

## **OPTIMIZATION OF ANDRAGOGIC INTERACTION FROM THE VIEWPOINT OF CONCEPTUALIZATION AND REALIZATION**

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### **Abstract**

The article analyzes andragogic interaction and assumptions for its optimization in two aspects: conceptualization and realization. Attempts were made to search for conceptual grounding on the basis of two methodological assumptions. Firstly, that participator of andragogic interaction is an element of complex and open socio-cultural system with properties that are characteristic to that system (continuous growth and development, internal and external relations, alteration and adaptation, self-organization, etc.), which would inevitably lead to his own changes and transformation. Secondly, andragogic interaction, as a complex social process, depends to complex, non-linear, open and non-repetitive (irreversible) systems. Relations between objects rather than objects themselves are more important in those systems, since they could predetermine changes in them. The aspect of realization is based on evaluation of positive and negative experience of respondents in team activity or project.

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**Keywords:** Andragogic interaction, Optimization, Synergetics, Synergetic link

### **Introduction**

According to P. Draker, one of most well-known modern thinkers (Covey, 2007, p. 20), “in few centuries, when historians will be writing about history of our times, most important for them will be unprecedented changes in living conditions rather than technologies and other scientific discoveries. It is a unique time, when more and more people face a choice, ..., to govern over themselves, however, they are not ready for that“. Changes need „opportunities“ and “creative process”, so it is important to be able to project and create, to change ordinary thinking into more constructive, more creative and efficient.

According to S. R. Covey (2007), nowadays it is important to become a tantamount “player” of the new era, to constructively depend on each other, to strive for personal and corporate goals. However, interpersonal dependence could be treated as a choice, which could be made only by independent (autonomous) people. Without achievement of independence it is impossible to learn the art of communication, to strive for substantial, efficient and meaningful relations with others, productivity, directly proportionate to contribution, to assist others, to learn and develop. However, when speaking about interrelations, the model of “industrial age” (corporate activity is based on control, “stranglehold” of human potential, disregard of mission) is still dominant. Potential and worthiness of colleagues are not penetrated and they are supervised as controlled as “objects”. It is not known, how to stimulate activeness of employees, timely and efficiently develop their potential for realization of joint aims and goals, how to envisage their talents, how to take initiative and act jointly, when striving for optimal result.

It is evident that depersonalization of modern activity stimulates indifference and mistrust, team members are disregarded, which results in mutual dissatisfaction, loss of good relations, decrease of efficiency and productivity in joint activity.

After evaluation of insights of foreign and national researchers (Avolio et al., 2002; Covey, 1990, 2006, 2007; Haken, Standler, 1990; Mezirow, 1978, 1997, Neale, Spencer-Arnell, Wilson, 2008, Birgelyte (2005); Kvedaravicius, 2006, Bitinas, Rupsiene, Zydziunaite, 2008, etc.), analysis is done to the process of adult learning, as a mutual interaction of andragogues and learners, interaction of learners themselves, searching for methods for increase of its efficiency and employing synergy theory for that purpose. This article rests on two assumptions. Firstly, participator of andragogic interaction is treated as an element of complex and open socio-cultural system with properties that are characteristic of that system: continuous growth and development, internal and external links, alternation and adaptation, self-organization, etc., which would inevitably lead to his own changes and transformation.

Secondly, andragogic interaction, as a complex social process, depends to complex, non-linear, open and non-repetitive (irreversible) systems Relations between objects rather than objects themselves are more important in those systems, since they could predetermine changes in them. Therefore, a scientific problem is raised: what are assumptions for optimization of andragogic interaction?

Object of the research is optimization of andragogic interaction.

Aim of the research is to analyse and ground assumptions for optimization of andragogic interaction from the viewpoint of synergy.

**Goals:**

1. to analyze the concept of andragogic interaction, revealing links of its structural elements and ground assumptions for optimization of andragogic interaction from the viewpoint of synergy theory;
2. to develop a hypothetic model for optimization of andragogic interaction;
3. to analyze assumptions and interferences that are important for optimization of andragogic interaction, to evaluate positive and negative experience of respondents (team work, project activity) from Klaipėda University (KU) and Klaipėda State College (KSC).

Research methods: analysis of scientific literature, modelling, inquiry.

**Interaction of andragogue and learners from the viewpoint of transformation theory**

People live in social environment and are linked by close relations. According to P. Jarvis (2001), human being in this world is being together with other people and his development is possible only by interaction with other people. In the process of learning interaction exists between andragogue and learners. Learning together in adult education is called the andragogic interaction. Many authors (Rauner, 2007; Jarvis, 2001; Foley, 2007, Tereseviciene et al., 2006, etc.) accept that implementation of goals in the process of learning is related to efficient interaction of learners.

Interaction is realized as “mutual action of objects, preconditioning each other, i. e. influencing each other through coordination of actions” (Jovaisa, 2007, p. 254). L. Jovaisa (ibid) points that above action is usually dual: informational (objects send verbal and non-verbal messages to each other) – psychological interaction; practical (objects direct their activities towards each other, – they teach each other, assist, cooperate with each other by coordinating their actions) – in pedagogy it is called the pedagogic interaction, in andragogy – the andragogic interaction. Authors of the article are interested in andragogic interaction and this interest is practical.

