Causal attributes of university students and their preferences in the process of evaluation of their learning activity results

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Abstract

University training consists of several activities. One of the main activities is evaluation of its results. Integral part of the assessment is examining students’ knowledge. This process is demanding not only from the position of the student, but also of his/her teacher. Verification represents a specific system of diverse methods, forms and means, where the teacher is the decisive factor in their choice. Whether the choice is suitable or not, it is therefore reflected in the quality of the process and it also affects its outcome (which is the student’s success or failure). To see the cause of failure or success is a factor that greatly influences the university student’s motivation and choice of learning strategies. However, the same process provides the university teacher with feedback of the assessment process. Information that teachers receive may help them to improve their teaching activities. In conclusion we present preferences of causal attributes of students’ success or failure in the process of knowledge testing.

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1. Causal attributes of university students

The method of causal attributes in university learning isn’t considered a traditionally used method. The essence of the method lies in determining the attribution of causes of a student’s achievements or failures in the process of assessment of his/her study results. Understanding the attribution of causes of success or failure is important mainly

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in the area of advancement of a student’s motivation. Humans naturally attribute the cause of success to themselves while searching for causes of failures somewhere else. M. Zelina (Zelina, 2011) states the following division of the map of causal attributions:

* internal and reversible causes, e.g. diligence – it is an internal personal matter and diligence can be reversed. We talk about an internal reversible localization of causes of success or failure,
* internal and (relatively) irreversible causes, e.g. fate,
* external and reversible causes, e.g. “I didn’t have a book for study”,
* external and irreversible causes, e.g. “it was a difficult task for me”.

One technique for the change of attribution of causes is the re-localization of causal attributes of successes or failures. In simpler terms we can say that the attribution of causes to oneself is a functional localization. Others are less functional and the attribution outside oneself is the least functional localization. A dysfunctional localization must be, first of all, recognized. In the next phase, we need to determine if it is a fixed, localized or coincidental (only in this case) causal attribution. Based on the understanding (diagnosis) and the differentiation (differential diagnosis) we can apply a program of adjustment of causal attribution in situations of dysfunctional localization. In praxis, two techniques are commonly used for re-localization of causal attributes. The first technique is to explain to the student that the attribution of causes is unfitting and that it impedes his/her progress and demotivates his/her self-advancement. This is a method of clarification or suggestion and a method of a change of attitude. The second tactic, and it seems to be the more effective one, is a change of localization through activity, through practice. In reality it means to give the student tasks, through which he/she ascertains that the success is only in his/her hands, the causes are within him/her and that they can be reversed by his/her own work and attitude.

While applying the method of causal attribution it is, however, often revealed that the real causes of students’ failure can be found in the forms and methods of assessment of their learning activity as well as in the actual verification of students’ knowledge and abilities during the exam period.

2. Forms and methods of evaluation in university education

Expertise, pedagogical readiness and the moral profile of a university teacher should guarantee the maintenance of a high standard of the process of evaluation. When evaluating student’s results a university teacher should adhere to certain principles, which should naturally arise out of his/her erudition, pedagogical-psychological readiness and mirror his/her personal qualities. As early as 1987, R. Štefanovič (Štefanovič, 1987) defined the general principles for the process of evaluation, examination and classification of educational results of a university student. These are the principle of objectivity, the principle of resolution, the principle of systematic approach, the principle of difficulty and the principle of individual approach. Despite being designed in the past, these principles find their justification in the evaluation process of university education even today. If we wanted to expand the principles of evaluation, surely we should add the principle of evaluation complexity or the principle of evaluation openness. However, it is not our aim to elaborate on the theory of principles, but rather to introduce traditional forms and methods of evaluation and to point out the options for their innovation. The choice of a method depends partly on external factors which are out of a teacher’s influence. First, it is the number of students the teacher works with during a semester and which must at the end be evaluated. In the current trend of a continuously rising number of students accepted for study, teachers traditionally choose a written form of examination, mainly didactic tests. Didactic tests are modern means for determining both the quantity and the quality of learners’ knowledge. One of the alternatives is the objective test. I. Turek (Turek, 2008) defines the objective test as a test where each item contains only one correct answer. When drafting an objective test, however, one must maintain the following rules:

