

Harmonizing Different Cognitive Styles Through Reading

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Abstract

With the present day clipping consciousness domination, it is of primary importance to develop reading competences taking into consideration students' different cognitive styles, i.e. the way the learners think and perceive information as well as remember it. As it has been established, cognitive styles are not homogenous, thus providing the opportunity to subdivide students into convergent and divergent learners. Development of special exercises is required to eliminate psycho-methodological variations undesirable in terms of language acquisition and differences between different types of thinking as well as to harmonize the learners' cognitive styles in the course of reading. Although people are born with different cognitive styles that determine the specificities in their perception and generation of texts, it is possible to minimize the cognitive styles differences by means of various activities that call for a special study in the field under consideration. The article deals with the use of descriptive-analytical method and comparative-contrastive analysis to discover the cognitive similarities and differences between convergent cognitive style learners and divergent cognitive style learners. The study is based on the proposition that cognitive psychology strategies should be used to eliminate the learners' cognitive style differentiations and develop the learners reading competences in the course of their ways of thinking harmonization.

Keywords: cognitive style, thinking, reading competences, psychology, harmonization.

1. Introduction

Reading in the system of professional higher education is one of the most important types of oral, communicative and cognitive activities of the students. It is aimed at extracting information from a written text. Within the framework of educational reading, it is possible to differentiate several types of this activity that are essential to solve particular problems connected with the development of the skill, necessary to work with written texts. They are: skimming, scanning, reading for detail and informative reading. Within the informative type it is possible to identify the extensive and the intensive reading.

Reading is indispensable for mastering any foreign language, the English language in particular, as it is of primary importance in shaping self-learning activities of the students. Thus, reading becomes one of the most important strategic goals of teaching/learning a foreign language.

- Out of the four cognitive styles discovered by D. Kolb (convergers, divergers, accommodators and assimilators) only two (convergent and divergent styles) can be applied for education purposes.
- The gap between convergent/divergent cognitive style learners can be bridged by means of reading assignments that level the differences.
- Different teaching strategies can be applied to different cognitive style learners to harmonize their mental abilities.

As it is known far and wide, reading in foreign language classes is aimed at fulfilling different functions. They are as follows. Reading fosters the mastering of a foreign language; reading is a means of learning languages and studying culture; reading is a means of information and educational activities; reading is a means of self-education. Moreover, it advances the students' efficiency in terms of information acquisition. Today the extraction of information from reading is of primary importance. This is due to the fact that at present reading has acquired significance because of the development of electronic technologies, big data and new modes of communication. Reading has always been important for effective English language learning and teaching. Through reading texts, it is possible to get not only the textual information contained, but also feelings, emotions and everything that deals with both linguistic and extralinguistic context and exercises a certain influence on the perception and the process of knowledge acquisition (Minyar-Belouchcheva, Sergienko, Vishnyakova & Vishnyakova, 2018).

Educational reading also acts as a mandatory means of teaching a foreign language. Within the framework of educational reading, the following paired types of reading are distinguished:

(1) According to the degree of the students' preparation (independently-prepared and unprepared students), an educator could ask them to read a text with a dictionary and without a dictionary to meet the needs of the students' abilities. Thus, reading can be partially difficult for the students or absolutely easy as far as modelled texts are concerned.

(2) For academic purposes partial translation into the native language is provided to facilitate reading for extraction of the necessary information.

The aforementioned statements constitute the traditional approach to the development of reading competences within the framework of competence-based approach.

With anthropological paradigm reigning supreme, relevant becomes the cognitive approach to the process of foreign language acquisition through reading.

As Ch. Nuttall states, reading texts is cognitive interacting in itself within the text purporting to extract meaning from it, based on the involvement of the addressee into the interactive process of communication between the author and the reader (Nuttall, 2008). The complex cognitive brain function is used to secure the success of reading as the pure knowledge of English does not suffice. Here the category of knowledge is given supreme importance as unless the body of knowledge including the common knowledge of the world and the sheer linguistic knowledge used as the foundation of the text is accepted the writer, an ardent reader is expected to reconstruct most of the assumptions on which it is based: "To do this he must assess the evidence – choice of words, selection of facts and so on – and draw appropriate inferences, so that he gets the message intended rather than the message he perhaps expected" (Nuttall, 2008: 12). In other words, it means that the assumptions based on the knowledge acquired and structured in the readers' minds and the experience they possess serve to determine various ways of meaning interpretations in the course of reading, when students may see and interpret the phenomena under consideration, according to their cognitive abilities and intellectual development basis.

2. Method

2.1 *One of the methods to advance the learning of English*

It should be stated from the outset that students and teachers perceive the world around them and the things they learn and study in different ways, as their *Weltbild*, i.e. viewpoints, explain the existence of various opinions and the lack of similarity of the extracted information from the same text. Moreover, students excerpt the communication message from the text “from ignorance or carelessness” (Nuttall, 2008: 18). In these lines, the question arises which of the two categories should be supported by the teacher, as those students wanting to know more are noted for their creative approach to the text, and discuss sensible reasons for interpretations of a certain kind. Another issue concerns the careless attitude of the students to the process of reading and text interpretation and how to treat them during English learning classes.

