We _are_ relationships [1]

… on facilitating second language acquisition[2]

Almost all people develop an ability to speak and understand language. Unless the person has some severe dysfunction, or is deprived of beeing raised within a community of people – the person will develop the ability to speak and understand spoken language.

This ability is innate to humans. One argument for this is that within any household all the persons acquire the ability to speak and understand, but none of the pets do. No matter how hard we try to teach our dogs and cats spoken language, they will not acquire it.

Why is this so? I believe there must be an operating principle in every memeber of the human species. That the person has a tendency to aquire an understanding of, and an ability to, speak a verbal language. A mother tongue we call it. It could also be referred to the father, but most often is the stereotype of the mother a person who is warm and empathetic, correcting the child with care when s/he makes linguistic mistakes. She is often conceived as the one encarnating the facilitative attitude that best enhances the child's acquisition.

This article will look into how children acquire their first language, how this acquisition process basically takes place. This means we will look at how this tendency in the child is, as well as how the efficient facilitative environment surrounding children are. Then I will go on with an assertion that the same kind of process to a large degree can be emulated for children, and even adults, when it comes to second language acquisition.

The actualizing tendency

The tendency that every child has to acquire their mother tongue, was implicitly described by Carl Rogers. He was the founder of the person centered approach, a way of being together in order to enhance growth in the other, and he discovered a force in every living organism to fulfill the organisms full constructive potential. He called this **the actualizing tendency**.

> "There is in every organism, at whatever level, an underlying flow of movement toward constructive fulfillment of its inherent possibilities. There is a natural

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[1] "We are not only _in_ relationships – as persons, we _are_ relationships". Peter Schmid in Cooper et al, 2013, p 68, discusses the relationship aspect of Rogers' approach, "the relationship dimension is mirrored in concepts such as the person as process

[2] This is a preliminary article, more like a set of notes for workshops in The Balearic Islands, March 2017. It is meant as background material for those workshops, and is not intended for publication in its current form. Some references are lacking, and the resoning is still to be developed further.

tendency toward complete development in man. The term that has most often been used for this is the actualizing tendency, and it is present in all living organisms. It is the foundation on which the person-centered approach is built." Kirschenbaum, 1989, p 380.

Rogers, who studied agriculture before becoming a psychologist, discovered this tendency in the potato cellar, where he saw the potatoes, in early spring after a long winter in the cellar, having developed long sprouts and "they reached toward the distant light of the window. The sprouts were, in their bizarre, futile growth, a sort of of desperate expression of the directional tendency I have been describing. (…) under the most adverse circumstances, they were striving to become." Rogers, 1980, p 118.

Just as those potatoes down in Rogers' bin in the cellar never would become potatoes, because they did not have the facilitating conditions – in the case of potatoes; water, soil and sunlight – people will be able to grow to their fullest potential if they can be in a facilitating relationship, where the facilitator provides genuineness (openness and self-disclosure), acceptance and empathy. Rogers initially established the principle of the facilitative relationship as one between a psychologist and a client, but later he found out that the facilitative attitudes apply to any relationship.

> Peter Schmid, in Cooper et al, 2013, p 69, states: "In person-centered anthropology, the basic dialectical axiom is the actualizing tendency – as the force of the individual – embedded in the interconnectedness and social nature of the person. Both strands of the axiom form the foundations of the understanding of personalization – of authentically 'becoming a person' (Rogers, 1961). It is important to be aware that self-determination *and* interrelatedness refer essentially to one and the same human nature, although we may view and experience these as different dimensions. *To regard the human as a substantial-relational being is what is meant by designating them as a person.* Authenticity is the process of balancing individuality and interrelatedness. This includes becoming the author of one's own life in responsibility understood as response-ability to oneself and others.

In this article, I shall develop a reasoning for why the Rogerian facilitative attitudes are so important for people's second language acquisition, as well as argue how these attitudes can be operationalized in the relationship between a teacher and a student, as well as what effect this might have on students' acquisition and the potential for unlocking any blocking of theirs, concerning language acquisition. I will reason how language – understood as the vehicle for conceptualizing oneself as an individual related to others is best seen as a process of acquisition, supported by more formal learnings by the individual. I will also spell out what the consequences regarding language as a world view has. Mainly, it means that if we can emulate the child's acquisition of the first language, we facilitate the acquisition of the second, third language, and so forth.