- from the goals of different study units that are to be evaluated, the teacher compiles a list of achievements students should be able to manage. These achievements represent the area to be examined,
- from the content of study units, the teacher compiles a list of acquirements that should be contained in the above mentioned achievements,
- a chart of relative importance should be compiled from these two lists, the number of test questions that would be created for each item is established based on this chart,
- in the last phase, the test questions are created, in this case they are usually a type of multiple choice questions, where the student is forced to choose only one correct answer from a choice of multiple pre-set alternatives.
Creating an objective test is much more difficult than creating a choice of questions in a standard written exam, where the student answers the questions using his/her own words. The number of questions is much smaller in this case and the teacher’s ability to examine the whole range of a student’s knowledge is limited. We could argue, as was also stated by E. Smetanová (Smetanová, 2010), that in a standard written exam the teacher is able to probe the whole depth of students’ knowledge, but by choosing questions appropriately this can be accomplished even in the objective test.

Written examination has its advantages and disadvantages. The advantage of written exams is in the possibility to quickly and at once examine the abilities of a relatively large number of students, under equal conditions, to quickly mark them and to be able at any time to return to the written records if a need should arise. The subjectivity of the evaluation is minimized. On the other hand, written tests don’t allow the teacher to watch the student’s immediate reaction, his/her approach as well as the process of solving the task. What’s missing is the ability to uncover the real scope of the student’s knowledge, for example through additional questions as in an oral examination. The student is not encouraged to improve his/her scientific argumentation. The teacher often finds out later on that the student is unable to correctly formulate a question or take a stand on the solution to an issue despite achieving great marks in a written test. This type of examination encourages mechanical learning and the student is then unable to synthesize the acquired knowledge from multiple subjects when solving a practical, real-life problem. As mentioned by K. Novakova and S. Letavajova (Nováková & Letavajová, 2008), critical, logical and creative thinking, essential for fulfilling the graduate profile and performing his future profession, is thereby not developing. Critical, logical and creative thinking, which are all important faculties of a successful professional, are not being developed. If possible, teachers therefore should prefer oral examination. In its first stage oral examination has an individual character based on a continuous speech of a student. The second stage becomes a dialogue between the examiner and the student on the chosen subject. The advantage of oral examination is that it enables the teacher to correct and direct the answer, to watch the ability to express ideas as well as the sequence of thoughts and the ability to be creative when offering solutions to a given problem. The disadvantage of oral examination is in its inability to offer an exact record of the process of examination. Also, the evaluation and classification could be influenced by a certain level of subjectivity. It is the character of the examiner that plays a dominant role in this type of examination and following classification. His/her expert and pedagogical erudition combined with his/her moral qualities should guarantee the correctness of the examination and classification process. According to students, however, this is not always the case. Some teachers are subject to various momentary moods and external forces. As a result the examination and classification become subjective rather than objective.

And last but not least, in the process of examination a teacher should also use the method of practical examination. In general, practical examination is a method in which the student’s knowledge is assessed via practical activities. The content of a practical examination should be the creation of a certain object, a lasting creation – a product of the student. A seminar paper, report, credit paper or a diploma work are also considered products of practical activity. A seminar paper enables the teacher to form a realistic picture not only about the student’s knowledge base but also about his/her ability to apply the theoretically acquired knowledge into solving a given or chosen problem. The practical examination, however, shouldn’t involve only writing seminar papers or reports. In the process of practical examination it is necessary to concentrate more on evaluating the development and the level of student’s skills, abilities and habits, or in other words the competencies outlined in the graduate’s profile. Today, however, this part of the examination process is not being realized sufficiently because of a high number of students in study groups and classes and because the process of examining the development of competencies is quite demanding in terms of space and time as well as the technical and material requirements.