Andragogic interaction takes place in social context, where dominant are social relations between andragogue, learners and other learners, exchanging information, experience, ideas and sensations. It leads to transformation of knowledge and those participating in above interaction, when personal qualitative changes take place on the basis of constructed new knowledge.

P. G. Northouse (2009) also speaks about personal changes in mutual interaction. According to the author (ibid), transformational leadership is a process, changing and transforming participators of the interaction. In the process of learning andragogue can

employ principles of transformational leadership, when participating in andragogic interaction. Transformational leadership is characterized by four factors. One of them is related to exceptional *form of influence*, stimulating other participators and learners of andragogic interaction to do more than they usually are expected to do. In transformational process andragogue and learners are closely related. P. G. Northouse (2009) maintains that transformational leadership is a process, in which andragogue creates a synergetic link together with others which raises their motivation for doing more than they were expected to do – to better understand importance and value of each interest, stimulating refusal of personal goals and allowance of higher corporate aspirations. It aims at improvement of learners activity and its results, at development of their personal properties and abilities for maximal employment of own possibilities and opportunities (Avolio, 2002).

*Motivation of interacting participators* is another factor, characterizing transformational leadership. Andragogue's activity, based on transformational leadership, is distinguished by unfaltering inner values and ability to efficiently motivate learners for behaviour, leading to meaningful goals rather than to personal interests. These andragogues stand upon high standards of moral and ethic behaviour and other participators of interaction respect and trust them. Such leadership rallies interacting participators around them and strengthens team spirit.

Third factor of transformational theory characterizes *stimulation of participators' pro-activeness for development*. Andragogue, who employs this principle of transformational leadership, stimulates their creativity and constructive thinking, searching for new ideas in solution of emerging problems, encourages their activeness and inventiveness in self-sufficient acquisition of knowledge, in mastering of necessary skills and abilities, in exploration and independent "discovery" of scientific and life truths. Andragogic activity, based on principles of transformational leadership, makes impact on pro-activeness, free thinking, autonomy, inventiveness, self-confidence, communication culture of learners on development and improvement of other personal properties, skills and abilities, i. e. on development and qualitative growth of personality.

The fourth transformational factor is called *individual attention*. This factor is typical to andragogues, who develop the climate of interpersonal assistance and keep their ears open to individual needs of interacting participators. Andragogues behave like advisors, provide with necessary assistance and support, help learners to overcome personal challenges, to improve personal properties, skills, abilities and to realize their potential. Andragogue, grounding his activity on principles of transformational leadership, encourages and stimulates

learners to do more than they were expected to do. Such andragogic interaction results in growing corporate identity and participators are inclined to abandon personal interests for the sake of group or team wellbeing.

Transformational theory enables andragogues to initiate, develop and implement significant changes in andragogic interaction. Throughout entire period of changes andragogue with properties of transformational leader efficiently works with learners, awakes their confidence and encourages cooperation, encourages and activates learners, rejoices over their achievements, provides them with support and assistance, creating favourable conditions for their transformation and developing their potential.

### **Learners' interaction from the viewpoint of transformational theory**

Efficiency and development of andragogic interaction are related to other participators of andragogic interaction, i. e. Learners, their relations, based on communication and cooperation culture. S. R. Covey (2006) introduces principles of perfect relations, based on personal management.

According to the author (ibid), in andragogic interaction it is important that its participators become pro-active (1<sup>st</sup> principle of self-management). Pro-activeness is a continuous preparation for active behaviour. Pro-active people are firstly guided by values rather than feelings and sensations. This principle is based on philosophy, maintaining that “each human has to be active ... if you are going to wait, until someone will take care of everything, while you are behaving passively, that is what exactly going to happen – somebody will take care of you and make you serve his own interests. You will surrender your opportunities to someone else“ (Covey, 2006, p. 84).

2<sup>nd</sup> principle of self-management is “*you win – I win*” or “*let's win together*”, based on “*I feel good – you feel good*” provision, which satisfies all participators of andragogic interaction. Everyone willingly undertakes obligations and performs them. Participator's empathy, authenticity and acceptance are important for communication, based on “*let's win together*” principle (Zelvys, 1995, 5). Empathy is human ability to empathize with the unseen of someone else, to experience his emotions, his sight and approach to surrounding world and himself. It is related to understanding and respect of other person and willingness to help him. Authenticity in communication means that a person remains to be the real “ego”. Equal communication is based on acceptance, when a person is accepted in his entirety and without prejudice. Therefore, positive and competent communication is a value, enriching communicating parties, stimulating establishment and development of productive relations with others, teaching how to improve one's own potential, assist others and search for

assistance. Evidently, without communication any vocational development and any working or creative activity is impossible. First step is learning to listen and to hear, which is for the sake of understanding, but not for contradiction. It initiates establishment of new mutual relations full-rate communication. Possibilities for plain speaking and understanding of each other become easily available. Communication becomes efficient, when both principles are combined.

