

Learners' Contextual Behaviour as a Gateway to Understanding Their Emotional Psychological Type.

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Abstract

The paper reviews the application of the method of ECRAL analysis in an educational environment and looks into its findings on learners' contextual behaviours. It focuses on the correlation of learners' emotional psychological type and their behaviour in a given context. The paper further tackles the educators' response to the behaviour in question and its appropriacy with reference to the context.

The subject falls into the area of Emotional Intelligence, which deals with the ability of a person to manage and control their emotions as well as identify and appropriately respond to the emotions of others, whereas the findings, presented in the paper, concentrate on the development and implementation of learner-teacher interaction patterns aimed at encouraging educationally productive and emotionally balanced learning environment.

The patterns proved effective with small and medium-sized learner groups (4-15 learners) in the context of a language and general education schools, with gradual improvement of both: communication between the teacher and the learners, and the academic performance of the latter. However, further observation, including that of bigger learner groups, and its analysis is required to develop detailed methodological guidance for educators.

Keywords: ECRAL Analysis; Education; Emotional Intelligence; Interaction Patterns

1. Introduction

The method of ECRAL analysis was developed by Igor Vilenskii, a specialist in applied psychology and preschool education and a group of scientists in 1992. The abbreviation stands for Emotional Control of Reductive-Associative Logic Analysis and the method itself represents a fusion of a variety of scientific fields, including but not limited to psychology, medicine, information technology and education. Generally, it represents one of the contemporary developments into inductive logic. (Vilenskii, 1994)

The inductive logic approach is a way to generalise a certain experience and draw conclusions with highly reliable accuracy. Even though it uses a specific system of objective indicators, it is not an absolutely accurate evaluation. Nevertheless, this evaluation possesses a high potential for valid results, that allows for its application in the areas where deductive methods are impractical. (Vilenskii, 1994)

The method of ECRAL analysis relies on identification of and differentiation between six emotional psychological types (hereinafter EPsT): ‘distrustful’, ‘conservative’, ‘competitive’, ‘doubtful’, ‘truth-seeker’ and ‘patron’, and has a number of applications including psychotherapy (Vilenskii, 1994), improvement of cognitive abilities and talent development (Trojan, Zolotoriov & Prodius, 2000), and in the psychology of interpersonal relationships, as it allows foreseeing the participants’ actions in a certain situational context as well as drawing up psychological portraits of an individual with little information available. (Vilenskii & Keredencer 2005)

1.1. The Method of ECRAL Analysis in Education

As a way to develop and improve cognitive abilities within a school context, the method of ECRAL analysis was first implemented in the period between 2007 and 2013 throughout three not consequent years and involved 311 teenage learners studying in groups of 10 to 30. Within three months the students were trained to identify their emotions, control the intensity of the emotions, learn to concentrate and stay focused for longer periods without feeling tension or fatigue. More than 75% of the students demonstrated considerable improvement in their reading skills: pace, the amount of information processed and memorised, ability to recall and retell what was read after long periods of time since it was read.

Such results draw the attention of the language teaching methodologists, who offered the specialist of ECRAL analysis to co-work on the development of a methodology to apply it in the process of language acquisition. It was first implemented in the process of a foreign (English) language acquisition in 2017 and as a methodology presented in 2018 (Dombrovska & Skubashevskaja, 2018). One of the methodology focus points was the correlation of an EPsT of learners with their spatial and interpersonal learning preferences (Tab. 1.)

Table 1. Correlation of Emotional psychological types with their learning preferences

Emotional psychological type	Learning preference
‘Distrustful’	Individual work, in pairs or small groups
‘Conservative’	Individual or pair work
‘Competitive’	Individual work

Emotional psychological type	Learning preference
‘Doubtful’	Pair or group work
‘Truth-seeker’	Group work, as a leader
‘Patron’	Group work, as a facilitator

This observation became a backdrop for the development of the presented methodology based on the psychology of interpersonal relationships and learners’ contextual behaviour which is induced by the students’ EPsT.

