Abstract: The aim of the paper was to present the results of a GA ČR (Czech Science Foundation) grant-maintained project that are connected with the influence of tacit knowledge on leadership and secondly to draw attention to the impact of the findings on the development of future managers. The crucial methods of data collection used in the project were interviews with managers and discussion groups. The results were analysed with software Atlas.ti. The research confirmed that tacit knowledge influences manager’s behaviour and with it also their success. Therefore a teacher’s attention should be drawn to tacit knowledge forming and moulding already in the course of student education. This should be realized especially in the choice of suitable educational methods.

Key-Words: Tacit Knowledge, Managerial Work, Manager’s Development, Leadership, Self-management, Academic Tacit Knowledge

1 Introduction
One of the questions which is discussed at the present time by public experts is how to prepare future executives. A high-quality preparation of potential managers is necessary because as Shih et al. [16] say, the sustenance development of a business is contingent upon the leaders and their vision for future development to realize their goals. However, it seems that today’s system of managerial education often fails (see e.g. Kressová [7], Phillips [15]). In connection with this fact it is important to realize that one of the successful performance pre-requisites of a managerial function lies in the possession of tacit knowledge connected with leadership. This paper tries to show the mentioned connection. Its aim is to present the results of the GA ČR (Czech Science Foundation) grant-maintained project, Reg. No. 406/08/0459, Developing Managerial Tacit Knowledge which are connected with the influence of tacit knowledge on leadership and to draw attention to the impact of the findings on the development of future managers.

In the following chapters the basic terms are defined which are connected with the topic of the paper. Next the used research methods are explained and the research findings are presented and interpreted.

2 Basic Terms
Tacit knowledge is defined by Bishop [3] as what we know about what we do. Mohamed [13] defines it as knowledge that is created and used in the process of formal results creating. Generally, tacit knowledge can be defined as practical know-how which is formed in a person’s mind during a course of years on the basis of experience and interaction with the setting (see e.g. Haldin-Herrgärd [5], Wagner [20], Matošková [9], Bennett [2], Sternberg [17], Torff & Sternberg [19]). Sternberg [18] points out that the amount of tacit knowledge has a tendency to increase with experience within a given action. The amount of time or experience is not as important as the ability to learn from the experience and to apply the gained knowledge.
If an individual has tacit knowledge, it means among other things, that they often do something spontaneously or routinely without being aware of it or without having thought about it or they are not able to explain afterwards why and how they have done it. This means that tacit knowledge significantly influences our behaviour (see e.g. Gourlay [4], McQueen [12]). It is said (see e.g. Gourlay [4], Willner-Colonia [21]) that tacit knowledge is essential for coping with many situations; it facilitates the individual to cope with a new situation or to adapt to it, to manage it or to fill in some gaps in their formal training. According to Baumard [1] tacit knowledge plays an essential role in understanding ambiguous situations and this is why it is necessary in managerial work. Matošková [9] says that a certain aspect of managerial tacit knowledge is that it is related to the content of activities and situations which tacit knowledge is used by the manager in. This managerial tacit knowledge is mostly connected with coping with people. Examples of managerial tacit knowledge are the ways of how to persuade others of the value of ideas and products, how to lead a team, how to motivate subordinates and how to best invest our time. Some tacit knowledge (e.g. connected with interpersonal relationships) is universal and general, every manager should have it. Other tacit knowledge is in context specifically connected with the business branch, e.g. the position in the organizational hierarchy etc.).

As a result of the points mentioned above, one of the domains in which tacit knowledge ownership manifests itself is leadership, which Chemers (according to [8]) defines as: the process of social influence by which an individual gains the help and support of others to achieve a collective task. The influence of tacit knowledge on leadership was one of topics which the GA ČR (Czech Science Foundation) grant-maintained project, Reg. No. 406/08/0459, Developing Managerial Tacit Knowledge, dealt with. In the following chapter the methods of data collection are described and these were used in the framework of the project.

3 Methods of Data Collection

The crucial methods of data collection used in the framework of GA ČR (Czech Science Foundation) grant-maintained project, Reg. No. 406/08/0459, Developing Managerial Tacit Knowledge, were interviews with managers and with discussion groups.

