, Shulman & Shulman, 2004; Švec, 1999, Vašutová, 2007).

These views on the content of the teachers' competences are general and are therefore also useful for the research of the managerial competencies of the lecturers. The lecturers' competencies especially in the universities for environment are investigated for instance by the following authors.

Lecturers in higher education in the Netherlands were interviewed by Tigelaar, Dolmans, Wolfhagen and Van der Vleuten (2004). The communication skills, way of teaching, focus on students, keeping the rules, and innovative way of teaching are seen as the most important ones. Li and Lin (2014) analysed believes of medical doctors in Taiwan. Besides the knowledge, these lecturers selected educational methods, content of teaching, and the way of teaching by words and examples. Duță, Pânișoară, and Pânișoară (2014) identified the teaching competence including ability to use interactive teaching methods and good communication skills as he most important lecturers' competencies in Spain and Romania (beside the scientific competencies). Vendruscolo and Behar (2016) shows the necessity of managerial, organisational and communication skills especially for accounting professors.

The question arises whether the lecturers know what students expect, which pedagogical methods they prefer, and what they want from the organisational point of view? It would be useful to compare the student opinions with those of the lecturers. The research between university students in the Slovakia (Blašková, Blaško & Kucharčíková, 2014) also shows the importance of good teaching and communication skills. Based on the identification of negative characteristics of lecturers they formulate the lecturers' competency model where beside the scientific competencies, the educational competencies including selection of the content and form of teaching, innovative teaching methods, and communication competencies including good communication skills and ability to interact with students are more important. The student's perception of the importance of communication and organizational skills of lecturers is also identified by Semrádová and Hubáčková (2014); contrary to the fact that the use of ICT in teaching is not considered important by students.

### *Problem of Research and Research Focus*

Following the above-mentioned studies, this research explores and analyses the importance of lecturers' managerial competencies at the Czech University of Life Sciences Prague from students' point of view. Because it is very difficult to evaluate all the lecturers' competencies at once, so only such the competencies which can be called the "Managerial competencies" of lecturers are evaluated. The other lecturers' competencies are excluded from this research because it is very difficult for the students to evaluate such the parts of the lecturers' competencies as "Professional knowledge".

The students' viewpoint is examined using the data of the surveys among the students. The surveyed students are from different years of study, so the development of student's opinion can be compared over the whole study period.

The main focus of this research was to obtain answers to the following questions:

1. Which managerial competencies of lecturers are perceived by students as the most important?
2. Is the opinion of the students on the importance of managerial competencies of lecturers changing during the studies?

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## Methodology of Research

The research is carried out on a quantitative approach to determine the importance of particular elements of system of lecturers' managerial competencies. For the purpose of this research, a questionnaire was created to be filled in by surveyed students. The Saaty's pairwise comparison and the Analytic Hierarchy Process (AHP) were chosen as the best methods for the global evaluation of importance of the examined competencies.

### *Lecturer's Managerial Competencies System*

The competencies are key factors for human efficiency in any job position. White (1959) was the first one who used the competence to describe the personality characteristics associated with excellent performance and high motivation. According to many authors (Armstrong, 2009; Boyatzis, 1982; McClelland, 1973; Spencer & Spencer, 1993; White, 1959; Woodruffe, 1993) the competencies can be identified and analysed using various models (Belz & Siegrist, 2000). Cooper (2000) defines the competencies as a mixture of knowledge, skills, abilities and behaviour. Cheetham and Chivers (1996, 1998) describe a holistic model of professional competence comprising: cognitive, functional, personal and ethical competences.

Casselmann (1967) describes teacher's competencies and divides them according to three viewpoints: focus (logotrop or paidotrop), style of managing (authoritative or social), and use of pedagogical methods (scientifically-systematic or artistic approach).

A logotrop is a teacher who is orientated to his/her field of study, and content of subject having the ability to view the subject in a broader social context, highly specialised, able to strongly inspire students, and is a very precise teacher. A paidotrop is seen as a teacher orientated to students, to their problems, interests, etc., individually and psychologically orientated, focused on students as a specific social group, focused on their thinking development, memory, will, interests, motivation – and not just knowledge.

An authoritative teacher demands rigorous following of his/her instructions, among his/her work tools also belongs penalties, the rules of lecture and the methods of evaluation are explicitly defined. He/she mostly uses quantitative methods of the students' evaluation for a high degree of objectivity. The social teacher respects the individual thinking and decision making of the students. He/she supports their activity, gives them the opportunity to show their personality. The social teacher uses the qualitative methods in the students' evaluation and evaluates the students' opinion and ability to find alternative solutions.

The scientifically-systematic approach uses logical explanations, clarifies the subject understandably, correctly and systematically, and develops reasoning. The purity and punctuality of terminology represents the key. The artistic approach aims at gaining the attention and supports the positive motivation for a subject. The practical approach is pragmatic and exploits illustrative tools and practical stories. Case studies are used to try to prepare students for real life.

Vermunt and Verloop (1999) see other teachers as diagnostician, challenger, model, and activator, and to monitor and reflect on the students' learning processes. Collins, Brown and Newman (1989) found, the teachers should be able to model metacognitive strategies and gradually withdraw their support when students become more proficient in their use. The teachers should be able to design assignments, supervise project groups, coach cooperative learning, assess skills of self-regulated learning, etc. (Vermunt, 1995).