On the other hand, when following “*let’s win together*” principle, you reject any competition and communication turns into efficient cooperation, satisfying demands of all participators. Everyone feels that his activity is positive, which enables to achieve goals, gain respect, start respecting others and strive for meaningful changes. Competition in andragogic interaction is useless, as it raises only few winners, whereas the remaining ones become losers, which stops any cooperation. On the other hand, competition is based on danger and fear, so tension and mistrust would dominate in mutual relations. Competition stimulates avoidance of any responsibility, as it could result in defeat. Thus, competition inevitably makes negative impact on mutual relations, since their success depends on taken responsibility for oneself and others. On the other hand, competition stimulates dependence of losers on winners. *Dependent person is not able to take care of his own interests, so he can not take responsibility for his actions and their consequences. Probability of his activity would decrease significantly and he would start avoiding any risk.*

Contemplation of the basis of “*you win – I win*” principle is a system of ideas and sensations, when mutual relations of participants are directed towards mutual benefit and respect. It is not a selfish thinking, based on subjective intention to manipulate others (“I win – you loose”). It is neither thinking of a martyr with subjective intention to increase own self-respect (“I loose – you win”), it is thinking that rests on the principle of belonging (“us” instead of “me”). “Let’s win together” philosophy is communication, not competition or struggle. This philosophy maintains that success of one single person does not deprive others from their chances. Besides, the third alternative is also existing (*common road of autonomous, authentic and self-respecting people*).

3<sup>rd</sup> principle of self-management is “*consider the ending before you start acting*”. It is very important for development and improvement of personal pro-activeness. According to S. R. Covey (2006), all is being done or created twice. Mental “picture of perspective”, an image of desired result is created firstly. It is followed by materialization, i. e. a repeated creation. In other words, before performing actions you have to choose final goal (*what you*

*are striving for*) and only after that you create by choosing (*how all this is going to be implemented*). This “picture of perspective” corresponds to creator’s ideas, values, position, insight of purport of life and available knowledge and abilities, including constructive thinking, etc. Therefore, prior to realization of particular activity it is very important to envisage it, to construct mental “picture of desired results”. To perform all this personal properties, like self-esteem, responsibility, autonomy, self-sufficiency, self-criticism, self-confidence, etc. are necessary. To follow the principle that everything is created twice, you have to ground it with pro-activeness. Absence of strong self-consciousness and responsibility for development and creation of above picture opens widely door for other factors (people and events) to spontaneously “shape” your life, which results in performance of scenario, “written” by others. *Taking responsibility for own actions and life only leads to constructive thinking, creation of their scenario, to gradual turning into creator, independent, proactive, authentic, autonomous and self-managing personality.*

4<sup>th</sup> principle of self-management is *joint action (synergetic)*. Synergy is a base for efficient mutual relations in any group or team. Synergetic communication is a strong belief that people, whom you act together with, will gradually gain new knowledge, skills, abilities and develop new or improve already available competences and personal properties. Such communication means that members of a group assist each other, encourage and stimulate each other, respect individuality of each other, jointly solve problems, employ opportunities and usefully apply differences. Efficient communication and cooperation takes place, when participators of andragogic interaction complement one another – *forte* of one group compensate failings of other group. *Forte* are optimized, whereas failing become insignificant.

5<sup>th</sup> principle of self-management (“*start with most important things*”) helps to realize mental “picture of perspective” and is related to striving for goals and continuous development of personality. Resting on first “be proactive” and third “consider the ending before you start acting” principles helps to become a creator and take responsibility for own actions and life, whereas employment of “start with most important things” principle is a consequence of first two principles and their employment. It is related to personal free will, while realizing mental “picture of perspective”.

Before reference to “start with most important things” principle you firstly have to learn how to act on the basis of “be proactive” and “consider the ending before you start acting” principles, as they have to become most important and life grounding principles. Standing on this base, people will be able to follow the fifth principle (“start with most

important things”) and efficiently organize their own actions. In fact, it is based on ability to proactively act and realize chosen „programme“. This will be the management of own life and personal independence, a mover of development and transformation in personal and interpersonal interaction. In that sense personal independence is very important. According to J. Kvedaravicius (2006), transformation is the base of development, an expansion of own individual goals and opportunities as well as goals and opportunities of those living and participating in neighbouring environment. On the other hand, participation in andragogic interaction, based on principles of self-management, stimulate and create favourable conditions for development of personal independence and potential. In parallel with it changes in interpersonal relations take place and interpersonal dependence increases. This is the major assumption for optimization of andragogic interaction.

### **Optimization of andragogic interaction – a synergetic grounding**

The process of andragogic interaction, distinguished for synergetic impact, influences negotiation of development and alternation related obstructions. Synergy is treated as a new scientific paradigm, a new non-linear thinking and a new organic world-picture. According to A. Birgelyte (2005), intensive development of synergy, a new paradigm of upbringing and education can be compared by its extent and deepness to scientific revolution. Synergy (Gr. *synergetikos* – acting jointly) is a science, exploring the processes of spontaneous clearing-up in complex systems. These processes result in appearance of new structures (with respect to space and time). Synergetic actions are interacting, acting jointly the same direction and strengthening each other (Dictionary of International Words, 2001). According to H. Haken et al. (1990), complex social processes and their changes could be easily explained by synergetic impact. Synergetic impact is a reflection of proceeding in modern social processes, directed towards subjection of joint energy. This subjection becomes the propulsion of open self-regulating system and predetermines appearance of new structures.

Proceeding of andragogic interaction, as an open socio-cultural system is based on principles that are typical to open system. They are continuous growth and development, internal and external links, self-regulation, alternation and adaptation. These principles inevitably involve each participant and, depending on environmental changes and the principle of self-regulation, keep stability of the system and experience transformation, i. e. transition to another level of quality. According to A. Birgelyte (2005), synergetic impact emphasizes the processes of self-organization and cooperation, taking place in open systems. This time it is andragogic interaction, when joint actions of all participators are directed towards final result, which is higher than algebraic total of individual impacts.

