

FACULTAT DE PSICOLOGIA, CIÈNCIES DE L'EDUCACIÓ I DE L'ESPORT BLANQUERNA
ENGINYERIA I ARQUITECTURA LA SALLE
(UNIVERSITAT RAMON LLULL)

(UNIVERSITAT RAMON LLULL)

Màster en Formació del Professorat d'Educació
Secundària, Batxillerat, Formació Professional i
Ensenyament d'Idiomes

TREBALL FINAL DE MÀSTER
Curs Acadèmic 2019-2020

A literature review on bipolar disorder and how it
affects a second language acquisition for EFL.

Estudiant: Mireia Josemaria Carballo

Direcció: Laia Aixalà Pàmies

Data: 14/09/2020

Abstract

Bipolar disorder is part of an experience of the destruction of autonomy and loss of identity that penetrates deeply into the heart of the bipolar student. Thus, bipolar students are emotionally unstable, and their mood disorder hinders the progress of acquiring a second language.

Previous research on this topic focuses on clinical psychology or psychiatry. This paper explores the bipolar disorder, and the character traits of bipolar students to find a second language acquisition approach that helps their learning process.

This paper search for data from four search engines to interrelate the bipolar disorder and education between 2001 and 2019. This research also uses data from six interviews with a bipolar student, and a survey to conduct in the "Escola Oficial d'Idiomes Drassanes Barcelona".

Based on the previous analysis, the paper concludes which second language acquisition approach can ease the learning process of the bipolar students. The information provided in this paper, do not treat mental or learning disorders - this is not the objective of this work. The teaching methodologies and approaches can be used by education professionals, such as English teachers together with psychopedagogy professionals.

El trastorn bipolar forma part d'una experiència de destrucció d'autonomia i pèrdua d'identitat que penetra profundament al cor de l'estudiant bipolar. Així, els estudiants bipolars són inestables emocionalment i el trastorn de l'estat d'ànim els dificulta el progrés en l'adquisició d'una segona llengua.

Les investigacions prèvies sobre aquest tema es centren en la psicologia clínica o la psiquiatria. Aquest article analitza el trastorn bipolar i els trets del caràcter dels estudiants bipolars per tal de trobar un mètode d'adquisició d'una segona llengua que els ajudi en el procés d'aprenentatge.

Aquest document cerca dades de quatre buscadors de dades per interrelacionar el trastorn bipolar i l'educació entre els anys 2001 i 2019. Aquest treball de recerca també utilitza dades de sis entrevistes amb un estudiant bipolar i una enquesta per realitzar a "'l'Escola Oficial d'Idiomes Drassanes Barcelona".

Basant en l'anàlisi anterior, el document conclou quin mètode d'adquisició d'una segona llengua pot facilitar el procés d'aprenentatge dels estudiants bipolars. La informació proporcionada en aquest document no tracta els trastorns mentals ni d'aprenentatge; aquest no és l'objectiu d'aquest treball. Les metodologies i mètodes d'ensenyament poden ser utilitzats per professionals de l'educació, com ara professors d'anglès, juntament amb psicopedagogs.

El trastorno bipolar es parte de una experiencia de destrucción de autonomía y pérdida de identidad que penetra profundamente en el corazón del estudiante bipolar. Así, los estudiantes bipolares son emocionalmente inestables y el trastorno del estado de ánimo les dificulta el progreso en la adquisición de un segundo idioma.

La investigación anterior sobre este tema se centra en la psicología clínica o la psiquiatría. Este artículo analiza el trastorno bipolar y los rasgos de carácter de los estudiantes bipolares para encontrar un método de adquisición de un segundo idioma que les ayude en el proceso de aprendizaje.

Este trabajo busca datos de cuatro buscadores de datos para correlacionar el trastorno bipolar y la educación entre los años 2001 y 2019. Esta investigación también utiliza datos de seis entrevistas con un estudiante bipolar y una encuesta para realizar en la "Escola Oficial d'Idiomes Drassanes Barcelona" .

Sobre la base del análisis anterior, el documento concluye qué método de adquisición de una segunda lengua puede facilitar el proceso de aprendizaje

de los estudiantes bipolares. La información proporcionada en este documento no trata los trastornos mentales o del aprendizaje; este no es el objetivo de este trabajo. Las metodologías y enfoques de enseñanza pueden ser utilizados por profesionales de la educación, como profesores de inglés junto con psicopedagogos.

Key words

Bipolar disorder, family systemic, Psychology, Second language acquisition, English, The natural approach, Project-based learning, Systemic approach.

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1. Introduction

In this paper, we will explore the bipolar disorder and how it affects the emotional development. This paper considers it essential to understand the characteristics of the students before analysing, which second language acquisition approaches can help them in their learning process.

The number of students with bipolar disorder is low. Bipolar disorder accounted for 15% of mood disorders in children and adolescents (Soutullo et al., 2003). However, teachers have to know about it, and other mood disorders, to help students in their learning process.

This research provides data on the emotional development, the identity and the self-esteem, because it is the source of instability in bipolar students. Bipolars are emotionally unstable, and this is what affects their learning process. The paper explains how family dynamics impact on the emotional development, and the deficits it may cause on the person. The objective of the analysis is to find a second language acquisition approach that fosters the academic development, thereby reducing the emotional deficits and reinforcing the character traits of the bipolar student.

This paper analyses a couple of second language acquisition approaches for EFL in the search for teaching practices that can help bipolar students. The paper interrelates the content of both fields, and use instruments to fulfil the objectives and answer the research questions. This research used a survey designed for EOI students, interviews, and several search engines as instruments to collect data.

This paper aims to find a second language acquisition approach for bipolar students to ease their learning process. It is important to highlight that, when emotional deficits lead to a mental or learning disorder such as bipolar disorder, it has to be diagnosed by a clinical psychologist or psychiatrist. A brief description of the main tools for diagnostic in clinical psychology and psychiatry – ICD-10 and DSM-5 - will be provided.

Finally, this research summarizes the main objectives, the research questions and the outcome. The goal is to compile the most relevant input in the paper and outline the ideas and findings. Last but not least, this paper will state the limits of this research, and propose a few ideas to carry on the research on second language acquisition approaches that can help bipolar students.

2. Objectives and research questions

In this paper, the main objectives are the following

- To understand bipolar disorder and the main personality traits of students with this mood disorder.
- To analyse a couple of second language acquisition approaches.
- To interrelate both contents, so we can find a second language acquisition approach to help overcome emotional difficulties of the bipolar students in the learning process.

The research questions of this paper are the following

- How does bipolar disorder affect the emotional development?
- Which second language acquisition approach can facilitate the learning process of a second language under emotional deficits such as the bipolar disorder?

3. Theoretical framework

The theoretical framework splits into three sections. Firstly, the emotional development which is essential to understand the bipolar disorder. Secondly, this paper will analyse in-depth the bipolar disorder. Finally, the framework will review a couple of second language acquisition approaches. The objectives of the first two sections are to understand the bipolar disorder and how this condition affects the emotional development of students. Only by knowing the student, their potentialities and the difficulties of their emotional instability, we can find a second language acquisition approach to ease their learning process.

Human development has internal variables, genetics, and external variables, the environment. The equilibrium between these variables depends on each person. Thus, the environment will modify physic and psychic characteristics, so that genetic heritage develops certain personality traits and enables the manifestation of others.

To study the confluence between the heritage and the environment in human

development, authors focus on four variables and its confluences. These interrelated variables are cognitive, emotional, biologic and social. See graph in annexe 1.

To explain and understand the bipolar disorder, this paper analyses the emotional development and its two main components: the identity and self-esteem.

3.1. Emotional area of development

The biggest difference between a child and an adolescent is that of being able to feel and control their emotions. The adolescents sense the reality in a different way than a child. This new way of experiencing the world around them will change the relations with themselves and their peers. In that period, emotions are less confusing than in previous years, and that fosters the willingness of experiencing them. Adolescents will learn how to control and express their feelings and emotions. This process of growing up centres in two directions, internal and external. Thus, adolescents explore the external world, but they also analyse and manage their emotions. They are more capable of being happy - friendship, passion, joy, satisfaction - and unhappy - feelings of ambivalence, uncertainty, sadness or depression. The concepts that explain all those changes are the identity and self-esteem.

3.1.1. The identity - Personality

Personality is the integration of the different aspects of the self. According to Carl G. Jung, personality embodies the shadow, the persona or mask, the anima, the animus, the self, the own self-fulfilment and the ego. See a brief description of each part below.

The shadow: What we are but we don't know we are. It is the personality traits that are difficult to accept, the "negative side" of our personality configures the core of our shadow. The function of the shadow is to unify in the same being what the subject rejects. It is the source of the destructive energies in our psychic dynamics.

The mask: What we are concerning others. The mask is the way to simulate individuality. It is the result of the transaction between the subject and society. At some point, it involves a confrontation between the apparent external and the true

internal. Contact with the mask teaches us that appearance does not make us more accepted, that being is something different from seeming.

The anima: What we are in terms of moods and affections. It represents the collective image of women, of the feminine, of intuition, of the creative, of the receptive, of sexual adaptation that makes the need for protection a linking motive. It is a mood generator. By making contact with the anima, the subject learns to love without drowning.

The animus: What we are in terms of ideas, thoughts and judgments. It is the collective image of man, of the masculine, of the penetrating and the active. It is a generator of opinions and judgments and helps differentiation and self-affirmation. It has to do with the norms, the law and the paternal function. To make contact with the animus is to become aware of freedom within the law.

The self: What we are as an aspiration of totality and integration. It is the totalizer and coordinator of the psychic structure. It integrates the different voices of the soul into a single unit. Its function is to amalgamate, unite and coordinate the different aspects of the psyche in one unit.

The Ego: The ego is the structure responsible for the coordination of motor skills, language and reality. The function of the ego is coordinating intra-psychical and extra-psychical realizations of the subject. The ego is the one that speaks, thinks, decides and works, but on the consciousness plane. The ego is alien to the unconscious. The things that are not understood becomes problematic for the ego.

The own self-fulfilment: It is what the person can become. It is a pole of attraction that mobilizes the force of the subject. It is the source of love and healing and links to the potentialities of the subject. The own self-fulfilment points to the future. By making contact with it, we are faced with the path of self-fulfilment as a possibility.

3.1.2. Self-esteem

Self-esteem is the emotional assessment, positive or negative, that the person makes of himself. This links to self-concept, ideas and feelings, and both are crucial to the construction of identity.

Parents, teachers and peers, which form the adolescent environment, send messages to the adolescent, shaping its self-esteem. This shows in the degree of self-confidence, academic performance and social success.

Several works try to analyse the areas of convergence. See graph in annexe 1.

In this way, when cognition and emotions converge, the capacity to control emotions is positively related to personality traits such as optimism, empathy, regulation and control of the negative feelings of self-esteem.

When the biologic area converge with the emotional area, we find different levels of physical development among adolescents. According to the level of physical development, self-esteem will be positively or negatively affected. The expectations adolescents have compared with those of their peers is what affects their self-esteem. Common feelings during that period are superiority or inferiority complexes, feelings of being loved, respected, valued or feelings of shame (self-concept).

When emotional and social areas converge, adolescents will experience a similar effect. Adolescents will compare with their social group of reference, and then, according to the evaluation outcome, self-esteem will be positively or negatively reinforced.

This process of comparisons will help adolescents acquiring a greater grade of independence, both external and internal. Adolescents will progressively and assertively take their desitions - linked to self-concept and self-esteem.

3.1.3. What are affections?

Affections are something that affects us. In other words, humans have to live the emotions. However, when we suppress emotions we lose the ability to express them, and consequently, the authentic feeling of our soul. Suffocating an affection implies

becoming an emotionally disabled person and, most likely, the appearance of a symptom. The cause of our symptoms lies in the emotions trapped in the past that are still valid today.

Affections are energy processes that act on our body and need to be discharged. When the energy don't manifest as mobility - do - timia - feel - word - say - or sublimate - create-, it can manifest in the body as a symptom. Affections also stain the way the person reads the world around him/her. By changing the emotional state, the person changes the way he relates to the world and the way he/she sees himself/herself.

Characteristics of the affections

Affections are a way of meaning time and space: According to the emotional state of the person, the past, the present and the future will have different values. Something similar happens with space. Psychology speaks of the time in which a person lives, and the place where it is included.

Affections are a project: Affections are ways of building the reality and testing the future. It is a way of correcting the past and the present, therefore, it is a form of compensation and psychic regulation. It allows us to put our existence in order, setting new goals for the future.

Affections are body: Affections represent experiences, but sometimes we only perceive them when they are a symptom on the body. Besides, each emotion manifests in a different region of the body.

Affections are not good nor bad: Affections are only energy that manifest in different parts of the body and knows nothing of connotation.

Affections always have a meaning: Affections are signs that point us to issues that the person has yet to address. They help us understand longings that we do not perceive as a conscious representation.

Affections are bonds: It is a way of establishing relationships in our lives. Affections were learned in the family, and later in life, these are reproduced in our relationships. If affections change, it also changes how the person connects with other people.

Affections are a vibration: The emotions vibrate looking for a continuous balance. As living implies the presence of conflict, humans must find the formula to balance their

emotions. In some cases, as it is in the bipolar disorder, emotions are so unbalanced that the person's living becomes suffering.