The key pedagogical competencies of the teacher in secondary education are divided into competencies in communication, and presentation, explanation of the curriculum, development of thinking, and expertise (Berková et al., 2018). This selection of competencies is supported by existence of Ranschburg effect (Taylor & Klein, 1998), which shows the poor communication competencies of the teacher lead to weakening in study achievement.

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Also, European Commission for Education and Training describes teachers' competencies in the three groups (EC-ET, 2013): Knowledge and understanding, Managerial, personal and research skills, Personal dispositions. This should serve as a guidance for teacher education in European countries.

The proposed system of the lecturer's managerial competencies for this research is based on the teachers' competencies system of European Commission (EC-ET, 2013), and the Casselmann typology of teacher's roles (Casselmann, 1967). The examined lecturers' competencies are organised in the hierarchical system of competencies (Table 1) and divided into three groups covering the observed lecturer's managerial competencies with six, seven or eight particular competences. All these particular competencies have bipolar characteristics (characteristics – anti-characteristics). Without the respondents being told whether one is positive, and one is negative, it is often not a positive and a negative trait, but the two sides of the same coin.

**Table 1. Hierarchical competencies system.**

| Competency groups | Competencies | Characteristics/Anti-characteristics |
|---|---|---|
| L21 Content and form of teaching | L311 Amount of information | L411High/Low amount of information |
| | L312 Complexity of teaching | L412 High/Low complexity of teaching |
| | L313 Content of teaching | L413 Emphasis on teaching form/content |
| | L314 Form of teaching | L414 Oral/IT based presentation |
| | L315 Depth of teaching | L415 Specialised/Interdisciplinary lectures |
| | L316 Way of teaching | L416 Innovative/Classical education |
| L22 Organisation of lecture | L321 Focus on students' group or individuals | L421 Focus on individuals/group |
| | L322 Setting the rules | L422 Keeping/Changing the rules |
| | L323 Way of solving problems | L423 First hand/Diplomatic manner |
| | L324 Evaluation methods | L424 Quantitative/Qualitative evaluation methods |
| | L325 Evaluation criteria | L425 Consistent/Changeable criteria |
| | L326 Plan of teaching | L426 Fixed/Changeable education plan |
| | L327 Flexibility | L427 Flexible/Inflexible |
| | L328 Monitoring | L428 Consider/Ignore control or monitoring |
| L23 Personality of lecturer | L331 Lecturer's manifestation | L431 Calm/Spontaneous manifestation |
| | L332 Communication skills | L432 Good/Poor communication skills |
| | L333 Attitude to student | L433 Emphasis on student's personality/subject matter |
| | L334 Support of student's independence | L434 Directive/Democratic way of teaching |
| | L335 Ability to improvise | L435 Ability/Inability of improvisation |
| | L336 Lecturer's appearance | L536 Formal/Casual look |
| | L337 Way of speaking | L437 Formal/Colloquial language |

(source: Brožová et al, 2011)

*Analytic Hierarchy Process*

The students' opinion of importance of lecturer's competencies were quantified by the weights calculated using the Analytic Hierarchy process (AHP) and Saaty's pairwise comparisons methods. The AHP (Saaty, 1980, 1999) is based on both mathematics and psychology, therefore it is suitable for the analysis of the competencies importance (Brožová, Šubrt & Vorlíčková, 2009) and for evaluation of subjective oriented problems as the competency analysis (Li & Lin, 2014; Tang, 2014)

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The application of the AHP in this research consists of the following steps:

**Step 1:** Creation of the AHP model structure for the determining the importance of the lecturers' managerial competency.

The model has four levels corresponding to the competencies system in Table 1. The first one L1 represents of the goal – the most important managerial competence of lecturers; the second L2x comprises the groups of competencies; the third L3xx includes the particular competencies; and the fourth L4xx consists of qualitative characteristics and anti-characteristics describing these competencies.

**Step 2:** Calculation of the preference of the elements of the AHP model structure by the Saaty's pairwise comparison method (Saaty, 1980).

A student's evaluation of importance of particular elements of the AHP model structure is based on the scale in Table 2, and then these judgements are converted to the weights of each compared items using the normalised geometric mean.

**Table 2. Preference intensity for pairwise comparisons of competency system elements.**

| Intensity | **Definition** | Explanation |
|---|---|---|
| 1 | Equal Importance | Two competencies contribute equally |
| 3 | Moderate importance | The preference intensity slightly favours one competency over another |
| 5 | Strong importance | A competency is favoured strongly over another |
| 7 | Very strong importance | A competency is favoured very strongly over another |
| 9 | Extreme importance | The preference of one competence over another is the highest possible |

(adapted from Saaty, 2008)

**Step 3:** Checking the consistency of the judgements.

The number of elements and groups in all levels of the hierarchy is high but it does not exceed eight. Based on the values of random index of consistency (Saaty, 2008) the threshold of consistency index was set to 0.5 for this research.

**Step 4**: The AHP synthesis of thus obtained weights of competencies and characteristics.

The synthesized weights evaluate the global importance of the lecturers' managerial competencies for each individual student. Higher weight means higher importance.

