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Efficient Learning Strategies Designed for Military Personnel Who Have Experienced One or More Traumatic Events: A Better Understanding of their Needs and Specific Characteristics

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Abstract

This study aims to better understand a specific learning context involving military personnel in the Canadian Armed Forces who have to learn French as a second language in order to advance in their career. It has for goals to describe the learning strategies that are most efficient based on the specific needs of military personnel who have experienced one or more traumatic events in conjunction with the specific characteristics that cause positive or negative interference with their learning and the perception of their self-efficacy. The context of this research takes place in Canada where military personnel who want to access senior positions have to be bilingual with French or English as a second language. They have a limited time to achieve their target linguistic profile. Timeframes depend on their trades and the operational needs of the Canadian Armed Forces. Of course, all of the military learners have participated directly or indirectly in military operations throughout their careers. Therefore, because of the nature of their jobs, they have a greater chance of having experienced a traumatic event during their careers. This could lead some military personnel to suffer from operational stress injuries, which could interfere with daily functioning when they return from a mission or from combat. In this context, so many factors can interfere with learning and memory processes during the second language training; however, stress and emotions are the two main one. Therefore, learners who have experienced one or more traumatic events might develop sensitiveness to certain stimuli related to an event and that could affect their attention span in the classroom. The teacher's role is to facilitate learning. The teaching strategies should take into account the experiences of the learners, and especially those who have experienced one or more traumatic events, which might interfere with their learning. Each learner will adapt differently to a new learning environment. Some military learners might develop a strong or a weak perception of their self-efficacy toward their learning and their progress. Thus, with this exploratory and descriptive research based on a mixed design with a qualitative approach: which includes an interview (60-90 minutes) and a questionnaire (115 questions), I will describe a particular learning context with the perception of the main actors, their efficient learning strategies and their perception on their self-efficacy.

Keywords: Learning, PTSD, Military, Self-Efficacy.

Introduction

Because the context of this research emerges from my practice, it is necessary to mention that at the time of writing, the researcher is also a teacher working for the Federal Government as a civil servant for the Canadian Forces Language School, and the learners are military personnel in the regular Canadian Armed Forces (CAF).

Since the Official Languages Act of Canada (1969), Canada is officially a bilingual country. Throughout all the provinces and the territories of the country, the two languages most commonly used are French and English; which means it is mandatory for all military personnel and all employees of the Federal Government to be bilingual at a certain positions in the hierarchy of the organization in order to offer services in both languages. In the CAF, there are around 72% Anglophones (Revill and Pinsent, 2009). Therefore, for the most part, military personnel have to learn French as a second language (FL2) in order to advance in their careers and to be able to communicate with their troops in both main languages when directing operations. For this reason, in this article, I will refer to FL2 for military Anglophone learners in the CAF.

It must be noted that in the CAF, there are several language schools. The military personnel who participate in this study are attending or have attended the Canadian Forces Language School of Canada located in the National Capital Region (Ottawa/Gatineau). They are aged between 35 and 50 years old and have been in the military for several years. The most majority of the learners have participated in military operations around the world and within Canada as officers or non commissioned members. Because of the nature of their jobs, many of the soldiers might have experienced one or more traumatic events during military operations. Thus, their experiences might interfere with their learning after returning from missions where they have experienced elevated levels of stress and had to face life-threatening situations. As well, their second language training might be challenging because of their careers and their specializations. This will be discussed in this article.

Problems to Consider

At the Canadian Forces Language School located in the National Capital Region, in Québec (Canada), each year, military learners try to obtain a linguistic profile in order to advance in their career and command their troops in both official languages. As a FL2 teacher for the National Defence of Canada, I personally have observed different manifestations of stress in the classroom.

