

Talents, Competencies and Techniques of Business Analysts: Towards a Unified Theory*

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Abstract

Business analysis has been an important factor of success of software projects and business analysts are listed among top jobs of the future. However, training of effective business analysts is challenging and requires individualized professional development programs. This paper extends the previous research on the balanced approach to training business analyst with use of techniques, underlying competencies development and talent-oriented approaches. It argues for the need of unified theory which can be considered as a conceptual framework for integrating the background approaches. It applies integrative studies which allow to capture a broader scope of phenomena. The following research methods are in use: interpretation with meta-knowledge which explains the context of discovery and the values of the background approaches, cross-border analysis which allows to focus on connections and overlapping between the background approaches, and searching for common ground with use of conscious and non-conscious cognitive processes similar to forming habits or semi-automatic human behaviors. The findings deliver many interesting explanations of the phenomena as well as suggestions for practical use of this approach. For example, use of explicit descriptions of strengths (in terms of patterns of thought, feeling and behavior) for competence development; use of business analysis techniques for competence development; need for entire spectrum of competencies of business analyst comparing to specific strengths; possible problems with following the experts; and perspective of thinking in terms of forming and re-forming effective cognitive processes for more comfort in business analysts' training.

Keywords: business analyst techniques, unified theory, competencies of business analyst, talents in professional development.

Introduction

Business analysis deals with real problem identification and solving them with use of proper means including business process management and application of information technologies. Properly conducted business analysis has been an important factor of success of software projects and business process improvement projects for years. In times of recent changes, including increased use of generative artificial intelligence applications, business analysts gain new challenges and still are listed among top jobs of the future.

Training of business analyst is not easy. The number and diversity of specialized skills together with business analyst techniques and background knowledge make students unconfident in thinking about becoming business analysts. In fact, an individualized development program for long-term learning is the right solution for

professional development of business analysts. Starting from simple tasks, with professional development by studies and gaining experience, additionally with some support from more experienced analysts, allows for succeeding in development of quite effective and confident business analysts in a few years.

We have previously proposed the balanced approach (Bobkowska, 2016) to training business analyst which is based on three approaches with different background traditions: business analysis technique application in context of software process, e.g. (Candle, Paul, Turner, 2010), (IBM, 2006), (Jacobson, Booch, Rumbaugh, 1999), (International Institute of Business Analysis, 2015), underlying competencies development (International Institute of Business Analysis, 2015) and talent-oriented approaches (Buckingham, 2011) for directing the process as well as for searching patterns of excellence. The training with this approach was conducted at the university during the classes of “Software modeling and business analysis”. It has appeared quite early that the classes are just a starting point for long-term individual learning by these students who select this professional path. Awareness of their own talents is useful for directing their professional development as well as for making decisions about effective planning and conducting business analyst work.

In this paper, we argue for the need of unified theory in this context and propose use of three research methods from the field of integrative studies which contribute to the unified theory of business analysts techniques, competences and talents. The first method focuses on meta-knowledge which explains the context of discovery and the values of the background approaches, thus giving the insight into proper interpretation of the outcomes. Then, we move on to cross-border analysis which allow to focus on connections and overlapping between the background approaches. And finally, we search for a common ground. For this purpose, we utilize the research regarding the conscious and non-conscious cognitive processes which appear when forming habits or semi-automatic human behaviors.

Integrative Studies for a Unified Theory

First, let's focus on the need for a unified theory. We need the unified theory because the concepts taken from these three traditions can be applied together in a balanced approach for a better effectiveness of training. The background concepts might be complementary or overlap with each other. They even use similar terms which have different meaning when we analyze them in depth. So, we need the unified theory in order to have a big picture which allows to see the background concepts precisely in appropriate context. To capture the added value of the unified theory, one could say that the idea of balanced approach deals with using different traditions in training in an appropriate manner, while the idea of unified theory serves as a conceptual framework for integrating them.

Another reason comes from the pragmatic perspective of students who undertake training to become business analysts. The unified theory serves also as a kind of meta-knowledge, which is important for differentiation of similar concepts when learning and guidance when going through practical cases at work. Thus, the expected benefits are alike general advantages of integrative studies for theory and practice. The unified theory can capture a broader scope of phenomena in a precise way, by taking into consideration context of each of the background approaches, and allow to see clearly the role of each of them.

