

MEASUREMENT IN SCHOOL

Executive Summary

Our unique “Word & Colour” analysis of the Educational process diagnoses three separate but mutually dependent areas, which are;

1. The effectiveness of Teaching and Learning.
2. The Interplay of Relationships within the school.
3. The Behavioural Risks within the school.

The appropriate mutual interaction of these three areas within the school provide for high quality skills and development of the competencies of students.

Our measurements can accurately measure the current effectiveness of teaching and learning methodologies within the school to assist with predicting the future overall performance of the school at an early stage. Preventative action can be employed in areas of identified concern prior to fire fighting actions.

Measurements accurately highlight the current interplay of relationships within the school, at all levels of management, teachers, classroom assistants and administration staff, effectively producing a complete picture of relationships within the school environment.

We also measure and identify behavioural risks within the school, and if these risks are being managed in a pre-defined way. All pupils, forms, and staff are accepted to have a level of risk without which the overall performance of the school will not be satisfactory. Management of these risks is presented around the level of risks, pastoral care and pupil acceptance of rules.

EFFECTIVENESS OF TEACHING & LEARNING.

This methodology measures key school factors that have an influence on the effectiveness of teaching and learning in the school. It shows how big their influence is relative to each other, and compared to a general standard (in the Czech Republic) found during years of diagnostic testing.

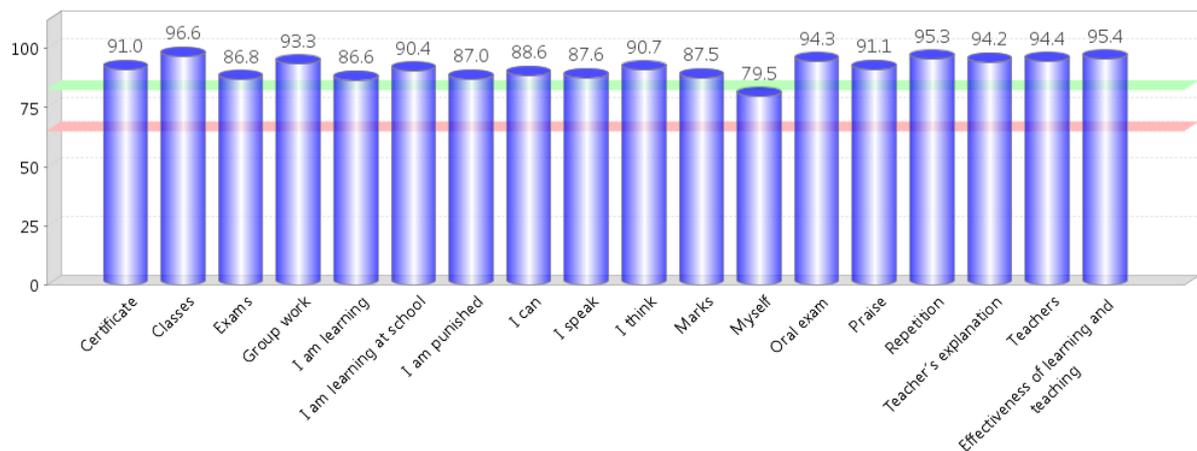
This methodology measures the following School factors and their influence on the effectiveness of teaching and learning;

1. The School built environment – specifically classrooms, workdhops, canteen, gym, toilets etc.
2. Teachers – how they interact with the specific classes, we measure the effectiveness of the current pedagogy, not the specific learning achieved. Results may take the form of “The teachers are regarded as good at supporting student’ learning independence. Students perceive the overall approach positively. This has a positive effect on the efficiency of teaching and learning.”
3. We measure the effectiveness of teaching and learning in specific subjects – e.g. Maths, Chemistry, and English etc. Some subjects may have gender effects, for example girls may not favour the sciences. Results may take the form of “Students are partially identifying with subject content during lessons are able to take satisfactory advantage of their skills”.
4. The management and evaluation of the teaching process has an effect on how the pedagogy may operate within the class, and we measure the influence of the evaluation on the effectiveness of learning. Results may take the form of “This school’ teaching methods are positively accepted and support the efficiency of teaching and learning.”
5. How school management tools, such as attendance measures, academic results etc. have an influence on the effectiveness of teaching and learning.
6. How career opportunities may influence the effectiveness of teaching and learning within the school. For example, if it is perceived that there are many opportunities with computer studies, but fewer opportunities with art, then this may have an influence on the effectiveness of teaching and learning.

In measuring the effectiveness of teaching and learning we utilise the following 'associative words'.

In the graph below the higher the value of individual items, the more influence they have on the effectiveness of teaching and learning in all subjects at your school, the smaller the value, the less influence. Hint: try to use words with high correlation values to form a sentence. For example if 'I can', 'Learning', 'Group Work' and 'Certificate' had high correlations then the sentence you could form would be, 'I can learn through group work to gain a certificate'.