In conclusion, people must learn to express their emotions healthily and naturally instead of suppressing them, whether for family or moral reasons. Suppressed affections must find their expression, otherwise they may appear as symptoms.

3.1.4. Sadness and its variations

Sadness main goal is that of learning not to depend on the external supplies of love. Humans learn to accept findings and losses successively since childhood. Losses triggers a grieving process to digest the privation of the lost love. Thus, becoming sad is healthy behaviour, because it expresses the ability to feel pain for something dear that is not there. However, melancholy or depression are sick forms of people “addicted” to love. In other words, it is a deficit of psychic energy caused by a loss. This energetic deficit manifests in feelings of sadness, but if the person suppresses those feelings, then, depression manifests in the body.

Depression is simultaneously feeling in love and disappointed with this love that remains. Depressive people look for love, but they are unable to actively love. The external supply of affection is what fills their self-esteem because they cannot activate affections to supply themselves. This makes them dependent, passive and submissive, but also very demanding and inconsiderate with others. This paradoxical dynamic starts in the first years of life when skin sensations and heat are as necessary as food. These two experiences associate with the feeling of security through which the child can express his affections and actions.

Depression symptoms: loss of interest for daily-life activities, loss of weight or appetite, fatigue or tiredness, sleeping disorders, decreased or loss of sexual interest, difficulty concentrating or reasoning, inappropriate feelings of guilt, loss of self-esteem, feelings of helplessness and neuro-vegetative disorders.

Two fundamental principles of depression are inhibition and moral pain.

Inhibition is a general drop in the psychic functions. This process implies the reduction of consciousness and interests and the need for introversion and isolation from social contact. Under these conditions, humans find it extremely difficult to think and carry out tasks requires extra time. Besides, the person lacks physical strength and in this situation, he feels useless.

Moral pain is a loss of image value and self-esteem that can manifest in the form of guilty, self-accusation or self-punishment.

Stages of depression:

- 1) To see: When we receive a bad new. The possible reactions to this are denial, reproach, blame, negotiation, remember, hate, extortion or devalue.
- 2) To understand: At this stage, we elaborate the loss and what we lost with what was lost. We tend to recognize the positive and the negative. It is at this stage when we connect with suffering and pain that are affective experiences that allow us to recognize unknown aspects of ourselves.
- 3) Conclusion: It is the last stage of the process. We leave behind what is lost and open to new experiences, rebuild our self-esteem and sustain ourselves.

If this process completes successfully, the person can sort out issues of the past and learn to be more mature and independent in the future.

Pathological ends of this affection are depression and melancholy.

Depression: There is a strong pessimism which weakens the energy and self-esteem, but it does not compromise reality.

Melancholy: There is a drastic reduction of psychic functions and energy. Feelings of extreme pessimism compromise the relationship with the world.

3.1.5. Happiness and its variations

Happiness corresponds to the response of a person to the encounter or presence of something or someone loved. It expresses a contentment motivated by happiness or a deep optimism that can lead to euphoria. However, euphoria is an increase of psychic energy that makes our mood to be enthusiastic and exalted. While happiness is the healthy behaviour of someone able to feel pleasure and wellbeing, euphoria

and manic are the pathological ends. Euphoria implies that thoughts happen uncontrollably, without order or consistency. This compromise coherence, and, consciousness can't focus on something for a long time. While depression is constant inhibition, euphoria main trait is excess. Euphoria is, then, the expression of victory of the ego over the loved and lost object which becomes despised and denied. The person free from guilt and morality hides his inability to undergo the grieving process.

Manic has defence mechanisms of denial and overcompensation that try to hide the experiences accepted by the ego. The person thinks that has the power to control reality. Euphoria and manic imply an extreme increase of self-esteem and, as a result, the person loses the limits of the ego. When this happens, the person feels strong in all what he does. What is most difficult of this situation is that the person feels free from the limitations of reality. However, manic is not a true liberation from shortcomings, but an attempt to deny dependency, depression and loss. It does not lead to any possible elaboration, and therefore, it does not help in the process of independence and maturation.

Euphoria symptoms: Agitation of the body, psychic excitement, overestimation of the person's capacities, increase in self-esteem and potential of the ego, exaltation, increase in interest or pleasure daily-life routines, increase in appetite, increase in resistance, increase in sexual interest, sleeping disorders.

Stages of maniac

Alert phase: In this phase, the person begins to accelerate and has difficulty sleeping. The hyperactive state leads the person to want to carry out many activities at the same time. Besides, the person appears jovial and with great sexual appetite.

Crisis phase: The person loses the limits of the ego. The person accelerates mentally, has many ideas at the same time. In some cases, the person manifests symptoms of delusional ideas, motor excitement and anxiety.

Stabilization phase: The person gradually enters a stabilization state. The most common emotions are fear, insecurity and an intense fear of relapse in the early stages.

Risk phase: Return to health.

The main manifestations in which this affection becomes pathological are:

Hypomania: It is the mildest end of manic. The main characteristics are unlimited energy and euphoric mood. The language is usually ironic and sarcastic, and, the person tends towards aggression and a bossy behaviour.

Acute manic: The person is despotic, and, there is a flight of ideas and contact with reality is lost. Signs of physical exhaustion may be present.

Delirious manic: the person is in deep confusion and very violent. Mental activity is incessant and very fast, which leads to being unable to speak. There is a loss of weight and extreme exhaustion.

3.2. Bipolar disorder

Bipolar disorder is part of an experience of the destruction of autonomy and loss of identity that penetrates deeply into the heart of the bipolar patient. Thus, by ceasing to feel autonomous, not knowing very well who one is and living the lack of freedom as a destiny, the bipolar reacts, alternately, with extreme denial - manic - or with total resignation – depression.

Affections, and suppressed emotions, are transformed into pain and symptoms. In this case the formation of the two bipolar extreme mood swings. However, the study of extreme sadness or euphoria should not lose the central structure of bipolarity: oscillation. The basis of this disorder is the loss of the ability of emotional tones.

However, affections are meaningful, and therefore, should not be considered as a problem or interference but as an essential engine of life.

Affections and the bipolar disorder:

Affections always appear as a polarity, for example (love-hate) or (happiness-sadness). They are a dynamic conception because, from the concept of opposition, it allows us to see the reality from the movement. To manage polarity, humans suppress, deny, or feel the ambiguity.

Suppression: Try to eliminate the affection.

Denial: Try to feel nothing.

Ambiguity: Feel the opposite pair of feelings at the same time. This is the most mature response, because integrates and acknowledge opposite feelings that are part of the same structure of consciousness.

The main trait of the bipolar disorder is cyclicity which means exploring both extremes of a pair of feelings such as happiness and sadness. The pathological extremes of these feelings is manic and depression. This cyclicity implies instability which in turn makes alternation possible. Alternation can take various forms, but they all share the same principle: bipolar people tend to destroy everything they build with their behaviour, be it emotional ties, professional or work developments, etc. These unconscious feelings of self-destruction link with the lack of self-esteem and personal appreciation of the subject. Besides, this entails suffering, loneliness, material and social integration difficulties.

External characteristics of the bipolar disorder

Incomprehension: Bipolar people find it difficult to understand their mental condition and their lives. This extreme difficulty to understand themselves brings suffering and a need for isolation. They see no way out and, therefore, accept the situation resignedly.

Voracious curiosity: They seem distracted, but they are devouring the world with their perception. Bipolar people have many intellectual interests that they need to satisfy to interact with the outside or to expand their knowledge.

The gift of nuances: If we consider oscillating as a gift, bipolar people can put themselves in a different point of view, and, this ability is, in turn, a good strategy to understand what is unknown. Going from one extreme to the other, allow the bipolar to scan for many different emotions and affections that they use in communications and emotional ties.

Precise thinking: The way humans think means the way each person sees the world. Bipolar people think dynamically with a lot of qualities and subtleties as if they record everything around them in a million images. They are very intuitive, and more often than not, they reach conclusions without being conscious of all the data they analysed to get them. They perceive their thoughts as part of the reality with a lot of points of views and with all their senses.

Creativity: Bipolar people are said to be very creative because their way of perceiving images from different perspectives, their curiosity, their intuition and their multidimensional and dialectic thinking.

Clumsiness: Bipolar people are often clumsy and not skilled at social relationships. When clumsiness appears frustration follows and self-esteem drops which makes the bipolar paralyse even more.

3.2.1. Familiar paradigm:

The family

Bipolar patients come from families that isolate from the environment. The main objective of the family is to gain social recognition, and the child is the way to obtain it. This scenario makes the child well-behaved and dependent on other people's opinions. Thus, the child is seen as a means to an end, and, not an end in itself.

The mother is usually an ambitious woman who devalues the father. On the one hand, the child perceives her as the referent of authority which gives permission and recognition. She is overprotective and demands obedience on her requirements and impositions. On the other hand, this situation mix with a high degree of well-being, satisfaction, and nutrition which gives the baby a certain sense of security and confidence. The father appeared as affectionate, but weak, and is often seen as a failure, although he is not.

The mother and the opposite message	
1) She is kind, cordial, tender and self-sacrificing.	Positives feelings and affections.
2) She is demanding, not very affable, tough and punishing.	Negative feelings and affections.

This opposite attitude of the mother, in the second year of the baby, transforms the child's environment and leaves him/her exposed to trauma. The mother continues taking care of the child, but less than before and demands obedience. The child is forced to obey if he/she wants to feel secure and will end up living according to their parents mandates. The issue is that the child feels anxious and confused because

he/she fails to integrate the two images of the mother. In other words, the child's feelings for the mother are ambivalent of both love and hate. This process does not lead to the acceptance of the experience of ambivalence which is the condition for any person to reach a stable emotional and psychic balance.

On the contrary, the negative and positive feelings towards the mother and her corresponding egotistic traits work independently and carry separate existences. That is why bipolar people can seem two different people - a double personality - (one person kind, the other destructive), each reflecting these separate or dissociated internal aspects.

The child usually faces an additional issue. On the one hand, the mother feels in control over the child as if he/she should please her demands. This behaviour kills the autonomy of the child who is no longer eager to discover the world. However, this attitude satisfy the narcissistic personality of the mother. On the other hand, she compensates the negative feelings of her previous behaviour with kindness which enables her to start the process again.

This scenario usually complements with the passive attitude of the father who says or does nothing to prevent this from happening.

This situation generates in the child complex feelings of anger against the parents that have led him to assume so many responsibilities, which manifest in frequent tantrums or psychosomatic illnesses. Besides, anger, resentment and rancour, in turn, provoke feelings of guilt, remorse and devaluation. Thus, establishing a vicious circle between hate and love that serves as the basis for future bipolar disorder. All this process will lead to the formation of the mask.

3.2.2. How can a person have both ends of the same feeling depressive and manic?

Bipolar people are very ambivalent with their ego, which means they can not decide if they accept or reject themselves. They reject or love themselves under the depression or manic extremes accordingly. They can't integrate both mood extremes

in the same reality. This process of going from one end to the other entails feelings of guilt and remorse, but also feelings of annihilation and omnipotence.

Manifestations of the bipolar disorder

It is important to highlight that sometimes the bipolar disorder don't manifest as manic or depression. Sometimes one or both ends somatize in the body. When there is not somatization, the symptoms can appear alternatively, as a periodic alternation, or circularly. See graphs in annexe 2.

3.2.3. Few principles to take into account related to bipolar subjects

1) Bipolars have the gift of creativity and is helping them to develop this talent that they can change, little by little, their perception.

2) The bipolar subject experiments his/her thoughts as real. The body stops feeling what the feelings perceive, and, feels what the bipolar subject is thinking - extreme mood swings. During the oscillation process, the bipolar capture images which represent the changing reality in which he/she perceives the world. This rich form of perceiving the world, the multiple answers and subtleties, is difficult to understand from a non-bipolar perspective. Non-bipolar subjects perceive the world quite statically, and because they lack the knowledge to understand the bipolar condition, their reactions are usually of incomprehension and puzzlement. They tend to think that their answers are inconsistent and ask them for clarity. The bipolar subject, on the contrary, will understand their demands as stop the swing and be static. However, the bipolar reaction will be of more swinging because the oscillation is part of his/her structure - of who he/she is.

3) The bipolar subject is creative, but not as a result of his/her disorder. Creativity and bipolarity are united as a solidarity structure of psychic organization in which suppressed creativity cries out in the form of unstable emotional oscillation.

If teachers are aware of this different way of perceiving the world around them, they may prevent themselves from sending messages of stability and encourage their creativity.

See annexe 3 for further information on bipolar disorder characteristics.

3.2.4 Diagnostic methods: ICD-10 and DMS-5

This paper refers to emotional deficits that are considered mental or learning disorders. If this is the case, only a clinical psychologist or a psychiatrist can evaluate and diagnose. ICD-10 and DSM-5 are taxonomic symptom classification manuals and the most commonly used tools for diagnosed. ICD-10 stands for International Statistical Classification of Diseases and Related Health Problems and is published by the World Health Organisation that is an agency of the United Nations.

DSM-5 stands for The Diagnostic and Statistical Manual of Mental Disorders and is published by the American Psychiatric Association.

3.3. Second language acquisition approaches

3.3.1. The Natural approach:

The natural approach was created in 1977 by Terrell, a Spanish teacher in California, who wished to develop a style of teaching based on the findings of naturalistic studies of second-language acquisition. After the original formulation, Terrell worked with Krashen to further develop the theoretical aspects of the method. Terrell and Krashen published the results of their collaboration in the 1983 book *The Natural Approach*.

