



People's Democratic Republic of Algeria
Ministry of Higher Education and Scientific Research
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The Positive effects of negative emotions on students' learning process

A Dissertation Submitted to English department Chadli Benjdid University El Taref
In partial fulfillment of the requirements for the degree of Masters in didactics of English

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2020-2021

Dedication

Immeasurable love and thanks to my parents for enduring and tolerating me and my anxiety; and most importantly for knowing the remedy. All is always for you.

Unconditional gratitude goes to my grandmother.

To my Brothers; my backbone.

This work is done by me, for me, and I dedicated to myself. It was Tough.

To everyone who believed in me, especially when I did not.

Acknowledgment

This work would have not been done without Allah's blessings

Forever grateful for:

- My supportive, loving, little family.
- My partner in Crimes.
- My sis-bestie, for her unconditional support though we are over 1800 km apart.
 - The handful lovable friends I have had over the years.
- Master two students of English- Taref University 2016-2021, for being Just *the best*.

Enormous thanks and respect for my supervisor: Miss Nadji Selma.

At last I want to express my gratitude to all the people who took part in this research: students and teachers of Chadli Benjdid University- Eltaref, and CSCS club; they were all friendly and very helpful.

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List of acronyms and abbreviations

CSCS : Culture Science Communication Sports

EI: Emotional intelligence

FL: foreign language

MA: Masters

N.R: number of responses

N: number

NE: Negative Emotions

NF: Negative Feelings

PE : Positive Emotions

PENF: Positive effects of negative emotions

PENF: Positive Effects of Negative Emotions

PTSD: Posttraumatic stress disorder

SSET: Students support exposure to trauma

Abstract

Being emotional is part of being human and it is rather impossible to detach our emotions, either negative or positive ones, from anything we do. Negative emotions are known for their unpleasantness, yet, they are not entirely *bad*. This study aims to investigate how students manage their negative emotions whilst learning. Additionally, it describes students' and teachers' view point about these unpleasant feelings. In order to accomplish the stated purpose, a descriptive research was conducted with a combination of both qualitative and quantitative methods. The data have been gathered from 66 participants, all were from different ages, genders, study levels, and disciplines, reported that negative emotions had a stimulating urge of motivation for them in many cases. They are unpleasant and challenging, yet, not detrimental for learning once one sets his/ her mind to it. Moreover, it was concluded that not everyone cares about making use of negative feelings.

Keywords: negative emotions, learning, psychological empowerment, helpful thinking

المخلص

العاطفة جزء من الإنسان، فمن المستحيل فصل عواطفنا عن أي شيء نقوم به سواء كانت سلبية أو إيجابية. لا تعتبر المشاعر السلبية سيئة تمامًا، فقد اثبتت الدراسات بأنها يمكن أن تكون فعالة، ومع ذلك لا يستطيع بعض الناس النظر إلى ما وراء كلمة "سلبية". من هنا، هدفت هذه الدراسة إلى التحقيق في كيفية إدارة الطلاب لمشاعرهم السلبية أثناء الدراسة، ووصفت وجهة نظرهم ونظر المعلمين حول هذه المشاعر غير السارة. من أجل تحقيق ذلك، تم إجراء بحث وصفي بمزيج من الأسلوبين النوعي والكمي. أفادت الإجابات التي تم جمعها من 66 مشاركًا، جميعهم من مختلف الأعمار، والأجناس، ومستويات الدراسة، والتخصصات، أن في كثير من الحالات المشاعر السلبية وبالرغم من إنها مزعجة ومليةة بالتحديات تحفزهم وبالتالي هي ليست ضارة بالتعلم بمجرد أن يفكر المرء في ذلك، علاوة على ذلك، تم الاستنتاج بأن ليس كل شخص مهتمًا باستخدام تلك المشاعر الغير مرغوب فيها.

Chapter one: Introductory Chapter

Introduction

The growing interest in mental health is quite impressive. Individuals are more open to emotions and to the fact that it is entirely “normal” to have ups and downs, that good and bad mood (i.e. positive and negative emotions) are just part of life, part of human nature. Unfortunately, the focus on the good, in terms of emotions, is very straightforward, up to the point of exaggeration.

It is fair to claim that everybody wants to be happy, and by the rise of positive psychology, happiness became the new holy book, and notions like positivity is the key arouse with. Not to deny the importance of the latter; however, positivity became overestimated that, once again, led to another one-sided narrative; positivity is the key equals *negativity about negativity* (Razzetti, 2019). Consequently, ‘I am not in the mood’, ‘I am not feeling like it’ became the excuse when not wanting to be *productive*.

In terms of mood on motivation, there are no proofs to defend that Negative Emotions (NEs) have adverse effects only, and Positive Emotions (PEs) have just positive effects. As in fact, positivity can be harmful. Aspinwall (1998) shed light on a very well known theory which indicated that people in a good mood tend to take higher risks in the sense of an overestimation of their competencies, like *I feel good ... I can do everything*. It was also concluded that students in a good mood are more likely to detach themselves from learning if learning topics are of less importance to them; PEs motivate them to pay only a minimum of attention. If that on the one hand, then, on the other, the thought of NEs having positive effects is not highly irrational.

Moods and emotions are different in three main respects:

1. Emotions are more short-termed than moods.
2. Emotions are reactions to a particular situation; they are linked to a specific object, person or situation, unlike mood; mood is a general feeling.
3. Emotions are more intense than moods, which can be strong feelings such as terror, despair...In contrast, one might not be conscious of whether s/he is in a good or bad mood until responding to situations.

Yes, moods and emotions are contrastive, yet they are linked; whenever someone is in a bad mood, it is likely to be because of a NF: sadness, wrath, fearfulness... about something, and so applies to good mood; feelings such as happiness, joyfulness, hopefulness...So the nature of emotions should inform us about the nature of mood (Thagard, 2018). Nevertheless, ordinary people uttered them to indicate the same. So, they shall be used interchangeably in this paper.

Statement of the problem

Further than what was discussed above about how not being in a positive mood became a redundant *excuse* among countless individuals not to be productive, such attitude is also noticed in educational settings. Most students tend to use their NFs: stress, sadness, fear... as an excuse when failing, and erroneously to not even try in some cases, regardless of the literature that supports the claim that NFs can result in motivation. Despite of the positive effects of positive mood and emotions, nothing indicates that PEs foster learning, and NEs are harmful (Bless & Fiedler, 1999). For that, such excuse and attitude should neither be accepted nor tolerated.

The Significance of the Study

This research shall add to people's emotional growth; knowing we can have control over our emotions, might help to unlock updated versions of ourselves, because when one is negative,

even about the negative in this case, their judgment would be too clouded to see what they can accomplish.

The Purpose of the Study

This research aims to raise mental health awareness about the benefits of NFs to start using them as a reason to succeed other than an excuse to fail.

The Research Questions:

1. Can NEs become a significant urge for learners, regardless of the source that generated them?
2. How do learners deal with negative emotions?

The Research Hypotheses

1. NFs can provide a push for learners to focus on their studies; they might be controllable in a fair manner for learners to use in the learning process, regardless of their source (either educational or non educational factors)
2. Emotions, negative ones in particular, can be challenging to deal with, and sometimes, assistance is required.

Research Methods:

Research Design

This is a descriptive study, adopting a mixture of quantitative and qualitative methods to investigate the probable positive effect of NEs on learners' learning process; as to describe students' and teachers' perspective about NFs and the fact that might be *useful*.

Participants

There were 66 participants in this study (both teachers and students) . Intentionally, no particular individuals or groups were targeted to observe a pattern among demographic samples in understanding the thought of positivity of negative mood; if there is one.

Data Gathering tools

In order to gather data for this research, a questionnaire was prepared to be answered by both teachers and students.

Structure of the dissertation

This paper is composed of five chapters: an introductory chapter, literature review, research methodology, results and analysis, at last conclusion and recommendations. Firstly, Chapter one outlines the purpose of the study along with research questions, hypotheses, significance of the study and the methods used in addition to a general overview of the topic. Secondly, chapter two entails the major concepts related to this study and how the literature viewed emotions. Thirdly, chapter three discussed the tools, participants and procedure used to conduct this study. Lastly, chapter four and five demonstrate the results of the survey, and their discussion. Next, a section is dedicated to recommendations for teachers, students and further research.

Conclusion

The current chapter introduced the key elements of this study briefly. It provided an overview of the topic. Next, statement of the problem was declared, followed by significance of the study, then, the purpose of the study. Afterwards, the Research Questions and hypotheses were presented. At last, the methodology used for conducting this study was discussed followed

the structure of the thesis. The following chapter shall introduce the literature review related to this study.

Chapter two: Theoretical framework

Introduction:

This chapter discusses the term *emotion*: definition, components, number and form, indicators of quality, as it discusses some of the major theories and research findings related to it in correlation with learning. At last, an outline of other notions that are meant to help to deal with NEs takes place; such as emotional intelligence, SSET program, helpful thinking, psychological empowerment.

Definition of Emotion

Almost everyone, with the exception of psychologists, understands what an emotion is (Young, 1973). Generating a significant scientific definition could not be more difficult, because emotional processes and states are complex and can be analyzed from many angularities that a whole perspective is hardly impossible. Consequently, Kleinginna and Kleinginna (1981) found over a 100 definition which were put in a division of 11 categories:

1. Affective definitions (emphasis on feelings of arousal)
2. Cognitive definitions (emphasis on appraisal)
3. External stimuli definitions (emphasis on external emotion)
4. Physiological definitions (emphasizing internal physical mechanisms of emotion)
5. Expressive emotional behavior definitions (emphasis on the observable emotional responses)
6. Disruptive definitions (emphasis on dysfunctional effects of emotion)
7. Adaptive definitions (emphasis on functional effects of emotion)

8. Multiaspect definitions (emphasis on the interrelated components of emotion)
9. Restrictive definitions (distinction between emotions and other psychological processes)
10. Motivational definitions (emphasis the correlation between emotion and motivation)
11. Skeptical statements (Doubtfulness about the usefulness of *emotion*)

Thus, with no commonly or even superficially acceptable definition for *emotion* (Mandler, 1979), this domain remains problematic, and the lack of an acceptable theory makes it fragmented (Chaplin & Krawiec, 1979). Furthermore, not only they have not come to common understanding about a definition of emotion, they even failed to come up with one label to all emotional phenomena so there is: ‘*emotion*’, ‘*affect*’, ‘*feeling*’, and ‘*mood*’.

Overlooking the definition of an ‘*emotion*’ it includes: physical reactions, expressive gestures, in addition to feelings. The latter are internally experienced, which might be understood based on ones’ behavior. Admittedly, according to Cowen A. (2017) asking people how they feel is the most direct way to measure emotional feelings. So, emotions, as Schutz et al. (2006, p. 345) stated “are holistic episodes of physiological, psychological, and behavioral aspects”. Consequently, it was concluded that emotion has the following components:

- a. The affective component (the experienced feeling: fear, sadness...)
- b. The cognitive component (the possible thoughts generated by the “feeling”).
- c. The expressive component (e.g. facial expressions)
- d. The motivational component (the actions taken based on the feeling)And finally,
- e. the physiological component (physical reactions)

For several years, it was claimed that there were just five or six forms of emotions: anger, disgust, fear, happiness, and sadness which are the most studied emotions. Supporters of this theory of emotion, eg: Paul Eckman, Phil Shaver (Matsumoto, 2021), believe that each type is a family of emotions entails closely related feeling (e.g. anger, frustration, and rage). Nevertheless, others believe that there are only two dimensions that cause us to feel the emotion in any situation: valence and arousal. Valence describes the attractiveness (positive valence) or aversiveness (negative valence) of stimuli along a continuum (negative – neutral – positive), while arousal describes the perceived intensity of an event, ranging from very calming to highly exciting (Kensinger & Schacter, 2006).

In order to determine how many emotions people have and their dimensions Alan Cowen and Keltner D. (2017) had people look at over 2,000 diverse films and then say what they feel. He concluded that there are about 25 different categories of emotion. Consequently, he declared that it was partially accurate to say emotions are families, yet there are about 25, not 6, plus they are not separate; they can be combined or, in other words, blended just like colors. Kendra C. (2021) explained that emotions can be combined to form different feelings, much like colors can be mixed to create other shades. So, Emotions are not isolated states; however, they are gradients, and profoundly interrelated.

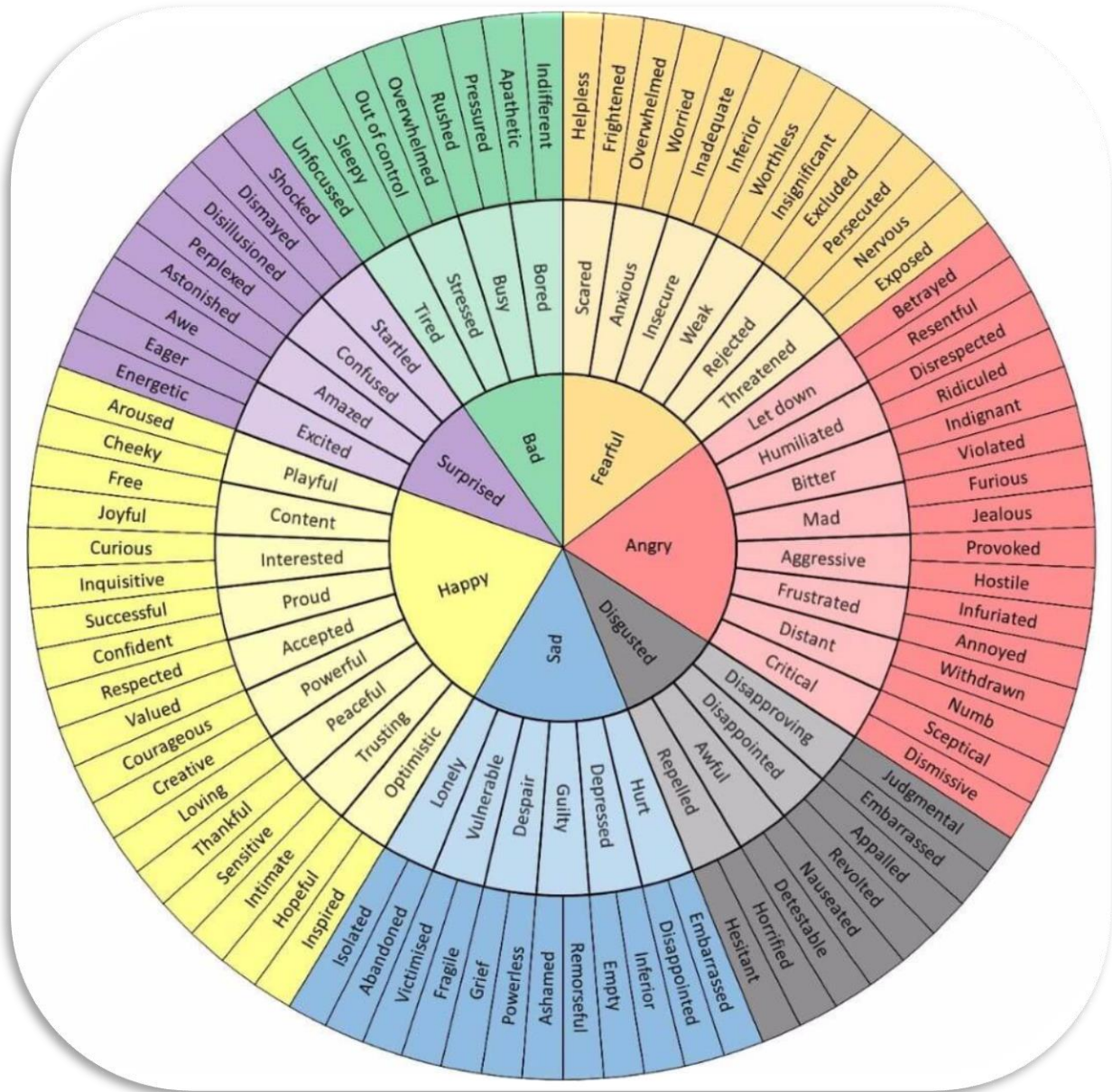


Figure 01: color wheel of emotions (website)

Similarly, the theory explained in the figure above was cleared in wheel of emotions by Dr. Robert Plutchik, an American psychologist, who devised the wheel of emotions in 1980 as a visual aid for comprehending his psycho-evolutionary theory. He revealed eight fundamental emotions that were paired in completely opposite directions:

- Sadness vs. joy
- Disgust vs. admiration
- Anger vs. Fear
- Prediction vs. Surprise

The wheel can be used to shift between the different intensities that emotions elicit.