In this specific example we choose, 'Classes', 'Repetition', 'Teachers' and 'Oral Exam' we would form the sentence, "I can learn through teacher led repetition in class and oral exams".



THE INTERPLAY OF RELATIONSHIPS

We measure 8 different scenarios within the interplay of relationships.

The Interplay of relationships supporting the emergence of students' key competencies:

1. Heaven's gate

This interplay of relationships is the most pleasant one. The class is ready to accept discussed rules, does not block teaching and learning, and even actively supports it. It is normal for the class to talk. The class is obeying the rules and it is not its intention to block the teacher or teaching by talking. If this is happening there are other causes than the talk itself.

2. Rose tinted Glasses

This interplay of relationships is uneasy for the teacher. There are clearly to be seen requirements and conditioning towards the teacher. The teacher clearly sees the pressure from the class in the conditioning of "how to learn and work". The class is not blocking the teaching in any way, but it is not able to accept the conditions from the teacher that would be inadequate (or the teaching style). The class usually asks for higher-than-usual tolerance and respect for its conditions and requirements. If the teacher insists on his model, the class can easily resign to a teaching and learning style, which has an adverse effect on teaching and learning.

3. Truth bulldozer

This interplay of relationships is very hard for the class. The communication from the teacher is uncompromising, intolerant, and with no respect to the abilities of the class at all. The class is presented with the teaching, learning, behavioural, performance, evaluation and social rules, without discussion. The teacher is not blocking the class activity, (it is asked for) if the class accepts the conditions and the teaching style. This interplay of relationships is the "authoritative style", which diminishes individual creativity and does not allow for an authentic relationship between the teacher and the class.

The Interplay of relationships that significantly lower the emergency of skills and key competences:**4. War valley**

This is a mutually aggressive, full of conflict interplay of relationships. It is not stable and it lasts only for a short period of time. Very often it is this interplay that is diagnosed as bullying. It is a struggle between the groups inside the class, which is supported by the immense teachers' pressure on accepting his conditions. Both sides only show their views, and the effectiveness of teaching and learning is damaged. The teacher can usually not find solutions and uses extreme conditions.

5. Mount Everest

This interplay of relationships is hard to bear for both sides (the teacher and the class). Communication between the parties is very difficult. The class does not produce activities, that would have adverse effect on teaching and learning, but it permanently exerts pressure to change the conditions. The teacher is mostly under high pressure and requests for tolerating different conditions. The class does not have a common feeling of success.

Interplay of relationships, counter-productive for the emergence of skills and key competences of the students:**6. Defence in the trenches**

In this interplay of relationships the class is blocking the teachers activities by manipulative or substitute conditioning, which makes it unable for the teacher to have influence in the teaching. Effectiveness of teaching and learning is adversely affected. The class does not give any sign of effective skills emerging. Information can be gathered by single individuals, but not in public. The teacher usually shows his / her underestimation of the human and performance quality of this class. From real life we can see, that this occurs mostly in classes, where there are more under-performing students, who have been placed there "in order to make teaching in other classes easier". The real effect is that it discourages even good teachers.

7. Bulldozer of anger

This interplay of relationships is aggressive from the teachers' side. It takes place in constantly negative and enforcing tension (from the teacher). The teacher pushes all performance, evaluation and social rules, uses punishing models and underestimating of the class performance, even individuals within the class.

The class activities concentrate upon blocking teachers' activities. This adversely affects the effectiveness of teaching and learning. Good results are provided only under extraordinary pressure and threats from the teacher. Statistically, this interplay of relations is very scarce, but the more important, when diagnosed that it is recognised.

8. Gate to hell

In this interplay of relations the class ignores the teacher. The communication takes place as if parallel without interaction. Class is inherent to the teacher, unable to influence each other in any positive way whatsoever, as their life value orientations differ totally. This interplay of relationships is very stable and unchangeable. The effectiveness of teaching and learning is low. The class does not accept negative performance evaluation. It can happen, that the class „just sits there“. This model is often used in unplanned substitute teaching.

BEHAVIOURAL RISKS

We measure 6 different risks within school.

Everyone has a certain degree of initiative. This allows us to get excited or become anxious, to take risks for our goals, to take action, to submit to assessment, to belong to a group, or to feel good and be relaxed. It's about how much of the individual risk factor we have (genotype) and how we use it (phenotype).