*Sample*

This research was carried out during the period 2009 – 2013 on three groups of the students (Table 3):

- Students of the first year of all Bachelor programmes at the Faculty of Economics and Management
- Students of the first year of all Master programmes at the Faculty of Economics and Management
- Students of the second (last) year of study of Master programmes at the Faculty of Environmental Science and of two Master programmes at the Faculty of Economics and Management

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**Table 3. Summary of respondents who were asked.**

| | BC 1st | MS 1st | MS 2nd | Total |
|---|---|---|---|---|
| Number of asked students | 2383 | 1630 | 429 | 4442 |
| Woman | 1259 | 1081 | 286 | 2626 |
| | 53% | 66% | 67% | 59% |
| Man | 1124 | 549 | 143 | 1816 |
| | 47% | 34% | 33% | 41% |
| Number of returned answers | 287 | 223 | 229 | 739 |
| | 12% | 14% | 53% | 17% |
| Number of consistent answers | 227 | 185 | 185 | 597 |
| | 79% | 83% | 81% | 81% |

The research employed accidental sampling but respondents who volunteer for a survey belong to the homogenous population of students at the Czech University of Life Sciences Prague of specific year of study and can be assumed that they do not differ. The research does not affect the assessment of individual students and student identification is not recorded. The questionnaires were distributed through the Moodle e-learning system to students of the first year of BC and MS study in the subject of Introduction to Study and to students of the second year MS in the Management courses.

*Research Instrument*

To receive the necessary data for analysis of the importance of lecturers' managerial competencies, the students' survey was made using the questioning method with a non-standardized questionnaire (Brožová et al., 2011; Brožová, 2012). The questionnaire contains ordinal-polytomous respondents' scale measuring the preference (importance). It is designed in the MS Excel and distributed in LMS Moodle. The first sheet of the questionnaire contains a practical explanation of the pairwise comparison method. The next five sheets of the questionnaire contain forms for comparisons of all the necessary pairs of model elements based on the hierarchical competency system (Table 1, Figure 1). Students then fill in their perception of the importance of competencies based on the preference intensity scale in Table 2.

| | A | A extremly important | | | | Equally important | | | | | | | | B extremly important | B |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 9 | 7 | 5 | 3 | 1 | 3 | 5 | 7 | 9 | | | | | |
| 1 | Content and form of teaching | | | | | | | | | | | | | | Organisation of lecture |
| 2 | Content and form of teaching | | | | | | | | | | | | | | Personality of teacher |
| 3 | Organisation of lecture | | | | | | | | | | | | | | Personality of teacher |

**Figure 1. The second sheet of the questionnaire.**

All questionnaires returned back were firstly checked for completeness. If missing answers were found, the equal preference (importance) was added. The data from the individual questionnaires were then processed by the AHP method.

Saaty's matrices were recalculated automatically using the MS Excel sheets functions. The consistency index was calculated using Goal Seeking. If the value of the consistency index was too high, the corresponding questionnaires were removed from the final calculation. The synthesized weights evaluating competencies importance were completed using MS Excel macros written for this purpose.

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Because all students have the same authority, the average importance of competencies groups, individual competencies and characteristics were calculated and analysed for each group of students.

*Data Analysis*

The respondents were the students from three different years of study and, therefore, the compliance of the global importance of the lecturer's competencies is also analysed. The Null hypothesis:

*Importance of lecturer's competence is the same regardless of the students' year of study;*

$$H_0 : \mu_1 = \mu_2 = \mu_3$$

where $\mu_1$, $\mu_2$, $\mu_3$ are the means of the students' perception of importance of the lecturer's competency according to the year of study, is tested. Used significance level is $\alpha = 0.05$.

Rejecting the Null hypothesis and accepting the Alternative hypothesis implies that the students from different year of study have different opinions.

If Bartlett's test showed the data normality, the analysis of variance for a single factor ANOVA is used. If the data did not meet homoscedasticity assumption, Kruskall-Wallis's test was used (Anderson et al., 2014).

*Testing of Designed Methodology*

The structure of lecturers' managerial competencies and usage of the designed methodology was tested on a small pilot study which was carried out on a very small group of 4 students (Brožová et al., 2011; Brožová, 2011) and then on survey of 228 students of Master programmes of CULS (Brožová, 2012). Both studies evaluate the feasibility and confirm the reasonability of the designed approach.

## Results of Research

*Importance of Competencies Groups*

The students primarily expected the lecturers, who are highly competent in selection of the proper Content and form of teaching for each study subject. This lecturer's ability represents a very important lecturers' competency for students. Next, the students want the lecturer to be the Personality. Organisational competencies of the lecturers are not very important for students. It can be explained by the students' ability to accept changes in the organisation of teaching which can be evaluated positively in relation to the changing demands on any university student and his/her responsibility for education.

In the Table 4, three competency groups in the second level of hierarchy are ranked according to their importance expressed by weights. During the study years there were no major changes in the perception of importance of the monitored areas of lecturers' competencies, as shown by the analysis of variance ($p > .05$, the Null hypothesis is not rejected).

**Table 4. Importance of groups of competencies.**

| | *BC 1st* | *MS 1st* | *MS 2nd* | *p-value* |
|---|---|---|---|---|
| Content and form of teaching | .444 | .427 | .449 | *.584*[A] |
| Personality of a lecturer | .328 | .336 | .334 | *.931*[A] |
| Organization of the lecture | .228 | .237 | .217 | *.515*[A] |

*Note.* A = Anova test.