The fully functioning person

To be fully functioning was what Rogers considered being the aim for any person. In order to become fully functioning you need to be congruent, he stated. That again means that you have, at any point in your life an adjustment in your awareness to what you experience at an organismic level. When there is such an adjustment, you are genuine.

This also means that you know what you feel. You can identify the organismic flow that goes on inside you. According to Rogers you also need to be able to verbalize what you feel in order to be fully functioning. You need to adjust your communication to what is in your awareness. When there is such an adjustment, a congruence, between your awareness and your communication you are transparent. In other words you need to be know what you feel, and able to say what you know.

The three Rogerian facilitative attitudes

In order for a person to become fully functioning, which nobody is 100 % of the time, claims Rogers, the person needs to be in relationships with others who possess three basic facilitative attitudes. They are congruence, unconditional positive regard and empathy.

Empathy

Empathy is an attitude concerning the other. It is an attitude where you understand the other's internal frame of mind as if you were that other person, but without losing this sensation of 'as if'. In his later works Rogers defined empathy…

> It means entering the private perceptual world of the other and becoming thoroughly at home in it. It involves being sensitive, moment by moment, to the changing felt meanings which flow in this person, to the fear or rage or tenderness or confusion or whatever that he or she is experiencing. It means temporarily living in the other's life, moving about in it delicately without making judgements; it means sensing meanings of which he or she is scarcely aware, but not trying to uncover totally unconscious feelings, since this would be too threatening. It includes communicationg your sensings of the person's world as you look with fresh and unfrightened eyes at elements of which he or she is fearful. It means frequently checking with the person as to the accuracy of your sensings, and being guided by the responses you receive. You are a confident companion to the person in his or her inner world. By pointing to the possible meanings in the flow of another person's experiencing, you help the other to focus on this useful type of referent, to experience the meanings more fully, and to move forward in the experiencing. To be with another in this way means that, for the time being, you lay aside your own views and values in order to enter another's world without prejudice. In some sense it means that you lay aside your self; this can only be done by persons who are secure enough in themselves that they know they will not get lost in what may turn out to be the strange or bizarre world of the other, and that they can comfortably return to their own world when they wish. (Rogers, 1980, pp. 142-3)

Unconditional positive regard

Unconditional positive regard is an attitude concerned with the relationship between the facilitator and the other, or the therapist and the client in more psycotherapy language. Rogers claims that any person needs positive regard in order to grow, to signify adequately what they experience, and become fully functioning. Bozarth, in Cooper et al (2013, p 180) highlights unconditional positive regard (UPR) as 'warm acceptance of each aspect of the client's experience'. Positive regard occurs when the

client perceives that he or she is making a positive difference in the experental field of the therapist. (Rogers, 1959, p. 209)

UPR is about accepting the person as he or she is, with whatever issues the person may have. It also means that the person has whatever issue, but the person is not the issue. It may be helpful for the person in order to conceive that he or she has a certain issue, fear or rage, but that he or she is so much more than that. UPR, says Rogers, is related to attitudes like *warmth, liking, respect, sympathy,* and *acceptance* (highlighting added).

Congruence

Where empathy is mostly about how I can relate to the others' inner world, UPR is about my relationship with the other, congruence is about my ability to be myself and to express that self. Cornelius-White (in Cooper et all, 2013, pg 193) states that Rogers uses 'congruence' interchangeably with several other terms (for example real, genuine, transperent...). As described above, talking about the fully functioning person, the facilitator is congruent when he or she knows what she feels and, when relevant, says what he or she knows.

Cornelius-White, cites Bozarth as having spelt the three conditions out as 'functionally one'. Congruence has the metacondition of empathy and UPR, and Rogers recommends that the facilitators adjust their communication to their awareness in the relationship towards the client when they lose their empathy or their UPR. That is to say, that this may be the point of being congruent with the client, to say what one feels in the realationship.

The three Rogerian attitudes are often called the core conditions, and was originally spelt out as being between a therapist and a client, as we have seen in some of the quotations above. However, Rogers later discovered that the core conditions apply to any helping relationship where one person aims to facilitate any growth of another. I will give examples of this below, concerning children's aquisition of their first langue.