- 1. Elated or anxious:** This is the need to desire something, to be enthusiastic about something, and to quickly and eagerly have the desire satisfied. If uncontrolled, highly passionate behaviours could result in extreme activities forfeiting restraint. On crossing a certain threshold they may appear uncontrollable resorting to addictive behaviour.
- 2. Taking risks:** The need for risk, to benefit from the adrenalin rush, and the need to push your limits to how far you can go. On crossing a certain threshold they may appear uncontrollable resorting to extremely risky behaviour.
- 3. Taking action:** The need to perform, to make something, to create something, to move something, or to do something. To satisfy this desire requires some action. It may also manifest in excessive reaction, signs of irritation, impulsiveness, or violent actions. On crossing a certain threshold they may appear uncontrollable resorting to destructive aggression.
- 4. Submission to assessment:** The acceptance of self and peer assessment of social status with self generated groups. The ability to inspire and learn from one's surroundings. An acceptable and effective way to pick up ideas, knowledge and opinions from others. On crossing a certain threshold they may appear professing others values and plagiarism.
- 5. Social acceptance:** The need to be accepted, to belong to a group, is approved by members resulting in feelings of inclusion and protection. On crossing a certain threshold they may appear uncontrollable resorting to excessive nervousness.
- 6. Regulating feel good factors:** The feel good factors resulting from the way we realise or fall short of one's initiatives. On crossing a certain threshold they may result in uncontrollable addictive behaviour.

THE METHODOLOGY

WORDS, COLOURS & SIGNPOST ANALYSIS

Introduction

This technique is based in the well established Lüscher-Colour-Test invented by Dr. Max Lüscher in Basel, Switzerland, see references 1-20 below.

The methodology is defined as follows; by submitting to any type of impulse, a picture, a video, a sound, etc. we provoke an association in the person between the impulse and the mind, which cannot be consciously influenced, ignored or interrupted. The person produces this association immediately. So, the association occurs in every case immediately after the impulse is submitted.

Sometimes automatic associations can then be rationally corrected, for example using one's previous experience or having an expected outcome. The person asks a question such as:

- What is the proper reaction to this?
- How do I answer this 'correctly'?
- If I say this, what will the consequences be?

If, however, we deal with "uncensored" authentic associations, we acquire a very different, deeper and more wholesome view.

- For example, if we ask the question 'Do you like your manager?' you may wish to answer 'No'. However, to rationally correct this answer you may consider, how do I answer this 'correctly'? , and what will the consequences be? Therefore the person may answer 'Yes' to the question 'Do you like your manager?' This methodology bypasses the rational.

The "Colours & Words" method is one of the few methods which deal with measuring and evaluating these "authentic uncensored associations". Using this method we can submit impulses in various forms (words, pictures, etc.). These words provoke associations to which the person is instructed to react via selecting three colours. After evaluating their answers and comparing them with the norm, we can describe the psychological characteristics of their association quite precisely.

How do we achieve this with eight colours, or more precisely eight coloured spheres? Colours are not used in this diagnostic method to work with the symbolic meaning of colours, as people often think. Colours are not employed to represent blue, red, yellow etc. as such. The reason for using colours in detecting associations and their psychological dynamic in a complexly structured psychological field is that each colour represents a part of a physically and exactly measurable frequency field of colour. As a result, people are able to distinguish with the help of matching colours.

By the analysis of their associative links, the person provides experts with basic material, enabling them to describe the dynamics of his/her inner way of experiencing and processing the world.

The on-line sensor of colour word associations is simply an instrument used to capture original associations with the help of colours, evaluate them and transform them into results, parameters and conclusions. Even though it may look like "playing with colours", the psycho diagnostic method of colour word associations functions on a neurobiological basis.

The technique of colour word associations (CWA) is a combined projective technique using a palette of eight colours and calibrated sets of words, which can be adjusted according to the focus of a certain problem. Monitoring these associations is possible thanks to a computer program, the so-called sensor. It is a radically new attitude to diagnostics and intervention to those previously known in classical psychology or psychiatry, where colours have been used in reputable psychological methods for a very long time (knowledge of colours has been employed by ancient Chinese and Sumerian philosophers, by Joseph Wolfgang Goethe, Max Planck and most prominently by Dr. Max Lüscher (author of the "The Lüscher Colour Test").

Lüscher first pointed out the trans-cultural transferability that the colours show. This assumption was then additionally confirmed by the most recent studies of the human brain, which registered extensive webs of neurons working on processing colours, time and space that are not dependent on the cultural environment in which the individual or the group lives.

This knowledge served as inspiration for a team of Czech experts led by psychologist Jiří Šimonek, who has spent his life studying colours and colour word associations. The result of over forty years of psychological research in this area is the technique of colour word associations together with the on-line sensor. Due to its original synergic connection of interdisciplinary methodological and methodical sources and grounds, the colour word association is rightly ranked with progressive psycho diagnostic methods of the new generation.

This combined technique is one of the so-called blind techniques. This means that the respondent has very little opportunity of adjusting his/her answers to the expectations and opinions of others. During testing, he/she is not limited with the quantity or quality of available information or the level of his/her rational thinking. This is because the respondent uses association mechanisms, which are almost uniform in all people.

The technique of colour word association went through many stages from picking colours to picking coloured cards and working with imaginary colours as well as using the three dimensional colour spheres encircling a word. This is the layout we now use in our on-line sensor.

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