Meta-knowledge for interpretation

Techniques of business analysts, known also as methods and methodologies, have background in software engineering. With reference to engineering field of study, the values are effectiveness, efficiency and predictability of results. Typical form of describing techniques are instructions how to perform them step-by-step in order to reach a given goal.

The origin of competencies is in the area of soft skills. It is difficult to define and measure them and almost impossible to explain a competence in a step-by-step manner. For example, non-verbal communication. There are some people who have this skill, and others do not and even if they study and imitate poses and gestures... it often looks strange. International Institute of Business Analysis (2015) in their BABOK Guide defines underlying competencies as “a description of the behaviors, characteristics, knowledge, and personal qualities that support the practice of business analysis.”

Talent-oriented approaches have been used in arts in order to advice young people in which area they have a chance to reach excellence, later also for selection of individuals who have a chance to succeed in a given area of

arts, sports or other activities. Usually, talent is related to achievement of outstanding results while performing a given activity with ease and pleasure, but hard work is also necessary for success. In a more cognitive approach to talents, one can find Gallup (2025) and Clifton strengths (as an equivalent to talents), defined as naturally recurring patterns of thought, feeling or behavior that can be productively applied to achieve a nearly-perfect performance in a given activity.

For example, let's compare the technique of document analysis, the competence of learning, and the strength of learner. This is one of the cases with similar terms, but different concepts behind them, which is misleading for students. So, the difference is in scope and in style. Document analysis has a limited scope (and other techniques for acquiring knowledge are defined as well), but it is described in a precise, procedural manner. The purpose of the competence of learning is given as "the ability to quickly absorb new and different types of information and also modify and adapt existing knowledge allows business analysts to work effectively in rapidly changing and evolving environments" (International Institute of Business Analysis, 2015) with some more explanation in other sections, but no procedure how to do it. To add the next view, the competence of learner is explained as follows "People exceptionally talented in the Learner theme have a great desire to learn and want to continuously improve. The process of learning, rather than the outcome, excites them." (GALLUP, no date) All is about learning and acquiring new knowledge, but it is not the same. From pragmatic perspective, it is important to see these differences and to be able to deal with proper interpretations.

Cross-border analysis to see connections and overlapping

The border between business analyst techniques, competencies and talents is often fuzzy, so let's focus now on the phenomena in cross-border analysis between the pairs of background approaches. The goal is to capture more precisely connections and overlapping which can be helpful in understanding these phenomena.

The phenomena on the border between the techniques and the competencies can work both ways. Having a competence similar to the procedure of a given technique can help in performing this technique. And the other way, when repeating work with a technique several times, it can lead to forming related competencies in a similar way as habit formation. For example, analytical skills of finding all possible options and paths with all consequences of their activation, can be trained by work on diagrams or specific requirements specification and asking continuously the questions: what else? what if...? On the other hand, people who naturally think this way (i.e. have this analytical skill) can be more effective in their work on systems or business analysis. However, they still need techniques for framing their activities and produce standardized deliveries.

The phenomena on border between competence and talents can also work both ways. One of definitions of talent says it is an extreme appearance of a given competence, which might imply that training a given competence will allow to get talent... but it does not work this way in practice of business analysis in general. Maybe for simple competencies it could, but more often we need a set of highly developed competencies in order to operate on level of talents in business analysis. Let's consider the strength of learner (described in the previous section) with its natural tendency to acquire knowledge. One could say: "Great! We need learning competence, so we have got a perfect person." The problem is that we need an entire spectrum of highly developed and balanced competencies in business analysis. And learner talent with deficiencies of other competencies, with its natural activity of learning and learning... and finding new ways for acquiring even more interesting things to learn could lead to analytical paralyzes, which is in fact an analysis anti-pattern.

The other way round, when someone needs to develop a given competence, they can use a very effective way of following the experts who are talented in desired skill. The approach in which strengths are described as patterns of thought, feeling and behavior makes them explicit and facilitates acquiring related competencies.