In light of the innovation of forms and methods of evaluation, it is necessary to ponder the question of the development of competencies in a student’s personality. As we stated before, university teachers often use practical examination mainly via evaluation of students’ seminar papers. However, in this context, it is necessary to evaluate not only the seminar paper itself, but also its presentation, through which the teacher is able to assess not just the written expression of the student but also his/her oral and communication abilities, the level of his/her expert or scientific verbalization as well as his/her creativity, emotional presentation and finally the student’s attitude toward the subject or the study itself.
Another suitable method for evaluation of the development of competencies is the creation and evaluation of portfolios. J. Slavík (1999) says that the portfolio is a set of student’s works produced over a certain period of time, which offer various information not just about the student’s knowledge, but also about experiences from the working progression. The portfolio consists of various written works starting from seminar papers all the way to opinions about given expert or scientific topics, final projects, observation protocols from graduate’s practical training and their own interpretations of problems being taught or discussed. Various comments of teachers, colleagues, teacher-trainees, lab technicians and so on can also be a part of the portfolio. The portfolio absorbs and stores diverse information about the development and progress, or stagnation of the student’s personality. Evaluating a student’s portfolio is a demanding task and in the environment of university education it must fulfil four basic conditions. The first of them is the setting of tasks and criteria for evaluation of portfolios. The creation of a portfolio is possible only if this condition is satisfied. Based on appropriately set targets and criteria the university teacher directs the creation of a portfolio and limits the influence of subjectivism during the process of its evaluation. The second condition is the assignment of the type of works that the portfolio should consist of, the frequency of creation and placement of materials into the portfolio and the determination of who may comment on the student’s materials. Another condition that should ensure correct pedagogical evaluation of the portfolio is the complexity of created criteria for evaluation, through which we assess the overall development of the student in all aspects of his/her personality, in other words in terms of the development of necessary competencies. The last condition is the final discussion of the results of the portfolio evaluation with the student. It is necessary to explain the information about the level of the student’s personality development to the student and thus direct his/her further study in terms of optimization of the process of self-study and of improvement of his/her work in class or in practical training. The evaluation of the portfolio enables the teacher to penetrate deeper into the student’s personality, his/her progress in study, helps to develop the student’s self-evaluation skills and to plan the student’s own educational work and the educational work of the teachers.

While discussing the question of the innovation of the methods for evaluation of students’ educational results, we need to become aware of the fact, that today autonomous evaluation is not being used sufficiently by university teachers in Slovakia. As stated by E. Frýdková (2010), because future graduates will in their professional lives use, besides others, axiological processes, it is necessary to adequately develop these processes in the student’s personality. Autonomous evaluation is one of the options for optimal development of these processes and it is also a way to contribute to the general self-awareness, self-evaluation and self-reflection in a student’s personality. Autonomy comes from a Greek word autonomos and it means self-government, in a broader sense self-support, independence. Autonomous evaluation requires trust in the ability of self-evaluation, evaluation of a student’s own work and its results. There are, however, several problems associated with the introduction of autonomous evaluation into university education. A university teacher can trust the students’ self-evaluation abilities, but due to a limited use of self-evaluation (at all levels of education) it is questionable how well this ability is developed in students’ personalities. When introducing an autonomous evaluation into university education, teachers need to adjust their working methods so that the autonomous evaluation can also be used in class. J. Slavík (1999) states that when introducing autonomous evaluation into education, it is necessary to concentrate on two main dimensions of preparation. The first one is a knowledge dimension which helps to prepare students for informed analytical self-evaluation. It is, therefore, important that the teacher teaches the student correct axiological procedures of his/her own work and its results. The most suitable method is the formative evaluation, which enables a university teacher to gradually teach students to set themselves suitable targets and criteria for self-evaluation based on a process of looking for his/her own mistakes and of the correct perception and evaluation of these mistakes. It is necessary to teach students to see their own mistakes as a means of further progress and not as a means of a teacher’s criticism. If, in the first phase, the student finds his/her own mistakes with the help of the teacher, in the second phase he/she is able to give himself/herself feedback with an aim to prevent the mistakes in the future. The first phase can thus be perceived as a sort of a training in the evaluation of students’ own work and its results, the second, psychosocial, dimension requires the teacher to create a positive atmosphere in class. It is very important that the teacher creates an environment of mutual trust, cooperation and collegiality with an emphasis on respecting human differences and individualities which also requires a change in the methods of educational work. The teacher, in fact, performs a sort of training in social behavior of students with an aim to develop emotional, social and creative sections of students’ personalities. The target of autonomous evaluation is not only to teach students to evaluate their own work and its
results, but also to search for ways of improving it, of achieving better results, which in the long run results in the development of a student’s personality itself (Kumorová, 2012). Sooner or later a graduate leaves the school and its teachers and will be put into the role of an assessor not only of his/her own work, but also the work of colleagues or subordinates. The improvement of a student’s self-evaluation skills is thus an important precondition for his/her future professional performance which largely influences his/her professional and personal life, surrounding environment as well as society at large.