It is generally known, that reading is one of the means to advance the learning of English. However, the students are not the same in extracting the information from the text. They are noted for different cognitive abilities, embedded in various cognitive styles of information extraction.

The current research puts forward an assumption concerning the existence of two types of cognitive style learners which should be used in elaborating certain assignments to advance information acquisition from the text by different cognitive style learners.

This work stresses the existence of two types of learners that extract information from the text in different ways, due to their cognitive abilities. They are convergent strategic style learners and divergent strategic style learners.

2.2 *Method's instruments*

For the purpose of studying the particularities of the aforementioned cognitive style learners the following methods have been taken advantage of:

- Descriptive-analytical method is used for the study of theoretical works of domestic and foreign scholars. Within the current work there have been various works cited with the brief inference made, profitable for the research.
- To balance and to eliminate the differences between the convergent cognitive style learners and divergent cognitive style learners it is important to elaborate comparative-contrastive analysis, due to which one can discover cognitive similarities and differences between the aforementioned types of learners.
- Descriptive-analytical method and comparative-contrastive analysis are aimed at discerning cognitive parallels and distinctions between different cognitive style learners, i.e. convergent and divergent.

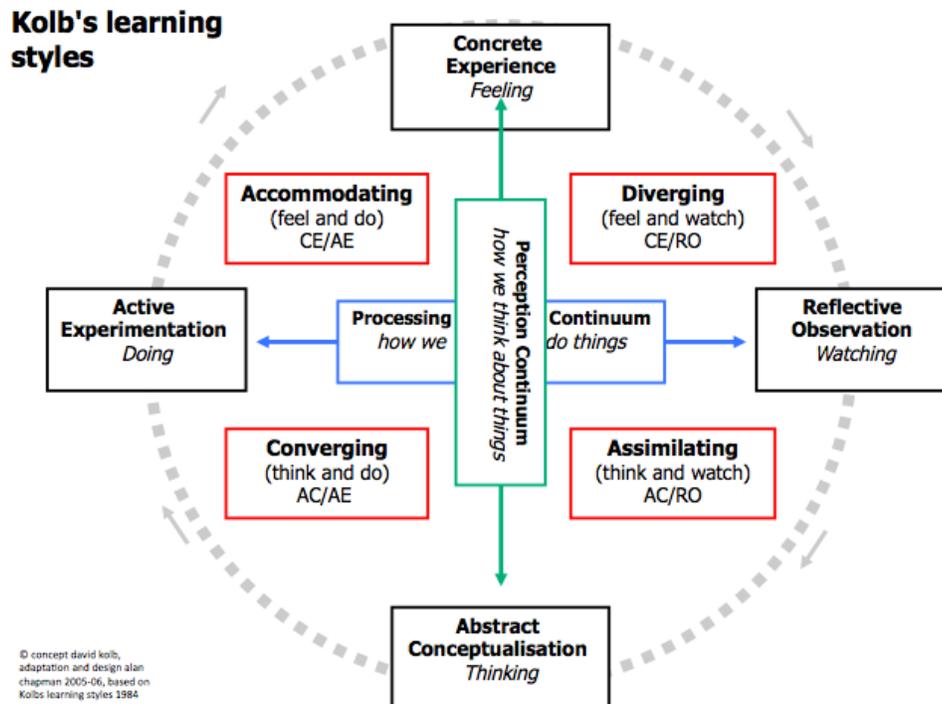
To overcome the gap between different cognitive types of thinking it is necessary to work out methodological cognitive science strategies. To harmonize the mentality of different cognitive style learners it is necessary, first of all, to compile a questionnaire to identify the students' cognitive styles and then to offer to them assignments different from their cognitive styles to fulfill them within a limited allocated timespan. All these methods and approaches can foster the development of innovative strategies to harmonize the learners' cognitive style diversities through reading assignments to the texts.

3. Results

3.1 *Inherent characteristics of different cognitive style learners*

The terms in question are not new. They were coined in the early 1950s by Joy Paul Guilford. Under the convergent thinking the scholar understood critical/vertical, analytical/linear thinking as an instrument used to deduce a single best solution to a problem. In his theory creative and horizontal divergent thinking involved imagination to generate creative ideas (Guilford, 1950). In succeeding years these ideas about different ways of thinking were applied to education. Later David Kolb developed the above-mentioned ideas to facilitate the process of learning. In particular, he put forward an idea dealing with perception of new information. The model of different style learners D. Kolb called a *Learning Style Inventory*. Within its frames he developed a system consisting of a four-stage cycle of learning and four separate learning styles with the consideration of the cognitive processes of the learners (Kolb, 1976). In the construction of his system of learning D. Kolb proceeded from the idea that “learning is the process whereby knowledge is created through the transformation of experience” (Kolb, 1984: 38).