As a result, it is best used for objectively identifying strong emotions. According to Plutchik's research (1980), there are 34,000 distinct emotions. It is, however, impossible to distinguish and comprehend all 34,000. So, reducing them to eight key emotions might be helpful (See figure 02).

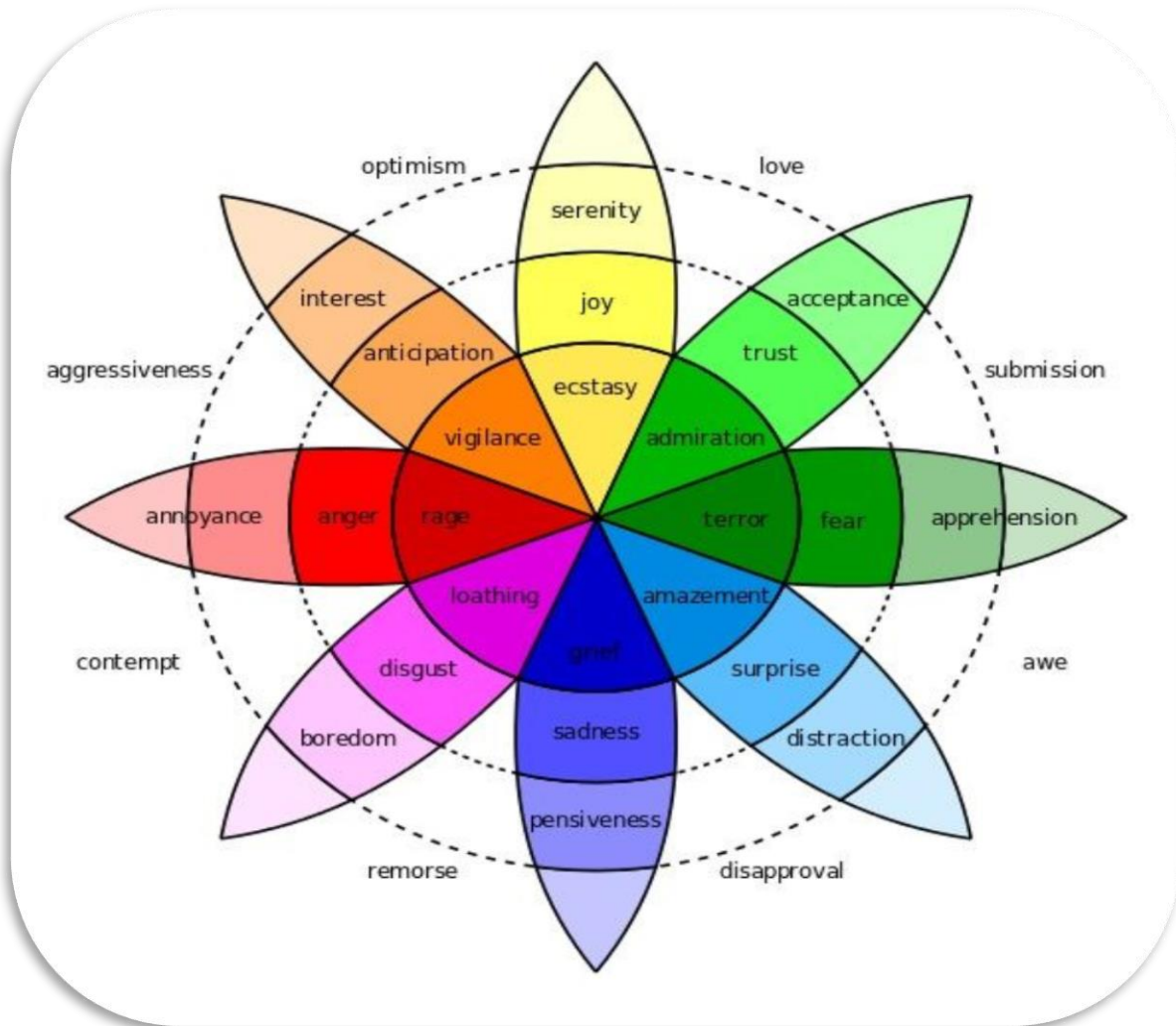


Figure02: Plutchik's Wheel of Emotions (Putting Some Emotion into Your Design – Plutchik's Wheel of Emotions).

Plutchik's wheel of emotions categorizes eight main emotions: joy, trust, fear, surprise, sadness, anticipation, anger, and disgust, placed according to their physiological functions. Furthermore, each of those is opposing to another feeling (i.e., its antonym) based on the physiological responses that each emotion elicits in animals. The model is a small ice cream corn that unfolds to reveal the emotions wheel (Six seconds). The degradation in colors refers to the intensity of a family of feeling, however, the ones that are not colored are emotion coming from

a combination of two feeling , three.. ect (*Plutchik's Wheel of Emotions: Feelings Wheel • Six Seconds* 2021).

As for the quality, at least eight indicators were put into the account (Hascher, 2010):

1. Emotional valence (pleasant = positive, unpleasant = negative, and ambivalent);
2. The arousal level (deactivating–activating);
3. Intensity (low–intense)
4. Duration (short–long)
5. The frequency of its occurrence (seldom–frequent)
6. The time dimension (retrospective, prospective like)
7. Subject reference (self-related, orientated towards other persons, or activity);
8. and finally, the context of an emotion

Furthermore, there is another categorization that addresses the idea that feelings may be situational or wide-ranging. The terminology 'state'-'trait'-emotion identifies this distinction. For instance, we have anxiety; one may feel anxious because of a threatening situation (state), while others may experience such feeling in situations not necessarily dangerous (trait).

Positive emotions VS Negative emotions:

It may seem strange enough, at first, to talk about two antonyms and try to prove they fit together "*positive effects of negative emotions*". Well, to begin with, when referring to negative or positive emotions it indicates the valence (that's the scientific terminology) this does not imply that PFs are of positive effects and NFs are of adverse effects. Forwardly, *positive* is to mean *pleasant or pleasurable* such as happiness, contentment, satisfaction; while *negative* means *unpleasant* like fear, anger, sadness (Ackerman, 2021). Interestingly, PEs can have positive effects as they can have adverse effects and vice versa.

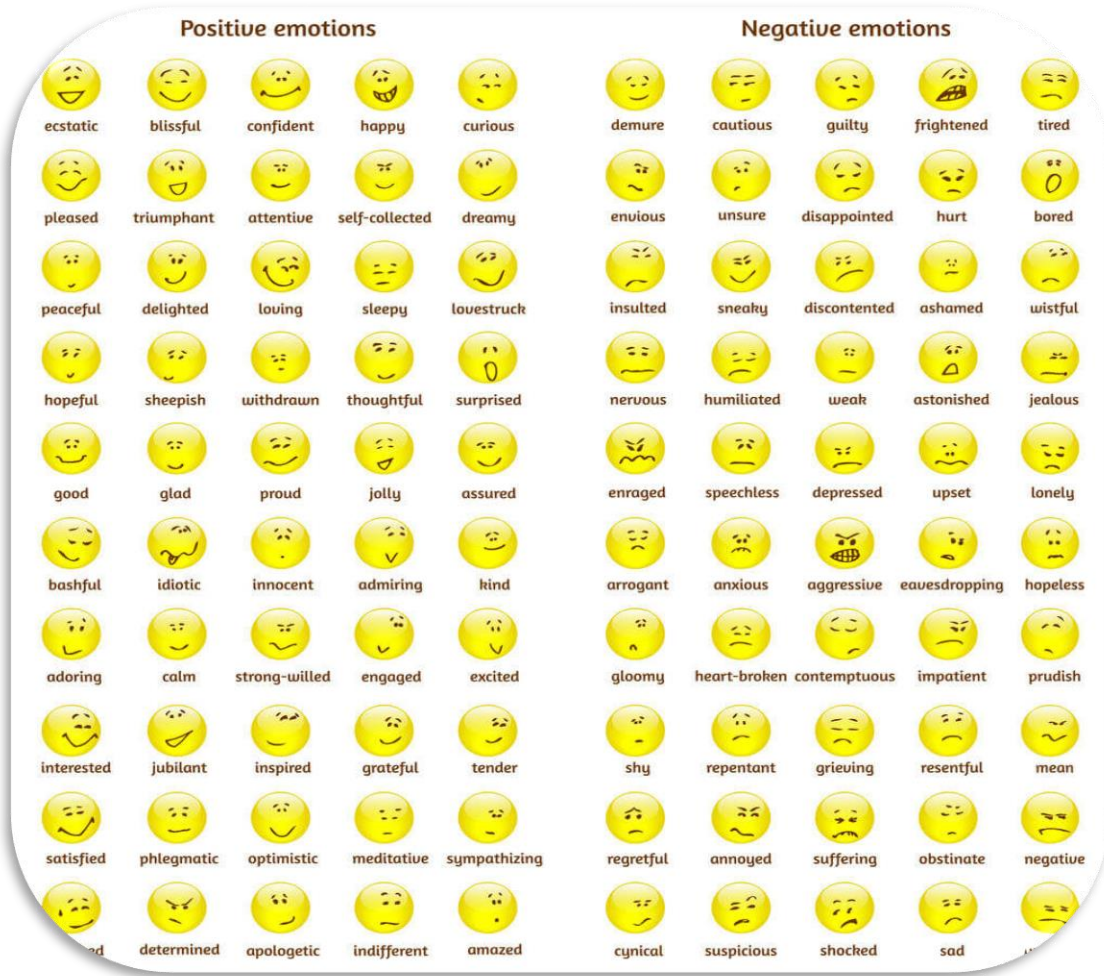


Figure 03: Positive and Negative Emotion Chart (PositivePsychology)

There are quite several works that outline the positive impact of a good mood:

Jordan and Dolcos (2017) stated that pleasant feelings could increase a cognitive performance task along with the speed of perception and reasoning. Plenty more researches prove that a good mood directly connects with creativity (Abele, 1992; Davis, 2009; Kramer, 2003; Tokarz, 1991). PEs make humans more creative (Baas et al., 2013; Fredrickson, 2001; Naylor, Kim, and Pettijohn, 2013; Tokarz, 2005). Thus, cognitive processes seem to be influenced by PEs. Nevertheless, Gordon bower’s Mood-congruence-hypothesis assumes that negative information is more burdensome to process in a good mood; making students less attentive if the subject is

not considered significant. In addition, Aspinwall (1998) theory indicates that people in a good mood take higher risks; they tend to overestimate their abilities.

Since PEs do not necessarily always impact people positively, well, can NE impact differently? NEs are known to narrow the focus on the bad feeling, which negatively affects their goals. They can promote shut down, and total avoidance, especially boredom and fear. Nevertheless, Razzetti (2019) wrote that negative emotions could facilitate learning and bring us to the depths within us. A study by Charli Sitinjak (2016) concluded that being envious pushed students to do well in school; that NF fueled them to accomplish a goal someone else reached. LaFata (2014) commented that sadness makes us more attentive to details, and the latter improves memory. A study by Norem and Cantor (1986) compared optimists to pessimists in various *risky* tasks. Pessimists did well *because of their pessimism*, negative thinking transformed anxiety into action. Imagining the worst-case scenario prepared them to be ready for any kinds of tasks.

Humans' natural "fight or flight" rule over positive thinking and help to discover solutions in an anxious situation. Walter Cannon, an American physiologist, was the first to describe the fight-or-flight response in the 1920s. Cannon discovered that a series of fast internal reactions helped the body deploy its resources to deal with dangerous situations.

Cherry, (2019) explained that the fight-or-flight reaction is now acknowledged as part of the general adaption syndrome's initial stage by Hans Selye (a theory describing the stress response).The fight or flight response is a physiological response that occurs automatically in response to a stressful or frightening experience (e.g. feeling stressed); the sympathetic nervous system is activated when a threat is perceived, triggering an acute stress reaction that calls for immediate fight or flee response. These responses are evolutionary adaptations that help people

survive in dangerous situations. Interestingly, being afraid or anxious can be just the needed feeling to survive (e.g. escaping house on fire).

Emotions and learning:

Hardly, nothing can be done without emotions interfering; and learning is not an exception. Learners are likely to feel stressed or excited in first day of school, as they may feel frustrated or curious about new information, or content about a positive feedback, the examples are uncountable. Unfortunately, given the apparent connection between learning and emotion, little is studied. For decades, learning has been widely researched in terms of cognitive and motivational aspects. Consequently, affective processes were overlooked in educational research. Within that little research that took place, the focus was on positive emotions over negative ones; and even within the research on negative emotions, anxiety was the prominently studied feeling. Not to underestimate the researches about anxiety, those researches (Horwitz et al., 1986; Rosenfeld, 1978; MacIntyre, 1995; Grimes, & Allinsmith, 1961) concluded that people agreed that Anxiety improves learning *positively*.

So, what is the influence of the other emotions on learning? The mood-congruence-hypothesis is one of the most well-known theories that hypothesized that mood congruence eases cognitive processes based on the concept of cognitive networks (Bower, 1981). Pleasant information is easier to recall in a positive mood than it is in a negative one, and negative information is easier to remember in a negative mood rather than a positive one. So, a positive mood makes negative information more difficult to process. Nonetheless, the opposite was also proven accurate: a positive mood can also foster negative information. As an explanation to these results, the subjective importance was the dependent variable. So, Hasher (2004) stated that

mood influence seems to be mediated by personal relevance and, hence, learning cannot be reduced to mood effects in other words the influence of mood can be variable due to the importance of the subject, the process, the valence. In addition her study concluded that teachers, peers, family, learning materials, and so on impact students' feelings are also subject to the effect of mood. Moreover, according to her research teachers are a vital source for students' emotions.

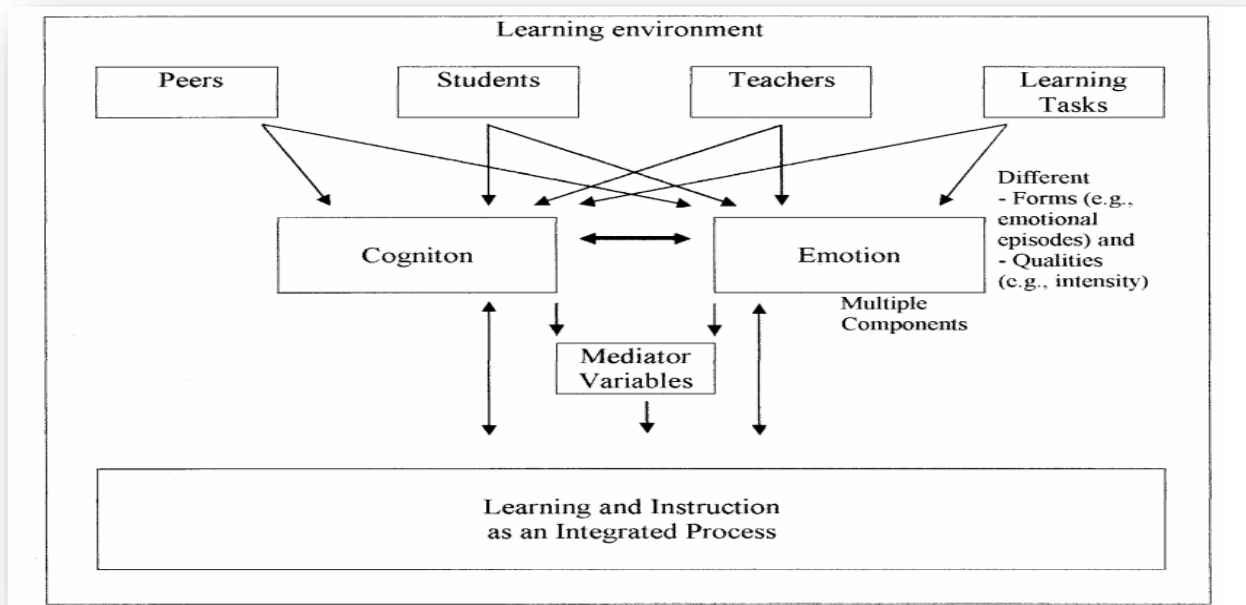


Figure 04: A model for the dynamic interplay of learning and emotion in the school context (Hasher, 2004).