What do children do to acquire their first language?

When children are born they cannot speak, and when they are around five they can both understand and speak their mother tongue. Above, I implied that it must be the actualizing tendency operating in order to make any child acquire their language.

They are immersed in the language, they are surronded by it, have contact with their beloved ones, and they communicate with them from the very moment they are born. We *are* relationships, and to establish and maintain relationships, we need to communicate.

The kids take different sounds, manipulate them and experiment with them. Until the age of about one, children can discriminate between any producable sound by humans They manipulate these sounds, and before they utter any word, acquire the melody or the prosody of their mother tongue.

They also signify, making sense of the world, and their first words are typically 'mama', 'food', 'ball', often words with 'm' or 'a'.

They further immitate, repeat, and experiment.

Later on they extrapolate, and do hypothesis testing. This can be seen when they make mistakes of over-classification, like 'I goed out'. This mistake may be interpreted as a child who has acquired the idea that verbs in the past tense has the ending –ed. It should make us satisfied to see that children are on their way to acquire an implicit grammer of their own language.

How do children acquire their first language?

Earlier we have talked about the fact that children acquire spoken language, and that the actualizing tendency has programmed us to to be able to do eactly that. But how does the process of acquiring the specific language, the mother tongue, your mother's language?

By the time children are about one year of age, they have eliminated sounds, and prosodic patterns that are irrelevant to their mother tongue. They communicate with their close relatives, and before actually speaking they do what we call motherese. Children acquire the sound pattern of the language, and when they are about 9 months old, they make utterances, a kind of singing which is similar to the prosodic structure of the language they are immersed in. This is motherese. It is, without actual words, 'singing' sentences that sound like they are actual sentences in the language being acquired. So, Japanese children sound Japanese, Catalan children Catalan, just as Danish children sound Danish. In order to do so the Japanese children eliminate the sounds and sound patterns that may be relevant in Danish, but which are not in Japanese.

What they do about the sounds is that they take them in, and make them resonate in the body. What they do about things communicated to them is that they take it in to make sense of it, and finally they make sense of what takes place within them, what they feel and need, and find linguistically adequate ways of expressing that, that is according to the language they are acquiring..

Children's attitudes when they acquire their first language

Firstly children have no idea of the immensity of the endeavour. Luckily nobody tends to avert them that it takes a lot of work and effort, that it will take them about five years time to master the language. When they are corrected because they make mistakes, they have no issues with that, and their self esteeem is not diminished because of the trial and error they do in order to actually master their mother tongue. They don't take corrections personally.

Actually, acquiring a first language does not seem to be symbolized by the child as being work. Quite effortlessly, apparently, does the child do this acquisition. Joyfully does s/he become consitently more skilled in the art of understanding and expressing ideas, thoughts and feeling in the first language.

Acquisition and learning

Children do not learn their first language. We do not set up language training programs for toddlers, where we have a set curriculum for them to learn, text books to study, teachers who are concerned about what order the input should come, homework, lists of irregular verbs to be memorized, and so forth.

By learning I am referring to a **logical** process, where the learner needs to be motivated, where s/he does one thing at the time, s/he is concentrated, and then repeats in order to make sure the learnings are established. Learning takes place as a structured process, where the items to be learned are organised, portioned into digestible chunks, explained explicitly, and often controlled to make sure that the learnings have taken place.

Initiatives for learning often comes from outside the child, and is not a bad thing as such. I am not arguing against learning.

What I am saying is that the process of being able to understand and speak your first language is a process of acquisition. It is an **illogical** process. It comes with no formal instruction, the one acquiring needs to be motivated and needs to repeat. But, where learning requires concentration – doing one thing at the time, acquisition rather comes as a holistic, global input, the immersion, where the child gets a feeling of mastering, of being part of a community, and s/he makes sense about the world surrounding him or her.

Often, when we have acquired whatever issue, rule or organising principle, we know what is correct and what is not, we have a sensation that one thing is according to the rule and some other thing is not. However, we are frequently unable to state the rule explicitly, yet we know it is like that. Our acquisition of our own language and our own culture are good examples of what is acquired, not learned. It feels as if it is so natural, although, we know theoretically it is just one way, amongst many, of speaking and doing things. A colleague of mine referred to Turks needing to learn to speak Norwegian saying: 'It is so difficult in Norwegian. You have so many rules as to how you say things. It is much easier in Turkish. In our language we just say things as they are.'