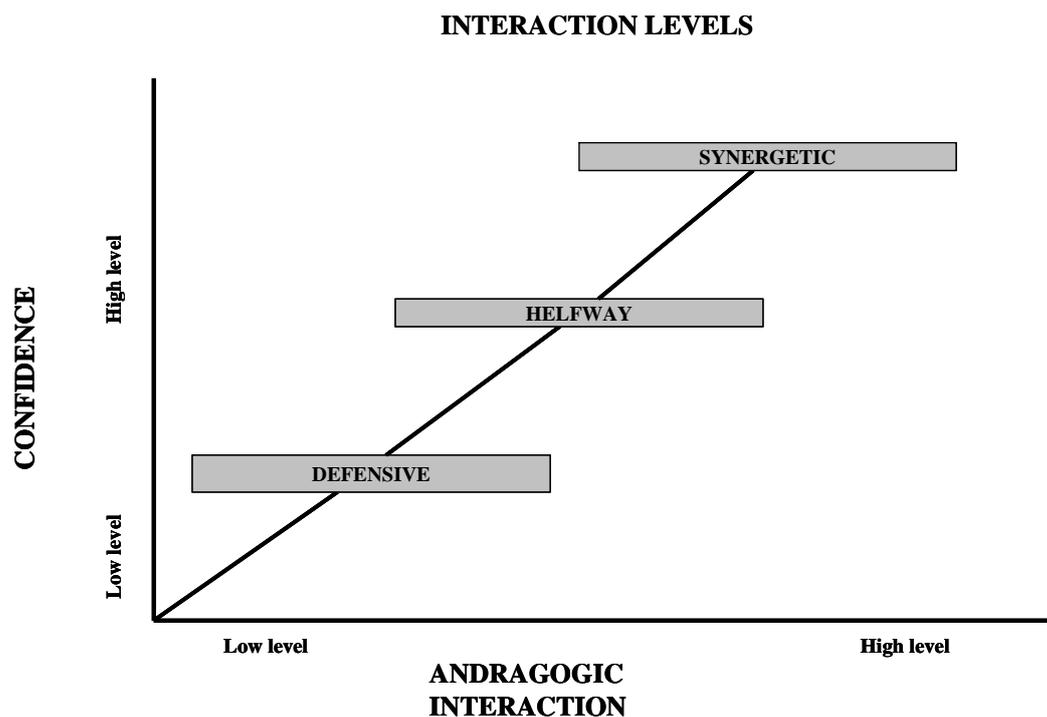
Therefore, on the basis of synergy theory it is possible to maintain that each participator (form. 1) contributes with own potential **P** (personal independence, based on pro-activeness, ability to think constructively – create and realize mental “picture of perspective”, stimulus for positive personal changes and transformation). According to S. Neale et al. (2008), when united, these potentials may result in high efficiency of actions and joint activity of participators. Together with potential **P** of each participator internal interference **T** is also brought in. As an entirety they may become a powerful obstruction and reduce efficiency of entire team activity. Individual approach, feelings and sensations, values and position remain to be a good seedbed for above interference. “Heaping up” all potential, participators of andragogic interaction activate synergetic effect, which results in efficiency **E** of entire joint activity (actions). Undoubtedly, attention should be paid to both development and linkage of participators’ potential and to reduction of interference and possibilities for its manifestation (form. 1).

$$\mathbf{E} > (\mathbf{P1} + \dots + \mathbf{Pn}) - (\mathbf{T1} + \mathbf{Tn}) \quad (1),$$

where **E** is the efficiency of andragogic interaction; **P1,.....Pn** – participator’s potential (personal independence, based on pro-activeness, ability to think constructively – to create and realize mental „picture of perspective“ and stimulus for positive personal changes and transformation); **T1, Tn** – interference.

According to R. Covey (2007), joint action is the third alternative, which is not an individual contribution of any participator, but a considerably larger synergetic efficiency, when potential of all participators is employed and that joint potential is concentrated around realization of joint objective.

Andragogic interaction, based on synergetic links, can reach the highest level of quality. These links are compared to a catalyst, releasing unbelievable human potential. Synergetic communication and cooperation means that contribution of all participators is not treated as a result of mathematic addition. When partners trust each other and get into synergetic link, they attain better results than expected initially. According to S. Covey (2007), interactions that are based on *synergetic links* (Fig.1), contribute to formation of communicational mini-culture, satisfying all participators of andragogic interaction. It rests on “I win, you can win, let’s win together” principle. Such andragogic interaction is very efficient and leads to optimal results.



**Fig. 1.** Levels of andragogic interaction (structured according to S. Covey, 2006)

Communication of independent interacting individuals is mostly characteristic to intermediate *halfway* level of interaction (Figure 1). In the process of such communication creativity of participators is not encouraged, though mutual respect, avoidance of unpleasant confrontation, polite behaviour is prevailing. However, there are no attempts made to understand positions of each other, consequently, potential of all participators is not fully employed. If they were interdependent, agreement regarding halfway would be possible. Both parties would give and both parties would receive. Usually participators look for compromise, to not contend against each other, avoid manipulations, instead, they sincerely and honestly cooperate, respecting position of each other. However, their communication is not very creative and lacks synergetic impact.