There are currently just a number of studies that examine the findings of mood research for school learning, example: Nadler, & Minda, 2010; Tze & Su-Mae, 2016; Lee, & Sternthal, 1999), this might be because of the difficulties of producing a certain emotional quality, such as inducing negative mood, in students; According to Efklides and Petkaki (2005), they were only

partially successful in building a negative mood, especially if wanting to examine negative emotions precisely.

Strategies to dealing with negative emotions during learning

It is just as essential to recognize how to boost our PEs and seize the opportunities they bring. As it would be to accustom to NEs and effectively cope with them via identifying, accepting, and managing them. Not as easy as saying, practice and attention are required to build a special kind of intelligence: *Emotional intelligence*.

The term *intelligence* corresponds to the cognitive side of human activity. It is strongly correlated with abilities such as analyzing and synthesizing ideas, evaluating and drawing conclusions and thinking abstractly. On the other hand, emotions are characterized by their irrationality. They are accountable for interfering with and lowering intelligent function levels due to this *irrationality* (Szorc & Kunat, 2019). Emotional intelligence is the capability to perceive, evaluate, and express emotions correctly and the ability to access and generate emotions when needed to support thinking. It is, once again, an ability to recognize and manage emotions, in addition to grasping emotional information for an intellectual growth (Salovey & Sluyter, 1999).

Emotions, in particular, are thoughts to stimulate potentially adaptive behaviors that allow people to solve specific types of interpersonal and intrapersonal complications. Changes in cognition, physiology, behavior and subjective experience are elicited and coordinated by emotional experience. A negative mood can serve as an issue signal for some people, prompting them to put in long hours of task-focused effort in order to come up with novel and potentially valuable solutions to problems.

Lyness (2017) suggested few steps that may help to deal with those disturbing NEs. Firstly, identifying the feeling and accepting it; knowing what are you feeling and why helps to solve the problem. Secondly, act to fix whatever is wrong; best represent your mood and then change it. A more structured program is put: *students support exposure to trauma* (SSET). SSET's primary purpose is to minimize the symptoms of PTSD, sadness, and general anxiety that interfere with each student's ability to function. Another goal of SSET is to help students make the most of their existing coping skills, while learning new life skills helpful to cope with the traumatic events they have experienced, and mastery over their internal symptoms and surroundings.

The theory underlying the SSET program is that thoughts, feelings, and behaviors are interconnected and can influence one another. Thinking negatively will most likely generate negative emotions and the reaction comes accordingly; so the case if you think positively.

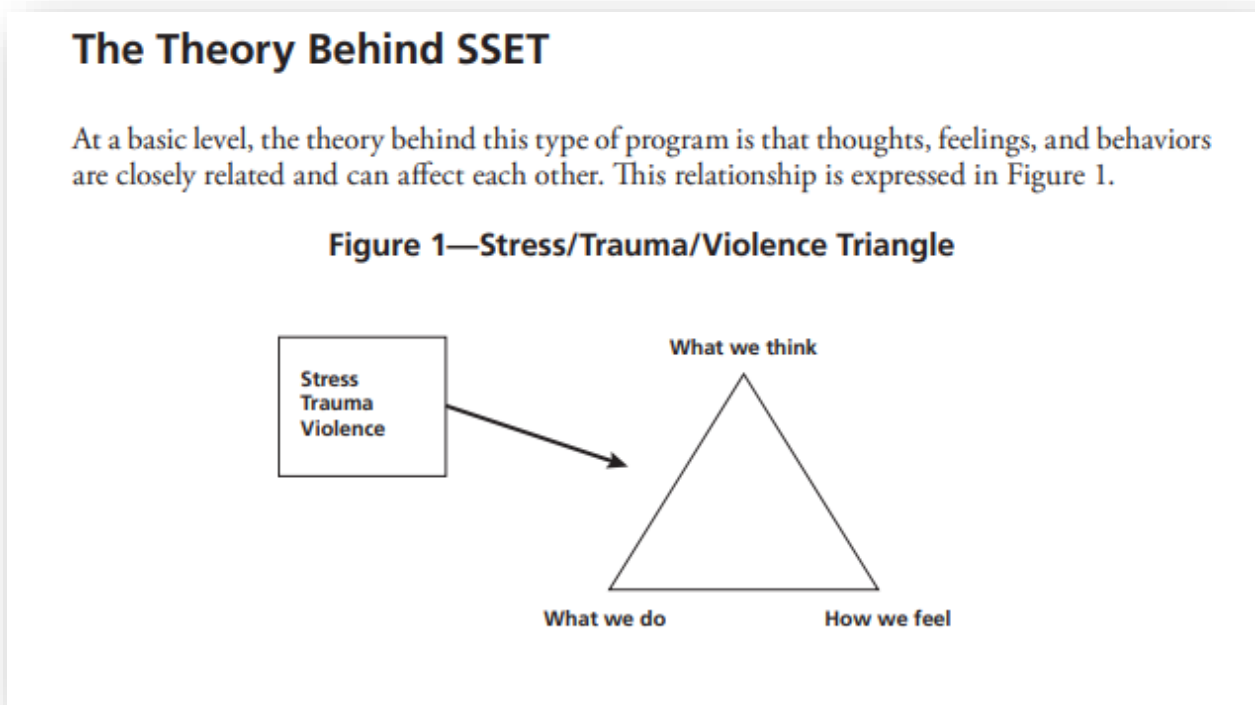


Figure 05: Theory behind SSET (Jaycox, Audra K. Langley & Kristin L. Dean, 2009)

Lisa H. Jaycox, Audra K. Langley and Kristin L. Dean (2009a; 2009b) used the following example:

Encounter much traffic while driving to work.

Case 01:

Positive Thoughts: “I got this. Everything shall be fine.”

Feelings: Content, relaxed.

Actions: Driving regularly.

Case 02:

Negative Thoughts: “I’m getting late for work. My boss will be mad at me.”

Feelings: Anxious or nervous.

Actions: Driving fast/aggressively, risky actions

So, the example above clears the link and the difference between positive thinking and negative thinking. For that, the SSET program is designed for groups of students who have had significant traumatic events and are experiencing PTSD symptoms such as reliving the incident, physiological hyperarousal, and numbness or avoidance. Many techniques are designed to address these issues because low mood, anxiety or nervousness, and impulsive or aggressive actions are frequently associated with PTSD symptoms. As a result, the following problems are addressed:

- Nervousness or anxiousness
- A sense of seclusion or isolation
- A depressed mood
- Acting out at school

- Dangerous or reckless and push them to *challenge* those thoughts, argue with them.

As it introduced what is referred to as *Helpful Thinking* (Jaycox, Langley & Dean, 2009). An activity called the hot seat was adopted; a list of questions is provided to help find other perspectives (see appendix A, B) If that appears to be helpful for students in trauma, then assumedly, a simple negative mood will not be that complex.

Furthermore, *psychological empowerment*, was proposed by Spreitzer (1995) for better control over NFs instead of falling for their unpleasantness. Psychological empowerment is a mental condition, not an organizational intervention or a dispositional quality (To, Fisher, and Ashkanasy, 2015). A multidimensional construct was proposed by Spreitzer (1995) claiming that it comprises of four distinct cognitions about the workplace (educational setting in this case): meaning, competence, self-determination, and influence. In order to measure psychological empowerment, survey questions tend to reflect the stated dimension up above. For instance:

‘I can decide by myself how my work shall go’ (self-determination)

‘I have control over what happens in my work’ (impact),

‘My work is critical to me’ (meaning), and

‘I am confident about my capabilities to do my work’ (competence)

The same construct is used in the survey, to observe if psychological empowerment is a sufficient method to manage NEs, and whether it is put into use by the participants.

Managing NEs, in other words controlling them, using the previously stated techniques is claimed to be possible. Henceforth, their effectiveness on the learning process shall be put into test to observe whether the techniques helped students to work hard or just promoted shut down, especially when the NF is caused by non academic factors. This is the gap and the concerns of this study and they are to be examined in the following chapter.

Conclusion:

To conclude, emotions are complicated. The only overall fact about them is there is no simple, one effect: either positive or negative. In order to figure out the appropriate impact; a focus must be shed on the processes, subject of importance, and the source as well. In addition to that, no plenty or research addressed the possibility of having positive effects from NE which is generated by non educational factors.

This chapter had four main sections: the first section addressed the term emotion. The second had outlined a differentiation between PEs and NEs. The third section was for correlation between learning and emotions. The last section was dedicated for the suggested techniques to deal with Nfs.

Chapter three: Research methodology

Introduction:

The objectives of this paper are to: (1) primarily describes learners' and teachers' perspectives on NFs (2) assesses the potential positive effects of negative emotions(PENE) on learners' learning processes and (3)raises mental health awareness about their relevance to no longer be used as an excuse when not wanting to be productive. Henceforth, this chapter will show how this study was conducted; stating research approach and design, population and sampling, data collection tool, and methods of analysis.

Research Design:

The inconsistency in the results of the effects of NE leads to the conclusion that there is no *one effect*: either positive or negative. As a conservative estimate, NE are not only negative; from this perspective, this research aimed to investigate how to make use of those NFs in our favor, and to describe students' and teachers' view point about these unpleasant feelings. In order to accomplish the stated purpose, a descriptive research had been conducted using a combination of both qualitative and quantitative methods to best answer the research questions.

The research drew on a mixed methods approach because it allows the diverse perspectives. The combination reduced the various techniques' flaws while simultaneously improves the validity and reliability of the evaluation results (Johnson et al., 2007).On one hand, the quantitative part of this research is incorporated in those close ended questions. That information is obtained from numbers to observe how common the idea of positive effects of bad mood is. As such, the data are easy to put together to form a chart, consequently, it is easy to

read and that is the strong point about quantitative approach. On the other hand, qualitative data provide rich contextual descriptions of the participant's involvement; as describing the strategies they adopt to overcome the challenging characteristic of NEs and actually put them into use.

Data collection

Sampling and population

The survey targeted, intentionally, no specific individuals or groups. People (learners, teachers, and sometimes both) voluntarily contributed to this. The diverse population allowed for a more general look at the understanding of PENE and that is precisely what was needed, other than just looking into potential demographic or disciplinary variations. Furthermore, it would point out to possible typology among the participant. The sample contained both genders (44females, 22 males), the active parties: 14 teachers and 58students, age range between 15 years of age till 30 years old. The vast age range is for observing the acceptability of PENE (check section one p26).

Instruments:

Can NE become a significant source of motivation for learners regardless of the reason which generated them? Attempting to answer the previous question a survey was conducted using an online questionnaire because online surveys provide respondents with freedom to answer questions at their own time, and the responses are automatically saved, allowing having findings at the fingertips in no time. As a result, it simplifies and accelerates the process of analyzing the data (Howard, 2019). Furthermore, being behind the screen facilitates answering questions about "feelings" because not everyone feels secure enough to talk about that. Hence, an online survey worked best for this study.

Form:

The questionnaire (appendix C) is composed of 20 questions in general; However, some of them required justification or further explanation (open questions), so, the majority of them were open-ended questions (MCQs) or in form of a likert scale type, asking students/ teachers to agree or disagree, to state yes or no and to rate. All 20 questions were for teachers, nonetheless, only the first 18 were for learners. It was divided into three sections: section one for personal information, section two included questions about the study, and the third section was for teachers only

Structure:

Section one entails six questions. The sample was very divergent; accordingly, this section aimed to identify the subjects of this study: their age, gender, study level, domain of study. In addition, question one, two, and six were constructed to observe any sort of typology in adopting the notion of NF being beneficial. As for the remaining questions in this section, question three, four, and five, are statistical data about the target population.

Next, second section (question 7- 18), this section was systematically and carefully ordered. The degradation in questions was intended to help the respondents adapt how NF can be helpful regardless of their unpleasantness and then provided open questions for them to elaborate with examples of their own, which in a way would be a confession to confirm that NF can effect positively. Moreover, question seven was very forward and general; aimed to just link learning with emotions with no specification to either positive or negative ones. Henceforth, question eight in a likert scale type placed emphasis on NF and how they were considered helpful, elaborating with explanations. Then, question number nine, 10, 11, 12 aimed for the strategies used and tendencies toward unpleasant feeling; either source of motivation, avoidance,

ignorance, Denial. Question 12 specifically investigates if PFNE are context specific or not (i.e. motivated to learn if NF is generated because of factors: fail in exam, please a teacher...etc.

Now that NF are addressed and put in a way to realize how they could be helpful; question 13 addressed those whom would want to make use of those emotions but just don't know how!, when one wants to make use of NF, then s/he are convinced they might be of beneficial effects, so the following questions (question 14 - 16) were to pinpoint that notion (serve as a confirmation). The last questions of this section were for some strategies to overpower those NFs. They addressed techniques used in SSET program and self empowerment that were discussed in the previous chapter.

Last section, was addressed to teachers, since teachers have a major role in influencing learners' emotions this part aimed to see their view points on this topic and if they ever interfered to help in similar situations along with the manner and reason they did so

Procedure

The questionnaire was sent for approval by the supervisor after taking into account ethical consideration (the duration of time to answer it, simple language, not too personal questions). Afterwards, On Saturday, June, 25, 2021 at around 9:30 AM the online survey was posted in different groups with a note greeting the members as start, then informing them what the survey is about, at last thanking them in advance for their time and help. These groups were: Group of MA1 English students of Taref, group of MA2 English students of Taref, CSCS Club, Vet space, American-Dz space and Black galaxy club. These clubs and groups containing Algerian members from different regions, ages, levels and fields of study, yet they are able to read, comprehend, and answer in English. Additionally, it was emailed to five university teachers. All participants voluntarily and anonymously responded to the survey in whatever time they felt

comfortable. No deadlines or time limits were provided to ensure the procedure stays stress free. The data were then gathered after a time period of 48 hours from 66 participants.

Data analysis

The analyses for this research were based upon discourse analysis, and statistical analysis the qualitative data was read and analyzed then divided into categories. The survey was conducted using survio.com. The answers were automatically gathered and calculated. The quantitative data were analyzed using percentages and counts.

Conclusion

This chapter described how this study was conducted, from the research approach; that is a descriptive study, to the questionnaire and the set of questions that were tackled and the logical thoughtful process behind each question, next, the process of how the data were gathered and to who is was directed to be answered. Eventually, how the data were analyzed.

Chapter Four: Results and analysis

Introduction

The present chapter is devoted to the results and the analysis of the data gathered; in order to answer the previously established questions, and to achieve the objectives behind this study. The results are analyzed and in separation then in comparison with each other.