In fact, not only the amount of time allowed for the FL2 training during the career could represent a stress factors for some military personnel; many factors can interfere with their second language learning. Among those, there is the capacity to adapt to the difference and to a new environment (Krashen, 1981; Paradis, 2004; Spencer, 2009). Most of the learners haven't had to sit all day long for many hours since a long time. They also have to adapt with speaking in another language with a short amount of words to express a specific idea. They often feel they don't have enough vocabulary to say everything they would like to express. In addition, their capacity to adapt to the other culture and their level of knowledge of the second language affect their learning according to Walqui and Ed (2000). Those authors report that the level of competencies in the first and second language can also influence second language learning. According to them, the more a learner as been in an academic context, the more efficient he is toward his learning by developing strategies more convenient for him.

Their age is also an additional factor which could create stress and could interfere with their learning: military learners are adults. As a child, learning a language involved procedural memory, in a reflexive way, and demand to learn four communicative skills: to listen, to talk, to read and to write. Listening and talking are skills developed when the child is in contact with speakers. All the grammar rules and other specificities of the language are learned in school like reading and writing (Krashen, 1981). For an adult learner, learning a second language is not only the development of four skills but also the acquisition of knowledge in a reflection way (Ellis, 2008). Besides, it is more challenging for an adult to learn a second language because of the age and the brain plasticity (Bourassa, 2006; Cordier and Gaonac'h, 2007; Couchaere, 2001; Dworczak, 2004; Ellis, 2008; Pepito and Dunbar, 2004; Squire and Kandel, 2002). The memory process decline with ages, but adult learner will feel it particularly after 35 years old (Squire and Kandel, 2002). However, it can represent an advantage if the adult can rely on learning strategies that is has acquired trough his life according to Ellis (2008). Learning a second language requires efficient mnemonic strategies, and the experience of the learner might be relevant to transfer some information, especially new vocabulary and verbs conjugation.

On the other hand, efficient teaching strategies should consider other stressors which seem more related to their careers and their past experiences. Military personnel are often deployed to dangerous environments: they have to participate in dangerous situations and in combat (Cossar, 2010; Grossman, 2008). During their second language training, because of the curriculum provided by the military instruction academy, they are asked to talk about their past and to related highlights of their careers and some memories, and lessons learned that might include the death of a friend or a tragic event. For some learners, it could be the first time they talk about it. Their work ethic and intense training include killing the enemy (Grossman, 2008). Some learners admitted having flashbacks and images intrusions related to previous experiences or military operations during their second language training. Certain can deal very well with stress symptoms because they have recourse to efficient coping strategies whereas others encounter some challenges during their learning and find it very difficult. While relating memories, some learners can experience different reactions because of their increase exposure to traumatic events by the very nature of their job. Indeed, military personnel have a prevalence to develop PTS, even if they have been prepared to be often deployed to dangerous environments. They train to react precisely in dangerous situations and execute specific tasks in combat, but like every human, they can react differently in front of danger (Grossman, 2008).

Military Instruction

Before attending to the Canadian Forces Language School, all the military personnel trained intensively in order to support military operations. For this reason, they are prepared for the most part to deal with very high stressful situations and traumatic events. The military instruction is usually done in three steps: 1. explain the objective (mission) – tell; 2. demonstrate all the steps required - show; 3. imitate and repeat until it is done without effort - go. However, learning a second language is way different from other courses and military training: it doesn't require the same steps according to the communicative approach. It demands more cognitive effort and is support by more cerebral spheres including semantic and episodic memories. Thus, because learning is a complex process that includes different spheres of the brain, there is a probability that some topics could be more sensitive for some learners if they experienced one or more traumatic events (Ehlers and Clark, 1999; Ehring and Ehlers, 2011; Kleim, Ehring and Ehlers, 2012).

Traumatic Events

The participation of the military personnel in mission and in dangerous situations like in Afghanistan, in Iraq, in Rwanda, in Bosnia and more could be more direct or indirect according to their trades and ranks. According to Herbert and Wetmore (1999), some people have a greater chance of being exposed to traumatic events. Those authors divided them in three categories: 1. victim of unnatural disasters (terrorism); 2. victim of natural disasters (earth quake, tsunami, hurricane); 3. victim of acts of violence, crime (combat, sexual assault, killing). It seems that the victim of acts of violence by the hand of a man have more prevalence to develop PTSD symptoms (Geninet and Marchand, 2007).