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*Importance of Managerial Competencies within Groups*

The importance of individual competencies in the group Content and form of teaching as their weights are shown in Table 5. Surprisingly, these results show that the Way of teaching is much more important for the students than the Complexity of teaching and the Amount of information, which are on the last fifth and sixth place according to their weights.

The students give great importance to the lecturer's ability to select and use the suitable Way of teaching for the interpretation of the subject matter. On the fourth level of competencies hierarchy is seen, the students prefer Innovative education to the Classical one.

As an important item, the students also percept the proper Form of teaching of the subject. On the next level of hierarchy, the students surprisingly prefer the Oral based presentation to the IT based presentation, which is in contrary with the preference of the Innovative education.

The Complexity of teaching is not preferred by the students, because they prefer simple and partial communication (Low complexity of teaching) to a complex topic presentation on the fourth level.

The Amount of the information transferred to the students in all courses is considered as the least important, although, on the fourth level, the students percept as more important a High amount of information. From there, the students' ability to select only the information they really need can be deduce.

The importance of the Complexity of teaching is decreasing during the study years ($p < .05$, the Null hypothesis is rejected). Aside from the Complexity of teaching the perception of competencies importance of the students during their studies do not differ significantly ($p > .05$, the Null hypothesis is not rejected for all other competencies in this group); there was no essential change in the students' perception (Table 5).

**Table 5. Importance of competencies in content and form of teaching.**

| | BC 1st | MS 1st | MS 2nd | p-value |
|---|---|---|---|---|
| Way of teaching | .332 | .318 | .321 | *.479*[A] |
| Form of teaching | .210 | .226 | .223 | *.156*[A] |
| Content of teaching | .182 | .187 | .199 | *.309*[A] |
| Depth of teaching | .119 | .118 | .126 | *.615*[A] |
| Complexity of teaching | .090 | .090 | .070 | *.027*[A] |
| Amount of information | .067 | .060 | .061 | *.079*[KW] |

Note. A = Anova test. KW = Kruskall-Wallis's test. Case, when the Null hypothesis is rejected, is highlighted in grey.

In the next group of competencies - Personality of a lecturer (Table 6) - there are only small differences among the importance of competencies except the Lecturer's look, which is of the lowest importance. The students do not distinguish whether the lecturer is dressed formally or casually.

The weights show the highest importance of the competency in the Communication skills and the Lecturer's manifestation. As almost all other items in this competency group received similar weights, it can be stated that the lecturer is perceived as a complex personality by the students.

The importance assessments of the 3 competencies in the Personality of a lecturer group differ quite significantly for the students from different years of study as shown by the results of the Anova or Kruskall-Wallis's tests ($p > .05$ for 3 competencies, the Null hypothesis is rejected for 3 competencies and it is not rejected for other 4 of them).

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**Table 6. Importance of competencies in personality of lecturer.**

| | BC 1st | MS 1st | MS 2nd | p-value |
|---|---|---|---|---|
| Communication skills | .182 | .202 | .193 | *.113* A |
| Lecturer's manifestation | .197 | .199 | .171 | *.016* A |
| Ability to improvise | .168 | .144 | .170 | *.045* KW |
| Attitude to students | .142 | .167 | .157 | *.059* KW |
| Way of speaking | .136 | .142 | .128 | *.392* A |
| Support of student's independence | .137 | .112 | .145 | *.001* A |
| Lecturer's look | .038 | .035 | .036 | *.605* KW |

Note. A = Anova test. KW = Kruskall-Wallis's test. Cases, when the Null hypothesis is rejected, are highlighted in grey.

The Organisation of the lecture is a less important group of lecturer's competencies for the students (Table 7). The importance expressed as weights of all the competencies in this group must be assessed in the context of group lesser importance. However, there is seen higher importance of the lecturer's Way of solving problems and lecturer's Flexibility. For the students it is very important how the lecturer solves the problems, and how he/she can be influenced, as students want to be able to change the lecturer's decision. It seems that the students are very interested in it and influenced by the lecturer's attitude to problems.

The method of the Setting the rules for the subject study and exam, and the lecturer's Focus on students' group or individual are the least important for students as a whole. According to other findings, it can be expected that the students are able to adapt to the changes in the organisation of teaching, if it is beneficial for the educational content.

The students of the monitored courses differed only in looking at the lecturer's Focus on students' group or individual ($p < .05$, the Null hypothesis is rejected for this competency). For the students of the last course, the lecturer's Focus on students' group or individual is particularly of the lowest importance.

**Table 7. Importance of competencies in organisation of lecture.**

| | BC 1st | MS 1st | MS 2nd | p-value |
|---|---|---|---|---|
| Ways of problem solving | .166 | .162 | .172 | *.675* A |
| Flexibility | .159 | .155 | .147 | *.497* A |
| Plan of teaching | .131 | .123 | .137 | *.742* KW |
| Evaluation methods | .124 | .134 | .133 | *.412* KW |
| Evaluation criteria | .125 | .125 | .137 | *.264* A |
| Monitoring | .128 | .122 | .111 | *.227* KW |
| Setting the rules | .082 | .092 | .100 | *.195* KW |
| Focus on students' group or individuals | .084 | .088 | .063 | *.001* KW |

Note. A = Anova test. KW = Kruskall-Wallis's test. Case, when the Null hypothesis is rejected, is highlighted in grey.

