

Talents, Competencies and Techniques of Business Analysts: Talented Individuals to Dream Teams

Anna E. Bobkowska

Faculty of Computer Science
Gdynia Maritime University
a.bobkowska@wi.umg.edu.pl

Abstract

Talented individuals perform their activities with ease and pleasure and they achieve outstanding results. This paper address the question whether we can have *dream teams* which consist of talented individuals who contribute their best with satisfaction, and the projects, based on synergy effect, reach *excellence* as the quality standard. The answer is searched by action research in context of balanced professional training of business analysts in IT. *Reverse Lotus Flower* technique is applied in action of identifying talents and defining projects with the potential of achieving outstanding results. The action research explores the performance and elaborates on conditions necessary to make the vision of dream team come true. It deals also with the analysis of emerging issues and the discussion of the limitations of research.

1. Introduction

Human factors were present in research and practice of software engineering from the very beginning of its development (Weinberg G., 1971; DeMarco T. and Listner T.R., 1987; PPIG, 1989), although the focus on information technologies and software development methods could be observed in majority of publications. It is difficult to capture human factors with precision similar to pure sciences due to vast diversity of multidimensional phenomena as well as their possible interconnections. However, they gain increasing recognition and the attempts to capture them more precisely, in terms of skills or competences, appear nowadays both in guides for business analysis, e.g. (International Institute of Business Analysis, 2015) and project management, e.g. (International Project Management Association, 2015). In this situation, one could ask: how we can do it better? One of the ways to make progress is to focus on better use of the natural resources which are human individual talents.

This work refers to the approach of human factors in software engineering and attempts to integrate it with the ideas of personal and/or professional development based on strengths (Buckingham M. 2011; GALLUP [online]). Additionally, it was inspired by Project Excellence Award (IPMA PPEA [online]; IPMA Global PEA [online]) organized by International Project Management Association (IPMA) in the part of searching for factors which distinguish the *excellent projects* from just good enough. IIBA BABOK Guide (International Institute of Business Analysis, 2015) was used as the main reference for training on business analysis in Information Technology (IT) applications.

The goal of the research is to enhance knowledge how the talented individuals can contribute to the dream teams in dimensions of outstanding performance, excellence of results and satisfaction of the participants. This paper contributes to this goal by presenting an action research during the professional training of business analysts in IT. The training aims to balance theory and practice, and the practical part is conducted as series of workshops with the use of techniques, competences and talents (Bobkowska A., 2016). The Reverse Lotus Flower technique is applied for identification of individual talents and formulation of propositions of the projects which integrate complementary talents. It is also important that workshops raise discussions about multiple issues related to the use of talent-oriented approaches in software projects as well as in participants' professional careers. These issues are analyzed, grouped into topics and elaborated during the action research.

The paper is structured as follows. Section 2 describes scope of balanced professional training of business analysts in IT, focus on the action with use of Reverse Lotus Flower technique and selected remarks on the performance. Section 3 presents action research provided as elaboration of topics for research which emerged in the discussions, limitations to research and an attempt to answer the research question. Section 4 draws conclusions.

2. Talents in Context of the Balanced Professional Training of Business Analysts

2.1. Workshops on Business Analysis

The goal of the balanced professional training of business analysts in IT was to provide a realistic background for this demanding job. It can be considered as a framework and the beginning of participants' own efforts aiming at becoming mature professionals in the area of business analysis. It is called balanced, because it aims at integrating theory and different approaches to practice.

The theory is taught during the lecture and covers background knowledge such as understanding of contemporary business analysis in context of current needs and its development in history, guides to business analysis, their knowledge areas, techniques, competencies and the need for business analysis planning and monitoring in the specific cases of business analysis.