The phenomena on border between techniques and talents seem to be most tricky. It seems that competencies are in the middle. However, it is worth to mention that several techniques were developed on the basis of expert activity. These experts were creative and effective in performing the tasks defined later as techniques, but they had also other specific features of their personality. When considering source of techniques in experts performance together with some difficulties in using the techniques by students, one can find an interesting possible explanation of the learning problems in diverse background skills and personality styles. This explains why the training strategy "do similar way as experts did" sometimes does not work.

The research on application of CliftonStrengths (GALLUP, no date) has been conducted also in area of searching for promising managers and supporting them. In the area of business analysis, it is worth to mention the related work by Nicholas (no date), who discussed the potential application of CliftonStrengths in business analysis. Among the benefits, he has found: focus on strengths, facilitation of effective team composition, and potential use of the strength definition for developing skills of problem solving, communication, problem definition and delivering satisfactory project outcomes. However, he describes also the following limitations in application by business analysts. Business analysts cannot just focus on individual's top strengths but they need to balance their strengths with development of complementary skills that are necessary for their work. The complex role of business analyst must employ a variety of different skills which sometimes are not covered by top strengths in this approach. These findings (achieved in an independent studies) correspond quite well with our findings about specifics of using CliftonStrengths in business analysis.

Common ground of cognitive processes

Having the three traditions of approaches with meta-knowledge for precise interpretation and some understanding of the phenomena on the borders, it is time to raise the question: Is there a common ground that could serve as a unified frame of reference?

We search for the answer in the area of cognitive processes, especially rational mind and nonconscious mind according to the research of Lewicki, Hill and Czyzewska (1992). It has been discovered and experimentally demonstrated, that nonconscious mind is very effective in almost every cognitive process including nonconscious information processing both in acquisition of information and social context, intelligent processing of huge amounts of information, nonconscious indirect inferences, and nonconscious acquisition of meta knowledge. These processes influence humans judgments, decisions, feelings, and emotional responses. They support humans cognition and efficient action in their environment.

So, talents and competencies can be considered as nonconscious cognitive processes learned and automated in different context which appear to be useful for business analysis. Using business analyst techniques for competence development or even aiming at excellence can be considered as moving between conscious and nonconscious cognitive processes. It is about memorizing, then memorizing on nonconscious level, and finally using it like a natural skill. It is similar to forming habits and re-forming them later with more advanced differentiations in more specific situations. It is worth to be aware that this issue is not only about learning, but also about elimination and correction of some behaviors.

How about practical application of this unified frame of reference? Do we need to model all conscious and nonconscious cognitive processes together with all their mappings and all possible ways of training? Would it be even possible when taking into account the diversity of cultures and individual human experience? The feasibility of the entire model seem to have little chance of success. However, it is feasible in a limited scope, especially when a business analyst encounters problems in professional development. Thus, its value is rather in understanding the mechanisms and facilitating clear thinking about the reasons of problems together with effective solutions. Another value is in comfort of business analysts during the training gained with a positive attitude when understanding that it is quite natural that some cognitive processes which were effective in context of previous experience, need to be replaced by even more effective cognitive processes in current situation.

Conclusions

This paper contributes to the development of professional skills of business analysts by proposing the integrative studies aiming at a unified theory of the approaches with different traditions, i.e. business analyst techniques, competencies and talents. The analysis of meta-knowledge allows to understand precisely the terms in context of the approach they come from. The cross-border analysis is helpful to see phenomena on the borders. And the common ground approach, which uses the research results on conscious and nonconscious mind, provides the perspective of unified frame of reference. There is a lot of space for further research on more precise detailed results and more integration. However, we hope, that from pragmatic perspective, this contribution has already the following values 1/ the focus on individualized, balanced and satisfactory training of business analysts, 2/ identification of the need for the unified theory to see more clearly the broader scope of phenomena and the connections between background approaches, 3/ proposition of the methods from integrative studies which can be applied both for further research as for specific practical cases, 4/ several findings which explain phenomena that one can encounter during the training, e.g. use of explicit descriptions of strengths (in terms of patterns of thought, feeling and behavior) for competence development; use of business analysis techniques for competence

development; need for entire spectrum of competencies of business analyst comparing to specific strengths; possible problems with following the experts; and 5/ perspective of thinking in terms of forming and re-forming effective cognitive processes for more comfort in business analysts' training.

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