The lowest or *defensive* (I win – you loose, I loose – you win) level of interaction (Fig. 1) is when participators of andragogic interaction mistrust each other, take defensive position, become passive, show no initiative and avoid responsibility. Vivid competition (rivalry), like “I win – you loose” or “let’s loose together” is typical to such communication and andragogic interaction is neither efficient, nor productive.

According to B. Bitinas et al. (2008), human beings are objects of complex open socio-cultural system and that predetermines the fact that even well-planned and rational social measures, applied for achievement of goals that are related to human development and improvement of efficiency in andragogic interaction, very often fail to produce expected

results, as they are based on forthright “stimulus-reaction” links. Such links reject major law of human development and transformation: personality, which is to be improved by external impact, assimilates this impact firstly (it depends on already shaped internal power) and start changing afterwards, also changing the character of andragogic interaction itself as well as the level of its quality.

Authors of the article introduce a hypothetic pattern for optimization of andragogic interaction (Fig. 2) and it could be treated as an expression of new thinking, based on synergetic theory. Their own self-determination is a significant moment, linking all participators of andragogic interaction. It influences transformation of andragogic interaction and its transition to another level of quality in respect of time and efficiency. Links between structural elements rather than these elements themselves, approach and choice of participators rather than participators themselves are more most important for transformation of andragogic interaction, as a complex, open socio-cultural system. The question emerges – what principles, responding to their values and position interrelations should be based on? It is important, as these principles predetermine alternation (optimization) of andragogic interaction. Partnership (“let’s win together”), reliance on each other and synergetic relation are major principles, on which andragogic interaction is based. On the basis of these principles changes and transformation takes place in andragogic interaction. These processes result in interpersonal dependence of autonomous participators and it is the basic assumption for development and optimization of efficiency in andragogic interaction.

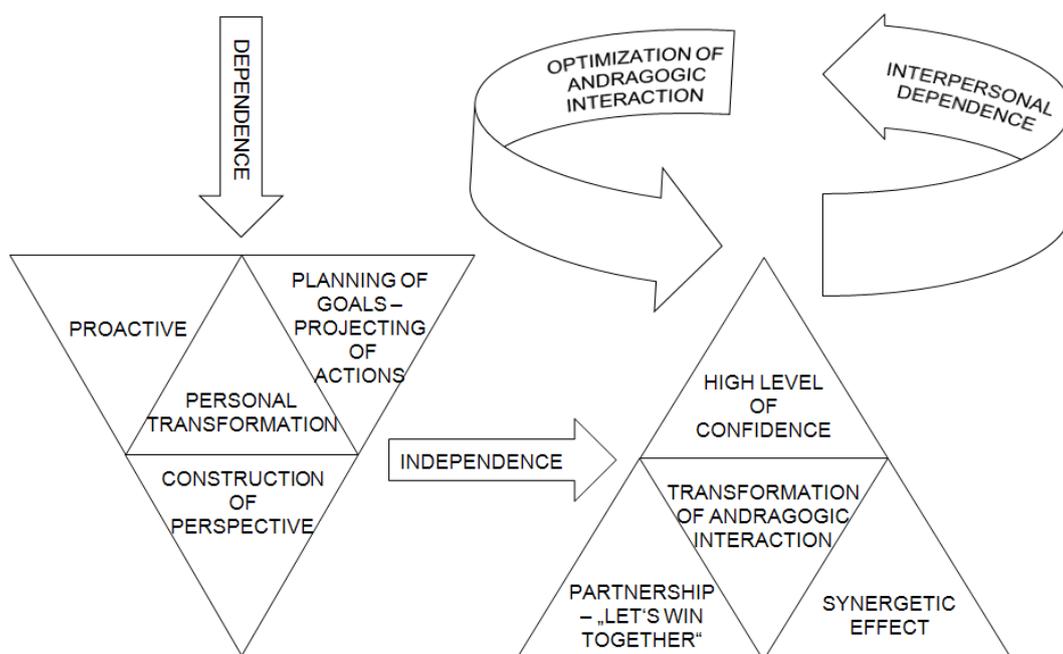


Fig. 2. Optimization of andragogic interaction, hypothetic pattern (modified according to S. Covey, 2006)

According to A. Birgelyte (2005), on the basis of synergy it is possible to maintain that human position in the structure of cognitive and practical activity is changing. In andragogic interaction andragogues and learners are not separated – they act jointly and are influenced by internal and external factors. They are changing together and give a sense to a totally different, qualitatively new level of relations. This process spotlights unique human ability – out of many options to choose one, most appropriate for further existence of the system and its transition to a higher level of quality (according to the author, this state could be treated as excited state in development of the system). It is a demonstration of spontaneous clearing-up in complex systems.

According to M. Tight (2007), it is important that social interaction between learners and andragogues, between learners themselves could correspond to demands of all interacting participators, stimulate their pro-activeness, create personal “space”, provide with necessary support and assistance, develop favourable environment for discovery of new and development of available ideas, for choice of problem solution methods, for development and gaining of potential to construct and transform themselves and reality, in other words, consolidation of their energy should acquire synergetic character and this joint energy should become a momentum for transformation of participators and qualitative alternation and optimization of andragogic interaction.