Investigating PENE on Learning process Questionnaire:

Section One: Personal Information

1. Age:

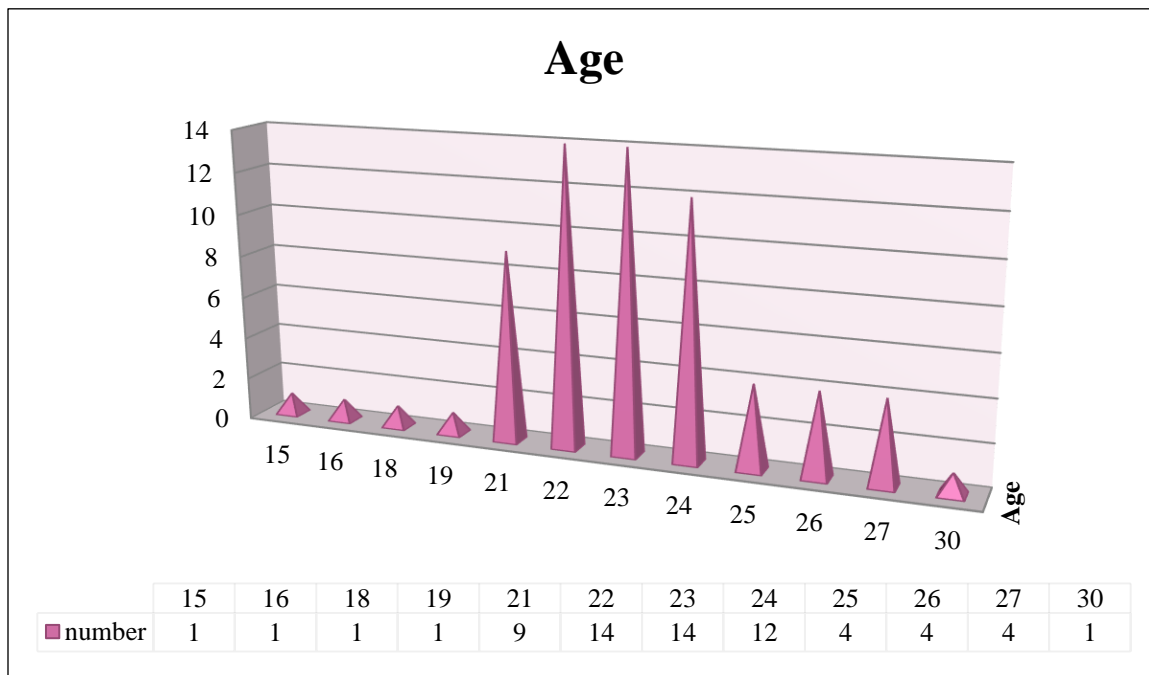


Figure 06: Participants age range

The Figure illustrates participants' age. It included ages between 15- 30 years old. Most participants were 22 and 23 year of age; 14 participants in each category. Second most dominant category with nine people in it is of 21 years old. Next, 12 people aging 24. Then, each of the following categories: 25, 26, 27 years of age contains four participants. At last, there is one participant in the rest of the categories: 15, 16, 18, 19, 30 years of age.

2. Gender

Male

Female

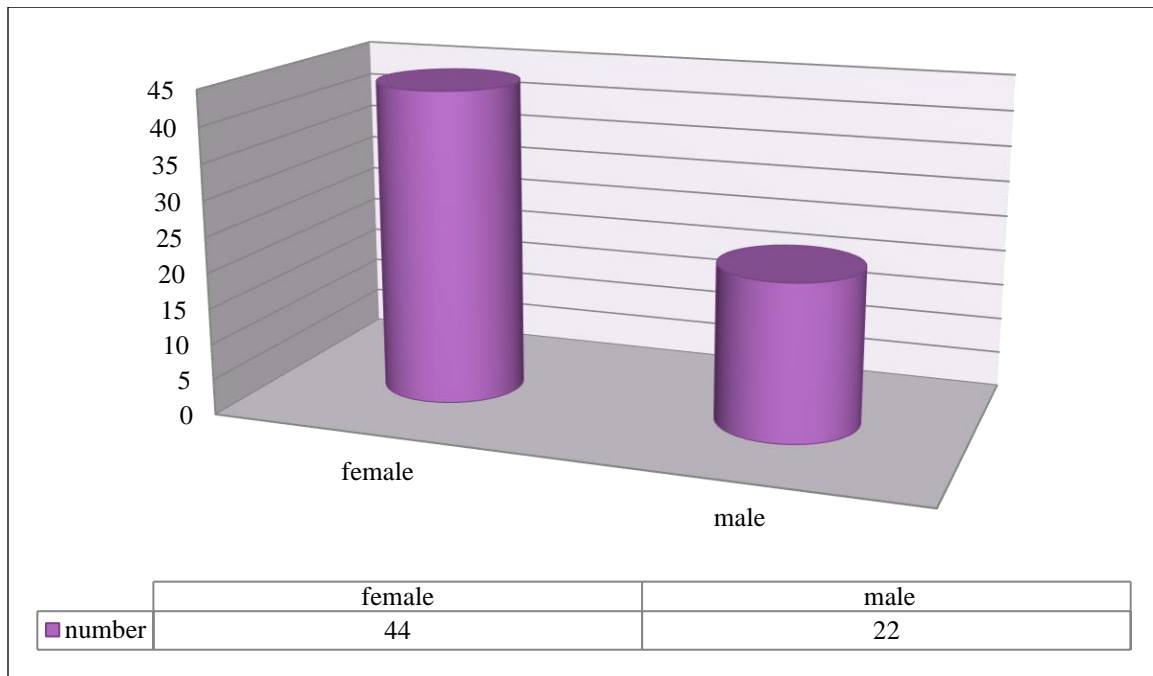


Figure 07: participants Gender differentiation

The graph illustrates gender differentiation among participants. It is seen that, number of female participants (N=44) is precisely twice the number of male participants.

3. Study level:

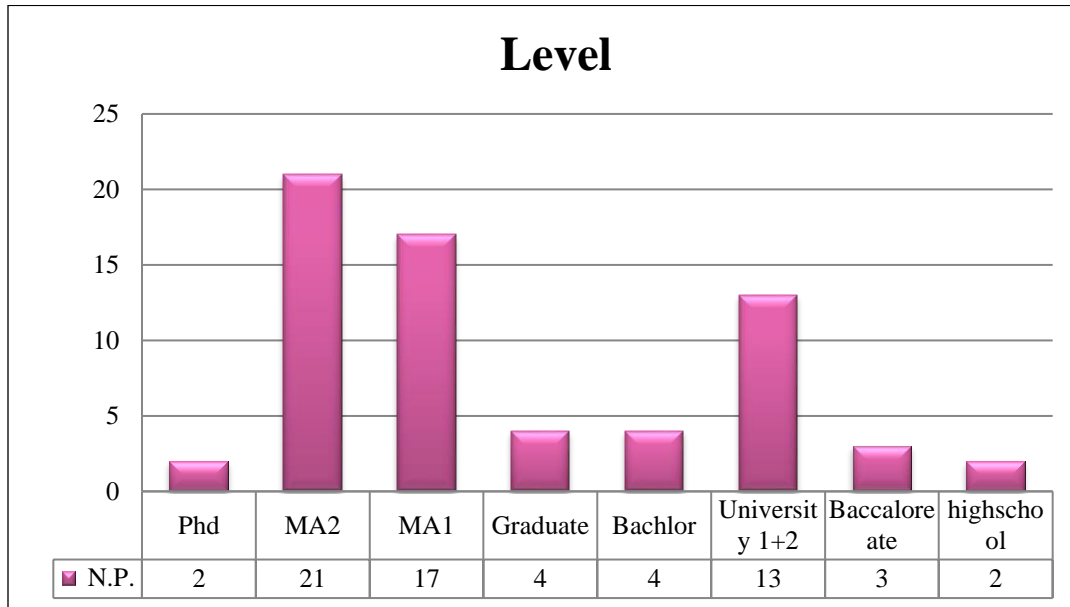


Figure08: level of the participants

The chart illustrates the different study levels of participants who contributed to this research. The dominant majority is of university students: 13 participants from first and second year, four bachelors and four others graduate students, then, 17 Master one students and 21 from master two; the latter entails the highest number of participants. The sample covered two PhD students. Furthermore, five high school students also took part in this study, three of them were baccalaureates.

4. Field of study:

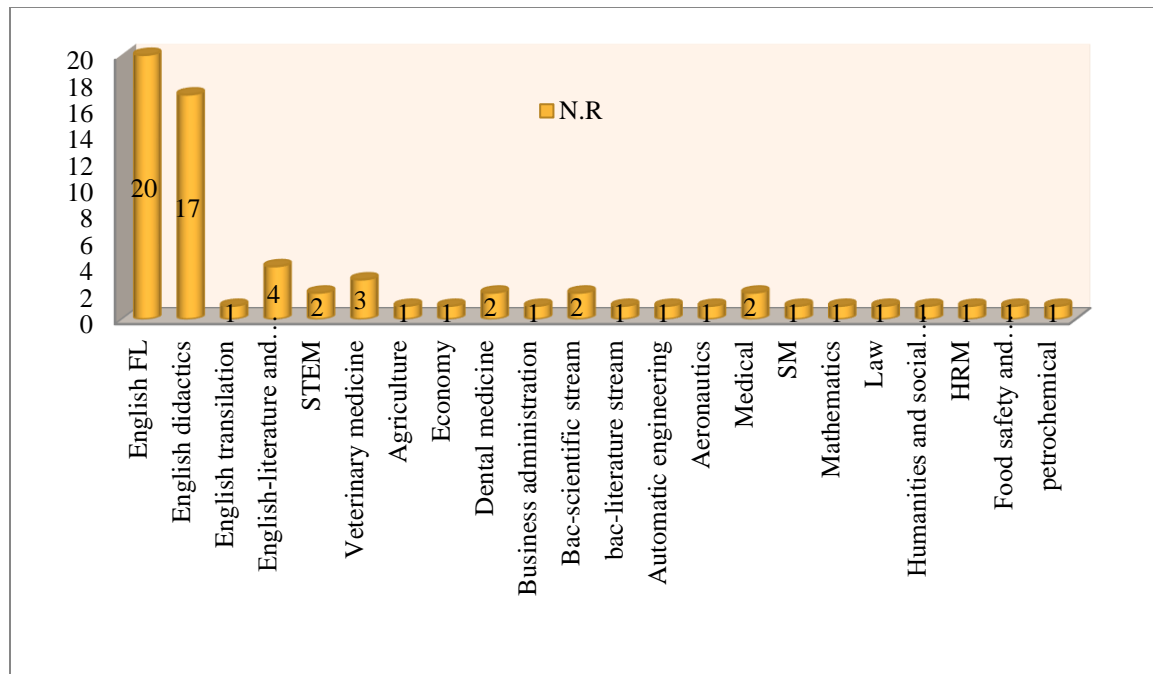


Figure09: The disciplinary variation

Figure09 clarifies the diversity in the fields of studies which took part in this paper. Students of English took the lead with a number of 42 students: 20 of them were students of English as a foreign language, and 17 were specialized in didactics, furthermore, there is a student from translation discipline, and last but not least, 4 students whom studied English in terms of literature and civilization. As for the rest, there are: 3 veterinary students, 2 from each of the following: STEM, Dental medicine, medical, baccalaureate -scientific stream. Lastly, there is one participant from agriculture, Economy, business and administration, baccalaureate -literature stream, automatic engineering, Aeronautics, SM, Mathematics, Law, humanities and social sciences, HRM, Food safety and quality insurance, and petrochemical.

It is concluded from the figures (figure 6, p27; figure 7, p28; figure 8, p29; figure 9, p30) that the sample was divergent on multiple aspects.

- ✓ Age: Participants included Middle adolescents (15-18 years old), late adolescents (19-21 years), and people at early adulthood (22-34).

- ✓ Gender: Both genders were present among the sample (44 females, 22 males)
- ✓ Level of education: there are participants from different levels, starting from junior high to PhD students.
- ✓ Disciplinary divergent; there are participants from over 20 different fields.

The diversity allows generalization of the results to a broader scope

5. Are you a

Student

Teacher

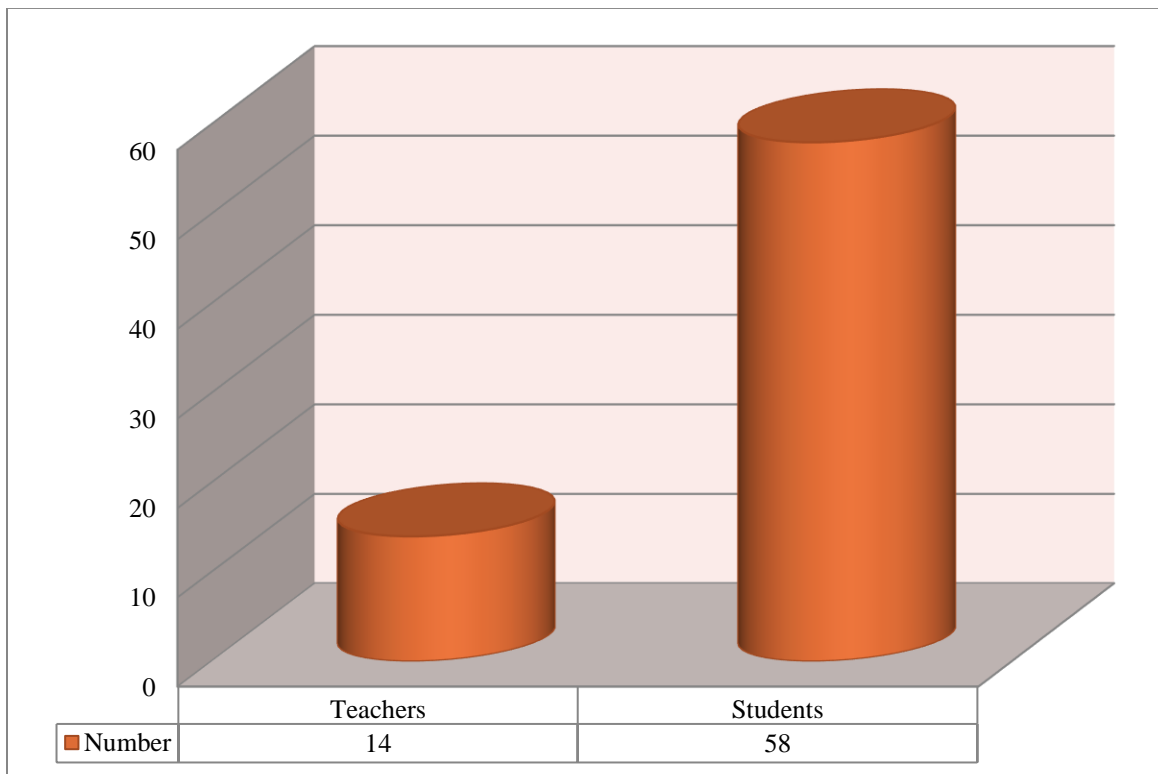


Figure10: the number of students and teachers who contributed to the study

This graph puts forth the obvious distinction in numbers of teachers and students whom took part in this study. The number of students (N= 58) is above the number of teachers which is 14 teachers. However, it is worth to note that participants were allowed to pick both options (student and a teacher) if this case represents them.

6. How skilled you think you are when it comes to mastering your emotions

- Skilled (5)
- Good (4)
- Medium (3)
- Not that bad (2)
- Bad (1)

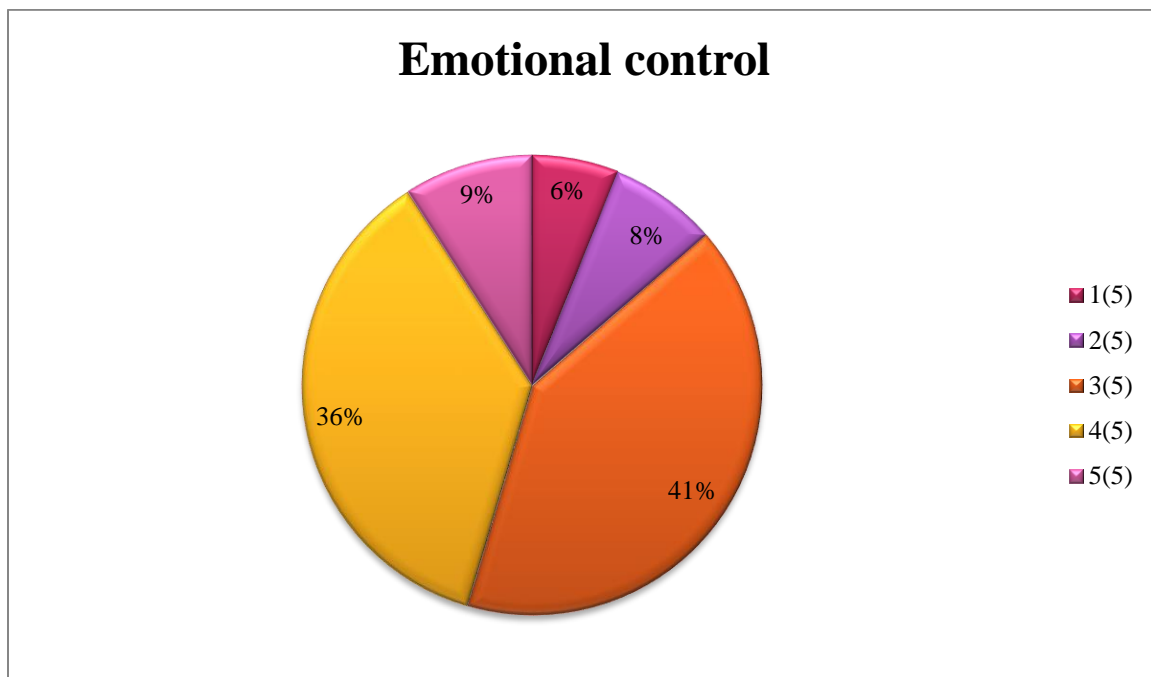


Figure 11: participants' evaluation of their control over emotions.