This being said, according to some authors, including Branker (2009), war and military operations in Iraq have an undeniable effect on military when they return, after fighting. Some soldiers return with physical injuries and mental injuries (T.B.I., operational stress, depression, and PTSD. PTSD and depression are often concurrent diagnoses according to Simoneau and Guay (2008). For O'Herrin (2011) and Rodriguez Martin (2009), the prevalence to develop PTSD increase if the military has deployed several times in war zone against insurgents. According to other authors, including Bouchard, Baus, Bernier and McCreary (2010), it is the combination of combat and peace keeping operations that would have a more negative impact on mental health of the military, and not only the participation to one or another.

In reality, certain factors contribute to the probability that a traumatic event will have long term consequences on the mental health of an individual (Acheson, Gresak and Risbrough, 2012). Those factors are commonly called risk factors or vulnerability. It refers to the circumstances, to the environmental aspects, and to the victim particularity. Therefore, several authors (Bouchard, Baus, Bernier and McCreary, 2010; Jehel and Guay, 2006; Martin, Germain and Marchand, 2006) relate that the intensity of PTSD is determined by the intensity of the threat and to the level of suffering felt. In other words, the impact of an event on military personnel's life differs according to the personality of the individual, the perception of the context where the event takes place, the duration of the event, and surely the strength of the fear or horror at the moment.

According to Janoff-Bulman (1992), there are three main fundamental beliefs when humankind is confronted to a traumatic event, they will believe that: 1. we live in a good world, fair with everybody, where each person is nice and trustworthy; 2. we live in a world where everything happens for a reason, everything make sense, is logical; 3. or finally, have the *magic thought*: it will never happen to them. They are invincible. So, it is the personal characteristic perception of the individual that will influence PTSD development or not. On that point, many factors influence the resilience capacity and recuperation of certain military personnel (Tychey, 2001). Consequently, it is not all military who have experienced one or more traumatic events that will develop PTSD. For the same reason, it is not all military that will have learning or memory difficulties.

Bourrassa (2006) reports that when someone is facing a high level of stress, the nervous system is getting ready for a primitive response: freeze, escape or attack. The heart beat and the breathing will accelerate. She mentioned that the body reacts according to eight modalities: all the five senses (ears, eyes, nose, touch, taste) as well as the three body responses, which comprised the posture, the movement and the sensation arising. She explained that there is a change in reading time. Grossman (2008) added that all the warriors during military operations and combat show isolated movement: they have a focussed attention and their survival instinct is activated. Sometimes, they don't even hear the sound of their gun fire.

Resilience Program

CAF have developed a program to prepare better the soldier previous to a mission so they are able to deal with stress symptoms better during dangerous situations in theatre of operations. This program is called *Road to Mental Readiness* (R2MR) and "it encompasses the entire package of resilience and mental health training that is embedded throughout CAF members' career, including the deployment cycle. R2MR training is layered and tailored to meet the relevant demands and responsibilities CAF personnel encounter at each stage of their career and while on deployment. In this way R2MR is designed to ensure that the most appropriate training is provided when required to ensure CAF personnel are prepared mentally for the challenges they may encounter. The overall goal of this training is to improve short term performance and long term mental health outcomes." http://www.forces.gc.ca/en/caf-community-health-services-r2mr/index.page

While the program seems efficient for some of the military personnel deployed, a large percentage (2/3) of the military personnel deployed isn't diagnosed for PTSD symptoms or depression when they return and won't seek for help (Fikretoglu, Brunet, Guay and Pedlar, 2007). However, many reasons can lead someone not to talk about some symptoms encountered while others will demonstrate efficient coping strategies.

Operational Stress and PTSD

On a statistics perspective, 58 % of the natural disaster victims and military personnel involved in combat have a prevalence to develop PTSD according to Bouchard, Baus, Bernier and McCreary (2010). In United States, between 14 and 19 % of the military personnel deployed might develop PTSD or depression according to O'Herrin (2011). In Canada, 13 % of the military personnel deployed in Afghanistan will come back with an operational stress which resulted in PTSD and depression said McKay (2012).