Analyzed theories (theory of transformational leadership, characterizing the process, which takes place between learners and andragogues, theory of self-management, which is important for gaining of learner’s independence and his personal transformation) ground essential assumptions for optimization of andragogic interaction. Combination and employment of these theories corresponds to demands of all participators, to opportunities for their development and transformation, to positive emotional state, motivation as well as related actions and their results. It also reveals significance of each participator’s contribution into successful transformational process of andragogic interaction, which is an assumption for optimization of andragogic interaction.

As a practically tangible result, linear thinking and completeness is not typical to optimization of andragogic interaction, which is a complex social phenomenon. Accordingly, introduced pattern pretends to hypothetic character only. Therefore, optimization of andragogic interaction is a continuous search of ways and methods for achievement of higher state of being. It is not defined by successive actions, however, it can be characterized by purposeful combinations of basic concepts: from dependence of interacting participator to independence (personal transformation); from independence of interacting participator to

interpersonal dependence (transformation of andragogic interaction); from interpersonal dependence to development of efficiency in andragogic interaction (optimization of andragogic interaction).

### **Analysis of assumptions and interference, important for optimization of andragogic interaction and evaluation of learners' positive and negative experience in team work of project activity**

#### **Methodology and organization of the research**

The research was performed in 2011. It aimed at analysis of learners' (KU, Institute of Continuing Studies and KSC, faculty of Social Sciences) approach to interaction in project activity and specification of factors, making positive and negative impact on team work. 92 learners from KSC and 87 from KU participated in the inquiry. "The Sun" method was employed. Respondents were asked to complete a sentence in the middle of "the Sun" by doing that five times, each time writing different endings in "rays". They could choose between variants of corresponding sentence (proposition). For example: variant 1 - "I like working in team, because ...", variant 2 - "While working in team I am concerned about ...".

Chosen assignment is aimed at stimulation of following:

- empty "rays" disturb respondents with motivated dismay, so they discover more options than in case of its absence. It corresponds to *gestalt-Psychologie* law about incomplete entirety, evoking willingness to complete them. Very persuasive was N. M. Grenstad (1996), maintaining that in the process of formation of uncompleted sentences it is easier for learners to find answers than to answer to given questions;
- respondents are "under the necessity" to find out what propositions mean to them and which ones are more important than others;
- usually such assignments stimulate thinking and sensations. It is related to experience, gained after going deep into meaning and significance of specific propositions in different contexts and situations.

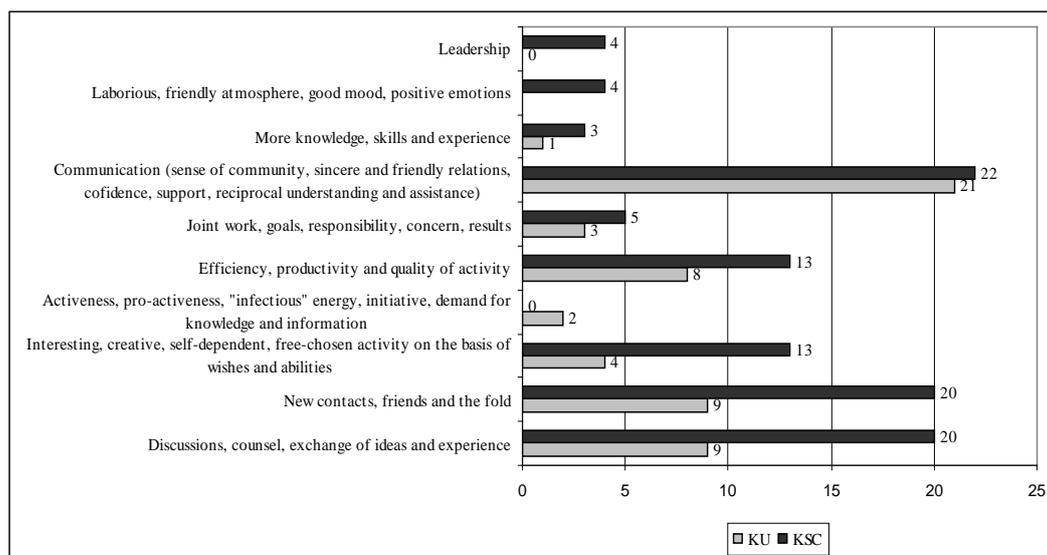
Above propositions are included in the context of activity, which involves learners themselves. The process stimulating information creates situations, in which respondents are galvanized. When completing sentences (propositions), they find themselves in a specific situation and experience emerging feelings and sensations. Undoubtedly, replies of respondents in that case can not be superficial and careless.

#### **Research results and their interpretation**

To find out respondents' attitude towards positive and negative factors of interaction in project as middle of „the Sun“ was presented to them after activities in a project. It started

with „I like working in team, since ...“ and respondents were asked to complete it in „rays“ by pointing to five different factors, making positive impact on team work in projects.

Results of the research showed that they attach two most important positive factors in above activity. They are possibility to discuss, exchange ideas and experience (40% of KSC respondents and 23% of KU respondents) and communication, i. e. feeling of community, sincere and friendly relations, confidence, support, reciprocal understanding and assistance (22% of KSC respondents and 21% of KU respondents) (Fig. 3).