It can be understood that experience is the main process of getting knowledge or skill from doing, seeing, or feeling things. It is clear that his experiential learning style theory is grounded in the prior observation of facts or events. It had been stated by D. Kolb that in the process of obtaining knowledge learners undergo a four-stage learning cycle including (a) concrete experience (doing /learning on experience), when they encounter a new situation or reconstruct existing experience; (b) reflective observation of the new experience (reflecting/reviewing on the experience), when they come across certain contradictions between experience and understanding; (c) abstract conceptualization (concluding/learning from the experience), when as a result of their thinking they generate new ideas, or modify the existing ones; (d) active experimentation (planning/trying out what has been learned), when their ideas are put into life to see the results of it (Kolb, 1984). Thus, D. Kolb was successful in proving that to acquire new knowledge learners have to go through a sequence of operations from experience to reflection then from conceptualization to test and then to new experience. D. Kolb asserted that learning could be effective provided that the learners undergo all four stages of this model. However, there is no effective learning stage of the cycle on its own as this cycle is supported cross axially by emotions and actions. At the opposite ends of the north-south axis, called the Perception Continuum, D. Kolb detected that concrete experience and abstract conceptualization are supported by feeling and thinking correspondingly. At the far ends of the east-west axis, called the Processing Continuum, are placed active experimentation and reflective observation of the new experience it means that the learners are doing and watching simultaneously. D. Kolb was confident that learners could not do both variables on one axis at the same time. In a nutshell, together with it, there was developed a Learning Style Inventory (Kolb, 1976, 1984) in which by placing the learners on a line between concrete experience and abstract conceptualization; and active experimentation and reflective observation four main cognitive types were singled out. He discovered that Convergents, Divergers, Assimilators, and Accommodators are the cognitive strategic types according to which learners process information and do the assignments offered to them. Moreover, Learning styles specify a learners’ distinctive way of thinking, remembering and problem solving, designating their manner of speech behavior. Below you can see a schematic representation of the concept.



Picture 1. The scheme of Kolb's learning styles (Chapman, 2005, Kolb, 1976, 1984)

It has been proven that convergers, as the type of cognitive style thinkers can be characterized by the ability to acquire information and experience by means of abstract conceptualization; later on they modify this experience through experimentation. The lack of emotions makes the convergers deal with objects rather than with human beings. They are good at practical implementation of ideas, can concentrate on hypo-deductive reasoning on specific problems, and are thought to have narrow interests. Together with the scarcity of emotions and limited interests, this type of cognitive style thinkers, having the strive for abstract conceptualization can be called active experimenters. They are mostly motivated to discover the significance or to identify how an action can be fulfilled or a result can be achieved. Application and value of information is increased by the identification of the detailed information about the system's operation.

Another type of cognitive style thinkers, the divergers get information through a concrete experience and reflective observation. It can be said, that in comparison with convergers they are more apt for generating ideas and are more "people oriented". In general, they are more emotional than the convergers. Their imaginative ability is most advanced allowing them to see things from different viewpoints, and their cultural interests are broad. Divergers as the cognitive style thinkers can be called concrete learners, who are motivated to discover the relevancy or "why" of a situation. That is, they are likely to make out different variants and various scenarios of a situation. Divergers, in comparison with convergers would rather reason and explore preferring the information to be given to them in a detailed, systematic and reasoned manner.

Assimilators are the third type of cognitive style thinkers that scientists speak about. This kind of thinkers get experience through abstract conceptualization and transform their experience through reflective observation. Similar to convergers, they are less concerned with people and are more absorbed by concepts. Assimilators are usually defined by abstract conceptualization and can also be called reflective observers. They are known as strong at creating theoretical models and are more likely to excel in inductive reasoning. They are absorbed by the idea to answer the question, "what is there to know?" In other words, they are striving at the

pragmatic purpose of the new information. Respecting the knowledge of the expert, they develop an accurate and organized way to acquire the correct answer to the posed issue.

Accommodators are regarded as the fourth type of cognitive style thinkers. They can be characterized by the zest to grasp knowledge through concrete experience and transform their experience contrary to assimilators, through active experimentation. They are noted for their intuition and impatience when the situation contradicts their ideas or they cannot easily find all the answers to the problems or reach the anticipated result. They are good at doing things rather than reflecting or observing. This type of cognitive style thinkers is risky performing well on the spur of the moment when required.

As cognitive type of thinkers, accommodators depend mostly on concrete experience and are called active experimenters. Their motivation question is, “what would happen if I did this?” Otherwise stated, they do their best in trying to foresee the potential scenarios in the future. They do their best to find relevance in the previous and even sometimes unsuccessful experience and reckon what can be done, proceeding from the decisions of other people’s learning experience. Accommodators perform well when dealing with complexity and are able to see relationships among different aspects of a system (Kolb & Fry, 1974).

However not all these four cognitive strategic type learners can be applied to fulfill the educational purposes. Only two of them – convergent strategic style learners and divergent strategic style learners can be focused on in the English language learning/teaching process.