This pie chart displays participants’ own evaluation of their capability in managing emotions; on a scale from 1 to 5 arranging from 5 to indicate skilled to 1 indicating bad. The majority 41% rated themselves 3 /5 that is the middle scale. Following, 41% give themselves a score of 4 /5 .Then 9% rated themselves as skilled (5 /5). Only 6% considered themselves as “bad” when it comes to mastering emotions. As for the rest 8% they introspectively fell into the second category “not that bad”.

All in all this graph states that the participants were introspective. As it shows, not everyone is at the stage of mastering their emotions; however, most of them believe they are half way.

Section Two:

7. 1- What Kind of emotions do you think are important in the learning process

- Positive (e.g. contentment, joy, interest, satisfaction, relief...)
- Negative (e.g. Hurt, Bored, nervous, jealous, heartbroken...)
- Neutral (Mid scale; Ok☺)

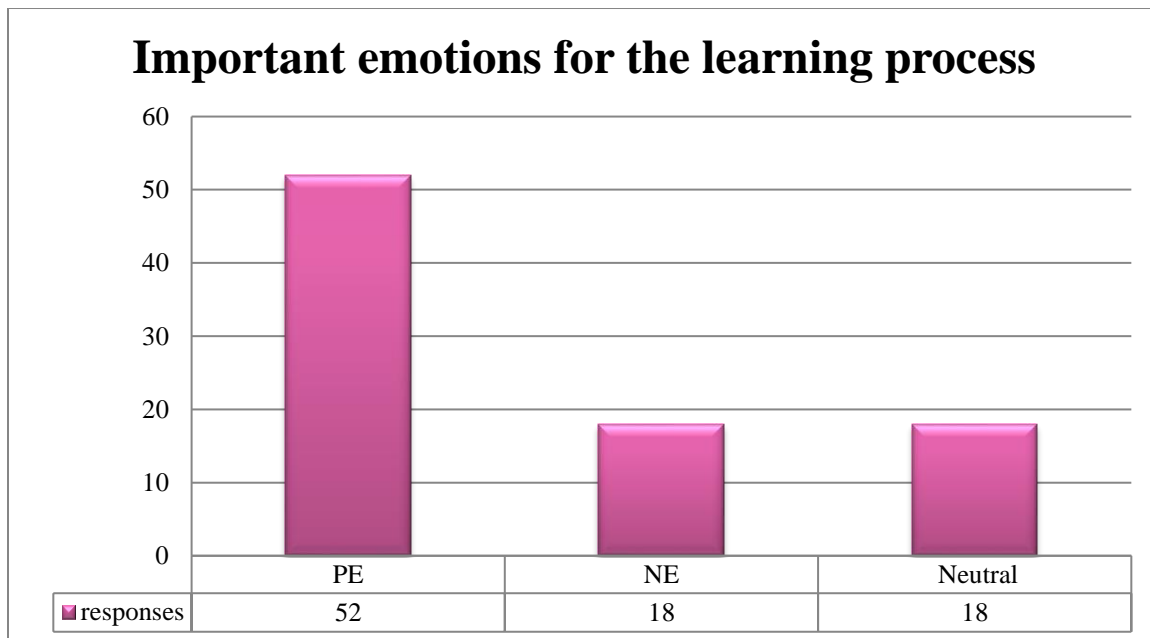


Figure 12: The Important emotion for the Learning process

Based on the responses; the above chart presents which emotions are considered important for the learning process. Note, multiple selections were allowed. It is observed that PEs are considered the most important emotions for the learning process with 52 voices. Next, there is a tie between negative and neutral emotions with 18 votes for each.

This graph proves the claim that people over-focus and over-care about the pleasant feeling more; because, regardless of putting the question in form of multiple options allowing the selection of more than one answer, most participants still *favoured* PE over the other categories.

7.2 -Why?

The answer for the previous question had multiple possibilities. Select one option: that's three possibilities (PE or NE or Neutral), or selecting 2 out of three options: that's three other options (PE and NE, or PE and Neutral, or NE and N). Selecting all three options: that is another possibility. So, there are seven possibilities to this question. The justification for each possibility seemed to take three forms:

1- Praise the selected emotion(s).

a) PE:

- PE Motivating and encouraging (8 participants)
- PE are easier to be dealt with and less energy consuming (5 participants)
- PE are "Positive" and because of that they ensure a positive mind (5 participants)
- PE in relation with specific feeling (excitement, enjoyment, satisfaction, interest, happiness) resulting in positive state (9 participants)
- PE characterized with fast engagement and progressive learning (4 participants)

b) NE:

- NE regardless are characterized by their unpleasantness that's what makes them, not the wanted, however, the needed boost for personal growth (3 participants)
- The observed positive effect of anxiety while preparation boost confidence (1 participant)

c) Neutral

- Personality and preference (2 participants)
- State of objectivity and balance (3 participants)

d) All

- Emotions are reactionary, inseparable and inevitable. Consequently it is not optional (3participants)
- The mind is a powerful tool; it needs to be implemented to conjure motivation regardless of the experience emotion (5 participants)

2- Selecting an emotion in contrast to the other emotion:

a) PE:

- Because NF diminish our Will and concentration (1 participant)
- Because NF or neutral emotions are not favorable (4 participants)
- Because the other emotions have negative impact (1 participant)

b) NE:

- PE and Neutral E are “ comfort zone” that generates laziness and acceptance of the current state regardless of the potentials (2 participants)

c) Neutral:

- We are never always happy or always sad (1 participant)

- Both NE and PE can be distracting (2 participants)

3- Not knowing why! (7 participants)

The answers in here were in form of a “.” Or asking “why this question was put” or forwardly declaring “ I don not know” . these were put to fill the blank

Therefore, regardless of the unbalanced scores, Most of participants were either narrowed to PE only or they were drawn to one emotion just so they would not select the other that is referred to as cognitive bias. Henceforth, there is only minimum justification for not selecting NF or even Neutral ones.

8. To what extent do you agree that negative emotions can be helpful during learning

- | | |
|------------|--------------------------|
| Fully | <input type="checkbox"/> |
| somewhat | <input type="checkbox"/> |
| not really | <input type="checkbox"/> |
| Not at all | <input type="checkbox"/> |

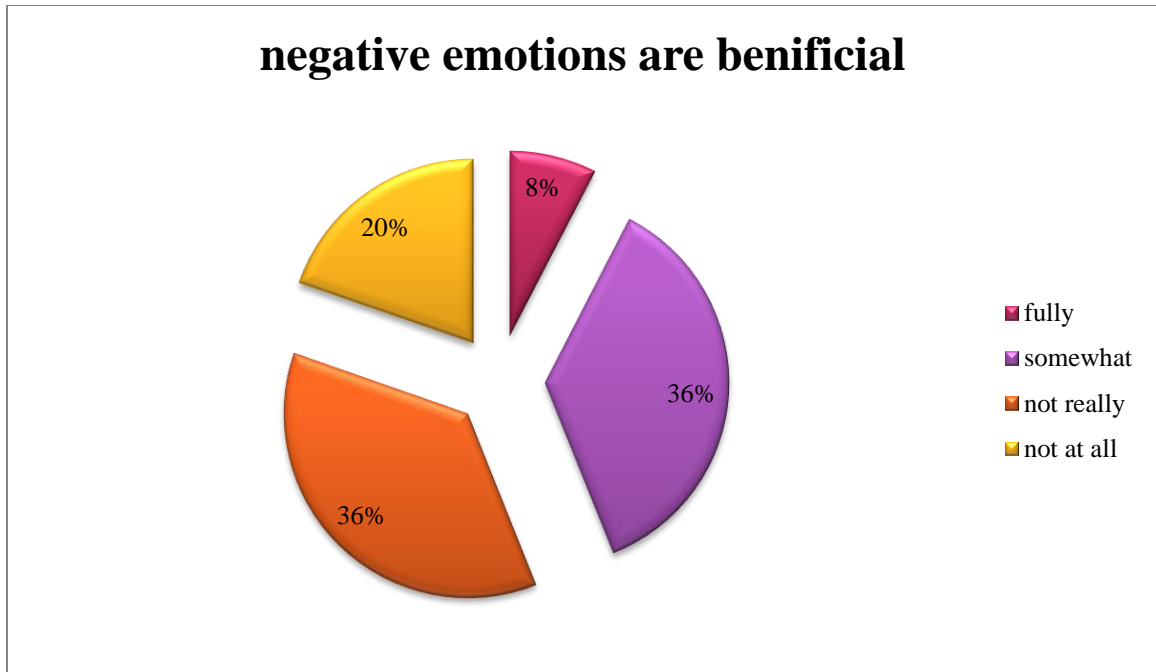


Figure13: agreeing to “NFs are helpful”

NF can be beneficial; the chart above shows that it both agreeing and disagreeing was not easy for participant. Henceforth, it is shown that 72% of the population was equally divided between agreeing to *somewhat* and *not really* agreeing. Then, 20% did not agree at all in comparison to only 8% who fully agreeing to NF being useful

8.2 -Explain

The participant’s major justification was:

- 1- fully supported the stated claim justified that by stating
 - Their push sometimes is alot more motivating than PE
 - Some NE (jealousy, anger) produce Adrenaline that helps in the learning process
- 2- Somewhat agreed

- NE can be both detrimental but still generate self-awareness the later eventually
- NE can effect positively however most of the time they are just negative
- “ wake up call to learn from mistakes”
- Personal experience with anger and regret resulting in motivation

3- Not really

- No ability to learn
- Learning often require PEE

4- Not at all

- There is NO PENE.
- Boredom is disconnecting from learning
- Stress eliminates motivation

The rest of the responses were left blank or with answers that have no relation to the questions others said they truthfully don not know

In conclusion, these results show that most participants still link NE to PE and they see them as contradicting scales ‘ black and white’ other than just looking at them as two distinct categories not necessarily opposing ones. Not to mention, that the majority, didn’t really have an explanation for not fully agreeing.

9. When you experience a bad mood(negative feeling)during schools days, it :

- brings you down
- gives you a push to work even harder
- Both
- None

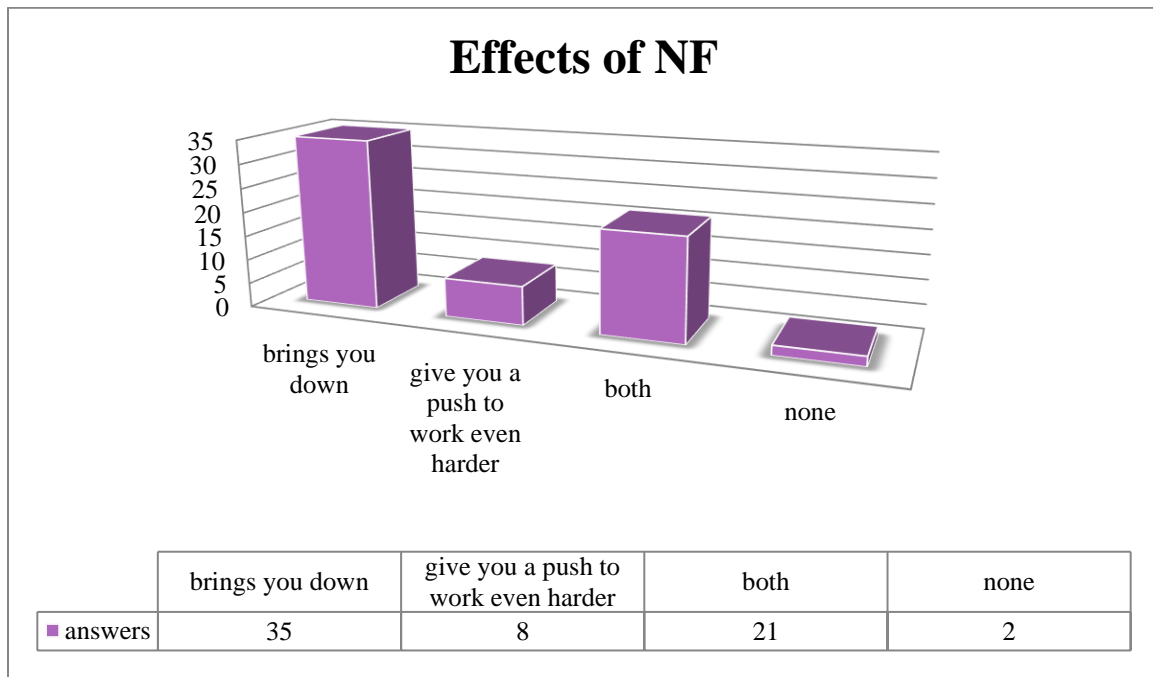


Figure14: effects of NF

The figure 14 above shows how NF affects people; there are four options: Brings you down, give you a push, both, or none. 35 participants went with option one, NF brings them down. As for option two: Give a push to work hard only 8 people seem to find it relatable. Nevertheless, 21 participants seem to realize that NF does bring them, yet, still give them just the push to work even more. On the other hand, couple participants stated that NF has none of the state effects or has no effect at all.

All in all, most participants seemed to get only unfavorable effects from NE, Yet that should not cancel the fact that 21 people said regardless of that unfavorable effect still NF game them a push to work even harder. Interestingly, NF seem to has no effect of some others

10. Have you ever experienced sadness or depression because of factors outside of the educational setting? (e.g. the loss of loved ones, unfortunate events... ect)

Yes

No

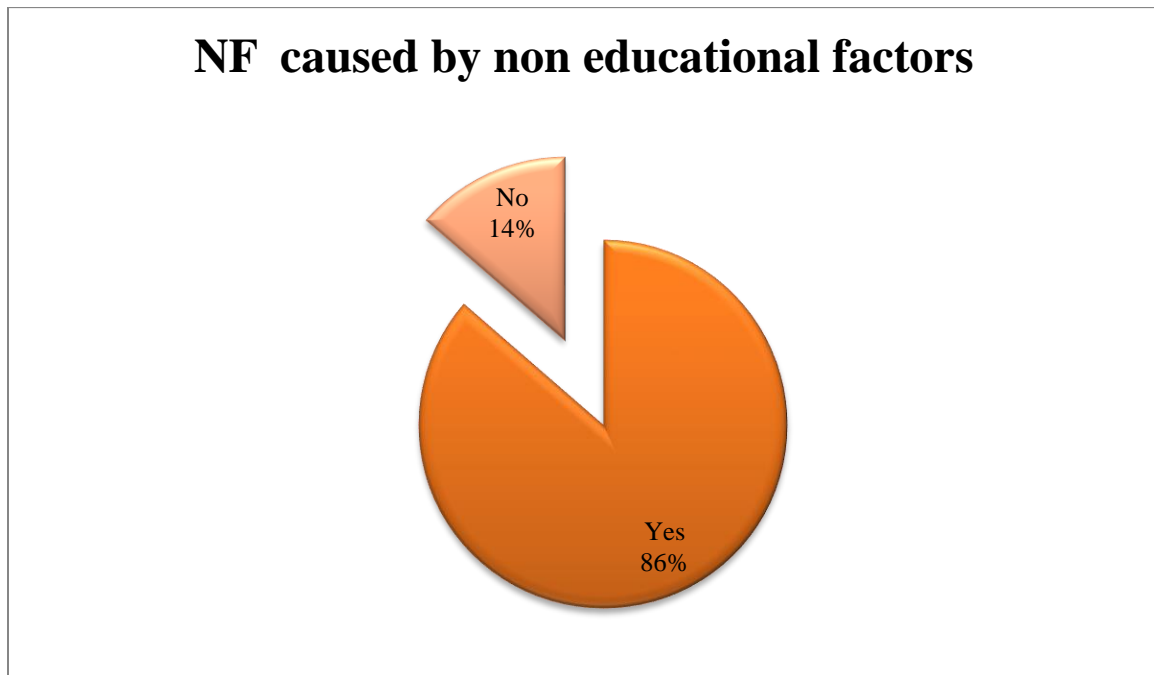


Figure15: people experiencing NF because of Non-educational factors

The graph indicates that most participants 86% (57people) suffer from NF because of factors outside of the educational setting. While only 14% (9 people) only have experienced NF because of reasons from educational contexts

. How did that impact your studies?