3.3.2. Principles of the Natural approach

The natural approach is consistent with the hypotheses of the second language acquisition theory. These hypotheses are the acquisition-learning hypotheses, the natural order hypotheses, the monitor hypotheses, the input hypotheses, the affected filter hypotheses, and aspects of second language acquisition related to the input hypotheses. See annexe 4 for further information about the hypotheses of the second language acquisition theory.

The natural approach has five basic principles, Namely:

1) The goal of the natural approach is communication skills: The main goal is to communicate with native speakers of the target language. Particular objectives are also related to communication. The approach is also concerned with grammatic accuracy, but this skill will come with the time provided that the primary emphasis is speaking, since communication ensures comprehensible input.

2) Comprehension precedes production: The acquisition is the basis for production ability. Thus, comprehension, listening or reading, precedes production, speaking or writing. The students won't be able to answer or write if they can't understand the message. This principle implies that the teacher always uses the target language in class, the topic has to be of the students' interest, and the teacher will strive to make students understand the messages.

3) Production emerges in stages: This approach doesn't force students to speak until they are ready, and speech mistakes that don't impair comprehension are not corrected. The stages of production are usually: answering with non-verbal communication or even using the L1s, responding with a single word, combine two or three words, phrases, and finally more complex communication.

4) The course syllabus consists of communicative goals: The focus of classes are different topics and not grammar. Learning grammar is not the priority because using the correct structures will come from speaking practice. However, conscious learning is important in terms of assessment, and so, the teacher provides students with supplementary exercises.

5) Relaxed atmosphere in the classroom: Activities and topics have to be relevant and interesting for the students to encourage the expression of their ideas, thoughts, feelings, desires, and emotions. The approach considers the atmosphere as another element that facilitates the learning process. The right environment comprises positive relationships with the teacher, among students, and low-stress levels.

How to implement the natural approach

To implement the natural approach, the teacher has to define the goals of the course. In secondary education, this will entail putting into practice the curriculum and acquiring the competencies established in there. In terms of syllabus design, topics and tasks must suit the needs of students and their particular interests. This is consistent with the seven principles of learning (OECD, 2010), the student is at the centre of the learning process.

The natural approach is designed to develop communication skills, both oral and written. Thus, academic learning skills are not the aim of this approach. Students are expected to function in the target situation. They will understand the message and produce an answer, or bring new ideas on the topic. Their production has to be understandable regardless of being error-free. The meaning of the message has to be clear, but not necessarily accurate in details and grammar. The ultimate objective is that students can deal with different topics in a given situation.

However, the approach does not reject the use of grammar, since it aims to encourage efficient Monitor use. Thus, the teacher should encourage the monitor technique as long as it does not impair speaking. Learning grammar rules can also be planned in the syllabus where appropriate. Notwithstanding, the Natural approach focuses on communication and providing comprehensible, and meaningful input which will foster language acquisition. By discussing a wide range of topics, the students will implicitly acquire the necessary grammatical structures.

To plan a communicative syllabus for beginners, teachers must follow three stages. The first stage, the students get to know each other: this is called the personal identification stage. The second stage consists of given students comprehensible input: this is called experiences. It aims for students to engage in conversations about personal experiences. The third stage consists of input and discussions, this is called opinions. For example, students discuss political issues, human rights, or types of families, so they can express their views.

To guarantee the early production of the target language, students must understand the language as quickly as possible. Thus, the teacher will have to explain that from paying close attention to the context and the keywords, students can guess the meaning of the message. This "contextual inferencing" is the key to learning to understand an L2 and the success of the student in the acquisition process. Teachers have to make students aware of the importance of the "inferencing" strategy.

Advanced courses combined the natural approach with other techniques such as problem-solving activities, affective-humanistic activities, games, and content which are implemented individually, in pairwork, in small or large groups.

The role of the teacher in the natural approach

The teacher speaks only the target language, and most of the classroom time is spent on activities which foster acquisition, whereas learning exercises play a peripheral role. The focus is on communication and meaning rather than grammatical structures, grammar rules, or memorizing lists of vocabulary. Thus, the structure of the language is implicitly acquired by the input while communicating. The teacher is, then, the primary source of comprehensible input and should use techniques such as TPR, mime or gesture - especially in beginners courses.

The teacher has to be highly motivated to create the atmosphere - the low affective filter hypothesis of the second language acquisition theory. Therefore, the role of the teacher is that of a facilitator and orchestrate classroom activities to foster motivation which connects to positives affections and feelings.

In the natural approach comprehension always precedes interaction and production, so that learners start to talk only when they are ready. To do so, teachers adopt materials and techniques from different sources, but always uses them to provide comprehensible input.

To assess students according to this approach, teachers prioritize fluency over accuracy and no error correction apply unless errors impair comprehension or interfere with communication. The aim is communicative effectiveness and activities in class are task-based oriented.

3.3.3. Project-based learning approach

"PBL integrates knowing and doing. Students learn knowledge and elements of the core curriculum, but also apply what they know to solve authentic problems and produce results that matter. PBL students take advantage of digital tools to produce high quality, collaborative products. PBL refocuses education on the

student, not the curriculum—a shift mandated by the global world, which rewards intangible assets such as drive, passion, creativity, empathy, and resiliency. These cannot be taught out of a textbook, but must be activated through experience." Thomas Markham (2011).

John Dewey is thought as one of the early proponents of project-based education or at least its principles through his idea of "learning by doing". Some scholars also associated project-based learning with Jean Piaget's "situated learning" perspective and constructivist theories.

3.3.4. Project-based learning characteristics

Project-based learning makes a project the central focus of a whole semester or an academic year. The amount of time spent on a project can vary from schools and teachers. However, to implement PBL four variables have to be present. Namely,

- 1) A central topic from which all the activities and the final product derives.
- 2) Students will have to collect, investigate, and analyse data. Teachers can easily integrate new technologies in class.
- 3) Students can share ideas and have plenty of opportunities to communicate. PBL main goal is collaborative work.
- 4) A final product in the form of paper, posters, presentation, videos, webpages, blogs and so on.

PBL asks students to solve several problems until they deliver the final product. Students have the freedom to go about solving problems, investigating, or sharing information. Thus, PBL is a flexible approach which asks students to organise their work as they see fit.

Learning based on solving problems

Within the PBL framework, students will have to solve different problems. These problems have to be authentic as they present in the real-life scenario. Real-life problems are generally chaotic, ill-defined, and complex, and therefore, solving them implies the resolution of interconnected subproblems.

Problems, unlike exercises, are more complex and of a heuristic solution which means, for a given problem, students can find several answers. Those solutions, in turn, are no immediate answers, but the result of decision-making. This technique asks students to explain the decision-making process, so that, the teacher can guide and evaluate the process and the conclusion.

To solve the problems, students will have to apply the following methodology.

- 1) To define the problem or situation and the tasks or problems to solve.
- 2) To provision of aid for access to information and support for the construction of knowledge.
- 3) To approach the problematic situation. The teacher must make sure that the students understand the problem.
- 4) Task planning to solve the problem.

See graph of learning based on solving problems on annexe 5.

Characteristics of learning based on solving problems

The problems are open and relevant to the subject or content.

Students have to work in groups of three or four. The teacher can either form the groups or let students do them. All members of the group will have a responsibility, namely:

- 1) Moderator: Is in charge of dividing tasks and work performance among the people of the group.
- 2) Secretary: Is in control of the time and schedules.
- 3) Spokesman/Spokeswomen: Is the student that speaks in the name of the whole group.
- 4) Coordinator: Is the supervisor of the work.

As stated before, PBL implies solving several problems until students can deliver the final product. To connect the content with real daily life problems and plan projects which allow the achievement of circular competencies, teachers must plan tasks to solve. These tasks have to be well-connected and planned according to learning based on solving problems. To that end, the teacher must know all the curricular competencies, how to implement them, and leave students the freedom to find their

solutions. Planning consistent activities is important for all students, but it is crucial for bipolars. Inconsistencies are a source of problem-solving for bipolar students who will spend energy in trying to find the mishap and will deviate from acquiring the competencies.

The role of the teacher in the PBL approach

The teacher has to monitor and facilitate the work along the project, setting up frameworks for communication, providing access to data assessing with language when necessary. The teacher has to give students opportunities to produce the final product or a presentation. Teachers has to assist interaction but without interrupting the students, dealing with language problems later on in class.

Project-based learning motivates and inspires students. Motivation together with problem-solving is undoubtedly what captures the attention of students. The projects bring real life into the classroom, so that, students analyze, decide, edit, organize, delegate collaboratively. PBL often involves multi-disciplinary skills brought from other subjects. All in all, it promotes a higher level of thinking than just learning vocabulary and structures.

PBL focus on realistic objectives, and then, on the language needed to achieve those. Language is treated as a means to an end, the final project, rather than isolated vocabulary or grammar exercises. This way, students have opportunities to communicate in authentic contexts, and be creators of the language (Dunn & Lantif, 1998) at least to a certain extent. Afterwards, students will have the opportunity to reflect on what they learnt or need to learn.

As always, the important thing is to use what works best for you and your learners.

No single method or approach should be used alone. The most common trend in recent years has been following a wide variety of tasks and activities that are consonant with what is known about second language acquisition. (Nunan, 1989).

4. Method

4.1. Instruments

To carry out this research, I used three instruments that help me obtain data related to bipolar disorder and second language acquisition. The first instrument are six interviews with a bipolar student. Secondly, four search engines had been used to cross data about the bipolar disorder with education, and with second language acquisition. The last instrument is a survey that analyse learning preferences among students.

4.1.1 Interviews carried out with a bipolar student

This paper includes six interviews conducted with a bipolar student to help me understand the bipolar disorder and collect additional data.

Since it is a very delicate matter, the methodology was to bring an aspect of the bipolar disorder into the conversation openly. The person explained me personal experiences and thoughts while I was taking a few notes. During the interview, and only when I felt it was appropriate, I asked a few questions to understand the explanations. The method of summarizing the content was to write the interview content the same day of the interview. To write the conclusion, I correlated the interviews' data and the bipolar disorder's data. Besides, I counted with the feedback of a clinical psychologist for technic terms.

See the schedule of interviews and topics below.

INTERVIEW DATE	TOPICS
Third of July of 2020.	How to identify the extreme ends of the bipolar disorder – depression and manic.
Tenth of July of 2020.	Talking about the depression.
Seventeenth of July of 2020.	Talking about the manic disorder.
Twenty-fourth of July of 2020.	The family.
Thirty-first of July 2020.	Is there any positive feedback from bipolar disorder? - Talking about creativity, curiosity and the gift of nuances.
Seventh of August 2020.	Education and the bipolar disorder.

See interviews' notes and the schedule of interviews with the clinical psychologist in annexe 6.

1. Interview date: Third of July of 2020.

Subject: How to identify the extreme ends of the bipolar disorder – depression and manic.

Interview content: The person explains to me that the bipolar perceives reality from two extreme ends and all the gradients in between. The person explains to me that his/her behaviour - the mask - and the content placed in the shadow has characteristics that are part of the Self. However, family systemic forced him/her to resign from all these positive attributes. The person says, to identify both extremes moods of the swinging, I did name them differently. I identify the depressive end as "PE", and, the other end as my name red backwards "EP". The person says, it made sense to me to read the name as the mirror image of my name. The person explains to me that he/she used to narrate parts of his/her daily-life as fiction books to identify "PE" and "EP" within the narrative. I must mention that the person is very skilled at writing, he/she says that this exercise helps him/her recognise both mood ends, as he/she puts it.

The person gets emotional at this point, he/she says, I was able to recognise a treasure hidden in the shadow - potentially, quickness of thought, resolution, a talented intelligence - which was preserved against a systemic family that reject it. We paused for a while.

The person says, I can use these values now, but the use is not free of difficulties and internal contradictions. Notwithstanding, the person expresses happiness for the work he/she is doing to use his/her abilities and talents freely and united.

Conclusion: It is important to understand that being forced to resign to positive qualities brings feelings of frustrations, anger and aggression. These feelings are hidden together with the positives attributes. Thus, to use these positive attributes gently, bringing them to consciousness, is a slow process, so that, the person can accept them.

Messages to reinforce the self-esteem and the positive values of the bipolar can not always be accepted. Theses messages go against the wrong paradigm set by the family systemic. Bipolar condition had saved the person for many years, and so, as

important is to change the bipolar perception - implicit values that he/she can't see - as respecting the tempo that he/she needs to digest them. The bipolar may perceive the reinforcing messages as an attack against the family systemic, and then, reactions of self-defence and aggression may appear. Teachers have to be aware of these facts because they may face difficult situations in class.

2. Interview date: Tenth of July of 2020.

Subject: Talking about the depression.

Interview content: Depression connects to feelings of negative self-image and hopelessness, which are destructive feelings that manifest a low self-esteem. The person says, the bipolar experiences these negatives feelings, but he/she doesn't remain in them because their thoughts are not static. The person explains to me that the family took turns to send messages of love and hate. My family used to accept me when I was feeling down and without energy.

The person says, the parents can't assume their roles and fail to create a stable and secure bond. Messages of love and hate are a psychological abuse which implies emotional mistreatment. The person says, the child has to adapt his/her behaviour to be accepted within the family. This is how the bipolar learns to resign of intrinsic qualities and creates a false image which fulfil their parents' expectations.