From 1st to 2nd language acquisition

I am concerned about how people can most easily, painlessly and most efficiently master a foreign language. I have experienced that this task is possible. On the one hand, I lean on my own personal expereince, being bi-lingual from the age of 7, and later on acquiring several other languages with a diverse degree of mastering. On the other hand I base this assertation on experience with facilitating foreign language acquisition of Spanish, English and Norwegian for speakers with a variety of backgrounds.

I have come to believe that there are three different factors involved in order for an acqustion process of a second language to take place at all:

1. Emulating the children's acquisition of their first language. This leans on the fact that if you do master a language, your mother tongue, you have proven your ability to take yourself through the process. It is possible to do this again. Above I have outlined how that process is.

2. Identifying the attitudes children have when they acquire their mother tongue, as well as identifying the hindrances for the person in question to engage in an acquisition process. Hindrances are, first and foremost actitudinal. Concerning acquiring a foreign language, it is above all 'the inner critic' as well as 'fears of failing' we need to help the acquirer to cope with.
3. Establishing a truly facilitative environment around the person who is going to acquire a foreign language.

The Rogerian attitudes when facilitating children's language acquisition

How do the Rogerian attitudes materialize when it comes to facilitation of language acquisition?

Consider the baby or toddler in its stroller. The father looks at the toddler with a loving smile. This would be unconditional positive regard (UPR). Another example was when my youngest child was around two. He already spoke many words, simple sentences, but quickly, and not always very slowly or distinctly. His native language is Norwegian. My aunt and uncle were visiting us. They are both of Danish origin, having acquired Danish language as children, and in their late twenties they emigrated to Australia where they acquired English. There was absolutely no doubt that my auntie was of non-English origins when she spoke English. Those with an ear for accents would not doubt either that the origin was Danish. Danish is also sufficiently different from Norwegian in pronounciation in order for her practically not to understand a single utterance of Norwegian. Forthermore, she actually preferred English due to the almost 50 years' of practising it.

So, my little boy almost immediately connected deeply with my aunt. Everybody did. He would run up to her, and with great joy and enthusiasm would he tell her something that obviously was important to him – in Norwegian. She looked at him with that loving gaze (not understanding anything of the factual content of his communication), uttering things like: 'Oh, I see', 'Do you do that often?', 'Wow, that sounds intriguing!', So, you are really eager about that, aren't you?' – in Danish, which my toddler did not understand. Thus, neither of them understood a single factual utterance of what the other one was communicating. Still, they were communicating - at a procedural level. Auntie showed the attitude of empathy when she related to my toddler's emotional state, and UPR when she simply communicated back to him, relating to him, not being concerned of the factual content. My toddler, now 15, no longer remembers this, probably have no way to explicitly relate this experience, but very likely felt a lot of positive regard back then.

An example of congruence would be when a child says: 'I goed there yesterday', and the mother replies, with a calm, assertive, accepting voice: 'Oh, so you went there yesterday.' The congruence is in the fact that 'goed' happens to be outside the convention for what standard English is supposed to be, as well as the fact that it is probably good for children to express themselves according to the standard convention for English, when speaking English. Furthermore, English, like any other language is a world view, and the mother is conveying how that world view is, by correcting the child's factual/linguistic mistake.

It is also an example of UPR when it is communicated in such an accepting way. The child receives positive regard, probably perceives that 'I am ok', *and* I made a linguistic

mistake. On a meta-level, when this experience of positive regard is repeated over time, the child may acquire a conception of himself/herself as a person who is ok. I am ok, and it is ok to make linguistic mistakes. Hopefully the children also acquire an understanding that it is ok to make mistakes as such. Concerning the acquisition of languages, being 1st language or second language, I have come to realize that it is a requirement for the very acquisition to make mistakes. You are bound to make mistakes, meaning going outside the established linguistic convention, in order to experiment, to do hypothesis testing, as well as to acquire on a meta-level.

A short note on the contribution of Focusing for language acquisition

Eugene Gendlin (1974?), who discovered Focusing, was concerned about how the actualizing tendency works. How it operates or functions, so to say. He worked intimately with Rogers for eleven years, and concentrated on psychotherapy. He studied thousands of Rogerian therapy sessions, and divided them into two main groups. Those where the therapy worked, and those where it did not work.