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*Partial Importance of Managerial Competencies Characteristics and Anti-characteristics*

The weights on the fourth level show the importance of the characteristics and anti-characteristics of a lecturers' managerial competencies for each of such pair separately. These weights, before being synthesised, can be used for the analysis of importance inside pairs of characteristics of each managerial competency.

Table 8 shows the characteristics/anti-characteristics arranged according to the main competencies groups and then ranked according to the main importance of the preferred characteristic/anti-characteristic of competencies (shown in the first column). This provides the following interpretation:

Content and form of teaching

- Students consider the Low complexity of teaching to be very important, they do not want a High complexity of teaching of the subject.
- Students attach the high importance to Innovative education, two times higher than Classical education.
- Surprisingly, students prefer Oral based presentation: teaching based on verbal presentation, rather than on IT tools.

Personality of the lecturers:

- Students give the absolutely highest importance to lecturer's Good communication skills.
- Students see as important lecturer's Ability of improvisation when they are respected by the lecturers as recipients of the teaching to the situation when the lecturer prioritises the content of the teaching to the personality of students.
- Students appreciate Democratic way of teaching, the ability of lecturers to respect their opinion and be helpful, to cooperate and to support student's independence.

Organisation of the lecture:

- Students also perceived as highly important Consistent criteria, they need the lecture's compliance with the defined evaluation criteria.
- Flexible lecturer is important for students, they want to have a chance to change the lecturer's decision, to have a chance to influence a lecturer.
- Students expect the lecturer's clarity, sincerity and forthrightness in communication. They prefer First hand manner.

The slight differences in the answers of the students of different courses can be only seen (only for 7 competencies is $p < .05$ and the Null hypothesis is rejected). Significant differences are evident for the characteristics Keeping/Changing the rules (importance of the Keeping the rules is increasing with student age), Formal/Colloquial language style (importance of the Formal language is increasing with student age) and Specialised/Interdisciplinary lecture (importance of the broad overview Interdisciplinary lecture is increasing with student age). Null hypothesis is rejected in these cases also for $\alpha = .02$ (Table 8).

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**Table 8. Importance of managerial characteristics and anti-characteristics.**

| | BC 1st | MS 1st | MS 2nd | | BC 1st | MS 1st | MS 2nd | p-value |
|---|---|---|---|---|---|---|---|---|
| Content and form of teaching | | | | | | | | |
| Low complexity of teaching | .803 | .758 | .789 | High complexity of teaching | .197 | .242 | .211 | *.481* KW |
| Innovative education | .695 | .687 | .707 | Classical education | .305 | .313 | .293 | *.710* A |
| Oral based presentation | .622 | .615 | .590 | IT based presentation | .378 | .385 | .410 | *.451* A |
| High amount of information | .604 | .610 | .608 | Low amount of information | .396 | .390 | .392 | *.972* A |
| Emphasis on content | .565 | .602 | .634 | Emphasis on form | .435 | .398 | .366 | *.039* A |
| Interdisciplinary lecture | .548 | .583 | .642 | Specialised lecture | .452 | .417 | .358 | *.002* A |
| *Personality of a lecturer* | | | | | | | | |
| Good communication skills | .869 | .856 | .873 | Poor communication skills | .131 | .144 | .127 | *.906* KW |
| Ability of improvisation | .828 | .798 | .835 | Inability of improvisation | .172 | .202 | .165 | *.037* KW |
| Democratic way of teaching | .786 | .791 | .815 | Directive way of teaching | .214 | .209 | .185 | *.028* KW |
| Spontaneous manifestation | .643 | .580 | .617 | Calm manifestation | .357 | .420 | .383 | *.068* A |
| Colloquial language | .629 | .582 | .540 | Formal language | .371 | .418 | .460 | *.002* A |
| Emphasis on the student's | .558 | .594 | .613 | Emphasis on the subject | .442 | .406 | .387 | *.104* A |
| Formal look | .517 | .520 | .523 | Casual look | .483 | .480 | .477 | *.973* A |
| *Organization of the lecture* | | | | | | | | |
| Consistent criteria | .704 | .743 | .777 | Changeable criteria | .296 | .257 | .223 | *.047* KW |
| Flexible | .732 | .725 | .713 | Inflexible | .268 | .275 | .287 | *.624* A |
| First hand manner | .716 | .713 | .711 | Diplomatic manner | .284 | .287 | .289 | *.973* A |
| Keeping the rules | .587 | .629 | .667 | Changing the rules | .413 | .371 | .333 | *.009* A |
| Focus on individuals | .607 | .622 | .598 | Focus on group | .393 | .378 | .402 | *.672* A |
| Qualitative evaluation | .599 | .591 | .589 | Quantitative evaluation | .401 | .409 | .411 | *.917* A |
| Consider the control | .578 | .600 | .585 | Ignore the control | .422 | .400 | .415 | *.660* A |
| Fixed education plan | .562 | .562 | .560 | Changeable education plan | .438 | .438 | .440 | *.997* A |

Note. A = Anova test. KW = Kruskall-Wallis's test. Cases, when the Null hypothesis is rejected, are highlighted in grey.

*Synthesized Importance of Managerial Characteristics and Anti-characteristics*

Synthesised weights on the fourth level show the particular importance of the lecturer's managerial characteristics and anti-characteristics. In Table 9 the competencies are organized in the competency groups.