Conclusion: The bond between a baby and his/her mother is known in psychology as bonding and implies sensorial, ocular and epidermic contact. These are biological mechanisms which support the bond. This process constitutes the Self or the ideas that everyone has of himself/herself. If the bonding fails, the child will lose dynamic vitality, a drop of energy, that generates symptoms responsible for personality disassociation. The low self-esteem of the bipolar subject relates to a negative self-image. When a child is exposed to feelings of unacceptance and hate loses hope of escaping from them, and gives up. The child collapses, and depression appears. The child feels has no control over the situation, and reactions such as self-defence, avoidance, or escape are blocked. This phenomenon is called learned helplessness. The child stops exploring the world and initiates an introspective path of introversion, shyness, and social isolation. This inner world acts as a protection from the family systemic that the child perceives as dangerous. The child can't understand what

he/she did to be unaccepted and hated. Unable to put the fault on his/her parents, the child thinks the guilty person is him/her.

3. Interview date: Seventeenth of July of 2020.

Subject: Talking about the manic disorder.

Interview content: Manic disorder connects to feelings of grandiosity and superiority, which are destructive feelings that manifest a low self-esteem. The person says, it is like thinking superior than everyone else, together with, a false sense of independence from the world. Like the depressive end, euphoric feelings are not stable because of the extreme mood swing. As mention in the depressive mood, the family took turns to send messages of love and hate. The person says, the family used to punish me when I was feeling up and full of energy. This happed when I used to show my potential which represented a danger for the stability of the family. The implementation of both feelings separately is what sets the psychological conditions for bipolarity. The person says, under joy is when the parents become very demanding and strict and enforce the belief of wrongdoing which entails psychological mistreatment. This parental behaviour will ensure mood swing, and little by little, the child will progressively go to the other extreme. This performance will repeat as a vicious circle.

Conclusion: It is important to understand that the bipolar subject suffers from the inversion of the locus of control.

Locus of control is a concept developed by Rotter (1954), in his social-learning theory of personality. Locus of control is the degree to which people believe that they, as opposed to external forces (beyond their influence), have control over the outcome of events in their lives.

Bipolar subject needs to make sense of the traumatic events which he/she will do inverting the locus of control. Thus, the child will end up thinking traumatic events are his/her fault.

To create psychological instability, bullies have two follow four steps.

- 1) The victim has to accept the responsibility of the accusations held against him/her. The bully makes the victim feel guilty.
- 2) Once the victim accepts he/she is the guilty party, the bully will work to generate feelings of shame.

- 3) Once the victim feels shame, the bully makes the victim feel morally reprehensible.
- 4) Once the victim accepts he/she is morally reprehensive, the cycle is complete. The victim finally feels that she is a bad person.

4. Interview date: Twenty-fourth of July of 2020.

Subject: The family.

Interview content: The person says, it is difficult to describe your family as pathological, as a system that never welcome you. It is difficult to confess that the family picked you as their scapegoat, which came into this world to hide the inconsistencies of the parents. It is expecting a child to unify a dysfunctional family which is a huge undertaking for a child. The person says, one spends a lot of time trying to justify behaviours that have no justification because they are morally reprehensive and inexcusable. It is difficult to digest that your family had you, but never receive you. However, it is more common than one would like to think. Many people born and die without knowing who they are. The person pause, well, many people have no trouble with their personality traits because it allows them to carry on with their lives without many struggles.

People talk about forgiving the bully as if it is the only way of being free, but no freedom comes from feelings of anger or indifference. Those reactions hide bonds with the family systemic, and they usually tie the subject to the family dynamic even more.

The person explains to me that a deep understanding of what happened within the family, childhood trauma, is part of a process to free from the “symbolic chains”. Thus, the possibility to see and build a future freely. This freedom is what brings forgiveness because what happened is only affecting you positively and constructively. Within this process, you may end up understanding what made your bully act as such, but the freedom won’t come from this knowledge.

The person refers to White-Snow as an example of his/her case. The person says, the original tale of the Grimm’s brothers is excellent in terms of describing the psychological profile of the characters. The tale draws a wicked Queen with a narcissistic personality disorder, an absent father and a naive child. The person points out that in the tale, the father says nothing when he sees the Queen bullying

White-Snow. The person explains to me that silence is as conspiratorial as the aggression.

It is not as if we are talking about physic or sexual harassment, but psychological mistreatment can be equally destructive. The person insists, both parents are equally responsible as well as any member of the family that knows what is happening and decides to remain silent.

See annexe 7 to read Snow-White tale.

Conclusion: It is important to understand that a toxic family system affects the ability to form healthy bonds. To achieve that, the bully has to act in two different ways. On the one hand, the communication style is perverse or misleading, which made the child believe he/she was misbehaving when asking their parents for proper care. His/her emotions were systematically ignored or questioned, in particular those that signalled the parent's fault. On the other hand, the child ends up believing that the painful emotions and the defence mechanisms are a consequence of his/her misbehaviour - the acting in and the acting out.

Perverse dialectic messages of the bully can imply one or a few of the following statements.

- 1) Formal expressions and manifestations of admiration and care which lack real love content.
- 2) Verbal expressions and manifestations of care and concern of mere formality and nominal.
- 3) Gestures of affection which are apparent and lack affective resonance.
- 4) Obligation of taking sides in favour of one of the parents and against the other.
- 5) Assigning the child the role of the caretaker.

In this way, the bipolar in his depressive extreme will tend to withdraw from the world and take refuge in his inner world. The lack of energy and the self-destructive messages will drove him/her away from the environment. On the other hand, under the manic pole, the person is full of energy, but the bipolar feels superior than the rest, and so interaction with others is not easy either. The bipolar subject has no intention of mistreating the partenaire, but he/she feels invincible and needing no one. Thus, the interaction can be empty because they are not able to integrate or form bonds with the people with whom they interact.

5. Interview date: Thirty-first of July 2020.

Subject: Is there any positive feedback from bipolar disorder? - Talking about creativity, curiosity and the gift of nuances.

Interview content: Indeed many positive aspects are coming out from this intricate way of being. Once the bipolar learns that oscillation can be positive and knows how to use it for his/her betterment, advantages are multiple. The thing is experiencing the subtle tones of the swing, but never going too far. The person says, the trick is learning how to swing gently. The bipolar subject can not understand reality statically, and he/she doesn't have to, here lies his/her great wealth. Gently oscillation is not an easy undertaking, but the bipolar can achieve that with practice and proper help. Practice, trial and error, and, more practice is all that it is needed, the person says. It is a process of negotiation where the mind, the body, and the soul fight to find personal equilibrium.

Bipolar subjects can manage a lot of data, and, thanks to the capturing of images and their interrelations, they can offer valuable information in problem-solving and conflicts. Their non-static way of perceiving reality helps them to be productive, or in other words, they can produce multiple answers while performing tasks. Besides, oscillation fosters curiosity and deep learning. The person says, once the bipolar can nourish his/her soul of positive feelings, they can be very sensible and generous in their relations with others and capable of bonds.

Conclusions: Teachers must focus on the positive skills of the bipolar student with activities that helps them to realise their potential. Systemic approaches can be helpful because their perspective is global. The aim is not learning concepts, but learning content that allows personal growth. Raising awareness of the self-image can help bipolar students because they can put into practice their potential. Systemic approaches are an interdependence system where teachers, families, students and the environment are interrelated (Collet and Tort, 2011). Notwithstanding, the systemic paradigm will also make sure all members are independent. Therefore, systemic approaches encourage the independence of all the agents, but without losing perspective on the big picture.

6. Interview date: Seventh of August 2020.

Subject: Education and the bipolar disorder

Interview content: The person says, the education system, in which I studied, was using the classical approach. In class, we had to listen to the teacher, and take notes, whereas home we had to study and do repetitive exercises that aimed memorization of contents. The teaching of a second language followed the same learning process. The person says, I believe in the early stages the teacher used to speak both the L1 and the target language. Sometimes activities such as song listenings made the classroom more amusing. We liked this kind of activities because they were more creative and less repetitive. To be honest, teachers were quite strict and education was a means to an end - getting good marks - so students could study the degree of their choice. Neither attention to diversity nor values such as collaborative work or creativity, were present in the classroom. The person says, my school considered those values abstractly, but activities didn't incorporate them.

I believe education has come a long way in the last 20 years. Students learn with collaborative projects and problem-solving tasks. Now, creativity is a powerful value highly praised. Notwithstanding, the long-term aim is result-driven because marks for university entrance are even higher than 20 years ago. Nowadays assessment is qualitative, but the system is still result-driven which is a paradoxical message to send to students.

The person says, I believe assessing by competencies and the new learning methodologies can help students with emotional deficits, such as bipolar disorder. However, there is a lot of work left in terms of research and implementing humanistic approaches that include all sensibilities.

Conclusions: The transmission approach entails passing knowledge from one person, usually the teacher, to another person, usually the student. This means students are not encouraged to think for themselves, but to learn knowledge that will have to be brought back for evaluation. The evaluation will normally be carried out by the teacher or other entity. It may work in some specific cases, but it does not encourage creativity nor mindfulness. The effectiveness of this approach in terms of developing the four areas of development, cognitive, emotional, social and physical, (Lopez, 2009) is questionable.

This approach lacks connecting subjects with other situations, and therefore, content detach from any other usage farther than the standardized tests. However, students may end up transferring knowledge from the classroom to an everyday life situation, but it is not encouraged and certainly not the goal of this approach.

The classic method agrees with the transmission approach, which can be useful sometimes, but counterproductive for students with emotional deficits. It is a distant way of learning that foster no interaction between peers and teachers. Bipolar students tend to find relationships difficult, and so they need educational methodologies that foster interaction to compensate for their anti-social trait of personality. Besides, to know your strengths and weaknesses entails social interaction.

On the other hand, project-based learning or the natural approaches aim for students to be able to nurture the four areas of development. Holistic or systemic education philosophy is consistent with the transformation view (Miller, 1996). According to that train of thought, learning occurs when students' inside lead to a better understanding of one's self and the environment. If the student can see a relation between the content and himself/herself that may lead to him/her questioning his/her own reality. Additionally, this view also involves teachers and pupils in the learning process, so they are both an active part of the learning.

An education system that focuses on attention to diversity is also key for bipolar students. However, attention to diversity has to go beyond the application of rules and measures. The education standards help to have a fairer system, but the system has to allow room for flexibility too. Educational professionals should adapt to the plural diversity of students in the classroom while covering the educational objectives of the curriculum.

4.1.2 Search engines data

To learn about bipolar disorder, education, and second language acquisition, I searched for papers in different search engines. The process was to query bipolar disorder, bipolar disorder plus education, and bipolar disorder plus second language acquisition, and then, count the results for each of the three queries. However, the results of the last search, bipolar disorder plus second language acquisition, were nil

in all the search engines used. From 2001 to 2019, the charts below show the results of each query yearly except ERIC that only offered ten years intervals.

See annexe 8 for further information on the data gathering and chart production.

The search engines used in the initial search for publications were PsycINFO – American Psychological Association, PubMed – U.S. National Library of Medicine, ERIC - Educational Research Information Center, U.S. Department of Education, U.S.A., and Google Scholar.

See queries and graphs below:

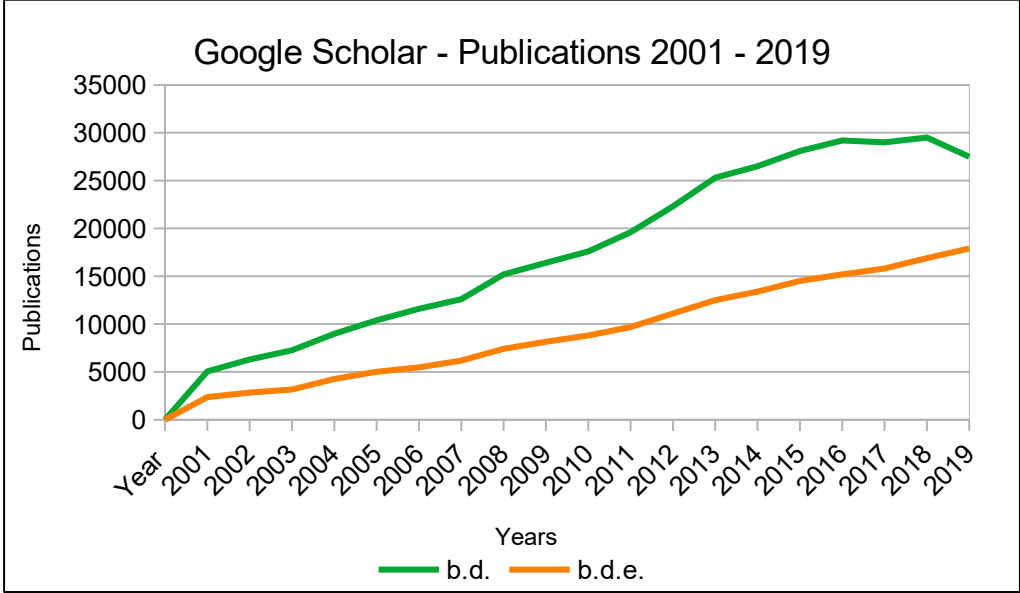
Google Scholar

Query: “Bipolar disorder” 2001 – 2019 b.d.