The practical part is conducted as a series of workshops. The goal of the first part of the workshop focusing on techniques, is to learn how to select and properly apply business analysis techniques. The participants work in pairs with the examples of techniques: read their description and try to understand their purpose of application, and then they make application to selected problem in the area of information systems in public administration or health care system. Finally they present their results for entire group. As all pairs have different techniques, all together exchange knowledge about several techniques. The second part of the workshop focuses on competencies of business analysts. The goal of this exercise is to identify participants' strengths and weaknesses with regards to the list of competencies and think how to use this knowledge in professional development and business analysis planning. The tasks encourage participants to identify three strengths and three weaknesses they want to work on, share about it in pairs and reflect asking the questions: What can you do in order to develop your skills? How you can use awareness of your strengths and weaknesses in planning business analysis? Finally they present ways of developing competencies for entire group. It is very important to take care of the security and comfort of the participants in this part. As they could be ashamed to share their weaknesses, it is totally fine to select these competencies which they want to choose for work during this exercise. The third part of the workshop focuses on talent-oriented approaches and it uses the technique of Reverse Lotus Flower.

2.2. Reverse Lotus Flower

The goal of the third part of the workshop is to understand how individual talents can contribute to achieving excellence in business analysis and project management. The understanding how to apply talent-oriented approaches should help participants to be more successful in the projects they undertake as well as in planning their professional career. This exercise can be viewed also a collaborative game on joining the efforts to build higher value, and thus it contributes to the area of innovation. Additional goal was to bring the mood of enthusiasm and team spirit after the demanding work on business analysts competences, i.e. to say that even if participants' competencies are not perfect yet, they can already make a unique contribution to the great projects.

The tasks and schema of Reverse Lotus Flower is presented in figure 1. As far as we can trace the origin of this technique, it was called Lotus Blossom; it was invented by Yasuo Matsumura from Japan; it has used a kind of grid for creative problem-solving and the work started from a problem definition in the central part (Michitti M. 1997). The work with the typical Lotus Flower technique (as we know it in the adapted form from our trainings) starts in the central part where one writes down a goal or desired outcome of a given activity, and then different kinds resources are identified in order to achieve that goal or outcome (and they are written down aside in the petals, without the grid). They can be later assigned to participants who deliver resources or who are responsible for the tasks. The work with Reverse Lotus Flower is in the opposite direction. First, the talents are identified and written down in the petals, and then participants discuss ideas for innovative projects in which they could achieve outstanding results if they merge their talents and write them down in the central part. Participants typically work in teams of 4-6 persons. They are asked for at least two propositions of the projects, one in IT area and one project of any kind. The exercise starts with introduction to talent-oriented approaches, and it ends with presentations of the lotus flowers which integrate talents into propositions of outstanding projects.

Role of Talents: Reverse Lotus Flower

The goal of this part of workshop is to understand how personal talents can contribute to achieving excellence in business analysis / project management.



Tasks:

- 3.1. Think about your talents and identify at least 3 of them.
- 3.2. Share information about your talents in team and discuss in which project you could achieve excellence with synergetic combination of your unique skills and talents.
- 3.3. Present your talents and projects (5-10 minutes per team)

Figure 1. The tasks and schema of Reverse Lotus Flower used for talent-oriented part of the workshop

2.3. Performance

The workshops were provided for six years in different variants. They took usually place during the course on Modeling and Business Analysis in the curriculum of the Master Program in Computer Science, which allow to assume that students have the background of software engineering. During the stationary classes, they were extended by exercises on business analysis planning, application of creativity and collaborative games and/or use of Gallup strengths for competence development. They were also provided for weekend master studies. The best results were achieved in classroom, but they were performed online during the pandemics as well. Furthermore, they were provided also in English during my Erasmus+ mobility to Greece and France. More than eighty lotus flowers were collected as the evidence of educational practice, which makes the background experience for sharing my observations and reflections.

My first impression on the presented lotus flowers is that they are colorful and in visually different styles. They reflect the richness of human personalities and the diversity of participants' activities in areas of arts, sports, crafts, charities, different kinds of hobbies and life styles. It is in contrast to the style at the university, where we have the tendency to reduction to our topics as well as unification of requirements, topics and procedures when giving the tasks and evaluating students' work. Of course, this is a very practical approach. But it is worth to remember that we do not work with unified students and perhaps some parts of our training could be done in a more individualized way.