Gendlin and his team set out with the hypothesis that the successful therapy depended on successful therapists. That is, upon something the therapist did. It turned out it was not about the therapist, but about what the client did. The client who experiences an unsuccessful therapy is a client who is only cogniting, only thinking, whereas the client who has a fruitful therapy is the client who feels, the client who lets the sensation pass through the body and, so to say 'tastes' the issue – and the is able to give this experience a verbal symbolization that fits for the client.

Along these lines I have come to believe that the succesful acquirer of foreign languages is the one who lets the sounds, the meanings and the feelings, needs as well as thoughts and concerns flow within him or her.

Gendlin found out that the actualizing tendency worked when the client was able to feel in the body some important wholeness of an issue and simbolize that correctly, correctly for him or herself. Symbolizing means to be able to verbalize. In order to verbalize you need language, and it must be 'your own language'.

Language

This means that verbal language is both a means and an aim. Acquiring a language is what is required to symbolize, and symbolizing is what is needed to be able to become yourself. In the sense of the symbolization process languages becomes a vehicle for symbolization.

In the sense of symbolizing as expressing yourself, who you are, being congruent, language is a world view. In Ferdinand deSaussure's words: 'Une langue n'est pas une liste de mots, mais une régarde du monde.'

Inductive and deductive approaches

When your task is to be helpful to students who need to master another language you, thus, need to be concerned about helping the student to acquire the language. Different approaches where the student learns rules, vocabulary, patterns, syntax, orthography,

pronounciation, and the like, may be helpful, but it can also cause unwanted negative effects. Where acquisition is an **inductive**, and largely illogical process, learning is a **deductive** and logical process.

As a teacher, you would therefore like to make your deductive approaches support and be supplemented by inductive approaches. The difference between the two can be seen in the following table.

Deductive	Inductive
Learning	Acquisition
Teaching	Facilitation
Solution	Problem
Answer	Question
Telling	Listening

Conclusion

Given that we have the evolutionary advantage of acquiring verbal language, the actualizing tendency will be operating to try to achieve that. I have tried to argue the importance in respecting that, and not work counterproductively. Thus, do not stand in the way of the actualizing tendency, facilitate it. Do so by establishing a constructive and supportive relationship to the one who is going to acquire the language.

Litterature

Cooper, M. M. O'Hara, P. F. Schmid, A. C. Bohart
2013   *The Handbook of Person-Centred Psycotherapy & Counselling*, Palgrave, Macmillan, second edition, Hampshire, England

Gendlin, E.   1974? *Focusing*

Kirschenbaum, H. & V. H. Henderson
1989   *The Carl Rogers Reader*, Houghton Mifflin Company, Boston

Rogers, C. R.   1959   A theory of therapy, personality, and interpersonal relationships as developed in the client-centered framework.

Rogers, C. R.   1961   *On becoming a person*. Boston, MA: Houghton Mifflin.

Rogers, C. R.   1980   *A way of being*, Company, Boston, MA: Houghton Mifflin.

Appendix 1[3]

Using mathematics to facilitate the acquisition of English

Suppose you have been teaching your students about 'The Golden Ratio' as a mathematics teacher.

You could then og on to make them watch part of 'Donald Duck in Mathmagic land', https://www.youtube.com/watch?v=PvceKeHl0Sg, perhaps divided up into chunks.

See then the example of a text, Appendix 2, explaining the whole concept of the Golden Ratio in English. Students could read the text, having the opportunity to ask questions about it. The text also entails exercises which the students can do.

Then they could do the exercises following on appendix 3. Please note that they are designed so that the emphasis is on comprehnsion, much more than on the students own linguistic production of English.

These appendixes only present the factual content of an exercise. The teacher is invited to reflect upon how to incorporate the Rogerian attitudes in order for a linguistic acquisition to take place.

Appendix 4 are some guidelines, considerations you are invited to consider. That document is in Spanish.

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[3] These exercises and the guidelines for facilitating the acquisition of English through Mathematics (in Spanish) have been elaborated by Belén Cobo Merino, teacher of Mathematics in a secondary school in Granada, Spain.