The answers were observed decoded then encoded into four divisions: people who got negatively affected, people who resulted with PE, people whom weren't affected at all, and lastly people whom took a break.

Least than the half of the answers stated that NE “impacted negatively”: withdrawal from school, failed in exams, noticeable decrease in their productivity. However, none of those mentioned anything about how they dealt with them or how they reacted, which lead to the conclusion that simply they neither challenge them nor count on them.

The majority, however, admitted in an indirect way that NE eventually had positive effects on them. They declared that NE helped in the following ways:

- “Taught me to have control over my decisions instead of just reacting”
- “At first was a lazy person but somehow NE turned me into a hard worker”
- “My scores got very low but kept pushing myself anyways till I made it”
- “Hurtful words and feelings made me more determined to change my state”
- “Pretended till I made it”
- “Had me forcing myself to learn consequently I found myself more attached to studying”
- “I thought I am failing so I came back stronger than I ever was”
- “I was okey with being devastated more than being okey with failing”
- “Made me just keep looking forward to something”
- “I worked hard on my studies just so I can forget what was happening to me”
- “I still remind myself that “ if I got through *that* I can get through anything”
- “I failed badly during an exam that I worked hard to never let that happen again as a result I am the first in my class ever since”

From second division, it is concluded that NEs, because of their intensity, are observed to have a stronger push, but it requires the right mindset for it; otherwise, they are just *negative*.

The third division is for those who declared that their NE has no effect on them, and most importantly on their studies. Whilst others seemed to sense the negative effect; however they

neither fell for it nor challenged it; they gave themselves a short break as one of the participants stated: “bad feeling equals bad day; try again tomorrow”.

11. What strategies do students/ teachers use to manage negative emotions (e.g., feeling stressed, upset) in order to successfully complete tasks/focus on their work

- Make it a source of motivation and complete the task
- Ignore it and focus on the task
- deny the feeling and do the task
- neither deny nor ignore the feeling (know it is there) yet you do the task anyway
- others

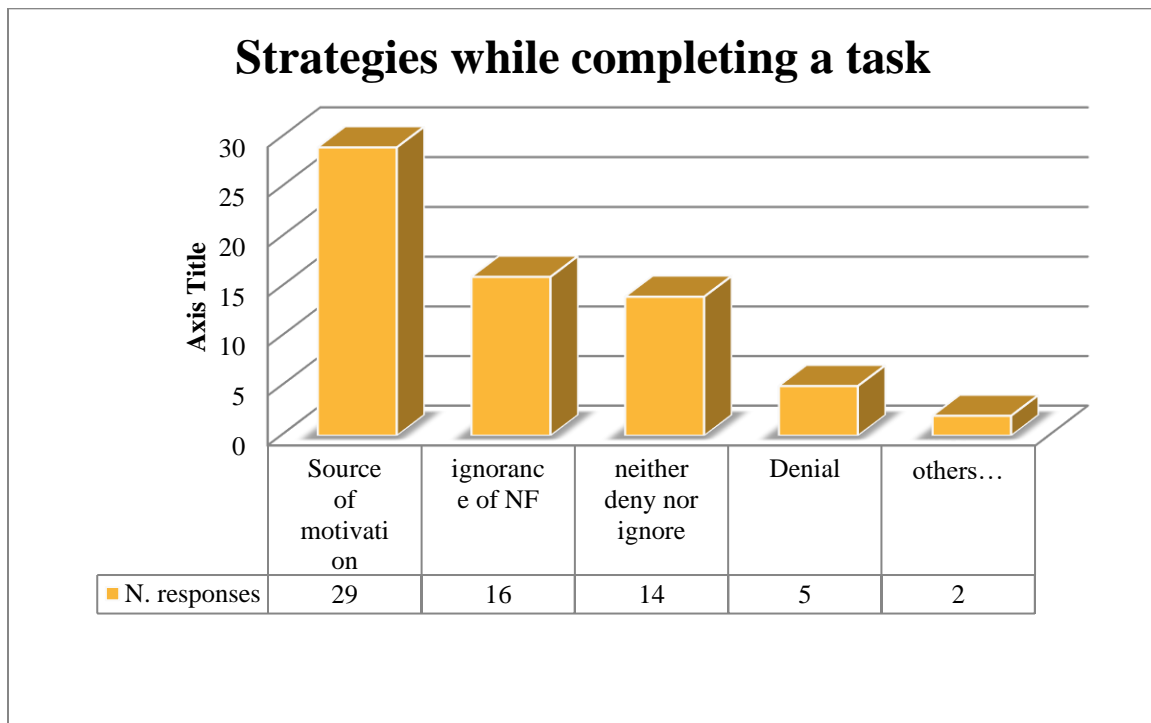


Figure16: Strategies to cope with NF and complete a task

This figure demonstrates some of the strategies used to cope with NF while completing a task. Most students (i.e., 29 people) embrace the NE and count on it as a source of motivation to

complete the task. 16 others just use ignorance as a way to cope with NE while trying to focus on the work in hand. Another way is to just be aware of the NF, yet, neither ignores nor denies it and it seemed to be the case for 14 participants in comparison to only five of them who used the state of denial to cope with the NF and just get over with the task. Henceforth, it seems that none of the previous states cases was fit for two of the participants.

The main conclusion is molded in the dominant number of participants whom proved the hypothesis which claimed that NE can be motivational. Furthermore, strategies defer yet still what matters most is that all participants (except two) seem to finish the task regardless of the unpleasantness.

12. What if....

A. You are feeling frustrated because you did bad in an exam and have another exam the next day, you would?

- Study hard to make up for the previous exam
- Get over the previous exam and focus on the next exam

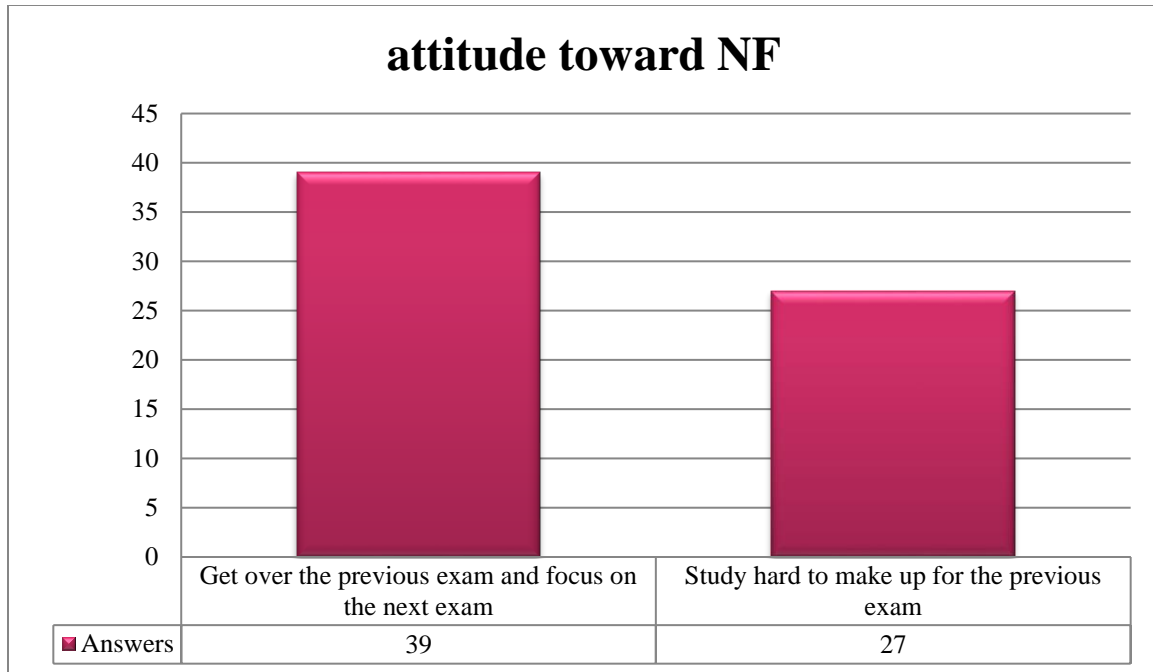


Figure17: Different Attitudes towards NF.

The figure shows responses of an attitude towards NF in highly possibly case scenario. When one scores bad in a previous exam, participants went more with option one with 39 voices: that is getting over the previous exam and focus on the next. On the other hand, the other 27 seemed to rely on the previous unfortunate situation, bad mark in the previous exam, and try to study hard to make up for it.

To conclude with, the majority seem to adopt and rely more on the PE that is to get over the past exam, generating feeling like satisfaction, forgiveness of self; more than relying on the existing feeling (NE) that was generated from the previous exam.

B. During your final exams, one of your loved ones got badly sick and you can do nothing about it, what are u going to do?

- Tell yourself there is nothing you can do but to focus on your studies to make them feel better

- cry, listen to music, dance... (Acts to make u feel better) then study

-drop everything

-Just focus on studying without thinking about the bad idea

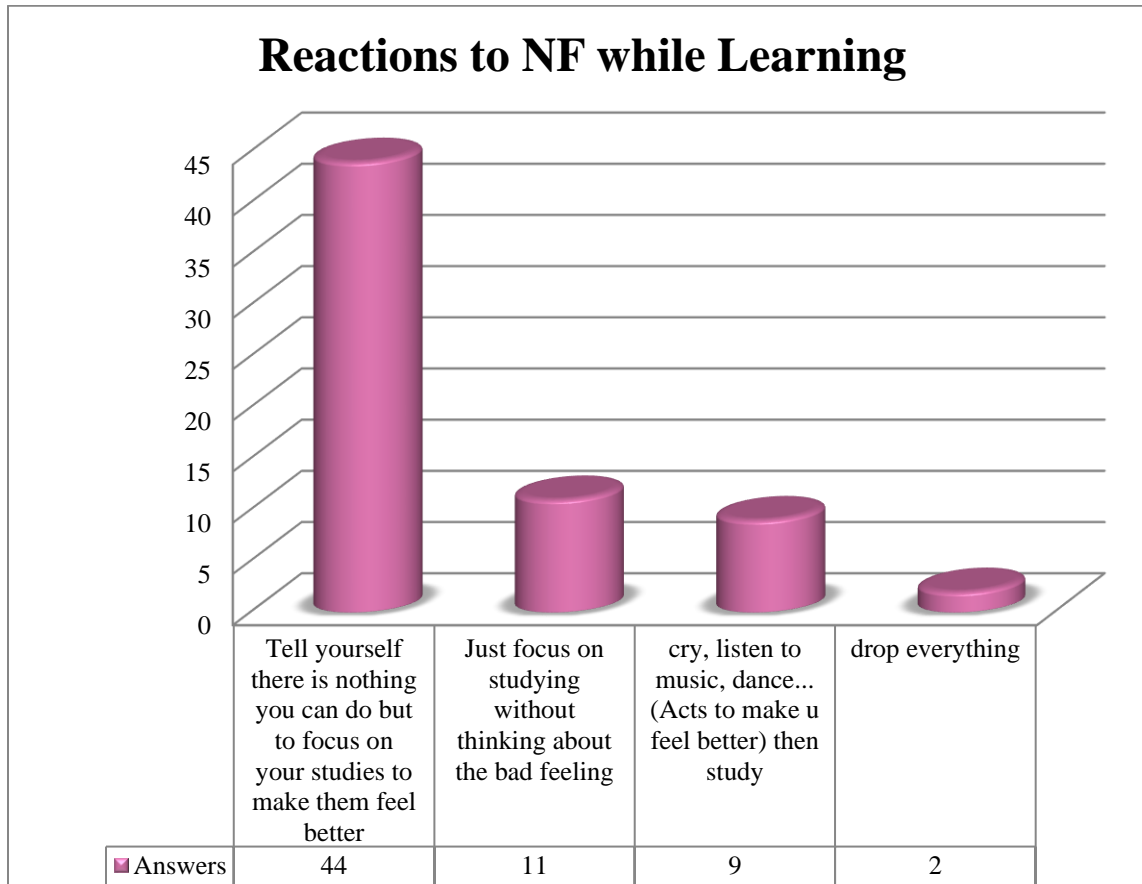


Figure18: Reacting to unpleasant situation while learning

The chart above presents reactions to NF while learning. The dominant majority, 44 participants, belonged to those who tell themselves there is nothing they can do and they should focus on studying to generate happiness. Second most observed reaction is to the ignorance of the NF not think about it and just focus on studying; 11 people reported that's their reaction. Then, in third place, with 9 participants, comes the category of people who adopt acts to make

them feel better then they go back to study. Lastly, only 2 people seemed to drop everything as a reaction to NF.

It is concluded that the majority is making use of their NF and turning them into motivational aspects rather than maintaining their detrimental factors, however unconsciously. And this might be the cause of their conflicting thoughts and the previous non-agreement to NF being beneficial. As in fact, they are making them a source of motivation and counting on them however without credit to those NFs.

13. Have u ever thought of turning those negative affections into something positive that can benefit you?

- Always
- Sometime
- Never
- I don't know

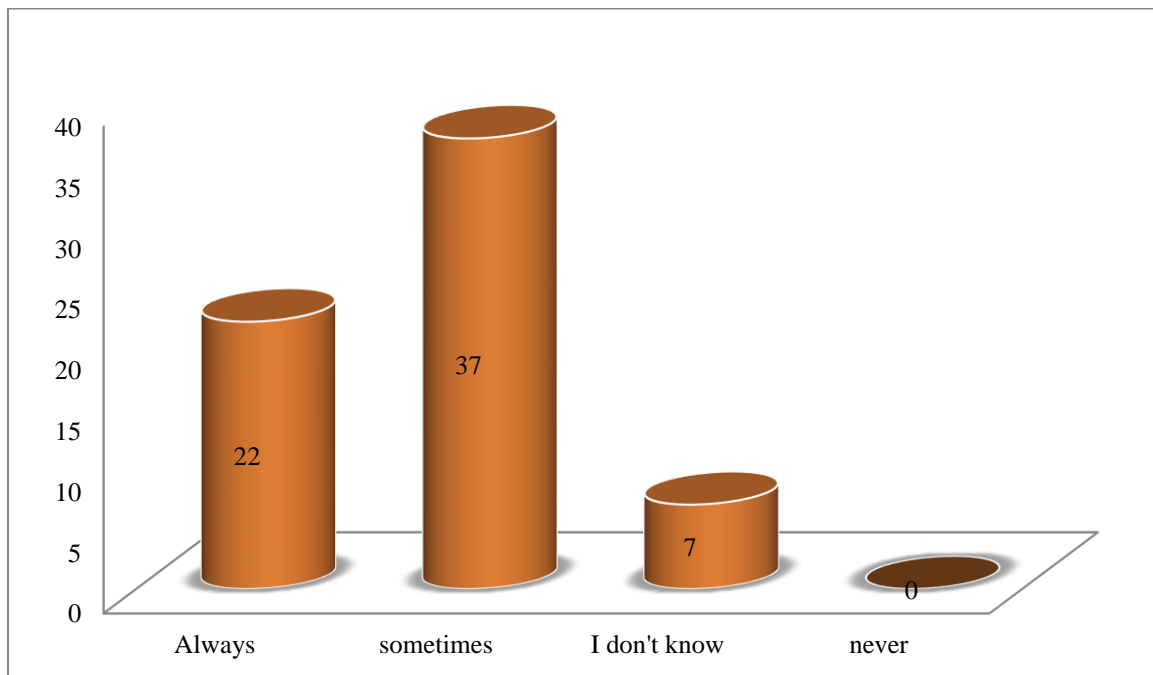


Figure19: How often participants think about turning NF into something Beneficial

This graph presents how often participants think about their NE as to find a way to benefit from them, and all of this spent some time thinking about that notion since none picked the option *never*. The highest rate (37 participants) is observed for the second option *sometime*. Next, 22 participants seemed to always think about turning NE into something beneficial. As for the other 7 they *do not know*.