3. Preferences of causal attributes in the process of evaluation of learning activity results

The most common and perhaps the most often used method of verification of knowledge in university learning has been the oral examination. This method is keeping its firm place in the process of evaluation of students’ results even in the current situation of an ever growing number of students in study groups. Oral exams are characterized by several peculiar features. One of them is the fact that the teacher has a relatively short time to assess the level of knowledge, abilities and habits that a student had acquired and developed over a relatively long time. Also, despite using objective means of assessment, the teacher is the final and determining agent of the assessment and the results of the assessment may, to a certain point, be distorted by subjective influences. Finally, the overall result of oral examination may be influenced by the momentary disposition of the student. The time of the exam is not always optimum for the best mental and cognitive disposition of the student. This is the reason why most of the time students substantiate a given assessment by momentary disposition or indisposition.

Once again we have used questionnaires to collect students’ opinions of the process of assessment during an oral exam. We were interested, as was the case in 2006, in reasons for failure as well as what students consider the main reasons for success or for gaining excellent marks. 112 respondents took part in the survey - they were students of the first and second year of bachelor study program and students of the first year of masters study program. In the questionnaire they were (on the scale from always, usually to sometimes, less often, never, and “I don’t know”) giving reasons for worse or better assessment at an exam. They were able to express their opinion in these most frequently given reasons for success or failure:
1. bad luck – good luck
2. not being well prepared for the exam – being well prepared for the exam
3. experiencing the jitters – not experiencing the jitters
4. momentary indisposition – momentary good disposition
5. drawing a good question – drawing a bad question
6. biased judgement – lenient judgement
7. harsh approach of the teacher – amiable approach of the teacher
8. getting obscure questions – getting clear questions
9. making a bad impression on the teacher – making a good impression on the teacher
10. higher average of the other students – lower average of the other students

Graph No. 1 compares (in percentages) reasons given by students for bad assessment in exams in 2006 and 2013.
The graph shows (with only a marginal deviation) that in both compared years students indicated as the most common reason for failure: drawing a bad question, on the second place they admitted not preparing well for the exam and the third most common reason was experiencing the jitters. The thing we see as a positive outcome of the survey is the fact that students indicated subjective factors (like bias judgement, harsh approach of the teacher, giving obscure questions, making bad impression on the teacher) the least.

Graph No. 2 compares reasons given by students for obtaining a good assessment in exams in 2006 and 2013.

As reasons for good assessment in oral exams students in both years most often indicated being well prepared for the exam, drawing a good question and getting clear questions. The rest of the survey results as well as the small differences between both compared years imply that even after several years, students attribute their success or failure at exams to their own work as well as to a methodologically correct and humanely executed process of assessment.

The results of the survey show that in the process of assessment, university teachers try to eliminate unwanted subjective factors. The assessment process thus becomes a motivating factor for students. It mirrors the work of both students and teachers. It offers students insight into their own work and enables them to continuously look for ways of improvement. The assessment process thus helps to develop personalities of both the students as well as the teachers.
References