Appendix 2

THE GOLDEN RATIO

What makes a single number so interesting that ancient Greeks, Renaissance artists, a 17th century astronomer and a 21st century novelist would all write about it?

It's a number that goes by many names. This "golden" number, 1.61803399…, represented by the Greek letter Phi, is known as the Golden Ratio, Golden Number, Golden Proportion, Golden Mean, Golden Section, Divine Proportion and Divine Section.

It was written about by Euclid in "Elements" around 300 B.C., by Luca Pacioli, a contemporary of Leonardo Da Vinci, in "De Divina Proportione" in 1509, by Johannes Kepler around 1600 and by Dan Brown in 2003 in his best selling novel, "The Da Vinci Code."

With the movie release of the "The Da Vinci Code", the quest to know Phi was brought even more into the mainstream of pop culture. The good thing about "The Da Vinci Code" was that it creatively integrated fiction with both fact and myth from art, history, theology and mathematics, leaving the reader never really knowing what was true and …

Now, you are going to draw a golden rectangle:

Draw a square and mark the middle point of one of its sides. Then join this point with one of the vertex (corners) on the opposite side and add this length to the first side. Add the same length to the side of the chosen vertex point and connect the extensions with a straight line See the drawing below.
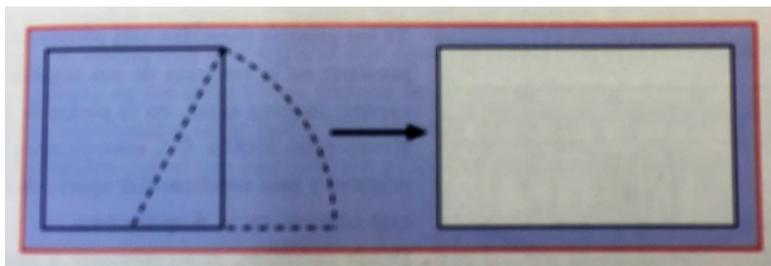
Now you have a golden rectangle

Another property of this curious rectangle is that if we place one rectangle on top of another one lengthwise, we get another bigger golden triangle.
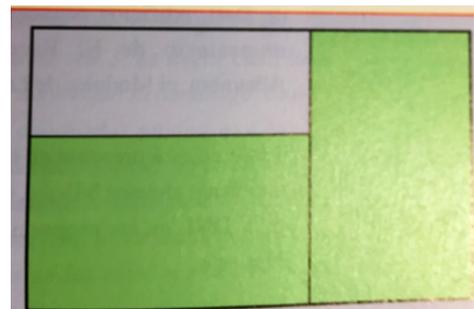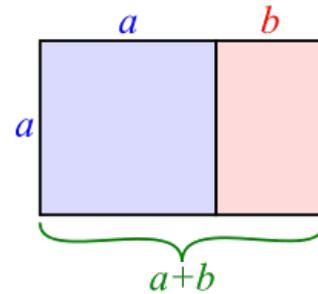
In mathematics, two quantities are in the **golden ratio** if their ratio is the same as the ratio of their sum to the larger of the two quantities. The figure on the right illustrates the geometric relationship. Expressed algebraically, for quantities a and b with $a > b > 0$,

$$\frac{a+b}{a} = \frac{a}{b} = \varphi$$

where the Greed letter phi ($\varphi \, or \, \emptyset$) represents the golden ratio. Its value is:

$$\varphi = \frac{1+\sqrt{5}}{2} = 1.6180339887 \ldots$$

Some twentieth-century artists and architects, including Le Corbusier and Dalí, proportioned their works to approximate the golden ratio—especially in the form of the golden rectangle, in which the ratio of the longer side to the shorter is the golden ratio—considering this proportion to be aesthetically pleasing. The golden ratio appears in some patterns in nature, including the spiral arrangement of leaves and other plant parts.

Mathematicians since Euclid have studied the properties of the golden ratio, including its appearance in the dimensions of a regular pentagon and in Golden rectangles, which can be cut into squares and smaller rectangles with the same ratio. The golden ratio has also been used to analyse the proportions of natural objects as well as man-made systems such as financial markets, in some cases based on dubious fits to data.