Therefore, since at least more than half of the participants said they think about it, that means they care about NE and most importantly they believe in BENE even if it is not forwardly stated.

14. How did your negative emotions help you?

This question supports the claim that NE are of use and participants supported this with the following responses:

- Anxiety made me prepare excessively
- Eventually it caught me to be patient and to control my anger
- “I became stronger and more productive instead of being just average”
- “They made me care and they made me realize how much I care “
- “Made me less delusional, yet more determined “
- “Realized my potentials”
- “Improved myself and challenged my own thinking”
- “Made me realize what I am actually passionate about”
- “Burning desire to keep moving forward”
- “Made me more reasonable and less impulsive”
- “Speed up my work “

All in all, NE can help in many different ways as cleared above.

15. Ever noticed a good change happened to you academically, because of something bad? If yes, what was the bad feeling and how did it help in a way?

The answers were: No (6 participants), Not sure, not able to pinpoint it, and yes with stating emotion and results. The latter were presented as following.

The Feeling	The beneficial result
Underestimation	Set my mind and will to prove them wrong (teachers and classmates) and I did. Complete change in my attitude towards learning
Anger	Withdrawal at first, but “ bounced back stronger than ever”
Sadness / grief	Pushed me to work for higher grades Made me more competitive to be good at “something” More focus and attachment to studying as tribute Study harder to please my parents specially a sick one Made studying an escape so I did well Made me worry less about previous failures and focus on what is yet to come
Loneliness (unloved and appreciated)	Manage time better and prioritize things according to their importance and value Opened my mind and made me believe this study is less harder
Jealousy	Change my current state and challenge my circumstances

Rejection	Fueled my will and desire to achieve even more
Pressure	Manage time and organize myself
Disappointment	General desire to seek better
annoyed	Invested more into my studies to not be made fun of
Regret	Took Studying more seriously

Figure 20: PENEs in academic settings

In conclusion different feeling can generate the same desired or beneficial result. In addition, PENE can relate to more than just one emotion.

16. To what extent do you agree that negative emotions you get from past events (like failure) are great motive for u to stand up and work again?

- Agree

- Neither agree nor disagree.

- Disagree

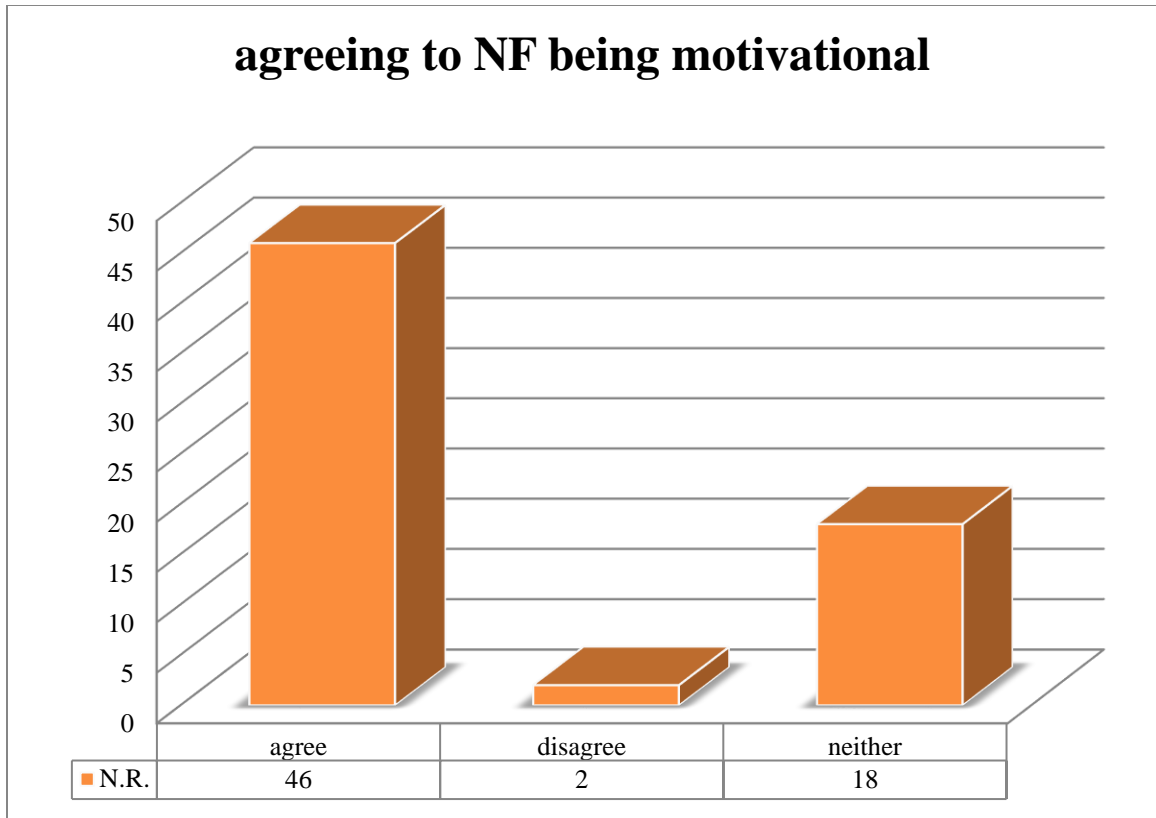


Figure21: NFs are motivational

This chart shows that more than half of the participants (46 out of 66 people) agree that NFs can be motivating, and only two of them disagree. However, 18 others neither agree nor disagree.

When comparing the results of this question with question five we realize that the number of participants whom believed that NE might have positive effects had risen. So we can conclude that the previous arguments which stated they were cognitively biased to the first idea (focus on PE neglecting NE) is correct and they just needed to walk through previous events and remember to look at the same view just from a different perspective (from a NE view other than PE)

17. Do you want to make use of the negative emotions (thoughts) and want to know

how?

- Definitely
- Not really
- Not interested

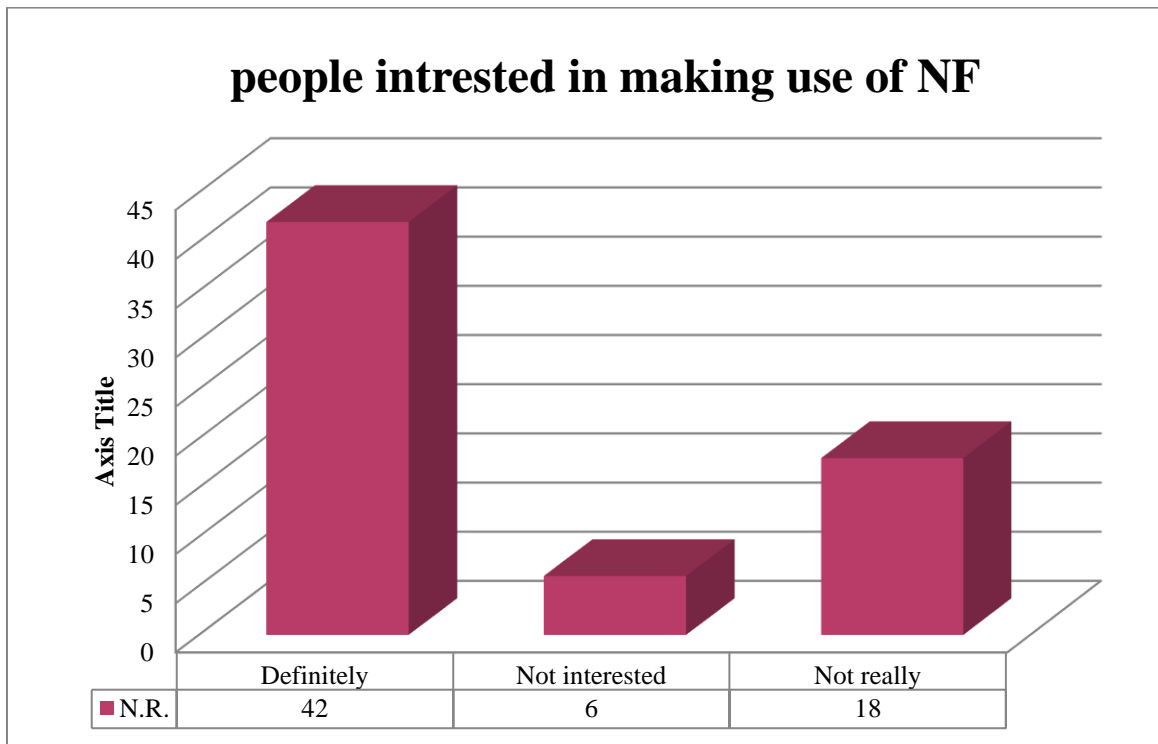


Figure22: Number of participants who want to make use of NF

This figure is meant to pin up how many people are interested in making their NF *useful* as it is shown not everyone wants that. 42 people out of 66 answered *definitely*, yet, 18 others said they are not really interested, and the other 6 said they are not interested at all.

As a result, though NEs can be motivational and useful, still there are some individuals who are not interested and just do not want to make use of them. Henceforth, nothing can be done without one's willingness.

Ever Tried to:

- Talk yourself out of a negative feeling (find alternative perspective)
- Identify your emotions , justify them stating why are feeling that why, then properly react
- Self empowerment(remind yourself of your goals , capabilities, and be determined)
- Ask for help

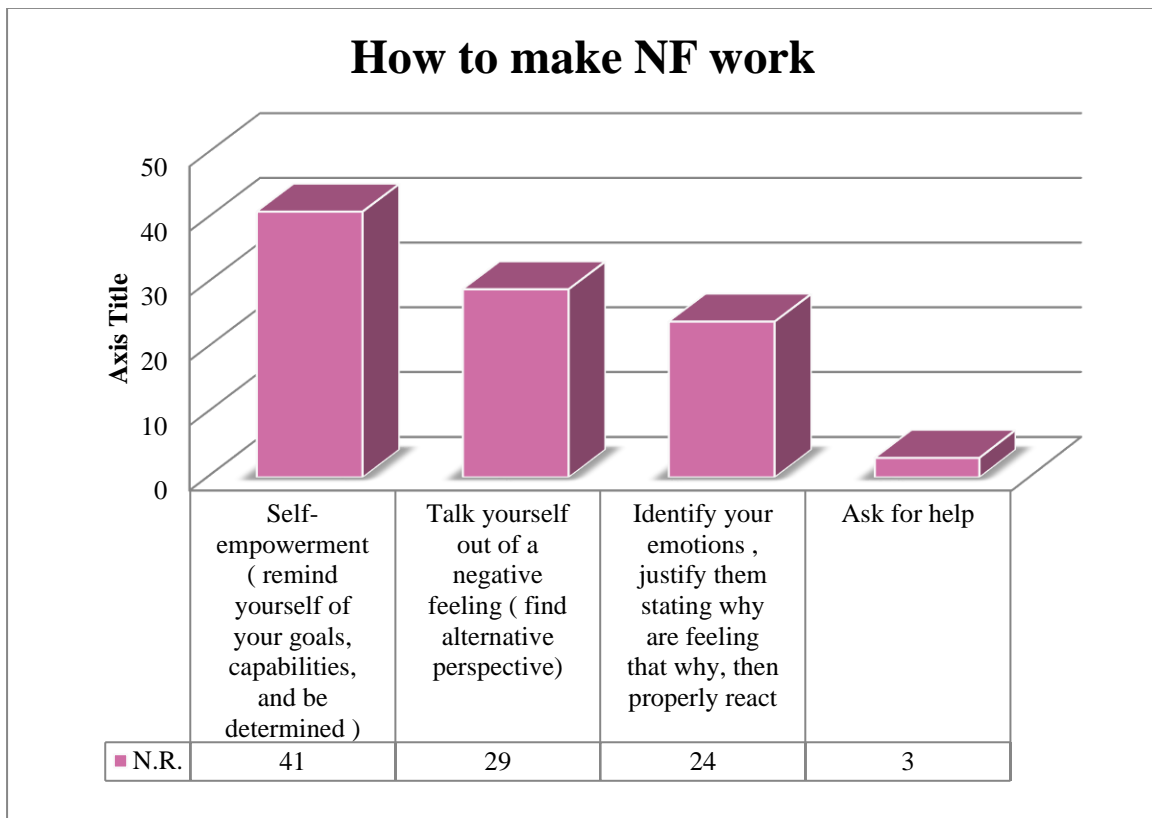


Figure23: Suggested strategies to cope with NF

The above figure represents which of these strategies are mostly drawn into in order to make use of NF and cope with them. Self empowerment is observed to be taking the lead with 41 votes, in second place, there is helpful thinking i.e. talking yourself out of the NF scoring 29

votes. Then, there is: properly react after thoroughly identifying and justifying the NF. Lastly, it looks like asking for help is the least favorable strategy since it only got 3 votes.

In conclusion, one way or another the participants seem to adopt the most suggested strategies by psychologist to deal with NE while learning. Furthermore, emotions regardless of their inevitability still asking for helps seems to be lot more difficult then dealing with NE themselves.

Section three (Teachers Only):

18. Are you aware of the impact that negative emotions has on learning? And what do you think of it?

Based on the responses, all teachers stated their awareness about the effects NE has on learning, without denial of their challenging features. Regardless, NE still has positive impact in many cases and most teaches stated that they have seen many cases where their students just flourished thanks to some negative situations. Yet, others had to just admit that regardless, not all students are “lucky” or that “competent” to turn NE into and impulse for motivation and unfortunately it seems to be the case for the majority.

19. 1- Do you intervene to help students in a bad mood

If yes; how?

If No; Why not?

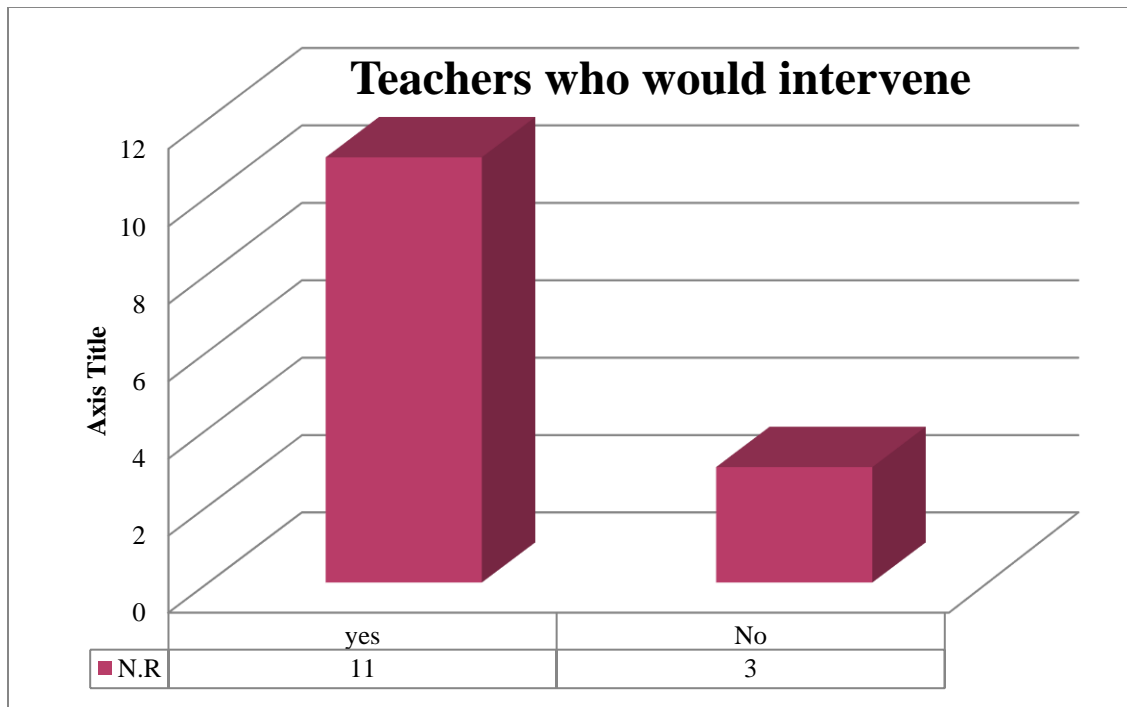


Figure24: Number of teachers whom willing to intervene to Help students suffering from NF

19.2- How?