Result: 348.400

Query: “Bipolar disorder” + education 2001 – 2019 b.d.e.

Result: 180.630



PsycINFO

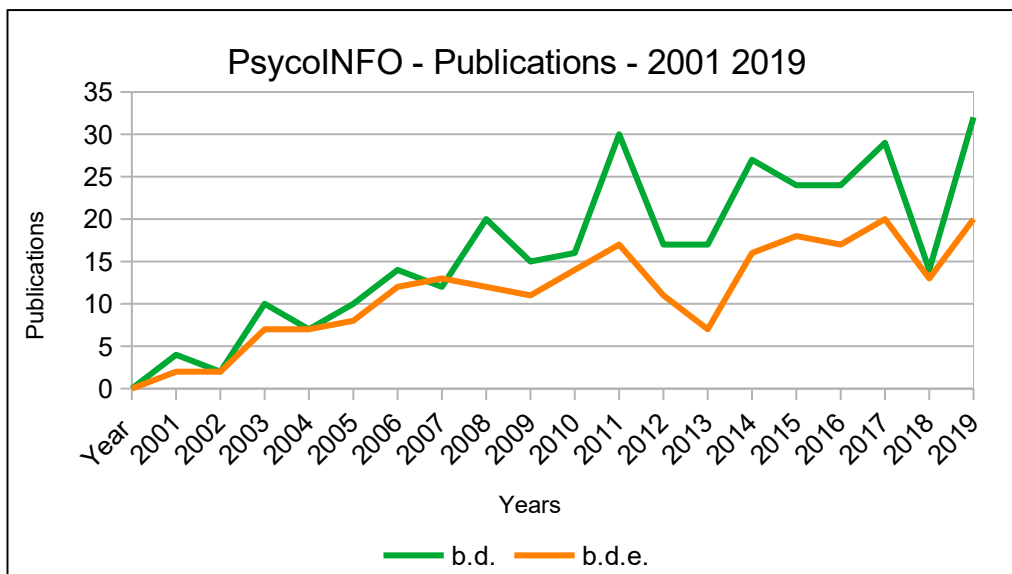
Query: "Bipolar disorder" 2001 - 2019

Result: 324

Query: "Bipolar and education" 2001 - 2019

Result: 1227

No data for "bipolar disorder + education" was found.



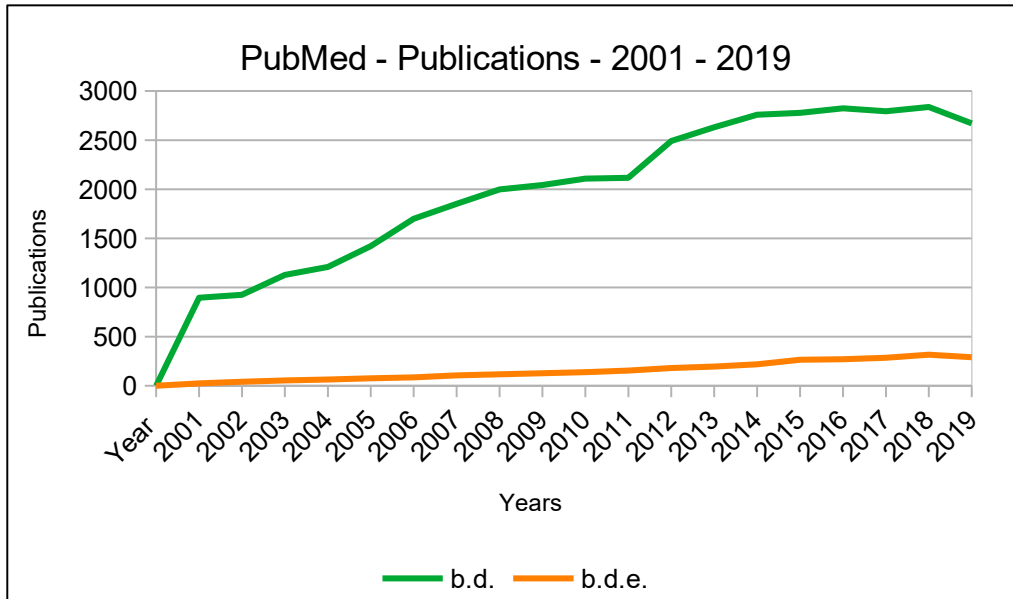
PubMed

Query: "Bipolar disorder" 2001 -2019 b.d.

Result: 39.183

Query: "bipolar disorder" + education 2001 – 2019 b.d.e.

Result: 3.014



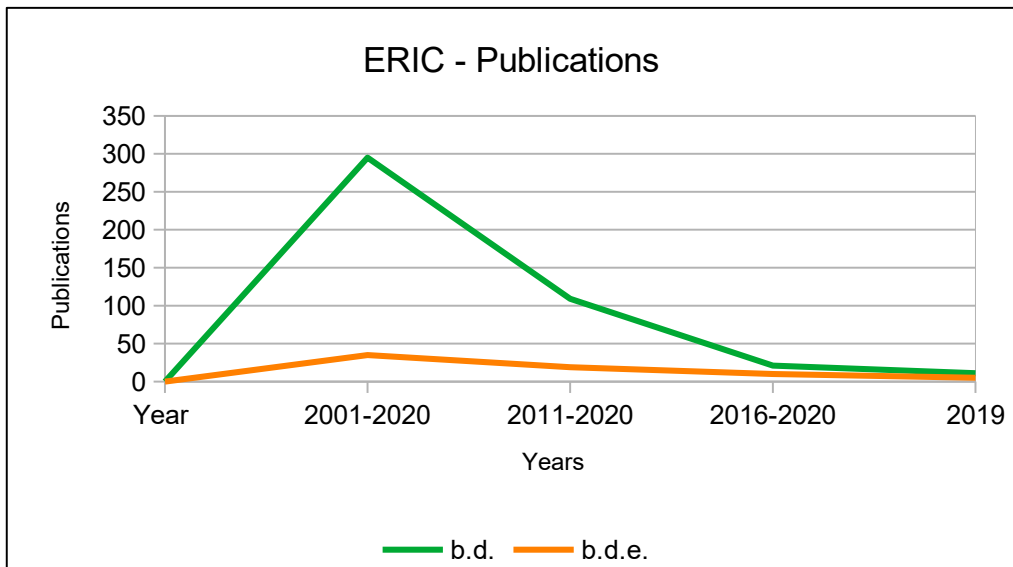
ERIC

Query: "Bipolar disorder" 2001 – 2019 b.d.

Result: 295

Query: "Bipolar disorder" + education 2001 – 2019 b.d.e.

Result: 35



4.1.2.1. Analysis of search engines data

The following conclusions can be reached from the search engines data.

Bipolar disorder is an active area of research. However, little publications on the bipolar disorder mention education. Besides, when education is part of a paper that discusses the bipolar disorder, the focus is not on the interrelation of both subjects. If the query is "bipolar disorder and second language acquisition" the results are nil in almost all the search engines previously used.

PubMed is the best database to research this topic. It returns close to 39.200 results for bipolar disorder and 3.014 results for bipolar disorder in education. This is probably because PsycINFO is administered by the American Psychological Association and is more influenced by psychology and social sciences.

PsycINFO is the next best database. It returns close to 324 results for the bipolar disorder in general and close to 230 results for bipolar disorder in education.

ERIC is not a good search engine to research this topic, as it returns very few publications and data is not presented yearly.

Google Scholar is not a good search engine to research this topic. Google Scholar's interface is very limited as you can only choose to search either in the title or in the full body of the publication. Because of this, you cannot search by keywords, and this may explain the large number of data returned.

4.1.3. Survey

This research aimed to conduct a questionnaire to learn about learning preferences among students. The aim was to link this information with the theoretical framework of L2 acquisition, and then, establish a hypothetical connection with the bipolar disorder framework.

The questions relate to the natural approach and the project-based learning approach, so students can manifest their preferences. The aim was to survey 100 students in the EOIdb.

From the study of the answers, it could have been possible to work out if the student is pro collaborative or individualistic work. Further analysis could have established preferences for project-based learning approach or the natural approach.

See the questionnaire below:

- 1) Do you like learning activities that involve research and hypothetic-deductive reasoning? Yes / No.
- 2) Do you like studying and connecting ideas? Yes / No.
- 3) Do you like problem-solving questions? Yes. / No.
- 4) Do you like topics/tasks related with your daily-life activities? Yes / No.
- 5) Do you think learning English would be more interesting if entails learning other subjects? For example learning history in English. Yes / No.
- 6) Do you like asking yourself questions and finding multiple answers? Yes / No.
- 7) Do you like repetitive activities? Yes / No.
- 8) Are you strict with yourself when performing activities? Yes / No.
- 9) How do you react when facing difficult tasks? Motivated / Discouraged.
- 10) Do you like collaborative activities? Yes / No.
- 11) Are you a social person? Yes / No.
- 12) Do you like activities that makes you question yourself? Yes / No.
- 13) When learning a foreign language, do you find talking difficult? Yes / No.
- 14) Do you like to correct yourself? Yes / No.
- 15) Do you like to learn grammar rules? Yes / No. Do you think they are useful? Yes / No.
- 16) Do you think that grammar rules helps you with the speaking? Yes / No.
- 17) Do you like to be corrected when speaking? Yes / No.
- 18) Interruptions and corrections while speaking are helpful for you? Yes / No.
- 19) Do you like a relaxed atmosphere in class? Yes / No.
- 20) Do you perform better in a competitive situation? Yes / No.
- 21) Do you like to work for a final result/product/objective? Yes / No.
- 22) Do you like the transmission of knowledge to study home? Yes / No.

Additional comments:.....

5. Discussion

5.1. How does bipolar disorder affect the emotional development?

It is important to understand the bipolar disorder and answering this research question because bipolar students are emotionally unstable, and this impairs their learning process. Notwithstanding, If teachers understand what bipolar disorder entails, they will see potentialities and difficulties. It is from knowing the student that you can find a second language acquisition approach which ease the learning process of the student. The ultimate aim is to enhance their potentialities and reduce their learning difficulties.

The first four interviews with the bipolar student explain how the emotional instability creates. Bipolars have low self-esteem, and the extreme mood swing try to compensate this reality. Extremes locate out of reality and can't be constructive of the person, but have great potential. See graph in annexe 9 - interview 1.

In the last two interviews, the bipolar student links his/her condition with education. He/She expresses that the classical approach did very little to help use his/her potentialities. The transmission approach enhanced his/her difficulties and did not encourage his/her potentialities. The methodologies used lacked motivation and positive reinforcement, being unable to acquire the content, his/her low self-esteem increased.

5.2. Why the natural approach is suitable for bipolar learners

As mentioned in the framework of the second language acquisition approaches, the natural approach works with topics that suit the student's interests. This perspective can help adapt the natural approach to fit the bipolar students' needs.

The natural approach considers the atmosphere as another element that facilitates the learning process. The right environment entails positive relationships with the teacher, among students, and low-stress levels. The teacher has to create a low affective filter in class so that students are open to the learning experience. Bipolar students feel what the bipolar subject is thinking - extreme mood swings because the body stops feeling what the feelings perceive. Therefore, If a relaxed atmosphere is

important for all students, it will be essential for bipolar students. A strict and distant atmosphere will only increase the isolation of the bipolar student, and make it more difficult to reinforce their self-esteem.

This approach also encourages group activities which can help the bipolar student to realise his/her abilities and potentialities. The objective is to lower the impact of the depressive messages such as "I can't, or I am worthless" and the manic messages such as "I am the best, and I need no one" that the bipolar subject tells to himself/herself.

In the natural approach, the acquisition is the basis for production ability. Thus, comprehension, listening or reading, precedes production, speaking or writing. Comprehension fosters the acquisition of content, which, in turn, encourages curiosity, a personality trait of the bipolar students. Besides, production will happen in stages which takes the pressure of being clumsy off the table. Many bipolar students find social interaction hard, and the negative feedback could trigger a depressive mood. Constructive feedback, however, will reinforce the bipolar student's self-image.

Production activities are mainly peer-to-peer interaction. Thus, the teacher should be in charge of group formation to make sure the personality traits and skills of each student foster the collaborative work. Well-balanced groups will facilitate the learning process of all the members individually and as a whole.

Creativity and the ability to highlight nuances are character traits of the bipolar student. The natural approach encourages students to develop speaking skills as if they were native speakers. This is indeed creative because there are multiple ways of conveying ideas, and bipolar students will use their mental flexibility to express them. Notwithstanding, encouraging creativity is not central to the natural approach.

Finally, the bipolar student needs a reference point that it is inside them. Creativity will facilitate the creation of this reference point. If they find a learning method that works well with their personality traits, they will find it easier to establish their reference point and progress.

5.3. Why the project-based learning approach is suitable for bipolar learners

The PBL aims to solve several problems until a final solution which will vary according to the approach followed by the group of students. Variables such as the quantity of data or search engines will compromise the outcome. Therefore the same project can have multiple answers, one for each group of students. This flexibility, not only put students in a real-life situation, but also matches with the way bipolar see the world.

As mentioned in the framework of the bipolar disorder, bipolar students can see the world from many different perspectives. The ability to capture multiple images, from both poles, - depressive and manic - allows them to solve the same task in different ways. Besides, bipolar can process a lot of information, and while doing so, they grasp multiple nuances as well as the big picture.