In total 32 interviews with managers were completed in the framework of the project (26 with men and 6 with women). All the interviews were accomplished in 2009. Respondents were chosen on the basis of a simple purposeful choice. Respondents were active in all types of organizations (according to the number of employees) - 14 in large organizations, 13 in middle size and 5 in small ones. The average age of the respondents was approaching 50 years. They had been managers on average for 17.66 years. Most of the respondents had technical (22) or economical (9) education, the others had naturalistic or liberal education. 6 had 2 types of education and 1 had 3 types of education. (Matošková [10]) Three kinds of interviews were carried out.

The base of the procedure for the first 10 interviews was the approach of Haldin-Herrgård [6] where 17 cards were prepared and every card had a theme. In the research themes included: subconscious, emotion, intuition, experience, common sense, talent, creativity, curiosity, abilities and skills, receptivity and beliefs. The reason for using these themes is that they are used in common conversation to describe tacit knowledge by the laity (see Haldin-Herrgård [6]). Other themes were also added – factors which can influence tacit knowledge forming and its moulding – organizational culture, learning from mistakes, life examples and models, knowledge sharing, self-management, mentors and teachers. Factors were established on the basis of findings from previous research (see Matošková [9], Matošková & Kressová [11]). The first task for respondents was to sort out the cards and to leave only the themes which had some significance in managerial work. Then some additional questions were given to the retained words, e.g. how a manager understands the theme, if and how it influences a manager’s decision etc. The average duration of this kind of interview was approximately 45 minutes.

The second type of interviews was a classical semi-structure interview. The interviewer gave questions to the manager about critical points of his/her professional career, professional objectives, their models, problems which they had to solve and their ways of working etc. 12 managers were involved in this kind of interview. The interviews took on average 36 minutes.
The final type of interviews was based on the usage of a projective technique – the interpretation of pictures. An article by Österåker [14] was the inspiration for the preparation of this method. 24 abstract terms connected with managerial work were established (e.g. organizational culture, knowledge sharing, learning by doing and intuition). Then the research team assigned a picture expressing the concept of every theme. Managers were asked to interpret the pictures in relation to managerial work. 10 respondents took part in the interviews. The average duration of the interview was less than 27 minutes.

In addition to the interviews there were also 4 discussion groups involved in the framework of the project. In the first discussion group, 10 people took part (4 managers and 6 academics). The discussion was focused on tacit knowledge development and sharing knowledge. 7 practitioners and 2 academics took part in the second discussion group. It was concerned with worker’s knowledge and their work. The third discussion group was involved in the framework of the conference, Rozvoj tacitních znalostí manažerů (Development of Tacit Knowledge for Managers). 11 academics attended. Its purpose was to collect some comments to the questions about tacit knowledge forming, sharing and its externalization. In the last discussed group, 7 people were involved (6 academics and 1 practitioner). The discussion was about what the project found out.

The basic statistical evaluation of respondents was done using software MS Excel. The records of interviews and discussions were transcribed and they were analysed with the so-called method of pattern interception (looking for and noticing patterns, topics and structures which are repeated in the data). Second was the factor method (looking for factors which aren’t observable directly, have implicit character, but influence a certain phenomenon or situation etc.) and that was done with software Atlas.ti. Concretely, data segments (significant units) were marked in the text record of interviews and discussed in groups with software Atlas.ti. 1733 significant units (quotations) were defined in total. Then the data segments were coded. In total 182 codes were used. After coding, looking for some links among the codes followed. 1,515 links among the codes were identified. The symbols in the Fig. 1 were used to mark the links among the codes (research archive).

3 Research Results and Their Interpretation

On the basis of marked links among the codes, the networks of codes were set.

The presented output of the software Atlas.ti (Fig. 2) seems the most interesting with respect to the topic of the paper. It shows the links to the code “leadership” which were identified on the basis of the respondents’ quotations.

The analyses of interviews and discussions showed that tacit knowledge manifests itself among other people in the form of self-awareness and understanding other people (especially his/her subordinates, superiors and colleagues). In connection to leadership, tacit knowledge influences the following activities:

- **Team formation** (the choice of team members) – if a manager has the right tacit knowledge, they know (even if they aren’t able to explain it explicitly), who should be in the team and why, also who from their subordinates or applicants isn’t suitable for the task or for the position and why.