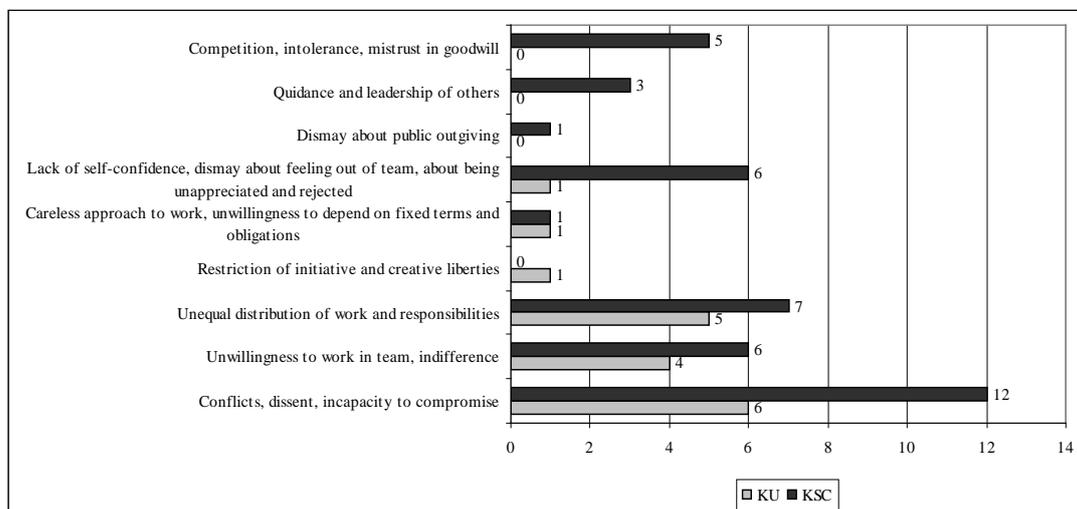
**Fig. 3.** Factors, making positive impact on team work in project activity (percentage)

These results enable to presume that learners of both school are willing to communicate and cooperate, to reconcile differences, i. e. to find alternative, satisfying everyone and to take optimal decision after evaluation of all suggestions. In other words, learners prefer the third alternative for grounding of their mutual relations. It is joint decision, confidence and mutual understanding.

There were also other factors, making positive impact on team work in project activities and they appeared to be more important for learners of KSC (Fig. 3). They are new contacts, new friends and the fold (20% of KSC respondents), joint activity, which is more efficient and productive (13 of KSC respondents), interesting, creative, free-chosen activity, based on wishes and abilities (13 of KSC respondents). Willingness to meet new friends and the fold points to the fact that there is a demand for changes, for “protection” from monotony, gaining of new experience, new sensations, etc. On the other hand, activeness of interacting participators, “infectious” energy and initiative can inspire more passive participators, whereas interesting, creative and free-chosen activity and sincere, friendly relations can create favourable environment for positive emotions, which will influence personal self-

satisfaction a sense of community. Activities will become more attractive, efficient and productive.

Learners of KSC and KU pointed to two major factors, making negative impact on team work in projects (Fig. 4).



**Fig. 4.** Factors, making negative impact on team work in project activity (percentage)

Respondents maintain that there are things, which they dislike in team work. They are arising conflicts, differences in approach, unwillingness to search for compromise (12% of KSC and 6% of KU learners), friction about different amount of work and distribution of responsibility (7% of KSC and 5% of KU learners), prejudice, expressing itself in unwillingness to work in team, indifference (6% of KSC and 4% of KU learners). Therefore, respondents are inclined to attach conflicts, friction and prejudice to interference of team work, in other words, to factors that make negative impact on mutual relations. It is to be noted that interpersonal dependence, as the basic assumption for optimal andragogic interaction, are not characteristic to mutual relations, in which dominating are conflicts and unwillingness to compromise.

Another two factors were important only for KSC respondents. Some of them (6%) noted that lack of self-confidence, dismay about being a misfit among team members, about being misunderstood and rejected discourage their activities in teams; 5% of respondents also mentioned competition, intolerance, mistrust in each other, in goodwill, etc. It presupposes an assumption that competition in mutual relations is a substantial interference, possibly influencing participators' sense of safety, trust in each other, tension, danger and dismay.

On the basis of research results it is possible to maintain that most of respondents treat different disagreements as interference of team work. They also admit that above interference can endanger mutual relations, if a way out of it is not found. Those not searching for

compromises usually ground these relations on anger, continuous fighting, manipulations and defensive position, which possibly leads to passiveness and avoidance of responsibility. Competition leads to avoidance of any responsibility, fearing of defeats. Therefore, competition inevitably makes a negative impact on mutual relations, as their success depends on taken responsibility for oneself and others. On the other hand, competition stimulates dependence of losers on winners and dependent party is not able to take care of own demands, he lacks self-confidence and can not take responsibility for own actions and consequences, can not take decisions independently. Undoubtedly, such communication lacks synergetic impact and andragogic interaction will lack interpersonal dependence, which is a necessary assumption for its optimization.

Learners are inclined to ground mutual relations on the third alternative – a joint decision and trust of each other. It could not be explained by compromise, combining choice of all participators. It is better than a compromise – it is a result of joint creative attempts and it is received by stepping over personal weakness, listening attentively, negotiating, exchanging ideas and experience, searching for best option. Therefore, synergetic impact and high level of trust in each other is typical to the third alternative. Interpersonal dependence of autonomous interacting participators appears to be the major assumption for optimization of efficiency in andragogic interaction.

### **Conclusion**

Analysis of andragogic interaction as a complex and open socio-cultural system is based on synergy theory, which is treated as a new scientific paradigm, spotlighting methodological assumptions for its optimization.