Unfortunately, not all teams reach potential for project excellence. Usually no interesting results can be found the groups which put little effort to the exercise or identify their talents just a strengths related to competencies in business analysis or project management. Sometimes the set of talents doesn't allow for rational merging for exceptional projects – they simply do not fit to each other. Finally, there are the propositions of projects which, one can say, provide the evidence for theory to be right. They really integrate unique skills and talents and they could be successful in favorable circumstances. Among examples of such project propositions are: Italian restaurant with service by robots, fitness app, AI recognizing dancing style, fisherman's app and several applications of gamification and e-learning. In these cases, one can find talents in the domain, excellent understanding of user perspective, unusual interest and skills related to the technology which provides the solution and skills for management and marketing. These propositions have potential of innovation in niche areas, although serious feasibility studies should be done before initiating the projects. In advanced cases, participants also discuss dream team issues for such projects as well as prospects of how one should proceed in terms of roles, intersections, styles of communication, prospects of project plans and product management issues. Finally, participants present their talents and project proposition on the forum of entire group. Usually, we finish the workshops in a happy mood.

3. Action Research

3.1. Issues from Discussions

During the workshops, several discussions took place and several questions were addressed. From the educational perspective, it is a natural process of internalizing a new approach and integrating it with previous knowledge and experience. However, as some issues appeared repeatedly, it is worth to address them also from the research perspective in order to find deeper explanation and possibly improve the main course of the workshops. The issues related to the following topics are elaborated: individual talents, mindset of collaborating talented individuals, dream teams, balance between productivity and challenges, and application of the talent-oriented approach in practice.

Identification of individual talents was not an obvious task for some participants as they were asking questions: *What are talents? How to find them?* The answer may start from the dictionary definition: *talent as a natural skill or ability to be good at something*, then moving to examples in arts and sports as well as more advanced conceptual frames taken from personal development theories, which take into account ease of doing something, pleasure and quality of outcomes. *How someone can know talents if they were never trying several kinds of activities?* Perhaps they are talented in something they have never tried? Yes, this is possible. So, it is worth trying several activities and testing different kinds of skills in order to find the talents. It means that talents can appear late (or maybe even they are not innate as some use to think). The other way to find talents is to look upon interests and passions (also in childhood) as they might reveal nonconscious feeling of talents. When making retrospection, some participants discover that awareness of talents and the talents themselves evolve and get more mature as we grow up and develop our talents. Sometimes evident skills without practice are lost, and sometimes new unexpected skills are found. The *discovery of the dynamic nature* of talents is not only very exciting, but also full of potential brilliant consequences. Furthermore, the advanced searchers may analyze etymology of the term talent and its use. So, it appeared in ancient world with the meaning of scale for weight. Later, in Greek and Roman times, it was used as the largest unit of gold (as much as one can bear, about 31 kg., worth 20 years of daily human labor). This connotation is almost forgotten, helping only in interpretations nowadays, i.e. the talent means huge amount. The Parable of the Talents (Bible, Matthew 25: 14-30) is surely the most influential text about talents in the western culture. It suggests, in its universal wisdom interpretation, that everyone has got some talents in different quantity and quality (but even one talent is huge amount) and that people get reward when they put effort to development of their talents. This meaning complies with the dictionary definitions indicating that *any person has talents*. In literature on talent management, another meaning can be encountered (and it can be also found in dictionaries), i.e. *talent as person* who has natural skill or ability to be good at something. So, the second definition loses compliance to the Parable of the Talents. This short analysis suggests that there might be differences in understanding the meaning of talents depending on the local wisdom stories (taken from possibly diversified literature sources) and traditions in specific cultures.

Dream team members should have not only talents, but also common skills for team work, as participants notice in many discussions. They can be called a kind of *mindset of collaborating talented individuals*. There is vast literature on soft skills in software project, so we do not elaborate on detailed taxonomy. Just to mention a few examples of skills which repeatedly appear: soft skills, skills for communication, personal accountability, skills of keeping focus on the project goals, adaptability, nice personality, skills of collaboration with other team members, understanding the role of team member in the project and playing this role in a way acceptable by others. A few times the participants shared their negative experience with phenomenon that can be called a *prima ballerina effect*. The source of analogy is in the star-like behaviors of main dancers (prima ballerina) in ballet, while other dancers play secondary role and do not have a chance to show their real skills. Similar phenomena can be observed in some software projects, as they say, when outrageous individuals dominate the team (often supported by managers of higher level) and it results in outcomes far below the possibilities of the team and it causes general frustration of the team members.