Convergent strategic style learners ground their learning in abstract conceptualization, divergent strategic style learners prefer concrete experience. As they are placed on the opposite ends on the axis of Perception Continuum, it is possible to see the similarity and differences in doing assignments necessary for developing reading skills. D. Kolb (Kolb, 1984) showed that convergent strategic style learners are better at solving only one possible task, whereas divergent strategic style learners show their best when alternative variants are offered to them. It has been stated that the predictable results tasks are suited for convergent strategic style learners. They lose confidence with new information, techniques and unpredictable results. They tend to choose reliable and previously acquired information. This gives them the sense of assurance and predictability. They prefer to accumulate information and reuse it repeatedly. They are best at solving one particular problem at a time (Kolb, 1984).

Divergent cognitive style learners opt for novelty. They would rather work with alternative ideas and numerous solutions. Traditionally they are able to generate revolutionary ideas to give unpredictable judgement to ideas and make original conclusions. Their unexpected evaluations speak for their creativity and prove their cultural interests and the wish to gather information. Divergent cognitive style learners are good at brainstorming (Duff, 1986), free writing, mind and subject mapping (Strategies of Divergent Thinking, 2014).

It should be underlined that although the dichotomy of these two types of cognitive style learners was discovered decades ago, it has remained in oblivion of educational methods and no proper attention has been paid to it on the part of teachers and textbook writers. The assignments worked out in accord with a certain model ignored the learners’ cognitive styles differentials.

At the current stage it is clear that it is impossible to disregard this basic dichotomy: the convergent cognitive style learners and divergent cognitive style learners. It should be said that the qualities of the two elements may be manifested quite explicitly according to individual peculiarities and the surrounding context. A language teacher has to keep in mind these two types of cognitive style learners. Otherwise stated, non-specified assignments do not tend to bring spectacular academic achievements.

Thus, it is evident that this dichotomy should be bridged by means of the assignments that harmonize the differences of convergent/divergent cognitive style learners. The idea of linking social context and cognitive development by the learner in the process of reading texts was elaborated by L. Vygotsky (Vygotsky, 1978). The process of assignments creation is founded on the use of the interlinguistic approach, which is of primary importance within the framework of the psycholinguistic approach.

Different types of assignments are bound to focus the learners' attention on different features of the text to accomplish various tasks that cause different types of assessments.

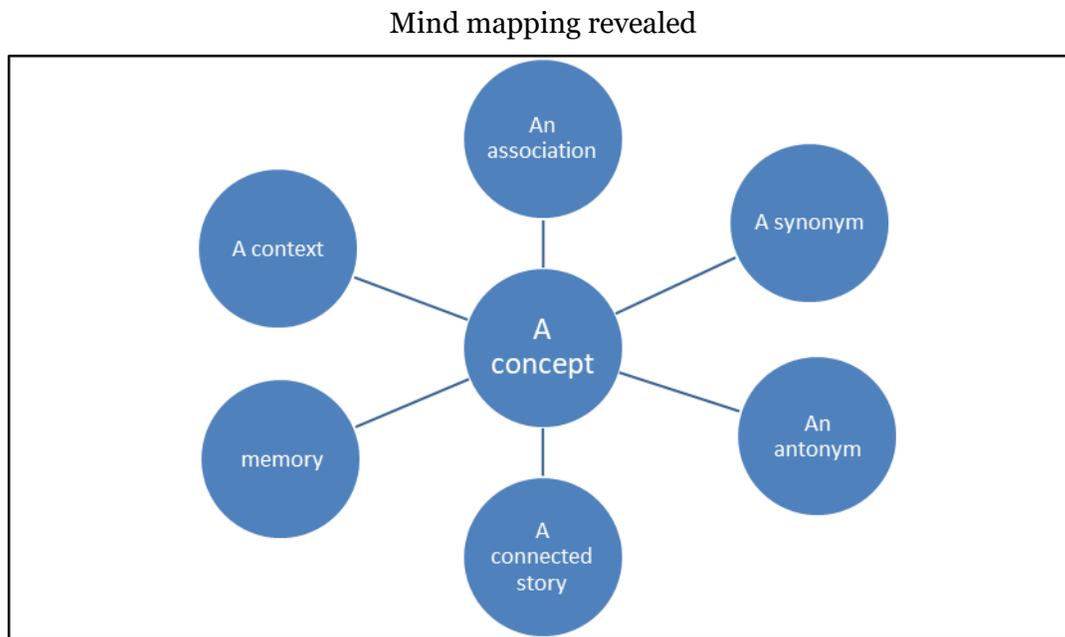
It should be noted, that the approach to the process of the creation of assignments for the two types of learners is different, as it requires various strategies. In other words, the assignments for the convergent strategic style learners should be predictable and bring about the anticipated results.