- **Team management**, within the meaning of
  - **planning**, especially a vision and strategy creation – the manager is more aware of contexts thanks to tacit knowledge and that is why he/she is able to form his/her vision or a better organizational strategy.
  - **team activity organizing** – this is connected to a task definition for team members (the manager knows whom to give/not to give which task and why) and with **decision-making** (tacit knowledge helps the manager to distinguish between significant and insignificant information and to evaluate risks).
  - **team members’ motivation** – understanding people enables a manager to address their needs better and so motivate them better and initiate the creation of ideas among them. With this...
motivation the style of a manager’s communication is closely connected. Tacit knowledge with the meaning of understanding people enables the leader to pass on information to team members which they will understand (e.g. the manager is able to explain to them his/her vision). Additionally, the manager is able to personalize the information to the recipient’s motives thanks to tacit knowledge. A manager initiates a recipient’s motivation in this way (e.g. the manager emphasizes the importance of the task and the possibility of self-fulfilment or an opportunity to create a relationship by the delegation of a task – that means he/she points out what is important for the recipient),

- **Team activities** checking: especially with the meaning of setting performance management – the manager knows what to focus on by performance management and why, e.g. they know how to give feedback to their concrete subordinate to stimulate his/her future performance.

- **Self-management** – tacit knowledge in the form of self-awareness helps managers in their self-organization (especially in their time management and self-motivation). Tacit knowledge also enables them better self-control and initiates their self-development.

Research results show how important it is to have compliance of the process to tacit knowledge forming and moulding: to experience -> to denominate -> to sum up. This is in accordance with the statement of Torff & Sternberg [19], namely that it is necessary to build on existing knowledge and skills by tacit knowledge teaching. Therefore it seems ideal to students of managerial programs at universities to have a short period of professional practice during the first year of their studies. Additionally, the professional practice must not be
only a formal activity. Students gain an opportunity to find out what they don’t know and what they need to know. Some experience of discomfort (e.g. a lack of knowledge or contact with practical problems) can lead to a better perception of the theory and to an increase of their motivation for further study. In later years of study there should also be added continuous practice to keep their motivation for study and for a fixation of gained knowledge.

It is also important, according to the research findings, to encourage students’ in their own activities in the course of their study. Not to allow them to be only receptive but to support them in looking for possibilities of problem solving and gaps in their knowledge. A part of education should be project solving, simulations (e.g. role-play) and case studies solving. All of the mentioned activities should be closely connected with discussion. It also seems advisable to discuss with students about so-called best practices (some guidelines and recommendations validated by practice) or about people/managers who have achieved big success.

The above mentioned methods of education help students to develop their general managerial tacit knowledge. Their specific ones will be formed after their entrance into a practice in a concrete organization. From this point of view, it is significant to those who have the potential to become managers a method of assisting or another type of interaction on the basis of an apprenticeship (e.g. mentoring) in the course of their first months in practice.

4 Conclusion
The aim of the paper was to present some findings of the GA ČR (Czech Science Foundation) grant-maintained project, Reg. No. 406/08/0459, Developing Managerial Tacit Knowledge which are connected with the influence of tacit knowledge on leadership. It points out the impact on future managers’ development. The research showed that tacit knowledge influences behaviour and with it also the success of managers. Attention should be paid to tacit knowledge forming and moulding already in the course of student studies, namely with a choice of suitable educational methods.

If we want to develop the tacit knowledge of students, we should be able to identify students’ tacit knowledge first and ideally to measure it too. Therefore we have decided to continue in the research of tacit knowledge. In 2012 we have started to work on the GA ČR (Czech Science Foundation) grant-maintained project, Reg. No. 407/12/0821, Creating a Czech Instrument for Measuring Academic Tacit Knowledge. The project is focused on gaining and spreading knowledge about the possibilities of tacit knowledge identification and its measurement. The project goal is to create a Czech instrument for measuring academic tacit knowledge and to validate it at universities in the Czech Republic.

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