Dream team is the next topic which appeared in the discussions. Sometimes participants like their teams, sometimes not. The examples of signs of the great teams include: productivity (well organized work and no unnecessary obstacles), happy team members, successful outcomes, team members satisfied with enumerations and rewards, high morale and team spirit, teams with challenges and opportunities

for professional development and progress in their career. Of course, no one has total control over the team that allows to achieve desired characteristics. Anyway, it is worth to think about our vision of the dream team and our role in that team; and possibly, even to move from vague imagination to definition. In discussions with others, people realize similarities and differences in their visions. The next step would be how to adapt better or change one's situation to be more satisfied with the team they belong. Those who work in international projects, share also differences in culture-dependent values and ways of dealing with them.

There is a debate whether one should use their skills to reach maximum of productivity or one should often change job to address new challenges. The answer may differ depending on personality and the stage in career. The insight from the Parable of the Talents is that a man has got talents together with the task to develop them. This could suggest that one should *balance productivity* based on talents and competencies and *a challenge* necessary for professional development. Some participants share the stories of their discomfort or even the change of job caused by lacking opportunities for professional development, which can be interpreted as real-life confirmation of the insight.

The last topic is related to application of *talent-oriented approaches in practice*. The participants are curious where and how they can apply it. So, the first application is for planning their professional career. The next application is in networking in order to identify potential projects based on common interests and complementary skills and/or resources. Yet another application can be for project definition during the early stages. By analogy to use of creativity or collaborative games, it helps in conceptual work of generating ideas, merging them with other ideas and elaborating more sophisticated visions. However, it is worth to remember that visions need verification and validation before their implementation.

3.2. Attempt to Answer the Research Question

To recall the research question: Assuming, that talented individuals perform their activities with ease and pleasure and they achieve outstanding results, the question is whether we can have dream teams and reach excellence in our projects based on synergy of contributions of the talented individuals.

Although in this research, it is not possible to demonstrate exhaustive evidence, there are several observations which provide confirmation. The participants were happy to contribute their best to the projects, they understood the need for developing their talents, and they liked the idea to participate in exceptional projects which aim at excellence. But, they were aware that the talents alone cannot guarantee success, i.e. other factors also matter. The list of the factors include team work skills, proper group of talented individuals as well as fit to the broad context related to such factors as placement of the software product in the market and IT project circumstances.

Thus, we can classify the talent-oriented approach as a useful heuristic with the application to training, networking and/or early stages of project scope definition. As we operate in the area of applied sciences, its practical application defends its value for the project. One can argue about it in terms of analogy to usability/UX heuristics. It is possible to make UX design without any methods or heuristics, maybe even some UX designers are skilled and/or lucky enough to design very good user interfaces without them. But in general, the application of proper usability/UX methods and heuristics allows to achieve higher quality of user interface design. In similar way, one can do training, networking and project scope definition without considering talents. But in some cases, when one aims at higher quality (or even excellence) the talent-oriented approach can be the best way to make it. Taking enterprenarious perspective, the advantage is in having decentralized knowledge of the best quality and integrating it with a synergy effect.

3.3. Limitations to Research

There are several limitations of this research, including limitations of precision in analysis, limitations of intervention, and limitations of generalisation.

The limitations of precision in analysis of the cases result from lack of precise descriptions on the pictures of the reverse lotus flowers. Although many of them seem realistic and rational (and so they were when they were presented), the analysis raises the questions: What is the reality behind the notes? How to trace integration? As we touch phenomena of diversified quality, the quantitative approach

does not help much, i.e. numbers of participants, talents, talents being merged does not deliver value in this application. In order to get more precise and accurate data, the individual talents could be described in a way similar to introducing the artists. The description can be done in terms of the passion, experience, achievements, circumstances and ideas they want to convey in their arts. More details for tracing integration could be gathered from video recording or asking participants for detailed protocols from the proceeding of the exercise and their discussions. However, this kind of practice would evidently generate questions related with degree of fair intervention during the studies as well as additional costs. So, a new set of questions arises: Do we need such a precision for application at training, networking or early stages of project definition? How about benefit-to-cost analysis? Are there any other trade-offs? Some insights are gained when considering the other limitations below.