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**Table 9. Synthesised importance of managerial characteristics and anti-characteristics.**

| | BC 1st | MS 1st | MS 2nd | | BC 1st | MS 1st | MS 2nd |
|---|---|---|---|---|---|---|---|
| Content and form of teaching | | | | | | | |
| Innovative education | .103 | .093 | .102 | Classical education | .045 | .043 | .042 |
| Oral based presentation | .058 | .059 | .059 | IT based presentation | .035 | .037 | .041 |
| Emphasis on content of teaching | .046 | .048 | .057 | Emphasis on form of teaching | .035 | .032 | .033 |
| Interdisciplinary lecture | .029 | .029 | .036 | Specialised lecture | .024 | .021 | .020 |
| Low complexity of teaching | .032 | .029 | .025 | High complexity of teaching | .008 | .009 | .007 |
| High amount of information | .018 | .016 | .017 | Low amount of information | .012 | .010 | .011 |
| Personality of a lecturer | | | | | | | |
| Good communication skills | .052 | .058 | .056 | Poor communication skills | .008 | .010 | .008 |
| Ability of improvisation | .046 | .038 | .047 | Inability of improvisation | .009 | .010 | .009 |
| Spontaneous manifestation | .042 | .039 | .035 | Calm manifestation | .023 | .028 | .022 |
| Democratic way of teaching | .035 | .030 | .039 | Directive way of teaching | .010 | .008 | .009 |
| Emphasis on the student's personality | .026 | .033 | .032 | Emphasis on the subject matter | .020 | .023 | .020 |
| Colloquial language | .028 | .028 | .023 | Formal language | .016 | .020 | .020 |
| Formal look | .006 | .006 | .006 | Casual look | .006 | .006 | .006 |
| Organization of the lecture | | | | | | | |
| First hand manner | .027 | .027 | .026 | Diplomatic manner | .011 | .011 | .011 |
| Flexible | .027 | .027 | .023 | Inflexible | .010 | .010 | .009 |
| Consistent criteria | .020 | .022 | .023 | Changeable criteria | .008 | .008 | .007 |
| Fixed education plan | .017 | .016 | .017 | Changeable education plan | .013 | .013 | .013 |
| Qualitative evaluation methods | .017 | .019 | .017 | Quantitative evaluation m. | .011 | .013 | .012 |
| Consider the control | .017 | .017 | .014 | Ignore the control | .012 | .012 | .010 |
| Keeping the rules | .011 | .014 | .014 | Changing the rules | .008 | .008 | .007 |
| Focus on individuals | .012 | .013 | .008 | Focus on group | .008 | .008 | .005 |

For the following analysis and explanation, the average of weights received for three groups of students is calculated for all characteristics and anti-characteristics competencies. Based on the weights of 21 items of lecturers' competencies regardless of their inclusion into the individual competencies groups, the observed competency characteristics are ranked firstly according to the highest average weights (Figure 2) and secondly according to the differences of average weights (Figure 3).

The following findings based on the average weights need to be emphasized (Figure 2):

- Students give an importance to the lecturers' competency in Innovative education; it does not mean that the innovative approach assumes use of IT presentation technology.
- On the contrary to the expectancy the students perceive importance of Oral based presentations.
- Students consider important Good communication skills, e.g. competency in communication not only of the content, but also the clarity of the teaching, persuasion and reasoning skills, and the level of rhetoric.
- The high importance of Emphasis on content of teaching complements the other outcomes. Students realize the importance of quality information and appropriate teaching forms. This need is particularly evident at students in the last year of study before graduation.
- Students welcome lecturer's Ability of improvisation, ability to respond to the needs of students in the teaching process, ability to customise the content and form of teaching to the students' needs. By this, students express importance of their role as cooperative partners in the teaching process.

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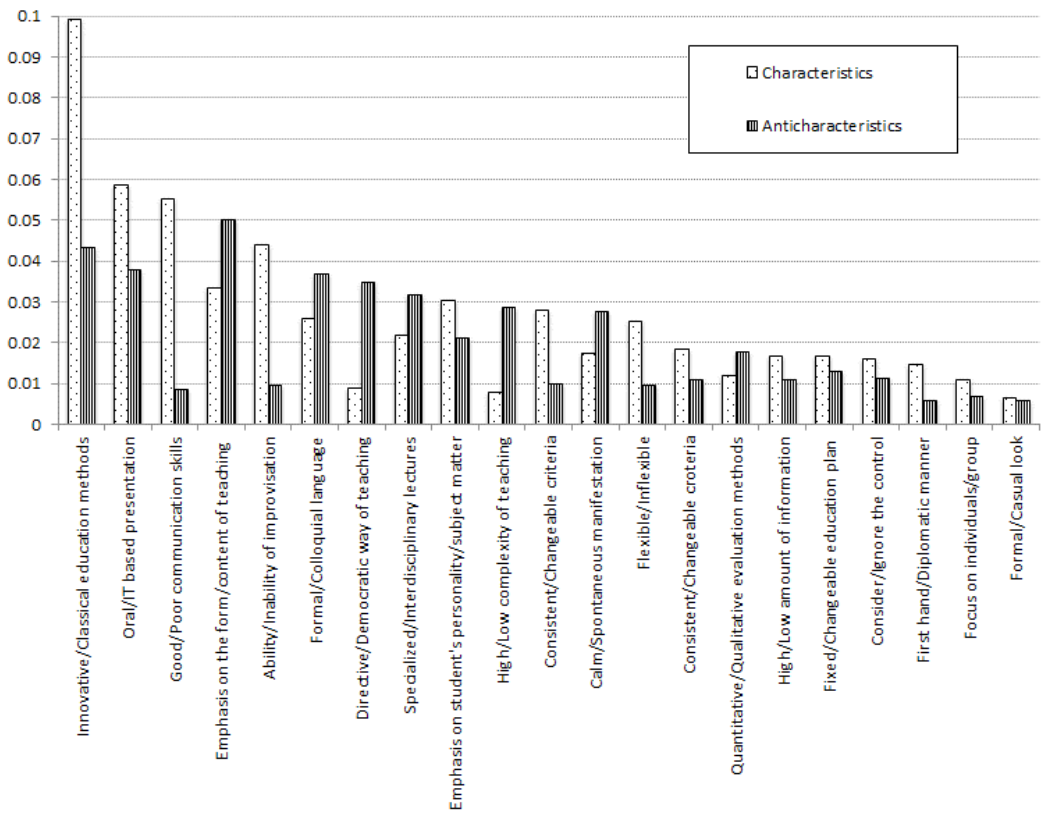