To acquire new knowledge, the convergent cognitive style learners should use their prior experience and knowledge by transferring them into a new one, i.e. they apply the previous information and data for the purpose of acquiring new knowledge, which can be applied for practical and theoretical pragmatic purposes. It is common knowledge, that data, information and knowledge are closely interconnected as "information helps to expand our knowledge beyond the range of our senses", at the same time it "captures data at a single point. The data changes over time. The mistake people make is thinking that the information they are looking at is always an accurate reflection of the data" (Difference Between Information and Knowledge, 2016).

As for the divergent cognitive style learners, brainstorming presents is in itself one of the fertile techniques in the process of learning (Reid, 1984). To put it differently, brainstorming potential topics are in great demand while discussing the language issues that are considered as the inalienable basis for each text, as well as the process of compiling ideas, connected with the subject under discussion. It should be taken into account the very start that every learners' suggestion concerned should be viewed and scrutinized until the teacher gives all the pros and cons on par with by their commentaries and arguments, concerning both the content and the expression planes of the text in question. As brainstorming is usually based on the "piggybacking" method, in which each of the ideas can be used to stimulate the occurrence of the new ones and more and more new possibilities to express individual visions are created, it is preferable that all of them can be recorded and systematized in a special journal or by means of some audio-visual aid before discussing and actualizing in class. It is important to underline that associative thinking is of primary importance for the development of divergent cognitive style learners in the course of language learning.

Generally speaking, that while discussing a particular topic extracted from reading materials in the process of speaking or writing it should be taken into account that on the one hand the conceptual approach to the subject-matter, as concepts in terms of their content structure may be presented both at the levels of the center (the core) and periphery (where branches of the topic are being concentrated), and on the other hand they can be analyzed in terms of close interaction between the conceptual fields. It is evident that one of the most effective methods applied in teaching for divergent thinking development is the method of subject and concept mapping (Boucquey, 2015), founded on semantic networks and their visual representation of correlating ideas, concentrically organized and developed, which can be used with both divergent and convergent cognitive style learners to be manifested (see Picture 2.).

Picture 2 provides an example of is subject and concept mapping technique illustrated with a help of the following scheme:



Picture 2. An example of concept mapping

At the same time, the issue of concepts and values (Shennan, 1991) is posed in this connection, attracting special attention to some more or less significant verbally expressed layers of the text content from the position of pragmatic communicative purpose actualization. Otherwise stated, both the content and the expression planes of the material for reading subject to various interpretations as far as its basic and additional topics, as well as their linguistic representation, are concerned. For divergent cognitive style learners this approach seems to be interesting and most inspiring as it presents the new ways of creative thinking and the language usage, which is most appropriate for this category of learners.

3.2 *Divergent and convergent cognitive style learners' assignments*

This paragraph deals with possible assignments for different types of cognitive learner. The research specifies the need to elaborate different types of assignments as they extract information from the texts in different ways. It is in educators' responsibility to keep in mind their differences.

This situation presents a problem in terms of restrictions concerning the content and the communicative pragmatic purpose of the text under analysis. Thus, for example, when one begins asking questions dealing with certain characters or situations described, he/she should not go beyond the limits of the story if this is not specially noted while setting the task, otherwise it is difficult or sometimes impossible to understand whether a student understands the content properly. At the same time divergent way of thinking presupposes multiple choice in the process of decision making, and here the notion of discourse that includes both linguistic and extralinguistic factors are to be taken into consideration, i.e. communication in social context (Hatch, 2000) serves as an exceptionally important criterion, which facilitates the learners to use the language in the close to natural conditions. In other words, this approach may include interactive tasks, based on opinions presentation, role-play, debates, etc., that inspires the learners' realization of their creative potential and the ability to find appropriate solutions.

The next issue concerns the evaluative criteria that to be given before the discussion of the text. For instance, brainstorming requires answering various questions in the process of

topic analysis (for example, “How would you describe *something*? What are the causes of *something*? What are the effects of *something*? What is important about *something*? What are the smaller parts that comprise *something*? How has *something* changed? Why are those changes important? What is known and unknown about *something*? What category of ideas or objects does *something* belong to? Is *something* good or bad? Why? What suggestions or recommendations would you make about *something*? What are the different aspects of *something* you can think of?” (Strategies of Divergent Thinking, 2016), though it should be borne in mind that the answers are to be prepared in accordance with the initial text parameters, including both content and expression planes of it, as well as linguistic and cultural constraints.

It is also important to underline from the very beginning that this does not mean to say that these parameters impose any kind of restrictions required and demanded from the creative abilities of the learners. We cannot agree with this statement as though it narrows the area of application, as it makes the task more complicated and thus seeks more interesting and sophisticated approach to the problem-solving process. Especially useful seem to be the assignments, based on the necessity to use certain linguistic units, included into the scope of the new linguistic material that has to be reproduced and used by students in actual speech. In this case, the seeming lack of creativity may find compensation in the diversity of topics, or subjects to be discussed within the frames of the repertoire of linguistic means required. At the same time, it becomes absolutely clear that as far as creative approach to the choice and arrangement of language means are concerned, divergent cognitive style learners possess high potential in terms of linguistic variability and demonstrate different ways of linguistic representation they have acquired (synonyms, antonyms, figurative meanings, metaphorical expressions, etc.). The most important task of the teacher in this regard is to assist them in obtaining knowledge and making sure of the constantly increasing level of their proficiency.