As mentioned in the framework of the second language acquisition approaches, PBL fosters the creativity and the curiosity of students which will trigger both emotional and cognitive process in them to find solutions at the many challenges of the project. Bipolar students have a natural tendency for creativity because the dynamic conception of the world it is a personality trait. They can also interrelate ideas, as a consequence of, their ability to capture images. A tool that works very well with this ability are mind maps which, in turn, is a suitable technique for PBL planning and problem-solving.

As mentioned in the framework of bipolar disorder, bipolar students are insatiable curious. It seems as if they are distracted, but they are devouring the world around them with their perceptions. Bipolars have a lot of intellectual interests that they have to fulfil whether with social interaction or enhancing their knowledge. Being innately curious, bipolar students will look for information, learn, undo tasks if needed, and, all these skills together with the creative problem-solving and the multiple answers are a powerful combination that matches with the project-based learning approach. Besides, they can also satisfy the need for social interaction because project-based learning is a collaborative approach.

Teachers must bear in mind that bipolar students are usually shy and don't excel at social interaction and relationships. Being intrinsically clumsy, when they fail to connect with their peers, they fall into discouragement - depression pole - and the lack of self-esteem makes it hard for them to thrive. PBL is an excellent approach for all students and bipolar in particular. On the one hand, it facilitates group integration. On the other hand, collaborative work softens personal struggles and eases individual potentialities. However, it is most convenient for the teacher to do the group formation and assign the roles because the teacher can balance groups according to student's skills, characters and abilities.

As mentioned in the framework of the bipolar disorder, bipolar subjects find it hard to understand their reality, and this makes them suffer and the need for isolation. They can see no way out of the extreme mood swing, and they accept this reality with resignation. Teachers must be aware of this situation because it may trigger behaviour such as anger and apathy. To deal with these situations in class, teachers can request the help of other teachers or psychopedagogy professionals. If this is important in any approach, it is essential in the project-based learning approach because it may affect the collaborative work.

This approach can help bipolar students to reinforce, to a certain extent, their self-esteem. With the recognition, within the group, of their ideas and abilities, the bipolar can become conscious of its value. This positive feedback can help the bipolar student to realise that neither "I can't, or I am worthless" of the depressive extreme nor "I am the best, and I need no one" of the manic extreme are discursive constructive of the self. Implicit or explicit reinforcement helps the bipolar student change his/her perception of himself/herself. The ultimate objective is that the student reinforces himself/herself, and so, all positive remarks help.

5.4. Which approach facilitates the learning process of a second language under emotional deficits such as the bipolar disorder?

Based on the analysis of sections 6.2. and 6.3 and the instruments of the previous section, the paper will conclude which second language acquisition approach

facilitates the learning process of the bipolar students. This will answer the last research question.

The chart below takes into account the main character traits of the bipolar students, and both the natural approach and the project-based learning approach. The personality traits considered are incomprehension of their condition, voracious curiosity, the gift of nuances, precise thinking, creativity, multiple answers – due to mood swing, clumsiness, intuitive - deduction, critical thinking – due to mood swing, in-depth analysis, lack of a reference point – to find inside them.

The previous characteristics align with the characteristics of the project-based learning approach. The natural approach can also fulfil the bipolar needs, but the result depends more on the activities. However, the project-based learning approach paradigm matches already with many of the personality traits of the bipolar students. Out of 22 characteristics, 90.9% of the project-based learning approach characteristics match with the bipolar character traits, against the 50% of the natural approach. See results at the end of the chart.

CHARACTERISTICS	PROJECT-BASED LEARNING APPROACH	CHECK %	THE NATURAL APPROACH	CHECK %
1	Creativity	✓	Creativity to a certain extent	✓
2	Motivation	✓	Motivation	✓
3	Freedom to find solutions	✓	Freedom to find solution – depends on the activities	✓
4	Investigation	✓	Investigation	✓
5	Data collection	✓	Data collection	✗
6	Data analysis	✓	Data analysis – depend on the activities – not central to the approach	✓
7	Share ideas between students	✓	Share ideas between students	✓
8	Multiple opportunities to communicate	✓	Multiple opportunities to communicate	✓
9	Collaborative work	✓	Collaborative work	✗
10	Problem-solving	✓	Problem-solving – depend on the activities	✓

			– not central to the approach	
11	Real-life problems	✓	Real-life problems – depend on the activities – not central to the approach	✗
12	Holistic approach	✓	Holistic approach	✗
13	Complex answers – as a result of deduction making	✓	Complex answers – as a result of deduction making- Depend on the activities – not central to the approach	✓
14	Students plan their work	✓	Students plan their work	✗
15	Use of multiple skills brought from other subjects	✓	Use of multiple skills brought from other subjects – depend on the activities – not central to the approach	✗
16	High level of thinking – not only 1 skill	✓	Hight level of thinking – depends on the activities – not central to the approach	✗
17	Language is a means to an end	✓	Language is a means to an end	✓
18	Metacognitive awareness	✓	Metacognitive awareness – to a certain extent – monitor hypothesis	✗
19	Reinforce self-esteem	✓	Reinforce self-esteem – to a certain extent	✓
20	Students can chose the topic – to a certain extent	✗	Students chose the topic	✓
21	Comprehension before production	✓	Comprehension before production	✓
22	Learning to speak intuitively – like a native speaker	✓	Learning to speak intuitively – like a native speaker	✓
TOTAL	20 CHARACTERISTICS OUT OF 22	20/22 = 90,90%	11 CHARACTERISTICS OUT OF 22	11/22 = 50%

6. Conclusions

This paper presented the results of the interrelation between the bipolar disorder and second language acquisition approaches for EFL. To connect psychological content and second language acquisition approaches, this paper started with the analysis of the emotional development. Secondly, it focused on the affections of the bipolar disorder - depressive and manic. Finally, the paper explored the bipolar disorder and the personality traits of bipolar subjects. This process set the basis to understand the bipolar disorder and how it connects with the emotional development.

All this process allowed me to answer the first research question - How does bipolar disorder affect the emotional development?.

By answering this research question, I become aware that deficits on the emotional development, identity and low self-esteem, will impair the learning process of the student.

On the other hand, this paper explored the main characteristics of the natural approach and the project-based learning approach. Having the content of both fields into account, and the results of the instruments, I could find a connection between the project-based learning and bipolar disorder. 90.9% of the characteristics of both fields match, according to the analysis.

Summary of the main points

Creativity: The ability of the bipolar to offer multiple answers to a given question or situation. This links with the ability to capture the world with images - the mood swing. Bipolars can't not change the dynamic conception of the world, it is an inherent characteristic, and so messages against the swing can make them more unstable. A gentle swing is what can help them thrive. Creativity also stimulate curiosity and intuition.

Project-based learning approach: This approach encourages students to collect, investigate and analyse data of a central topic. The students have to solve several problems until they can deliver the final product. Thus, this entails creative problem-solving because each group of students can present a different solution. This characteristic matches with the creativity trait of personality of bipolar students.

The gift of nuances: This characteristic comes from oscillation and the ability to capture the world through images. Bipolars can perceive subtleties among all the input they perceived. This quality also stimulates intuition because sometimes they are not well aware of all the data, but somehow their perceptions tells them what to do. Is like a guide that helps them bring data into consciousness.

Project-based learning approach: The gift of nuances can help in problem-solving and also bringing specific views that would be difficult to have without this ability. This skill can also help identify errors along the work, and this ability together with the dynamic perception of reality, it can help redo the work. This qualities can be put into practice because it is a flexible approach that asks students to organise their work as they see fit. If the topic is of their interest, this will also foster motivation.

Precise thinking: Bipolars students can process a lot of data and reach conclusions without being aware of all the processes they follow to reach those conclusions. They perceive thoughts as part of their reality from different points of view. Intuition, the dynamic conception of perceiving the world, and the gift of nuances helps them to achieve this quality.

Project-based learning approach: This approach fosters data collection and analysis that works well with precise thinking. If tasks are well designed, they can enjoy the process of collection and analysis. Furthermore, the approach can help them to organise their work because planning is central to this approach. Task planning can raise awareness of the processes to reach conclusions - encourage the metacognition.

Voracious curiosity: It seems as if they are absent, but they are devouring the world around them with their perceptions. Bipolar students need to satisfy their intellectual interests.

Project-based learning approach: Curiosity works well with this approach because they can collect data, learn, undo, and look for more data. The investigation to solve the problems will trigger their curiosity. Moreover, projects are a collaborative work, and this can satisfy the intellectual stimulation in the form of content as well as peer-to-peer interaction.

Clumsiness: Bipolar are usually clumsy in their relationships, and find it hard to bond with their classmates. If they feel rejected by their classmates, their self-esteem drops, and they paralyze.

Project-based learning approach: To avoid uncomfortable situations, the teacher should do the groups taking into account the skills and character traits of the different students. Besides, a balanced-group can foster collaborative work and positive feedback between the members of the group. Peer-to-peer interaction can be an issue for bipolar students, but if the group works well, it can also reinforce their self-esteem and self-image.

Incomprehension of their condition: Bipolars find it hard to understand what happens to them. They suffer and feel the need for isolation because they can see no way out. They accept this reality resignedly.

Project-based learning approach: Incomprehension of their condition is something that teachers have to take into account. Bipolar students may have reactions of anger and apathy because of their extreme mood swing. Teachers will have to deal with these reactions as they appear, thereby taking care that collaborative work doesn't get compromised.

The project-based learning approach can encourage the potential of bipolar students while reducing their emotional deficits through positive reinforcement that will come from the project-based learning approach. Notwithstanding, it is important to highlight a few points that can limit the outcome of this paper.

On the one hand, the outbreak of COVID-19 prevent me from conducting the survey. The results of the survey will add data related to the learning preferences among students. However, surveying students at "Escola Oficial d'Idiomes, won't find an explicit correspondence between the project-based learning approach and bipolar students. The number of students with bipolar disorder is low, and it may be difficult to reach the target group. Thus, I would search for specialized centres that work with students with special abilities. My idea is to see how we could collaborate to carry on the research on second language acquisition approaches that can help bipolar students. Bipolar students have a lot of potential. Once they can use their qualities, they can make valuable contributions, and most important of all stop suffering.

On the other hand, I would expand the search for published papers about the two fields. I would continue studying the bipolar disorder to know these students better and consider more second language acquisition approaches. The objective is to carry on the research to help the learning process of these students.

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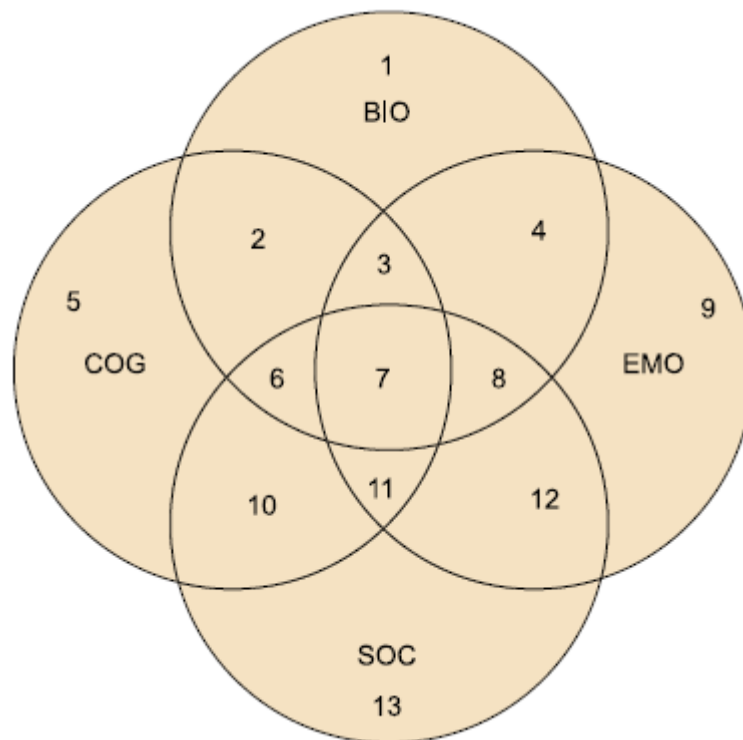
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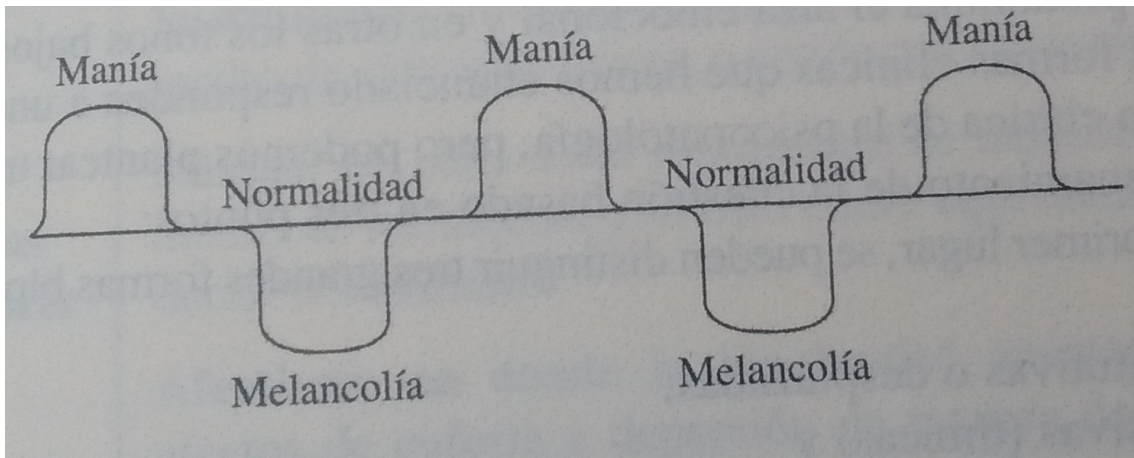
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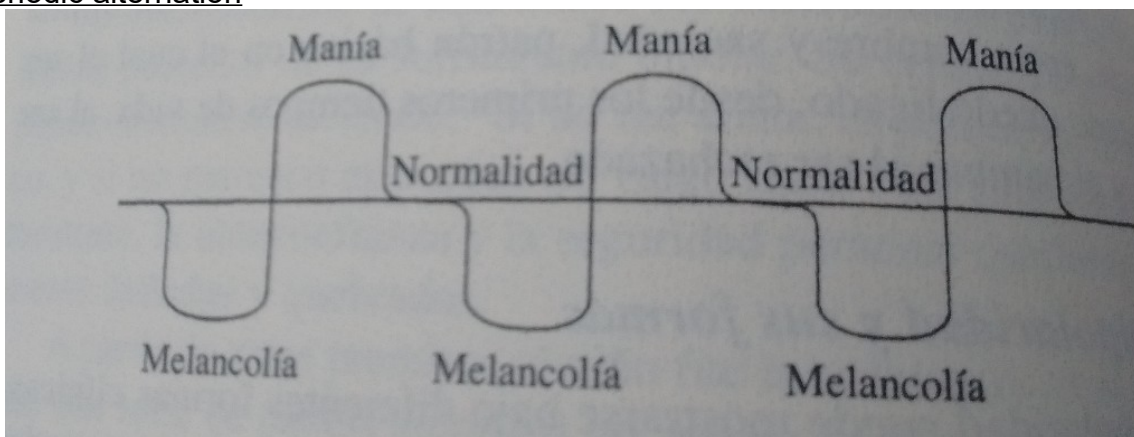