1.2. The Role of Emotional Psychological Type in Framing Contextual Behaviour and Interaction Patterns

A person, bearing certain character features, behaves in a certain way in different situational contexts. A person’s psychological type is the combination of peculiarities of a personality, which are reflected in their actions emerging from the tasks created by society - a manifestation of oneself in one of the primitive values - power, money, fame. To achieve it there are two ways, assertive, i.e. overcoming challenges and passive, i.e. absence of the necessity to pursue, but rather retain what is already in possession. As the result, the six basic psychological types, characterised by a certain central emotion, are formed. (Vilenskii & Keredencer 2006)

A person’s EPsT manifests itself in the interaction patterns of this person with the environment and people around them. Their stability is reflected in their psychological-emotional balance and the central emotion, which is a person’s state of peace of mind alongside the balance of their impulsive aspirations. (Vilenskii & Keredencer 2006)

It is natural for a human to protect themselves in every possible way from situations threatening emotional comfort. People tend to avoid negative emotions, shifting the focus to positive ones. As the result of the avoidance, each person develops a set of individual emotional reactions, bearing protective function, which we subconsciously tend to resort to in a variety of everyday situations. According to the results of research conducted by the Scientific Centre of ECRAL analysis in the 90th of the previous century, the set may contain one or two reactions, emerging more often than others. (Vilenskii & Keredencer 2006)

However, as a rule, a person forms only one emotion of self-defense, which, within the method of ECRAL analysis, is called ‘central emotion’. The central emotion is a part of a pattern consisting of four primary emotions: fear, joy, anger and sadness (the first three of which could be central) in a variety of combinations and with different intensity levels. Each pattern forms inherent character features and influences behaviour patterns, which allows a trained observer to identify a person’s EPsT with high accuracy (Vilenskii & Keredencer 2006)

Being able to precisely identify the EPsT of a person does not only rely on logical knowledge, but also experience. Every person, as a member of society, has to imitate their affiliation to other psychological types to some extent. A necessity to perform complex social roles and conform to social patterns makes a person develop certain habits and behave in a way that allows for their primary EPsT to be wrapped by constantly emerging ‘cultural layers’, which hinders logical perception. The person thus becomes somewhat protected, however, rids themselves of development and progression to other levels of perception, as they concentrate on keeping the false image. (Vilenskii & Keredencer 2006)

Identification of a person's EPsT is possible, mainly, by observing their uncontrolled, natural reactions: gestures, body language, voice timbre, reaction to external signals, etc. The focus is not on what a person is trying to present as their image, but slight discrepancies in the image that escape through studied voice, controlled mimics, trained walk and manner, portioned emotions. To be able to notice such micro-signals of natural characteristics in other people, one should be highly attentive to themselves. The ability to identify the EPsT relies on the appropriate attention setting and development of observation skills (Popov & Vilenskii 1995).

2. Teacher-Student Interaction Patterns in the Context of Emotional Psychological Types

Application of ECRAL analysis method involves both identification of EPsT and alteration of the interaction pattern by the subject of the identification in order to build constructive communication that is rid of negative emotional clashes. In order to develop the skill, one needs to be trained by the specialists of ECRAL analysis to decipher their intracorporal sensations as reactions to their and other people's emotions and adjust their behaviour appropriately. Typically, the process requires allocation of a several months period and is confined to the training facility.

The interaction methodology described in the paper, having as its aim facilitation of the educational process in terms of the learner-teacher communication and interaction as well as learners' progress, should allow for almost immediate application within the school context and implies observation of learners' behaviour as well as adjustment of teachers' reactions to it within a given context.

In the context of the school environment, the variability of interaction patterns is constricted by a number of situations typical for it, which provides teachers with imminent and explicit information. When given a description of a student's behaviour in any given situation, a teacher can almost immediately name a student of theirs with such reaction or behaviour. This empirical ability has become the foundation for the development of the method presented in the paper.

In 2019, the authors drew up a guidebook on the subject for school teachers who work with teenage students. Five situational contexts were chosen (Fig. 1), followed by a description of typical learners' behaviour in the given situational context based on their EPsT. Further on, the authors described appropriate teachers' responses to the behaviour patterns, which would facilitate the positive outcome of the interaction. The guidebook (sample in Annex 1. Tab. 3) was then introduced to two groups of teachers at a 2-hour training session: 5 teachers of a private language school (teaching groups of 4-8 teenage students) and 16 teachers of a private general education school (teaching groups of 12-14 teenage students).

Context 1: Behaviour during a class (interaction with peers, the teacher)
Context 2: Behaviour outside a class (interaction with peers, teachers)
Context 3: How a student reacts to new information
Context 4: How a student reacts to making a mistake and being corrected
Context 5: How a student behaves during/deals with a test

Figure 1. Situational contexts in the school environment

Volunteering teachers were offered to follow the guidebook for three months and return with the outcome and their comments. Within the period, to gradually introduce the method into

their practice, the teachers were asked to first closely observe and make notes on the interaction patterns of chosen students (1-2 from any particular class) and identify their EPsT by comparing their observations against the guidebook.