It should be said, that although the global goals are identical, divergent cognitive style learners have different intermediate tasks to approach the setting. Thus, the assignments for different cognitive strategic style learners should be different, as they evoke different cognitive abilities. The greatest advantage of divergent cognitive style learners is connected with their method to achieve their main goal on the way to which they come across a lot of challenges and use both, previous and new, unexpertised knowledge. This results in using creative methods of experimentation in certain situations. They subconsciously tend to choose the method of trial and error to reach their ultimate goal. They tend to digressions of various types which are found in the field of associative thinking in terms of the corresponding type of cognition.

Convergent cognitive style learners are noted for goal setting, strategy choice stability, as well as the stability of the outcome and its presentation. Divergent cognitive style learners are not creative per se, but their creativity exists in a different dimension, and some of them diverge from the goal they have set. That is why their level of assessment is also non identical. Convergent cognitive style learners are able to acquire certain features of the divergent style, while doing certain tasks. It is possible to choose identical material for the two types of learners, however the assignments for the texts should differ according to the type of cognitive styles orientation and therefore improve their understanding of the text, both from the content and expression points of view. Gradually the teacher is to introduce certain material that will help the convergent cognitive style learners develop creativity and to assist divergent cognitive style learners in achieving their goals without strict prescriptions.

The well-known four reading comprehension tasks (Robinson, 1978) can be singled out according to the two above-mentioned cognitive style learners' categories: the convergent cognitive style learners prefer information because they can scan the text for one bit of information found in one part of the text.

Divergent cognitive style learners prefer to do three other types of assignment, or tasks, such as coreferential tasks – when questions deal with different parts of the text and which learners need to put together to fulfill the task; inferential tasks which imply the search of implicit information to give answers and multiple response when there is no single correct answer to the task; and multiple choice questions that permit learner to reflect different aspects of the text. Such tasks are unlikely to be done by the convergent cognitive style learners at the initial stage without proper words and phrases that prompt them to give the correct answers. Later on, they will get used to this type of tasks and improve their creativity (Robinson, 1978).

Convergent cognitive style learners tend to choose teamwork, their goal being identical. And divergent cognitive style learners prefer to work individually, as of their nature is noted to its creativity.

As far as the presentation of the text is concerned, convergent cognitive style learners will use in their answers the package phrases that guide the text. Their answers would be meticulous, measured and immaculate. Divergent cognitive style learners can do all these four comprehensive assignments naturally. At the subconscious level they prefer not to use the ready-made phrases that are traditionally used for the presentation of the text and jumble the order of the parts of the text. Besides verbal information, they extract nonverbal knowledge that can violate the cohesion and coherence of the text to make lyrical digressions.

Convergent cognitive style learners and divergent cognitive style learners use different methods to approach to doing the comprehension assignments. To reproduce a text, the former use familiar words found in formal English while the latter prefer to interpret the information in their own way.

4. Discussion

4.1 *Revealing different types of cognitive style learners within a group*

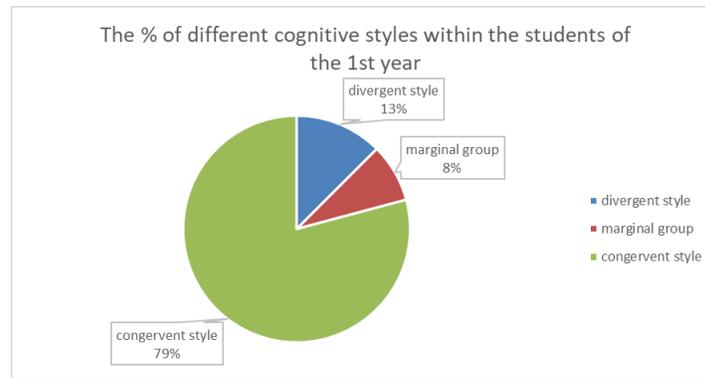
The authors of the present article have carried out a preliminary experiment concerning the identification of different cognitive style learners. The participants of the test were the students of the 1st year, amounting to 120 participants. They were given several tasks (1, 2, 3) and written translation that are described in detail below.

The results have shown that 16 students out of 120 belong to divergent cognitive style, which is very few. The rest are convergent style students, but within the 104 there exist also a marginal group of 8-10 students with the tendency to divergent style. Thus, the majority of students turn out to be of convergent type.

The given diagram exemplifies the percentage of the existence of different cognitive styles learners within the 1st year students:

The diagram (Picture 3) shows the revealed result of 13% student being of divergent type, 8% marginal group the remaining 79% – the convergent type.

The task of the educator is to harmonize the difference to bring the convergent cognitive style students as close as possible to the divergent ones. The remaining tasks for researchers is to further the research to describe the existing types in more details.