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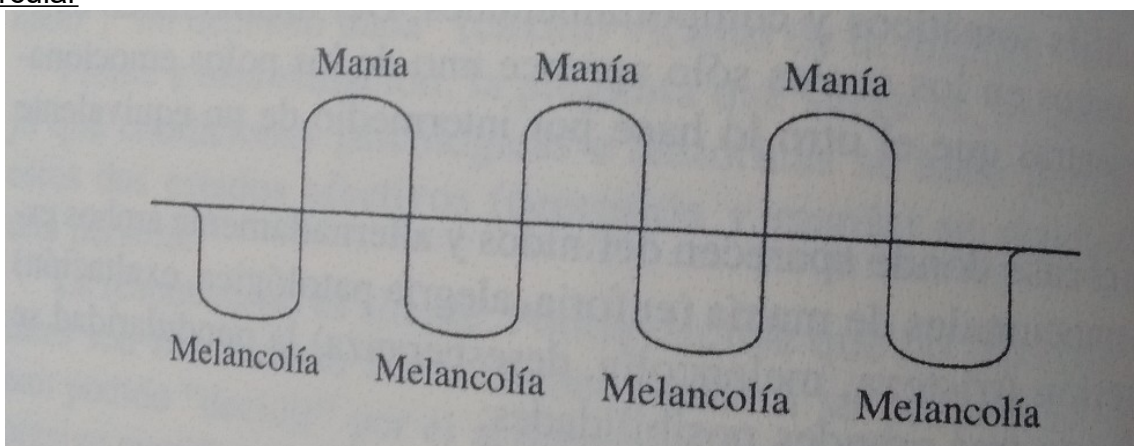
Alternately



Periodic alternation



Circular



Annexe 3

Table: further information on bipolarity characteristics.

Bipolar characteristics
1) Encourage oscillation as a source of creativity.
2) Let intuition to run free.
3) Stability is not as important as the proportion of the oscillation which has to be gentle.
4) Instability is not a disadvantage.
5) Bipolars have the gift of creativity.
6) To start the recovery, bipolar need a reference point which is not outside but inside them.
7) Bipolarity is an opportunity.
8) Bipolarity is a path.
9) Bipolarity is a gift.

Annexe 4

Hypotheses of the second language acquisition theory

Acquisition-learning hypothesis

Adults have two different ways of acquiring a second language. The first way is language acquisition which implies the use of the language in real communications. It is a natural and unconscious way of acquiring the language. The second way to be competent in the use of an L2 is by language learning. This implies formal knowledge of the language, and so, unlike the previous way is conscious. In other words, this way refers to knowing the rules and being aware of them. Language learning is explicit whereas language acquisition is implicit.

Table: The Acquisition-learning distinction

The Acquisition-learning distinction	
Acquisition	Learning
Similar to child first language acquisition	Formal knowledge of language
“Picking up” a language	“Knowing about” a language
Unconscious	Conscious
Implicit knowledge	Explicit knowledge
Formal teaching does not help	Formal teaching helps

The Natural Order hypothesis

This hypothesis states that grammatical structures are acquired in a predictable order. We will see certain similarities between acquirers; certain structures will be acquired early while others will be acquired later. However, this does not mean that all acquirers will learn grammatical structures in the same order.

The Monitor hypothesis

This hypothesis states that conscious learning has a limited function in adult second language performance: it can only be used as a Monitor, or editor. This means the utterance is said by the acquired system, whereas our conscious learning only comes in to play later. Students' fluency on production will be compromised by the use of formal knowledge, the rules, whereas acquisition facilitates fluency. Thus, to use the Monitor function successfully, correction of errors, three requirements must be met: the performer has to have enough time, the performer has to be thinking about correctness or be focused on form, and the performer must know the rule.

Table: The Monitor function – The Monitor Hypothesis

Monitor Function	
1) The performer has to have enough time.	In conversation taking time to think about rules may disrupt communication.
2) The performer has to be thinking about correctness, or be focus on form.	We may not be aware of the mistake because we are more concern of what we are saying instead of how we say it.
3) The performer has to know the rule.	Students may not know the rule, even if the rule has been presented to them.

The input hypothesis

This hypothesis states that students acquire language - not learn - by understanding inputs that are a bit beyond their actual level of competence. This means that listening and reading comprehension are more important, in the early stages, than the ability to speak or write fluently, which will come later.

Table: Input hypothesis

The Input Hypothesis: Main points
1) Relates to acquisition, not to learning.
2) We acquire by understanding language a bit beyond our current level of

competence. This is done with the help of the context.
3) Spoken fluency emerges gradually and it is not taught directly.
4) When teachers talk to students so that the student understands the message, input automatically contains "i+1", the grammatic structure the student is ready to acquire.

Aspects of Second language acquisition related to the Input Hypothesis

The input hypothesis agrees with the silent period phenomena. The silent period is the time in which acquirers build up competence by listening and understanding the input. Note that the silent period for children acquiring a second language is five months, and that their speech is not error-free.

The Natural approach is consistent with the input hypothesis and the silent period phenomena because students are not expected to speak in the early stages.

The Affective filter hypothesis

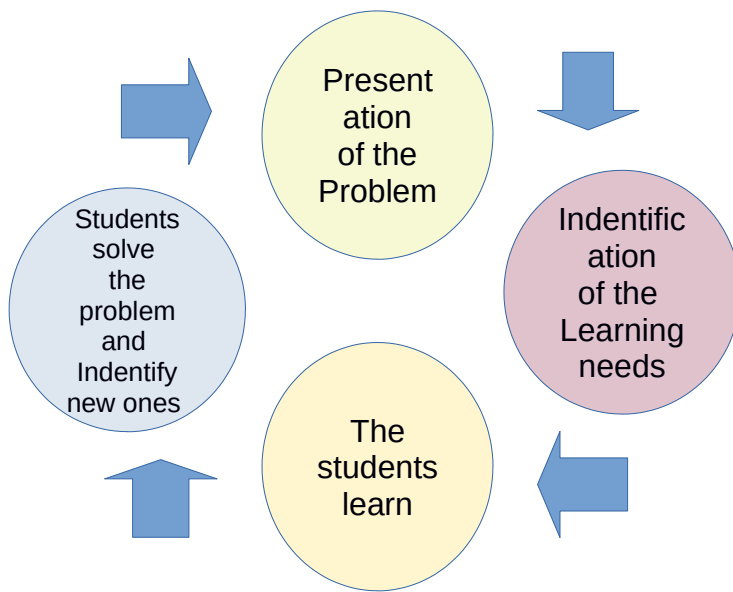
This hypothesis states that attitudinal variables relating to success in second language acquisition generally relate directly to language acquisition, but not necessary to language learning. The best situation for language acquisition is those with low-stress levels. A lower affective filter means that the performer is more open to the input. Thus, having the right attitude may encourage students to get more input and to be more receptive to the input they get. The teacher will have to create the right atmosphere to foster a low filter.

Table: Attitudinal variables related to unconscious language acquisition.

Motivated students and with a positive self-image, self-esteem.	
1) Encourage input.	The student will seek and obtain more input.
2) They contribute to a lower affective filter.	Given two students, the one with a lower filter will acquire more than the other.

Annexe 5

Learning process of the learning based on solving problems



Annexe 6

Several interviews with a clinical psychologist took place to clarify psychological concepts.

INTERVIEW DATE	SUBJECT
Sixth of July of 2020.	Data related to depression.
Thirteenth of July of 2020.	Data related to manic.
Twentieth of July of 2020.	Data related to Bipolar disorder.
Twenty-second of July of 2020.	Diagnosis of bipolar disorder and other technical terms of personality.

All the data collected in relation to these interviews had been used to understand the subject.

Interviews notes

Interview 1

Out of reality	Depressive extreme (PE) Low energy	Manic extreme (EP) Full of energy
Reality	Bipolar student Low self-esteem	

All potential is placed in the mask and the shadow. Underneath, the person has no strength. Depressive and manic falsely compensate the low self-esteem.

What was the objective of naming the mood extremes? This helped me to understand myself. It is a way of raising awareness of who I am and my abilities.

Interview 2

Out of reality	Depressive extreme (PE) Low energy
Reality	Bipolar student Low self-esteem
Family messages	Love and care

The swing emerges from messages of love and hate alternatively. When feeling down the family send positive messages.

Once you grow the messages of the family are already inside you and you repeat them - you have no control over the situation either.

Interview 3

Out of reality	Manic extreme (EP) Full of energy
Reality	Bipolar student Low self-esteem
Family messages	Hate and very demanding

The swing emerges from messages of love and hate alternatively. When feeling up the family send negative messages.

Your perception is out of reality, but your reactions match with the messages from the environment. In a way, your behaviour satisfies the members of your family - disassociation of the self.

Escape from reality - hostile environment – the person feels has no control over the situation. - collapse - depression extreme.

Interview 4

Family takes a lot of energy from you, so you can not use the energy in activities that fosters personal growth. You feel useless sometimes, and this is because you remain oblivious of the many things you do to help to make your family environment stable. Family did not welcome you, I was only a means to an end for them - scapegoat. You give them what you should use for you, and this affects your education. The person explain how he/she used to fail almost all the exams.

Do you feel upset with your family?

Forgiving the family comes from the healing process. Once you are independent and free from emotional ties, you forget about all the suffering and the struggles.

Interview 5

Gentle oscillation as a solution, never going too far.

We can take advantage of many of the characteristics we have.

Practice, trial and error - to achieve the right balance of the oscillation.

Bipolar can manage a lot of data - useful skill at work, school. They can offer multiple answers at a given problem. This can be very useful at work or in a real-life scenario.

We are also very productive because of the dynamic conception of perceiving things around us.

Interview 6

What do you think of the educational system in which you studied?

Classical approach: transmission of content and study home, plus repetitive exercises. L2 same approach as the rest of the subjects. L1s and L2 in the beginning. Some amusing tasks like song listenings.

No collaborative work and creativity wasn't encouraged. No attention to diversity, the same method and standards for everyone. The system was result-driven.

What do you think about the education system now?

Now it is worse - they are qualitatively evaluated by competencies, but the system is more competitive than before. Marks to study a degree are higher. Paradoxical message to send to students. Lack of implementing humanistic approaches.

Annexe 7

Little Snow-White

Jacob and Wilhelm Grimm

Once upon a time in midwinter, when the snowflakes were falling like feathers from heaven, a queen sat sewing at her window, which had a frame of black ebony wood. As she sewed she looked up at the snow and pricked her finger with her needle. Three drops of blood fell into the snow. The red on the white looked so beautiful that she thought to herself, "If only I had a child as white as snow, as red as blood, and as black as the wood in this frame."

Soon afterwards she had a little daughter who was as white as snow, as red as blood, and as black as ebony wood, and therefore they called her Little Snow-White. And as soon as the child was born, the queen died.

A year later the king took himself another wife. She was a beautiful woman, but she was proud and arrogant, and she could not stand it if anyone might surpass her in beauty. She had a magic mirror. Every morning she stood before it, looked at herself, and said:

Mirror, mirror, on the wall, Who in this land is fairest of all?

To this the mirror answered:

You, my queen, are fairest of all.

Then she was satisfied, for she knew that the mirror spoke the truth.