For each identified case, the teachers followed the guide to adjust their responses to the students' behaviour in given situational contexts and noted down:

- what the situation was;
- how the teacher responded;
- how the student reacted to their response;
- if they would say the interaction had a negative, neutral or positive outcome.

The teachers were requested to make notes on 3 (minimum) instances for each student in each situational context throughout the period. The notes allowed for the teachers to observe and compare the changes in the interaction patterns with time, and later during an interview at the end of the three-month period comment on their observations, conclusions and thoughts on the efficiency of the method.

By the end of the period, 14 teachers (5 from the language school and 9 from the general education school) had been using the guidebook and returned with the observations, which they shared at an interview based on the following questions:

1. How many students did you focus on?
2. What criteria did you use to choose the students?
3. How many students were you able to identify EPsT of?
4. Was it difficult to identify the EPsT and why?
5. How challenging was it to adjust your responses to the students' behaviour?
6. Did the interaction with your students improve?
7. Did the academic performance of your students improve?

According to all teachers, they first concentrated on a few students with whom they had the most issues in terms of building rapport. However, having started closely observing the students, they noticed similarities in their situational behaviour with that of some other students and naturally proceeded to adjust their responses to the latter as well. As the result, the number of students the teachers focused and made notes on exceeded the expected maximum of 2 for each teacher and constituted a total of 44 students for 14 teachers. Additionally, the teachers admitted that by the end of three months into the application of the described interaction patterns, they had become more aware of their reactions to the behaviour of all the students in their classes.

Based on the teachers' replies, the main difficulties with the identification of EPsTs were caused by some similarities in the descriptions of the types, which may have resulted from learners having the same central emotion (Tab. 2.) or caused by the students' involuntary urge to affiliate with another EPsT to fit in. Despite the difficulties, due to the variety of situational contexts, according to the teachers, they were confident that they had collectively correctly identified EPsT of about 80% of their students. For the rest of the students, the teachers could not decide between any two of the six EPsTs and commented that such students showed either one or the other interaction pattern in the same situation from time to time, which complicated the identification.

Table 2. Correlation of central emotions and EPsTs

<i>Central Emotion</i>	<i>Emotional Psychological Type</i>
<i>Fear</i>	<i>'Distrustful'</i>
	<i>'Conservative'</i>
<i>Joy</i>	<i>'Competitive'</i>
	<i>'Doubtful'</i>
<i>Anger</i>	<i>'Truth-seeker'</i>
	<i>'Patron'</i>

(Vilenskii & Keredencer 2006)

With regard to the adjustment of the teachers' responses to the students' behavioural patterns, most teachers noted that it was less challenging than they had expected and admitted that the responses described in the guidebook helped them reflect on their experience interacting with the students as well as recognise previous instances of their variable reactions depending on which students they were interacting with. A few teachers, however, said that adjusting was challenging at times as they had to concentrate on suppressing their immediate reaction, which may, admittedly, be the result of the peculiarities of their own EPsT.

When asked whether adjustment of the reactions facilitated the improvement of the teacher-student interaction on a student-by-student basis, the answers were 'slightly improved' - 52% to 'noticeably improved' - 37%. With the rest of the students (11%), the teachers did not observe any changes.

As far as the students' academic performance is concerned, although within the period of three months it did not reflect on grades, the teachers noted that the students with whom they had improvement in interaction showed more attention, higher concentration levels and became more involved during a class.

Although within the context of the schools taking part, the method received favourable feedback and subjectively brought about positive changes in the interaction patterns between the teachers and the students, due to the low number of participants and relatively short application period there is still insufficient data to draw definitive conclusions on its efficiency.

Additionally, the teachers worked with relatively small groups, 4-14 students, and only focused on a few students, which questions whether the method can be applied when working with a bigger number of students. Although there generally does not seem to be a necessity to focus on every student in a group, taking into account the variety of interaction situations teachers may find themselves in, the possibility to apply the method in the context of more numerous groups should be addressed in the future.

Due to the professional necessity to adapt to different situations within educational contexts, most teachers were comfortable adjusting their responses to the students' behaviour. However, when following the guidebook, teachers, bearing their own EPsT, are required to be able to adjust their responses to all six EPsTs, which may pose an emotional challenge as they have to constantly monitor their natural reaction.

Finally, based on the comments of the teachers during the interview, a number of adjustments should be done to the content of the guidebook as well as the process of implementation. As far as the content is concerned, the descriptions of the interaction patterns, both students' behaviour and teachers' reactions should be further detailed and provide clearer action points. Organisationally, the teachers noted that clear guidelines on the process stages, use of observation templates/journals and an additional session with the specialists of ECRAL analysis a month into the implementation would facilitate the process.