PENTAGRAM
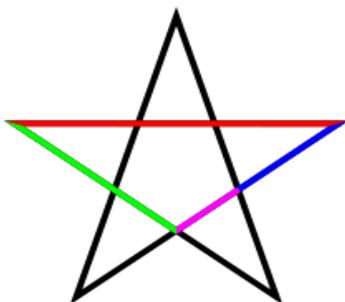
A pentagram colored to distinguish its line segments of different lengths. The four lengths are in golden ratio to one another.

The golden ratio plays an important role in the geometry of pentagrams. Each intersection of lines sections other edges in the golden ratio. Also, the ratio of the length of the shorter segment to the segment bounded by the two intersecting sides (a side of the pentagon in the pentagram's centre) is φ, as the five-colour illustration shows.

A pentagram has ten isosceles triangles: five acute and five obtuse isosceles triangles. In all of them, the ratio of the longer side to the shorter side is φ. The acute triangles are golden triangles. The obtuse isosceles triangles are golden gnomons.

Vocabulary test

This is a mathematical vocabulary test. You ought to read the definitions carefully, and mark the answers you think is correct. More than one answer may be correct.

Pi is:
1. A number with a lot of decimal figures
2. A number with an infinite number of decimal figures
3. A Greek letter without any meaning in Maths
4. A number which represents the ratio between the length of the circumference and its diameter

Phi is:
1. 1. A number with a lot of decimal figures
2. A number with an infinite number of decimal figures
3. A Greek letter without any meaning in Maths
4. A number which represent the ratio between two different lengths, called the Golden Ratio

A rectangle is:
1. A quadrilateral with equal sides
2. A quadrilateral with equal angles
3. A quadrilateral with the parallel sides equal in length
4. A quadrilateral with equal angles

A number ratio is:
1. A quotient between two numbers
2. A correct reason
3. A proportion of two quantities
4. The relation between the length of two sides in a rectangle

A vertex in a plane polygon is:
1. A length
2. A point where two consecutive sides join one another
3. A surface
4. Any point inside the polygon

In Maths, a pentagram is:
1. A set of five lines where you can write musical notes
2. A regular polygon with five sides
3. A regular five-cornered star
4. Anything with five different colours

An acute triangle is:
1. A triangle with an angle smaller than a right-angle
2. A triangle in which the sum of its three angles is 90º
3. A triangle where its three angles are smaller than a right-angle
4. A very intelligent triangle

An obtuse triangle is:
1. A triangle with an angle bigger than a right-angle
2. A triangle where the sum of its three angles is 180º
3. A triangle with its three angles bigger than a right-angle
4. A very unintelligent triangle

GUÍA DE ELABORACIÓN DE MATERIALES PARA CLASES BILINGÜES

Cuando un profesor se plantea preparar materiales y actividades para ayudar a sus alumnos a aprender su materia en una lengua que no es su lengua materna, se cuestiona algunas cosas sobre las que tendrá que reflexionar.

En primer lugar, la prioridad se establece en la materia a trabajar y no en la lengua que se está usando como vehículo de comunicación. Sin embargo, se puede preguntar, *¿por qué me planteo enseñar en inglés?*

Una primera respuesta podría ser una serie de razones administrativas que pueden mejorar las condiciones laborales. Se trataría de una motivación laboral.

Posiblemente exista una motivación personal. Esta nueva forma de trabajar puede ser un reto para el profesor que pretende introducir un cambio en su trabajo.

Pero también existe una motivación pensando en los estudiantes. ¿Qué puede aportarles esta nueva forma de aprender? ¿Qué pretende conseguir de ellos el profesor cuando les propone estudiar su materia en otro idioma?

En cualquier caso, se debe empezar pensando en los temas específicos a tratar y los problemas lingüísticos que puede llevar asociados, como el vocabulario específico, los contextos de comunicación que se van a utilizar,...

Cuando el alumnado se enfrenta a una actividad propuesta de cualquier materia, pueden surgir dificultades y el profesor se puede preguntar:

- ¿se deberán a la dificultad de la materia o será un problema de comunicación derivado del uso de un idioma distinto del habitual?
- ¿El nivel lingüístico del alumnado es una barrera para la realización de las tareas o, por el contrario, puede apoyar el aprendizaje?
- ¿El uso de otro idioma puede suponer un elemento que afecte a la autoestima del alumnado, en sentido positivo o negativo?
- Si aparecen bloqueos, ¿puede ayudar a superarlo el hecho de realizar una tarea inicial sencilla para fijar el vocabulario específico en el otro idioma?
- ¿Sería interesante repetir las actividades realizadas por los alumnos en español, tras haberlas realizado en inglés? De esta forma, tras comparar los resultados en ambos idiomas, los alumnos pueden reflexionar sobre sus errores y determinar son lingüísticos o de la materia.