Snow-White grew up and became ever more beautiful. When she was seven years old she was as beautiful as the light of day, even more, beautiful than the queen herself.

One day when the queen asked her mirror:

Mirror, mirror, on the wall, Who in this land is fairest of all?

It answered:

You, my queen, are fair; it is true.

But Snow-White is a thousand times fairer than you.

The queen took fright and turned yellow and green with envy. From that hour on whenever she looked at Snow-White her heart turned over inside her body, so great was her hatred for the girl. The envy and pride grew ever greater, like a weed in her heart, until she had no peace day and night.

Then she summoned a huntsman and said to him, "Take Snow-White out into the woods. I never want to see her again. Kill her, and as proof that she is dead bring her lungs and her liver back to me."

The huntsman obeyed and took Snow-White into the woods. He took out his hunting knife and was about to stab it into her innocent heart when she began to cry, saying, "Oh, dear huntsman, let me live. I will run into the wild woods and never come back."

Because she was so beautiful the huntsman took pity on her, and he said, "Run away, you poor child."

He thought, "The wild animals will soon devour you anyway," but still it was as if a stone had fallen from his heart, for he would not have to kill her.

Just then a young boar came running by. He killed it, cut out its lungs and liver, and took them back to the queen as proof of Snow-White's death. The cook had to boil them with salt, and the wicked woman ate them, supposing that she had eaten Snow-White's lungs and liver.

The poor child was now all alone in the great forest, and she was so afraid that she just looked at all the leaves on the trees and did not know what to do. Then she began to run. She ran over sharp stones and through thorns, and wild animals jumped at her, but they did her no harm. She ran as far as her feet could carry her, and just as evening was about to fall she saw a little house and went inside in order to rest.

Inside the house, everything was small, but so neat and clean that no one could say otherwise. There was a little table with a white tablecloth and seven little plates, and

each plate had a spoon, and there were seven knives and forks and seven mugs as well. Against the wall there were seven little beds, all standing in a row and covered with snow-white sheets.

Because she was so hungry and thirsty Snow-White ate a few vegetables and a little bread from each little plate, and from each mug she drank a drop of wine. Afterwards, because she was so tired, she lay down on a bed, but none of them felt right -- one was too long, the other too short -- until finally the seventh one was just right. She remained lying in it, entrusted herself to God, and fell asleep.

After dark, the masters of the house returned home. They were the seven dwarfs who picked and dug for ore in the mountains. They lit their seven candles, and as soon as it was light in their house they saw that someone had been there, for not everything was in the same order as they had left it.

The first one said, "Who has been sitting in my chair?"

The second one, "Who has been eating from my plate?"

The third one, "Who has been eating my bread?"

The fourth one, "Who has been eating my vegetables?"

The fifth one, "Who has been sticking with my fork?"

The sixth one, "Who has been cutting with my knife?"

The seventh one, "Who has been drinking from my mug?"

Then the first one saw a that there was a little imprint in his bed, and said, "Who stepped on my bed?"

The others came running up and shouted, "Someone has been lying in mine as well."

But the seventh one, looking at his bed, found Snow-White lying there asleep. The seven dwarfs all came running up, and they cried out with amazement. They fetched their seven candles and shone the light on Snow-White. "Oh good heaven! Oh good heaven!" they cried. "This child is so beautiful!"

They were so happy, that they did not wake her up, but let her continue to sleep there in the bed. The seventh dwarf had to sleep with his companions, one hour with each one, and then the night was done.

The next morning Snow-White woke up, and when she saw the seven dwarfs she was frightened. But they were friendly and asked, "What is your name?"

"My name is Snow-White," she answered.

"How did you find your way to our house?" the dwarfs asked further.

Then she told them that her stepmother had tried to kill her, that the huntsman had spared her life, and that she had run the entire day, finally coming to their house.

The dwarfs said, "If you will keep house for us, and cook, make beds, wash, sew, and knit, and keep everything clean and orderly, then you can stay with us, and you shall have everything that you want."

"Yes," said Snow-White, "with all my heart."

So she kept house for them. Every morning they went into the mountains looking for ore and gold, and in the evening when they came back home their meal had to be ready. During the day the girl was alone.

The good dwarfs warned her, saying, "Be careful about your stepmother. She will soon know that you are here. Do not let anyone in."

Now the queen, believing that she had eaten Snow-White's lungs and liver, could only think that she was again the first and the most beautiful woman of all. She stepped before her mirror and said:

Mirror, mirror, on the wall,
Who in this land is fairest of all?

It answered:

You, my queen, are fair; it is true.
But Snow-White, beyond the mountains
With the seven dwarfs,
Is still a thousand times fairer than you.

This startled the queen, for she knew that the mirror did not lie, and she realized that the huntsman had deceived her, and that Snow-White was still alive. Then she thought, and thought again, how she could kill Snow-White, for as long as she was not the most beautiful woman in the entire land her envy would give her no rest.

At last, she thought of something. Colouring her face, she disguised herself as an old peddler woman, so that no one would recognize her. In this disguise, she went to the house of the seven dwarfs. Knocking on the door she called out, "Beautiful wares for sale, for sale!"

Snow-White peered out the window and said, "Good day, dear woman, what do you have for sale?"

"Good wares, beautiful wares," she answered. "Bodice laces in all colours." And she took out one that was braided from colourful silk. "Would you like this one?"

"I can let that honest woman in," thought Snow-White, then unbolted the door and bought the pretty bodice lace.

"Child," said the old woman, "how you look! Come, let me lace you up properly."

The unsuspecting Snow-White stood before her and let her do up the new lace, but the old woman pulled so quickly and so hard that Snow-White could not breathe.

"You used to be the most beautiful one," said the old woman, and hurried away.

Not long afterwards, in the evening time, the seven dwarfs came home. How terrified they were when they saw their dear Snow-White lying on the ground, not moving at all, as though she were dead. They lifted her up, and, seeing that she was too tightly laced, they cut the lace in two. Then she began to breathe a little, and little by little she came back to life.

When the dwarfs heard what had happened they said, "The old peddler woman was no one else but the godless queen. Take care and let no one in when we are not with you."

When the wicked woman returned home she went to her mirror and asked:

Mirror, mirror, on the wall,
Who in this land is fairest of all?

The mirror answered once again:

You, my queen, are fair; it is true.
But Snow-White, beyond the mountains
With the seven dwarfs,
Is still a thousand times fairer than you.

When she heard that, all her blood ran to her heart because she knew that Snow-White had come back to life.

"This time," she said, "I shall think of something that will destroy you."

Then with the art of witchcraft, which she understood, she made a poisoned comb. Then she disguised herself, taking the form of a different old woman. Thus she went across the seven mountains to the seven dwarfs, knocked on the door, and called out, "Good wares for sale, for sale!"

Snow-White looked out and said, "Go on your way. I am not allowed to let anyone in."

"You surely may take a look," said the old woman, pulling out the poisoned comb and holding it up. The child liked it so much that she let herself be deceived, and she opened the door.

After they had agreed on the purchase, the old woman said, "Now let me comb your hair properly."

She had barely stuck the comb into Snow-White's hair when the poison took effect, and the girl fell down unconscious.

"You specimen of beauty," said the wicked woman, "now you are finished." And she walked away.

Fortunately it was almost evening, and the seven dwarfs came home. When they saw Snow-White lying on the ground as if she were dead, they immediately suspected her stepmother. They examined her and found the poisoned comb. They had scarcely pulled it out when Snow-White came to herself again and told them what had happened. Once again they warned her to be on guard and not to open the door for anyone.

Back at home the queen stepped before her mirror and said:

Mirror, mirror, on the wall,
Who in this land is fairest of all?

The mirror answered:

You, my queen, are fair; it is true.
But Snow-White, beyond the mountains
With the seven dwarfs,
Is still a thousand times fairer than you.

When the queen heard the mirror saying this, she shook and trembled with anger, "Snow-White shall die," she shouted, "if it costs me my life!"

Then she went into her most secret room -- no one else was allowed inside -- and she made a poisoned, poisoned apple. From the outside, it was beautiful, white with red cheeks, and anyone who saw it would want it. But anyone who might eat a little piece of it would die. Then, colouring her face, she disguised herself as a peasant woman, and thus went across the seven mountains to the seven dwarfs. She knocked on the door.

Snow-White stuck her head out the window and said, "I am not allowed to let anyone in. The dwarfs have forbidden me to do so."

"That is all right with me," answered the peasant woman. "I'll easily get rid of my apples. Here, I'll give you one of them."

"No," said Snow-White, "I cannot accept anything."

"Are you afraid of poison?" asked the old woman. "Look, I'll cut the apple in two. You eat the red half, and I shall eat the white half."

Now the apple had been so artfully made that only the red half was poisoned. Snow-White longed for the beautiful apple, and when she saw that the peasant woman was eating part of it she could no longer resist, and she stuck her hand out and took the poisoned half. She barely had a bite in her mouth when she fell to the ground dead.

The queen looked at her with a gruesome stare, laughed loudly, and said, "White as snow, red as blood, black as ebony wood! This time the dwarfs cannot awaken you."

Back at home, she asked her mirror:

Mirror, mirror, on the wall,
Who in this land is fairest of all?

It finally answered:

You, my queen, are fairest of all.

Then her envious heart was at rest, as well as an envious heart can be at rest.

When the dwarfs came home that evening they found Snow-White lying on the ground. She was not breathing at all. She was dead. They lifted her up and looked for something poisonous. They undid her laces. They combed her hair. They washed her with water and wine. But nothing helped. The dear child was dead, and she remained dead. They laid her on a bier, and all seven sat next to her and mourned for her and cried for three days. They were going to bury her, but she still looked as fresh as a living person, and still had her beautiful red cheeks.

They said, "We cannot bury her in the black earth," and they had a transparent glass coffin made, so she could be seen from all sides. They laid her inside, and with golden letters wrote on it her name, and that she was a princess. Then they put the coffin outside on a mountain, and one of them always stayed with it and watched over her. The animals too came and mourned for Snow-white, first an owl, then a raven, and finally a dove.

Snow-White lay there in the coffin a long, long time, and she did not decay, but looked like she was asleep, for she was still as white as snow and as red as blood, and as black-haired as ebony wood.

Now it came to pass that a prince entered these woods and happened onto the dwarfs' house, where he sought shelter for the night. He saw the coffin on the mountain with beautiful Snow-White in it, and he read what was written on it with golden letters.

Then he said to the dwarfs, "Let me have the coffin. I will give you anything you want for it."

But the dwarfs answered, "We will not sell it for all the gold in the world."

Then he said, "Then give it to me, for I cannot live without being able to see Snow-White. I will honour her and respect her as my most cherished one."

As he thus spoke, the good dwarfs felt pity for him and gave him the coffin. The prince had his servants carry it away on their shoulders. But then it happened that one of them stumbled on some brush, and this dislodged from Snow-White's throat the piece of poisoned apple that she had bitten off. Not long afterwards she opened her eyes, lifted the lid from her coffin, sat up, and was alive again.

"Good heavens, where am I?" she cried out.

The prince said joyfully, "You are with me." He told her what had happened and then said, "I love you more than anything else in the world. Come with me to my father's castle. You shall become my wife." Snow-White loved him, and she went with him. Their wedding was planned with great splendour and majesty.

Snow-White's godless stepmother was also invited to the feast. After putting on her beautiful clothes she stepped before her mirror and said:

Mirror, mirror, on the wall,
Who in this land is fairest of all?

The mirror answered:

You, my queen, are fair; it is true.
But the young queen is a thousand times fairer than you.

The wicked woman uttered a curse, and she became so frightened, so frightened, that she did not know what to do. At first she did not want to go to the wedding, but she found no peace. She had to go and see the young queen. When she arrived she recognized Snow-White, and terrorized, she could only stand there without moving.

Then they put a pair of iron shoes into burning coals. They were brought forth with tongs and placed before her. She was forced to step into the red-hot shoes and dance until she fell down dead.

Annexe 8

Excel: Data used to do the graphs.

Google Scholar

Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
bipolar disorder	5050	6300	7260	8990	10400	11600	12600	15200	16400	17600	19600	22300	25300	26500	28100
bipolar disorder + education	2370	2840	3160	4260	5010	5470	6180	7410	8150	8800	9680	11100	12500	13400	14500

PsycINFO

Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
bipolar disorder	4	2	10	7	10	14	12	20	15	16	30	17	17	27	24
bipolar disorder + education	2	2	7	7	8	12	13	12	11	14	17	11	7	16	18

PubMed

Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
bipolar disorder	897	926	1128	1210	1422	1700	1851	1998	2043	2109	2117	2491	2631	2759	2777
bipolar disorder + education	25	41	54	64	76	86	106	117	128	139	155	181	196	219	265

ERIC

Year	2001-2020	2011-2020	2016-2020	2019
bipolar disorder	295	109	21	11
bipolar disorder + education	35	19	10	5

Google Scholar

Year	2016	2017	2018	2019	TOTAL
bipolar disorder	29200	29000	29500	27500	348400
bipolar disorder + education	15200	15800	16900	17900	180630

PsycINFO

Year	2016	2017	2018	2019	TOTAL
bipolar disorder	24	29	14	32	324
bipolar disorder + education	17	20	13	20	227

PubMed

Year	2016	2017	2018	2019	TOTAL
bipolar disorder	2823	2793	2837	2671	39183
bipolar disorder + education	270	285	317	290	3014