**Figure 2. Average synthesised importance of managerial characteristics and anti-characteristics ranked according to the highest weights.**

Another view on the characteristics and anti-characteristics importance provides their ranking according to the differences of the weights of the corresponding characteristics and anti-characteristics (Figure 3).

From the differences of the weights the following findings should be emphasised:

- The Innovative education (not classical) is more important for students in contrast with its anti-characteristics.
- High importance of Good communication skills is also manifested.
- Ability of improvisation is the third most important characteristics than anti-characteristics by students.
- As the fourth, students put more importance to Democratic manner of teaching, a democratic approach from their lecturers than Directive manner. This is the result, which also corresponds to the general demands on the way to higher education.
- For ubiquitous IT, it is an interesting finding of the higher importance of Oral presentation compared to IT based presentation.

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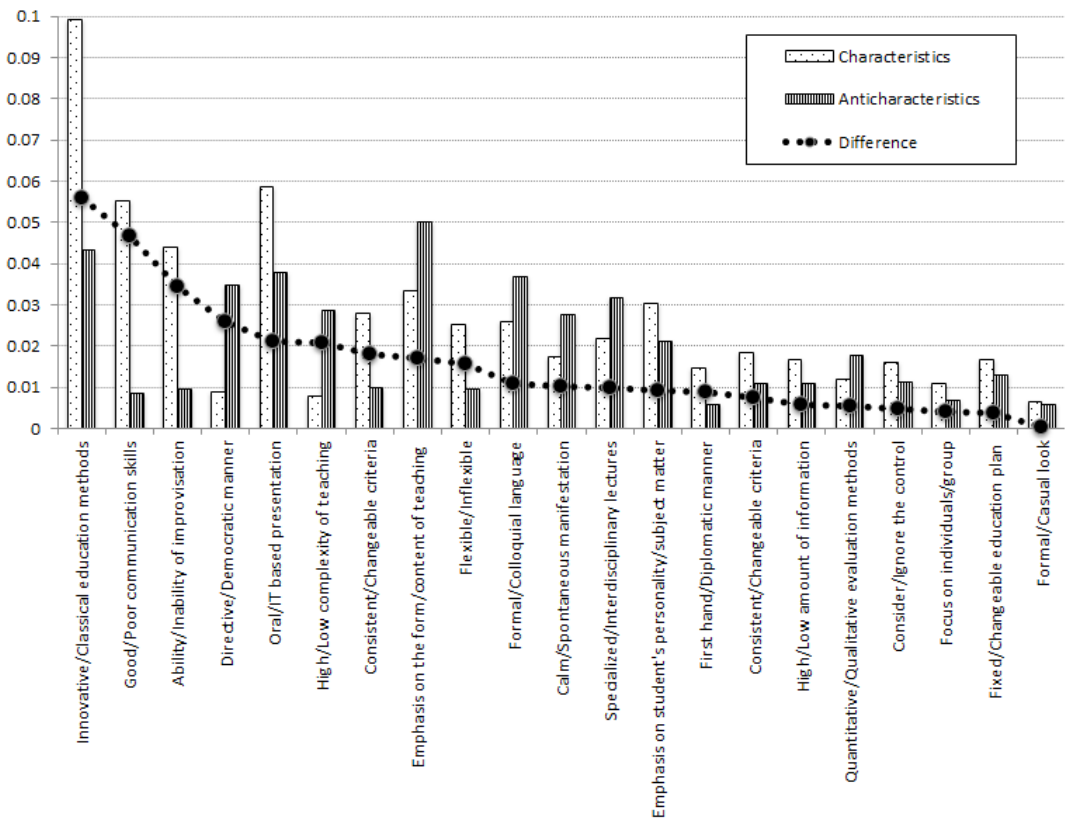


**Figure 3. Average synthesised importance of competencies characteristic and anti-characteristic ranked according to the weights differences.**

According to these results, Table 10 summarizes the most important competency characteristics ranked according to their weights and to the difference of their weights.