A continuación se presentan algunas propuestas de actividades a modo de ejemplo, fruto de esta reflexión.

1. Fijar los criterios y estándares a conseguir. Hacer un listado de contenidos matemáticos a trabajar

2. Seleccionar una introducción del tema: vídeo, conjunto de fotos, un texto, un juego, una actividad manipulativa o de investigación a realizar por el alumnado en grupos cooperativos, una visita o salida extraescolar,…
Esta actividad debe ser el punto de partida para conseguir los estándares de evaluación propuestos a partir de los contenidos seleccionados. Debe ser, por tanto, una actividad que tenga alguna vinculación con lo anterior y sea más motivadora que empezar directamente a tratar los contenidos.
Esta será la primera oportunidad para que el alumnado entre en contacto con los contenidos matemáticos a trabajar. Se debe, por tanto, buscar alguna forma de que el alumnado preste una especial atención a los mismos.
Ejemplo: El vídeo de Donald

3. Seleccionar los contenidos matemáticos a destacar y preparar una batería de tareas que al alumnado debe realizar. Una propuesta de tareas es:

    a) Test de respuesta múltiple para asegurarse de que el vocabulario a emplear en adelante es conocido por el alumnado.
    Ejemplo: Vocabulary test

    b) Ejercicios de formato variado sobre vocabulario y conceptos matemáticos simples relacionados con los contenidos que se van a trabajar: enlazar conceptos con su definición, ordenar frases desordenadas, completar textos, rellenar huecos en una imagen en la que se nombran las distintas partes que aparecen,…
    Ejemplo: Practice vocabulary

    c) Ejercicios en los que se combinan la presentación de información relevante de los contenidos a tratar con preguntas relacionadas con los mismos y que debe contestar el alumnado
    Ejemplo: The Golden Ratio

    d) Batería de ejercicios de práctica sobre los contenidos matemáticos tratados, con algunas indicaciones a modo de guía o ayuda.

    e) Problemas o tareas a resolver que conecten los contenidos matemáticos con situaciones de la vida cotidiana, preferentemente y en la medida de lo posible, cercanos al contexto del alumnado.

Se propone también la posibilidad de repetir algunas de las actividades (especialmente las del tipo a, b y c) en español, después de haberlas hecho y corregido en inglés.

Podría ser especialmente interesante plantearse una combinación de tareas en los dos idiomas. Por ejemplo, trabajar algunas cuestiones más teóricas en español, ejercicios rutinarios de práctica en inglés y cuestiones especialmente complicadas hacerlo en los

dos idiomas, de forma que pueda servir de refuerzo de la comprensión por parte de los estudiantes.

Esta propuesta de trabajo, de planificación de actividades para enseñar una materia en otro idioma, nos lleva a preguntarnos, ¿hasta qué punto estaremos contribuyendo a la mejora del nivel de competencia de los estudiantes en la materia y en la nueva lengua usada?

Únicamente a modo de reflexión, apuntamos algunos de los logros que creemos que podrían alcanzarse:

- Mejora del nivel de competencia comunicativa
- Posibilidad de profundizar en los conceptos matemáticos desde diferentes enfoques, a través de actividades variadas
- Usando la excusa de la práctica de la lengua, aumento de la motivación ante la repetición de actividades que refuercen la comprensión de los conceptos, especialmente aquellos que se consideren más difíciles
- Posibilidad de reflexión de los alumnos sobre sus propios errores y sus posibles causas: dificultades lingüísticas, matemáticas, lectoras, de atención, etc.
- Percepción de los errores como una fuente de aprendizaje y no como algo de lo que avergonzarse, facilitando que los estudiantes interioricen una actitud relajada ante ellos.
- Mejora las oportunidades futuras de los estudiantes al darles la posibilidad de manejar la materia en los idiomas diferentes.