Picture 3. The percentage of different cognitive style learners within the studied groups

To reveal the existence of different types of cognitive style learners it is necessary to give the student a questionnaire to identify their personal psychological type. However, there is another way of doing so.

(1) The learners could be given a template with a task to describe a theme. The convergent cognitive style learners give one-sentence simple answers that follow the structure of the template, answer the helping tips and do not remove them to make them parts of their answer. Divergent cognitive style learners ignore the tips and are guided by the essay title. They give a full-fledged text to meet the assignment, usually containing 250 words or more.

(2) Another task concerns reading and answering the questions aimed at the revelation of their cognitive type. Convergent style learners prefer to answer direct questions concerning the place and time of the action, while the divergent students prefer to expand on the question starting with such question words as 'why, how could it happen, etc.

(3) When asked to retell a text in writing, the convergent students produce no more than 2 or 3 sentences, while divergent students give an essay of 250 words.

As for learning by heart, the convergent style learners do it eagerly whereas the divergent style learners find it complicated. Instead of learning by heart they prefer to interpret it in their own way. One more task concerning the identification of different cognitive style learners is connected with the translation of the text into the mother tongue. Convergent style learners tend to produce a word-for-word translation without getting the meaning of the words from the context. Divergent style learners comprehend the context and translate the idea of the text.

4.2 *The teacher as a director of different cognitive style learners*

Teachers continue to play a vital role in the process of prestigious selected education, as the primary task of the teacher is to classify the students into different cognitive style learners, as well as work out the method to reconcile the differences. As it has been stated by Ch. Nuttall, these factors should be taken into account, especially when concerning convergent cognitive style students being somewhat less active, in our terms, as encouraging, which means urging them to have a try, praising, etc.; prompting, which means setting supplementary tasks, helping the students complete the original assignments successfully; probing, which means finding out the reason for the student's particular answer; modelling, which means demonstrating appropriate ways of doing things; clarifying, that is giving examples and explanations (Nuttall, 2008: 36). To put it differently, every student should always feel to be in the center of attention of the teacher and have a deep awareness of their knowledge and potential, based on motivation as the self-concept (Hoffmann & Kossack, 1994).

We proceed from the tenet that the teacher's role is considered in terms of the intensive and extensive reading issues, where both the procedure and the purpose are characterized by the features that involve different approaches: thus, for instance, in the course of intensive reading under the guidance of a teacher skills-based and text-based classes are to be distinguished (Nuttal, 2008: 36). Thus, for example, in a skills-based class the variable nature of the process of inference can be presented to the convergent cognitive style learners, while some specific objectives of the assignments presuppose a certain approach or algorithm unchangeable can be explained to the divergent cognitive style learners that have to be acquainted with some limited and strict regularities issues, though may certainly practice choice variability in terms of skills and strategies while working with the text itself. As the aim of reading for detail is to arrive at understanding, when special attention is paid to the content of the text as well as the means of its representation, it is necessary to train strategies that can permit the students to work with other texts.

It is of primary importance for both types of cognitive style learners under consideration to do assignments that would simultaneously develop their abilities to level the differences of their cognitive styles.

4.3 Some of the ways of developing mental flexibility and creativity

Thus, during English reading classes when the attention of the learners is focused on the text, it is appropriate to offer for the convergent cognitive style learners not only the whole set of strategies and practices necessary for the acquisition of the reading skills, but also to introduce them to various kinds of Internet texts noted for the possibility of the multiple choice finals, according to the hypertext type (this can be exemplified by nonlinear narrative novels by James Joyce, Jorge Luis Borges, Italo Calvino, presenting several possible paths in the end of narration, that imply the creative part of the reader as a certain co-author). Otherwise stated, this is bound to develop mental flexibility and creativity within the type of learners in question. As for the assignments, it is clear that they should include the acquired skills and strategies application, accompanied by creative approach manifestations concerning the text content structure. It should be mentioned that both skills-based and text-based learning procedures are complementary issues.

Extensive reading is indispensable for the development of cognitive abilities of the students, especially in terms of training their memory and attention, as well as actualization of deductive and inductive methods. Thus, scanning and skimming types of reading mentioned above, as well as accumulating information are of primary importance alongside with various discursive factors (Hatch, 2000) and especially with the environmental involvements that influence the whole process of personality formation, including cognitive abilities and linguistic skills (Vygotsky, 1976).

5. Conclusion

In conclusion, it should be stated that primarily in the process of teaching reading all the teachers should take into account the existence of two major types of cognitive learners, they are convergent cognitive style learners and divergent cognitive style learners. As it has become evident from the present article they are able to extract different information from the same text and work with different assignments.

It is necessary to reiterate that convergent cognitive style learners can easily learn new linguistic units on the basis of their previous language experience. They rely in the main on the language as a regular system, and use it in their modelled reproduced speech. At the same time,

divergent cognitive style learners can easily generate creative ideas and thus they can be given the assignments of creative type. Their speech is characterized by creativity due to the invention of their own utterances.