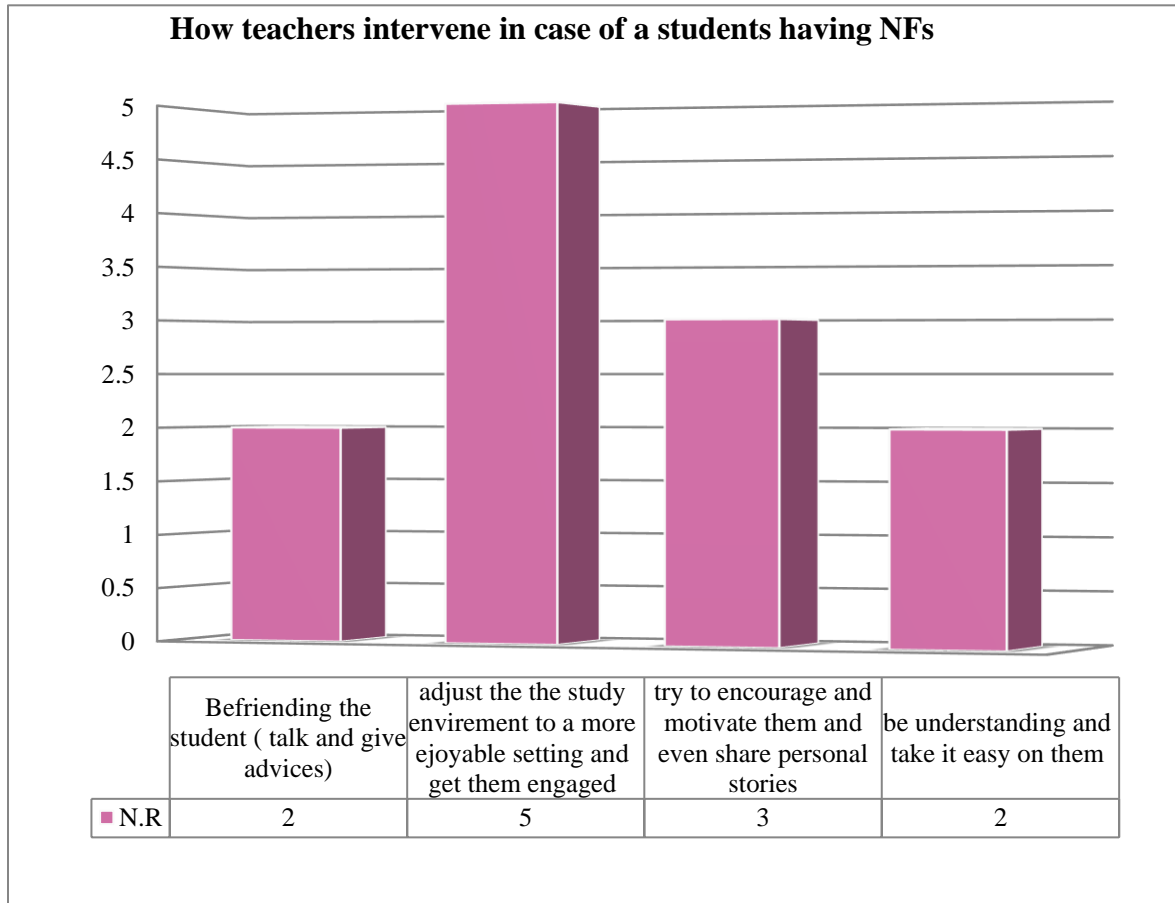


Figure25: How teachers intervene to help a student having a bad mood

This graph demonstrates the four most observed ways a teacher would use to help a student having a bad mood. Most teachers (five to be precise) seem to try to adjust the study environment and make it more fun and enjoyable, then engage them in. However, others (two) would be more understanding and try to make it easier for the student (ignore some slips in deadlines or assignments). Henceforth, others would take it more personal; three teachers said they would try to talk to students, encourage them and motivate them, and even share some personal stories on how they overcome a difficult situation to ensure it is not impossible. While two other teachers seem to try to get the student to talk to them instead, that is by befriending them to know what is wrong then give advices.

Why teachers do not intervene?

There are three participants in this section and their answers were:

- 1- “ as long as it does not affect the overall mood of the classroom, then I do not care”
- 2- “ my job is to provide them with lectures”
- 3- “ They would not do the same”

In general, this last question shows that the majority of teachers do care about the mental state of their students and they try to help inside the classrooms and sometimes even outside; that can be just the needed stimulus for students to run to studying and counting on NE rather than fighting on both sides. On the other hand, only the minority think it is not their job and are careless that may increase the intensity of NF for the students and probably be a crucial reason for them to drawback from targeting that NE into studying.

Conclusion:

This chapter was devoted to the result and analysis aiming to prove or disapprove the hypotheses stated in chapter one and endeavor to raise some mental health awareness about PENE. The next chapter is dedicated for the interpretation of the previous finding in a form of discussion and conclusion; and it entails recommendations for teachers, students and for further studies.

Chapter five: discussion, conclusion and recommendations

Introduction

This last chapter covers the interpretation of the research findings tackled in the previous chapter. A thorough discussion is to be outlined for a realization of the research questions and to either approve or disapprove the hypotheses. Next, it shall also implicate suggestions and recommendations for students, teachers and further research.

Discussion

The invested efforts on this paper were for the aim to raise some mental health awareness about the importance of NEs, and add to students' emotional growth. Consequently, NEs are to be used as a *reason* to do better other than an *excuse*.

This research began with the following questions:

1. Can Negative Emotions become a significant source of motivation for learners, regardless of the source that generated them?
2. How do learners deal with negative emotions?

It was hypothesized that NEs can generate a stimulating urge for learners to focus on their studies; they may indeed be "adjustable" in a sensible way to be beneficially used in the process of learning, autonomous of the cause. Nonetheless, NFs are particularly difficult to manage, sometimes assistance is required.

To test the first hypothesis declared above; a series of questions generated and then answered by 66 participants (students and teachers of different ages, study levels, gender, study fields,). It was noticed that whenever a question entailed a selection between different emotions most participants would be drawn to pleasant emotion i.e. PE. This fact is not surprising at all, because PEs are known to be attractive because of their pleasantness. However there is another side of this fact, asking participants to justify their choice, led to the conclusion that PEs were being selected as an avoidance to NE. Participants seem to regard NE and PE as opposing scales i.e., conflicting categories. Consequently, that generated a phenomenon baptised as *cognitive bias*; which is a type of inaccuracy in thinking that happens as people receive and interpret information from the world around them, influencing their actions and judgments (Cherry, 2020).

Henceforth, NEs were not neglected for their *unpleasantness* more like they were in unfair competition with PE. Aversively, when the forms of the questions were changed and there were only NEs to be judged, opposing to no other feeling, participants did not seem to have an explanation for not agreeing to NE being beneficial. This observation do not only prove that there is cognitive bias, but it also testifies the claims of our research problem: that people are over- drawn to PE that NE only seem detrimental to them with no chance or will to consider the existence of PENE. Furthermore, those who slightly were able to look beyond this view, presumably did not know that they *can* and most importantly did know *how* to manage their emotions as it was demonstrated in question eight (part one and two); where none of the participants, who denied PENE, mentioned anything about how they dealt with them or how they reacted or challenged them.

When comparing the results of question eight with question five we realize that the number of participants whom believed that NE might have positive effects had risen by the end

of the questionnaire. They just needed to be walked through previous events and reminded to look at the same view just from a different perspective (from a NE view other than PE). Surprisingly, the objective of raising some emotional awareness seemed to be realised.

Regardless of the scores in favour of PE, results from question eight, nine and ten highly support the hypothesis stating that *NEs can generate a stimulating urge for learners to focus on their studies*. It was concluded that different feelings can generate the same desired or beneficial result i.e. PENE can relate to more than just one emotion, students and teachers testified they have witnessed cases where students flourished thanks to the intensity and the unpleasantness of NFs, however, this requires the right mindset; otherwise, they are just *negative*.

The actual problem is that *the right mindset* requires students to first *care* about taking this journey of making something positive out of NEs. Surprisingly, not everyone cares about this. Results show that they think about turning those NEs into something positive, however, when it comes to taking action it was concluded that sometimes they are just *not that interested* or worst *not interested at all*. Therefore, willingness is the first step then comes the application *the how* and that's our second research question.

Before tackling the answers for the second research question; the first question had two parts. First, NFs can stimulate motivation (which was discussed and answered above). Second, NFs stimulate motivation *regardless of the source* (either educational or non-educational). Based on the qualitative data that was assembled, it is fair to state that NEs can be targeted (NF generated because of non educational factor can be relied on *to stimulate motivation in educational context*). Interestingly, non educational NF appears to have a more consistent motivation in comparison to NF generated because of educational factors.

As for the second question, one way or another, participants seem to adopt the strategies suggested by psychologist to deal with NE while learning: psychological empowerment and helpful thinking. Furthermore, emotions, regardless of their inevitability, still asking for help seems to be a lot more difficult than dealing with NE itself.

The majority of the participants were making use of their NFs and turning them into motivational aspects rather than maintaining their detrimental factors, however, unconsciously in a way that made them give no credit to NE, and this might be the cause of their conflicting thought and the previous non agreement to notion of PENE.

Recommendations and suggestions for further research

Recommendations for Students:

It is recommended that students need to challenge their thinking and keep in mind that they can have control over their emotions not in terms of their flow but in terms of how they behave/ respond to them. They can use psychological empowerment where they just look beyond that current state of NF and remind themselves via reflecting the following construct: meaning, competence, self-determination, and influence. As they can use helpful thinking and try to look at NF from a helpful perspective (check appendix A and B).

It is also recommended that they try to link the NF to their studies in such a way that will not set the mind for a state of shut down for instance: if one is sad about the loss of a beloved one they set themselves to study as a tribute their memory

Recommendations for Teachers:

Furthermore, teachers are concluded to have an important role in inducing *mood* for their students (*i.e.* they influence learners); from that stand they should take into consideration the affective factors more and interfere when a student is having a bad mood, especially a long term

one, because sometimes students don't do great to feel well, it is the other way around, they need to feel great to do well.

Recommendations for further research

It is recommended for other researchers interested in the same study to adopt it from experimental point of view on a long term applying qualitative methods for a richer understanding; because it is not about the numbers anymore, it is more about the *How*.

Limitations of the study

In spite of the success of answering the research questions, this research is limited to the achievement of the goal because of certain aspects. Initially this research was intended to adopt an experimental approach, interviews and a case study on a long term where we have participant answer a questionnaire introducing PENE as a study and provide with examples, then, ask them how they deal with NEs. AS for the controlled group, the technique of managing and challenging negative emotions would have been introduced to test their validity. However, neither the current circumstance of the Covid 19, nor the time availability were in favor of this study. Consequently, these conditions coerced the original path of this study.

Conclusion

This final chapter scrutinized the findings and interpreted the results to eventually come to a realization of the hypothesis NEs can generate a *stimulating urge* for learners to focus on their studies; they may indeed be *adjustable* in a sensible way to be beneficially used in process of learning, *autonomous of the cause*. At last, it embodied some recommendation for the active parties in learning, and for future research.

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APPENDIXES

Appendix A

List of hot seat Questions:

1. Questions about how true or accurate the thought is, or how to check the facts:

- How do I know this is true?
- Has this happened before?
- Has this happened with other people or in other situations?

2. Questions about other ways to think about it

- Is there another way to look at this?
- Is there another reason why this would happen?

3. Questions about what will happen next

- Even if this thought is true, what's the worst thing that can happen?
- Even if this thought is true, what's the best thing that can happen?
- What is the most likely thing to happen?

4. Questions about a plan of attack

- Is there anything I can do about this?

Example

Negative thought:

- “I’m going to get a bad grade on my report card in math.”

Example helpful thoughts:

- “I’ve done well on other tests.”
- “Everyone did badly on this test.”
- “I can study more next time.”
- “I can ask the teacher if I can earn extra credit to make up for the grade.”
- “I can see about getting a tutor.”
- “I can ask the teacher for help after school.” Example negative thought:
- “My parents are going to be really mad at me.” Example helpful thoughts:
 - “That’s not true because they know some tests are really hard.”
 - “That’s not true because they’ll understand if I tell them it was really hard.”
 - “That’s not true because they’ll understand if I tell them everyone did badly.”
- “Even if they are upset, they won’t be really mad if I tell them I have a plan to talk to the teacher about raising my grade with extra credit and studying more next time.

Appendix C

Questionnaire

Dear students and teachers

I want to start by thanking you for taking part in this research. This paper aims to investigate positive effects of negative mood (or negative emotions) on learning process and students' perspective of this assumption. Thereby, you are kindly requested to answer the following questions. Your answers are fundamental and highly appreciated. So, carefully read and answer the following and Thank you in advance for your time and efforts.

Section One: Personal Information

1. Age:

2. Gender

Male

Female

3. Study level:

4. Field of study:

5. Are you a

Student

Teacher

Both

6. How skilled you think you are when it comes to mastering your emotions

- Skilled

- Good

- Medium

- Not that bad

- Bad

Section Two:

7. What Kind of emotions do you think are important in the learning process

- Positive (e.g. contentment, joy, interest, satisfaction, relief...)
- Negative (e.g. Hurt, Bored, nervous, jealous, heartbroken...)
- Neutral (Mid scale; Ok☺)

Why?

8. To what extent do you agree that negative emotions can be helpful during learning

- Fully
- somewhat
- not really
- Not at all

Explain.....
.....

9. When you experience a bad mood(negative feeling)during schools days, it :

- brings you down
- gives you a push to work even harder
- Both

10. Have you ever experienced sadness or depression because of factors outside of the educational setting? (e.g. the loss of loved ones, unfortunate events... ect)

- Yes
- No

If yes, how did that impact your studies?
.....

11. What strategies do students/ teachers use to manage negative emotions (e.g., feeling stressed, upset) in order to successfully complete tasks/focus on their job?

- Make it a source of motivation and complete the task
- Ignore it and focus on the task
- deny the feeling and do the task
- neither deny nor ignore the feeling (know it is there) yet you do the task anyway
- others.....
.....

12. What if....

C. You are feeling frustrated because you did bad in an exam and have another exam the next day, you would?

- Study hard to make up for the previous exam
- Get over the previous exam and focus on the next exam

D. During your final exams, one of your loved ones got badly sick and you can do nothing about it, what are u going to do?

- Tell yourself there is nothing you can do but to focus on your studies to make them feel better
- cry, listen to music, dance... (Acts to make u feel better) then study
- drop everything
- Just focus on studying without thinking about the bad idea

13. Have u ever thought of turning those negative affections into something positive that can benefit you?

- Always
- Sometime
- Never
- I don't know

14. How did your negative emotions help you?

.....
.....
.....

15. Ever noticed a good change happened to you academically, because of something bad? If yes, what was the bad feeling and how did it help in a way?

.....
.....

16. To what extent do you agree that negative emotions you get from past events (like failure) are great motive for u to stand up and work again?

- Agree
- Neither agree nor disagree.
- Disagree

17. Do you want to make use of the negative emotions (thoughts) and want to know how?

- Definitely
- Not really
- Not interested

18. Ever Tried to :

- Talk yourself out of a negative feeling (find alternative perspective)
- Identify your emotions , justify them stating why are feeling that why, then properly react
- Self empowerment(remind yourself of your goals , capabilities, and be determined)
- Ask for help

Section three (Teachers Only):

19. Are you aware of the impact that negative emotions has on learning? And what do you think of it?

.....
.....

20. Do you intervene to help students in a bad mood
If yes; how?

.....
.....

If No; Why not?

.....
.....

Thank you all once again
Stay safe

Link to Online version:

<https://www.surveio.com/survey/d/J7Y1G6I1D6B9T3X0V>