Andragogic interaction, based on synergetic links, can reach the highest level of quality. Synergetic links are compared to a catalyst, releasing incredible human powers. Synergetic communication and cooperation means that contribution of all participators is not treated as a result of mathematic addition – it can be much higher and expected results can surpass all expectations.

Approach and choice of principles that respond to their position and are employed in grounding of mutual relations rather than interacting participators themselves and their available competences are treated as methodological assumptions for optimization of andragogic interaction.

Major principles, grounding andragogic interaction are partnership (“let’s win together”), high level of trust in each other and a starting synergetic link. On the basis of these principles changes and transformation take place in andragogic interaction. It results in

interpersonal dependence of autonomous interacting participators, which is the major assumption for increase and optimization of efficiency in andragogic interaction.

Human beings are objects of complex open socio-cultural system and that predetermines the fact that even well-planned and rational social measures, applied for achievement of goals that are related to human development and improvement of efficiency in andragogic interaction, very often fail to produce expected results, as they are based on forthright “stimulus-reaction” links. Such links reject major law of human development and transformation: personality, which is to be improved by external impact, assimilates this impact firstly (it depends on already shaped internal power) and start changing afterwards, also changing the character of andragogic interaction itself as well as the level of its quality.

Optimization of andragogic interaction is a continuous search of ways and methods for achievement of higher being and its expression. It is not strictly defined by successive actions, however, it can be characterized by purposeful combinations of essential concepts: from dependence of interacting participator to his independence (personal transformation); from independence of participators to interpersonal dependence (transformation of andragogic interaction); from interpersonal dependence to development of efficiency in andragogic interaction (optimization of andragogic interaction).

On the basis of research results it is possible to maintain that most of respondents treat different disagreements (competition, prejudice), endangering mutual relations. Competition leads to avoidance of any responsibility, fearing of defeats. It stimulates dependence of losers on winners and dependent party is not able to take care of own demands, he lacks self-confidence and can not take responsibility for own actions and consequences, can not take decisions independently. Such communication lacks synergetic impact and andragogic interaction of dependent participators will lack interpersonal dependence, which is a necessary assumption for its optimization.

Respondents named positive factors of interaction, which confirmed analyzed theoretical assumptions. Learners are inclined to ground mutual relations on the third alternative – a joint decision and trust of each other. It could not be explained by compromise, combining choice of all participators. It is better than a compromise – it is a result of joint creative attempts and it is received by stepping over personal weakness, listening attentively, negotiating, exchanging ideas and experience, searching for best option. Therefore, synergetic impact and high level of trust in each other is typical to the third alternative. Interpersonal dependence of autonomous interacting participators appears to be the major assumption for optimization of efficiency in andragogic interaction.

## References:

- Avolio, B. J. Locke, E. E. Contrasting different philosophies of leader motivation: Altruism versus egoism. *Leadership Quarterly*, 13, 2002.
- Birgelyte, A. Projektu metodas kaip sinergetine sistema. *Pedagogika*, T. 80. Vilnius: VPU leidykla, pp. 63-68, 2005.
- Bitinas, B., Rupsiene, L., Zydziunaite, V. Kokybinu tyrimu metodologija. Klaipeda: S Jokuzio leidykla-spaustuve, (2008.
- Covey S. R. 8-asis iprotis. Vilnius: „Alma littera“ leidykla, 2007.
- Covey, S. R. 7 sekmes lydimu zmoniu ipročiai. Kaunas: „Mijalbos“ leidykla, 2006.
- Covey, S. R. Principle-centered leadership. New York: Fireside, 1990.
- Folley, G. Suaugusiųjų mokymosi metmenys: suaugusiųjų svietimas globalizacijos laikais. Vilnius: Kronta, 2007.
- Haken, H., Standler M. Synergetics of Cognition. Berlin, 1990.
- Jarvis, P. Mokymosi paradoksai. Kaunas: Morkunas ir Ko, 2001.
- Jovaisa, L. Enciklopedinis edukologijos zodynas. Vilnius: Gimtasis zodis, 2007.
- Kvedaravicius, J. Organizaciju vystymosi vadyba. Kaunas: VDU leidykla, 2006.
- Mezirow, J. Perspective transformation. *Adult Education*, 28 (2), pp.100-109, 1978.
- Mezirow, J. Transformative Learning: Theory to Practice. In P.Cranton (ed.), *Transformative Learning in Action: Insights from Practice*. New Directions in Adult and Continuing Education, № 74 San Francisco: Jossey-Bass, 1997.
- Neale, S., Spencer-Arnell, L., Wilson L. Emocinis intelektas ir ugdymas. Vilnius: Verslo zinios, 2008.
- Northouse, P. G. Lyderyste. Teorija ir praktika. Kaunas: „Poligrafija ir informatika“, 2009.
- Rauner, F. Practical knowledge and occupational competence // *European Journal of Vocational Training*, 40 (1), pp. 52–66, 2007.
- Tereseviciene, M., Gedviliene, G., Zuzeviciute, V. *Andragogika*. Kaunas: Vytauto Didžiojo universiteto leidykla, 2006.
- Tight, M. Kertines suaugusiųjų svietimo ir mokymo idejos. Vilnius: Kronta, 2007.
- Zelvys, R. Bendravimo psichologija. Vilnius: Valstybinis leidybos centras, 1995.