Thus, it is evident, that convergent cognitive style learners require teaching strategies application, which concern static cognition abilities of the learner and the tasks offered to them should develop their dynamic style abilities that can bring them close to the divergent cognitive perspectives. Divergent cognitive style learners are noted for their creative abilities. And thus, the tasks offered to them should be aimed at the development of the competences to follow organization and stable regularities.

As a result, it can be safely stated that despite the fact that reading comprehensive assignments should be elaborated with the consideration of both cognitive style learners. In this case, educators should excel in developing the imagination of the convergent strategic style learners.

Although it has been established, that from the theoretical standpoint convergent and divergent types of thinking are considered different, in reality, they reveal a great number common features, as their main goal is identical. Convergent cognitive style learners and divergent cognitive style learners can be creative enough to find best solutions to numerous issues. Divergent cognitive style learners unprompted in their answers create numerous solutions. Convergent cognitive style learners should be asked to choose the best solution from the variety of answers given by the divergent cognitive style learners. Various assignments connected with abbreviations should be given to different cognitive style learners to harmonize the way of their thinking (Minyar-Beloroucheva, Sergienko, Vishnyakova & Vishnyakova, 2020).

Despite the fact that students are born with different cognitive types of thinking and thus possess different learning abilities, the assignments offered to them can equate their differences. This is bound to enhance the foreign language teaching and learning efficiency. With the aim to develop reading competences, a modern textbook and teaching methodology should meet the demands of different cognitive psychology strategies to harmonize the cognitive style differences. These are only preliminary studies and there is yet much to be done to implement the aforementioned ideas into practice.

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References

- Boucquey, N. C. (2015). *The concept map: A learning tool for any subject*. Retrieved from <https://teachingcommons.stanford.edu/teaching-talk/concept-map-learning-tool-any-subject>.
- Difference between information and knowledge* (2016). Retrieved 7 December 2016, from <http://keydifferences.com/difference-between-information-and-knowledge.html>.
- Duff, P. (1986). Another look at interlanguage talk: Taking task to task. In R. Day (Ed.), *Talking to learn: Conversation in second language acquisition* (pp. 147-181). Rowley, MA: Newbury House.

- Chapman, A. (2005). *Adaptation and design of Kolb's learning styles*. URL: https://www.businessballs.com/freematerialsinword/kolb_learning_styles_diagram_colour.doc.
- Guilford, J. P. (1950) Creativity. *American Psychologist*, 5, 444-454. <http://dx.doi.org/10.1037/h0063487>
- Hatch, E. (2000). *Discourse and language education*. Cambridge: Cambridge University Press.
- Hoffmann, E., & S. Kossack, S. (1994). Oral language foundations for reading. In C. Cargill (Ed.), *A TESOL professional anthology: Listening, speaking, and reading* (pp. 51-65). Lincolnwood, Illinois USA: National Textbook Company, a division of NTC Publishing Group.
- Kolb, D. A. (1976). *The learning style inventory: Technical manual*. Boston, MA: McBer & Co.
- Kolb, D.A. (1984). *Experiential learning: Experience as the source of learning and development*. New Jersey: Prentice Hall, Englewood Cliffs.
- Kolb, D. A., & Fry, R. E. (1974). *Toward an applied theory of experiential learning*. MIT Alfred P. Sloan School of Management.
- Minyar-Beloroucheva, A., Sergienko, P., Vishnyakova, O., & Vishnyakova, E. (2018). Modern technologies in teaching professionally oriented foreign language to the students of politics. In L. Gómez Chova, A. López Martínez & I. Candel Torres (Eds.), *ICERI2018 Proceedings. 11th International Conference of Education, Research and Innovation* (pp. 7967-7975). 12-14 November 2018 — Seville, Spain. Seville, Spain: IATED Academy. <https://doi.org/10.21125/iceri.2018.0043>
- Minyar-Beloroucheva, A., Sergienko, P., Vishnyakova, E., & Vishnyakova, O. (2020). Semantic and cognitive communicative aspects of abbreviation in the modern English discourse varieties. *International Journal of English Linguistics*, 10(1), 26-36. <https://doi.org/10.5539/ijel.v10n1p26>
- Nuttall, C. (2008). *Teaching reading skills in a foreign language*. Oxford: Macmillan Heinemann.
- Reid, J. (1984). The radical outliner and the radical brainstormer. *TESOL Quarterly*, 18(3), 529-534.
- Robinson, E. P. (1978). *Effective study* (6th Ed.). New York: Harper and Row.
- Shennan, M. (1991). *Teaching about Europe*. London: Cassel.
- Strategies of divergent thinking* (2014). Retrieved from <https://www.slideserve.com/necia/what-is-the-difference-between-divergent-and-convergent>.
- Vygotsky, L. S. (1987). *Thinking and speech*. New York: Plenum.
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes* / M. Cole, V. John-Steiner, S. Scribner & E. Soberman (Eds.). Cambridge MA: Harvard University Press.