3. Conclusion

Having the psychology of interpersonal relationships as one of the areas of its application, ECRAL analysis focuses mainly on training individuals to decipher their intracorporal sensations and by doing so identify and become aware of their own and their interlocutor's EPsT as well as situational emotions. The identification has as its purpose the adjustment of reactions and behaviour in order to build effective communication. In the school context, although beneficial, such application of the method poses a challenge as it would require allocating considerable time to training all the students and teachers.

On the other hand, the ability to observe, analyse and make conclusions based on people's uncontrolled, natural reactions: gestures, body language, reactions to external signals, as an integral part of the method application grants an outstanding opportunity to facilitate learner-teacher interaction without the extensive training. As the school environment provides a certain number of clearly identified contexts in which each student would behave in a distinctive way stimulated by their EPsT, methodological guidance with a detailed description of such behaviours and corresponding appropriate teachers' responses can make way for developing emotionally and educationally favourable interaction patterns.

Testing the method in the context of the language and private general education school brought commonly positive outcomes. However, due to a limited period and the number of participants involved, there is no sufficient data to draw reliable conclusions. Thus, the current methodological guidance and procedures require further development and verification by practical application in a variety of educational contexts.

Annex 1.

Table 3: Guidebook sample for EPsT Distrustful

Emotional Psychological Type: Distrustful	
Context 1: Behaviour during a class (interaction with peers, the teacher)	
Student's behaviour pattern	Teacher's response
<ul style="list-style-type: none"> - main behaviour pattern - self-defense, resistance; - if they know the material, they can challenge the teacher; - observative, quite often use the knowledge they have to find weak points in others to use as a protective device; - low oxygen levels in the classroom (usually 	<ul style="list-style-type: none"> - 'Distrustful' do not go against the group, so arrange collective work to reduce the level of resistance of an individual: project work, group work; - when you prove yourself as a professional, they will be your most eager supporters; - as they see weak and strong sides of tasks, praise for having noticed, even if they

Emotional Psychological Type: Distrustful	
Context 1: Behaviour during a class (interaction with peers, the teacher)	
Student's behaviour pattern	Teacher's response
<ul style="list-style-type: none"> by the end of the class) can increase the level of aggression level; - often provoke others to disrupt a lesson, though do not do it themselves; - resistant to accept a failure. 	<ul style="list-style-type: none"> commented in a sneering manner; - ask them to concentrate and search further, develop the idea; - do not praise them if there is nothing to praise for, they will find it suspicious.
Context 2: Behaviour outside a class (interaction with peers, teachers)	
<ul style="list-style-type: none"> - may be loners outside the crowd; - boys are prone to be bullies. 	<ul style="list-style-type: none"> - let them know that they can be an example for others to follow, engage them in collective work to have them feel like a part of a group; - their empathic abilities are highly developed, so if you stay patient with their aggressive flashes and keep a positive attitude, they will start reacting in the same way by copying the behaviour.
Context 3: How a student reacts to new information, material	
<ul style="list-style-type: none"> - stay quiet, accumulate the information which later can use as a pressure system; - perceives the information in small portions; - may be looking around as are more interested in studying the reactions of other students to the new material, but not what the teacher is saying. 	<ul style="list-style-type: none"> - put the information across as simple and as clear as possible; - do not generalise, but provide details and logical connections; - often remind them to stay focused and attentive.
Context 4: How a student reacts to making a mistake and being corrected	
<ul style="list-style-type: none"> - will try to wriggle out and find an excuse; - do not accept reproach. 	<ul style="list-style-type: none"> - provide additional explanation and give them a chance to correct themselves; - say 'you might have missed it when I was explaining' rather than 'you didn't understand'.
Context 5: How a student behaves during/deals with a test	
<ul style="list-style-type: none"> - will copy from other students, but will not let other students to copy from them; - if they do not know the answer, will skip it ('I'll wriggle out of it somehow') 	<ul style="list-style-type: none"> - make sure they do not copy other students' work; - remind them of a moment when the material was learned, - insist that they can remember everything without relying on others; - support but do not praise.

Acknowledgment

This paper is an output of a pilot project on practical application of the ECRAL analysis method in education with the focus on students behavioural and interaction patterns induced by their EPsT. The authors would like to express their gratitude to the management and methodological department of Daily Language School for initiating and supporting the project. Special appreciation goes to the language school and general education school teachers who volunteered and actively took part in the project.

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