**Table 10. The most preferred lecturer's competencies.**

| Rank based on | Weights | Difference of weights | Sum of ranks |
|---|---|---|---|
| Innovative education | 1 | 1 | 2 |
| Good communication skills | 3 | 2 | 5 |
| Oral based presentation | 2 | 5 | 7 |
| Ability of improvisation | 5 | 3 | 8 |
| Democratic way of teaching | 7 | 4 | 11 |
| Emphasis on the content of teaching | 4 | 8 | 12 |

Note. Values in the table represent the rank.

It has to be noted, the students' opinion does not change during their entire study period at university, although some differences have been found.

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## Discussion

This research identified the students' perception of importance of lecturers' managerial competencies at the Czech University of Life Sciences Prague.

The students perceive the competencies in the group Content and form of teaching as the most important. It could be evaluated positively, because this shows the students' interest in the content of teaching and the students' own responsibility for their study achievement. The next based on the importance evaluation is the group Personality of teacher.

Generally, the lecturers' competencies in the Innovative educational strategies (instead of Classical ones) based on Oral presentation (instead of ITC based) and the lecturer's Good communication skills are the most important. The students welcomed the ability of the lecturers to use innovative teaching techniques and experimental approaches.

The students expect and give the importance to very Good communication skills of their lecturers. In particular, they expect high degree of expression clarity, convincing reasoning and arguments from their lecturer. Beside the lecturers' role in inspiring the students to work independently, the lecturers still have an irreplaceable role in the ability to clearly explain the content, describe the problems and give the reasons and arguments to support the professional and scientific outcomes.

The students prefer Oral presentation, which is surprising given that students use computers and IT technologies for everyday life. It can be explained by the necessity of the students' personal interaction, consultations, discussions and communication with their lecturers. Students perceive that they can study better (remember and provide information) and improve their academic achievement if the lecturer has good competencies in communication, education methods and oral based presentations, which confirms the so-called Ranschburg effect (Berková et al., 2018). The low importance of ICT based teaching methods was shown also by Semrádová and Hubáčková (2014).

The lecturers' skills in Ability of improvisation are also appreciated by the students, because they want to be respected as the active recipients of transferred knowledge, they do not want to be just passive listeners. The students want to be partners of lecturers, the students want the customisation of the content and form of teaching for their needs.

Democratic way of teaching, the democratic approach from the lecturers is also very important for the students. This corresponds to the general demands of the higher education for the ability of lecturers to respect students' opinion, to help, to cooperate and to support student's independence.

Particularly the students in the last year of study before graduation put high importance to the lecturer's Emphasis on the content of teaching. These students realize the importance of quality and amount of information and ask for the appropriate teaching forms.

The competencies group Organisation of the lecture has the lowest importance for students. It means that the students are very adaptable and willing to accept operational changes. For the students it is very important how the lecturer solves the problems, and how the lecturer can be influenced, as students often want to be able to change the lecturer's decision. According to other findings, it can be expected that the students are able to adapt to the changes in the organisation of teaching, if it is in the interest of the educational content. Only importance of the Consistent criteria (later placed) can be mentioned, the students naturally want to know in advance the conditions for successful completion of individual subjects.

These findings are consistent with the survey of Slovak students' opinion as Blašková, Blaško and Kucharčíková (2014) show the more important lecturer's competencies as innovative teaching methods using, the proper selection of content and form of teaching, and communication competencies including good communication skills and ability to interact with students.

It is also possible to say that the lecturers know what to prefer. The lecturers' opinions are very similar. The Taiwan lecturers point out the competency of right choice of the content

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and the way of teaching (Li and Lin, 2014). The Netherlands lecturers see as the most important the communication skills, way of teaching, focus on students, keeping the rules, and innovative way of teaching, too (Tigelaar at al., 2004). The lecturers in Spain and Romania identify the most important competencies in their teaching competencies including ability to use interactive teaching methods and good communication skills (Duţă et al., 2014).

The outcomes of the surveys at international level and from students' and lecturers' point of view show the high consistency of perception of lecturers' managerial competencies. Although the survey among students was carried out already 4 years ago, the daily teaching practice at CULS Prague shows that the importance of competencies in lecturers' communication and presentation of the subject matter does not change.

## Conclusions

The managerial competencies form is an inseparable part of the necessary lecturers' competencies. The research identifies and evaluates the importance of the lecturer's managerial competencies from the students' point of view. Identification of the most important competencies should therefore benefit the lecturers who want to bring up students' level of engagement, concentration, attitude, participation and feedback during the teaching process (lectures, workshops, seminars). The students' perception of the lecturer is also important for the universities, which try to improve the quality of teaching, to react to changing demand for higher education, and to attract students. These findings are also important for deciding on the content of education of the lecturers. Hence it is necessary to underline:

The students consider Innovative education, Good communication skills, Oral based presentation, Ability of improvisation, Democratic way of teaching and Emphasis on content of the teaching as the most important lecturers' competences or skills. Surprisingly, the students give high importance to competence in Oral based presentation instead of IT based presentation. The students also emphasized that the Personality of the lecturer represents an important factor in their perception of education process.

It has been shown that the importance of individual competencies (characteristics) does not change significantly with the year of study. It can be also said that the lecturers generally know which managerial competencies or skills the students expect, as the students' and lecturers' opinions are close. Nevertheless, in the further research, it would be interesting to find out the possible changes of lecturers' managerial competencies and of their importance in the views of both the next generation of students and lecturers. These changes would be caused by the changes in society, development of the technical support for studies mainly of ITC tools, in the school education system, and changes in the requirements for graduates of HEIs.

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