The limitations of intervention can be viewed as self-restrictions in this research based on awareness of trade-off between the precision of results on one hand and possible side effects of additional interventions on the other hand. In fact, we have never decided to require precise protocols or video recordings, because they could interfere with the goals of this part of training. The goals included learning how to apply talent-oriented approaches and to bring the mood of enthusiasm and team spirit after the demanding part of working of business analysts competences. It is very likely, that another piece of hard work would destroy this effect. Even asking for feedback would activate cognitive processes of critical thinking interfering with this effect. Switching between the work on reverse lotus flower with related discussions and notes for the protocol would very likely interfere with the flow in the exercise. Additionally, the awareness that everything is recorded could limit natural sharing among participants. Other factors in consideration of limitations of intervention are privacy and security of participants. The talents are very private assets, and as long as the security and comfort of the participants are assured, this procedure seems to be fair. The means used to *assure security and comfort* include: clear rules about the goals and procedures, work in small groups with discretion after the workshop, the explicit statement of the rule of sharing with comfort (right to hide some talents or even work with talent imagination assuming honest communication in the team), the team spirit and a norm of having talents (everyone has talents and usually people are proud of their talents), criteria of evaluation based on active participation in the workshop (not on specific outcomes, i.e. talents are not evaluated) and sensitivity of the teacher to handle properly every doubt or problem. In fact, this is method related to personal development with coaching rather than typical university classroom, so the teachers should be qualified to do it, even including the empathy resulting from the experience of taking part in similar workshops in role of the participant. The requirement of generating precise protocols and video recording could violate the comfort and security of the participants in many ways.

The limitations of generalization are the effect of considering it from purely epistemological perspective. On one hand, there are individual talents and their unique combinations. On the other hand, in the research we tend to have general rules, theories, laws and formulas using quantifications for more effective management. Assuming for a while, that we could have every detail we need for precise analysis of a given case including precise talent description, protocols and video recordings (gathered in fair intervention without side effects), and we would make this analysis, it turns out that it describes just one interesting case with little generalization to other cases.

The proposed use of reverse lotus flower for training, networking and project definition at early stages can be defended as the *useful heuristic* which makes an opportunity of extra value for project excellence despite of all above mentioned limitations of generalization, intervention and precision of analysis. In real-life application, checklists related to actual value and potential use of the results can be added.

These limitations are not exceptional for this study. In the book (Weinberg G.M., 2005) published in the silver anniversary of publication of his first famous book (Weinberg G., 1971), the author has shown disappointment about the progress of research in the area. It is possible that the reason for not having precise and general theories yet, are the limitations to research due to nature of the topic under research. Nevertheless, human factors are handled successfully in practice of many software projects. This action research presents one of the cases where the *issue matters although it cannot be measured precisely*. The feedback from the assessors of the IPMA Project Excellence Award confirms the importance of unique assets in cases of the winners of this award.

4. Conclusions

This paper has focused on the talented individuals, the vision of dream team and on the projects of excellence. It has described how these concepts can be exercised in practice by presenting balanced professional training of business analysts in IT, which integrates the theory and practice conducted as the workshop which covers business analysts' techniques, competencies, and talents. Special attention was paid to the application of Reverse Lotus Flower technique for integrating individual talents to the proposition of projects with potential of outstanding results.

Then, action research was presented. The issues which have emerged in discussions were addressed as research topics. The elaboration, which has taken rather pragmatic perspective, included the following topics: individual talents, mindset of collaborating talented individuals, dream teams, balance between productivity and challenges, and the application of talent-oriented approach in practice. In my opinion, the most interesting finding was the understanding of the dynamic nature of human talents. The limitations of research were discussed in categories of the precision of analysis, right levels of intervention and epistemological problem of generalization based on individual talents with the diversity of their possible interconnections with other talents. Despite all these limitations, one can conclude, that this approach matters even if we cannot capture its elements precisely.

When trying to answer the research question, i.e. whether we can have dream teams and reach excellence in our projects based on synergy of contributions of the talented individuals, one can find many phenomena which provide implicit confirmation, however it was quite evident that other factor also matter, for example, mindset of collaborating talented individuals and/or circumstances related to marketing and project management. In conclusion, this approach can be defended as the useful heuristic.

5. References

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