Actually, military personnel might develop operational stress, depression and PTSD because when they return from a mission, they need to adapt progressively to the return to the reality. Whereas some will adapt progressively, others will experience persistent operational stress for two to six months or more after they return. To be diagnosed with PTSD, the patient need see a specialist, but not all the military are comfortable talking about what they have experienced during a mission with a specialist. While some will seek for help, others will think that if they talk, it could impact their career or they will be seen as weak (Burke, Degeneffe and Olney, 2009).

PTSD's Impact

PTSD has a negative impact on the quality of life of the people who have suffered from it. In fact, PTSD has a negative impact on the general mood of the person, her temper and her capacity to concentrate to the daily tasks. Individuals suffering from PTSD become very affected in all spheres of their life: conjugal, familial, professional and social according to Boyer, Guay and Marchand (2006). Several studies clearly show the impact of PTSD on learning, especially the capacity to memorize (Buchanan, Etzel, Adolph and Tranel, 2006; Ehring and Ehlers, 2011; Kleim, Ehring and Ehlers, 2012; Schaefer, Pottage and Rickart, 2011; Tapia, David, Michel and Wissam, 2007).

Learners who have experienced one or more traumatic events might not have been diagnosed for PTSD but can develop sensitiveness to certain stimuli and that affects their attention span in certain occasions (Sinski, 2012). Some learners might express less tolerance to

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brightness, background noise, body movements, or any elements related to the traumatic event. They will experience interferences in their learning, especially their reading skills. Moreover, some cannot simultaneously listen to a presentation and take notes (MacLennan and MacLennan, 2008). They might have difficulty to concentrate during studies. PTSD diminishes the capacity to plan, to organize, to prioritise goals and to set objectives: to manage. Nonetheless, it doesn't matter how efficient a teaching and learning strategy could be, some student might experience PTSD symptoms and it can affect their attention span.

While their attention span can be affected by many factors, in the classroom, the teacher can observe some symptoms such as: 1. behavioral manifestations (lower tolerance, hyperactivity, aggressiveness, rage, and impulsivity); 2. cognitive manifestations (memorisation difficulties, intrusion and flashbacks, difficulty concentrating, difficulty adapting to change, dissociation, and specific learning strategies); 3. emotional manifestations (withdrawal, avoidance, shame, frustration, low self-esteem, feelings of discouragement).

The experience they have acquired during their careers might interfere with their learning and affects their perception of their self-efficacy. Consequently, some military members might develop a weak perception of their self-efficacy toward their learning of FL2 if they don't see themselves succeeding while experiencing stress symptoms or/and memory difficulties.

Self-Efficacy

Self-efficacy is a well know concept for the military personnel in the CAF says Cossar (2010). For this author, all the military instruction is based on self-efficacy so that they can perform in stressful situations and believe in their contribution for the success of the mission. The author Bandura (2007) explains that all adults have different experience. When they are confronted with a challenge, when they are put in a learning situation, they have two choices. They can have the motivation to excel and proudly succeed; or view the learning situation as a threat, an impossible challenge. Their judgement on the beliefs to succeed will be based on their experiences (Bandura, 2007) and on their preparation (Cossar, 2010; Grossman, 2008): the actions they take to achieve their goals and their perceptions on their self-efficacy. The way they perceive their self-efficacy will influence their engagement and by consequence their performances. Many authors (Bandura, 1988, 1997, 2007; Carré, 2003, 2004; Galand and Vanlede, 2004) support the strong relationship between self-efficacy, performance and perseverance.

Objectives

Because of some stress symptoms manifestations in the classroom, because of memory difficulties and because not all the military affected by PTSD are diagnosed, there are two main objectives in the research: 1. to understand and to describe the learning strategies that are most efficiently promoted learning FL2 according to the specific needs and characteristics of military personnel who have experienced one or more traumatic events during their military career; 2. to understand and to describe what are the needs of those learners according to their specific characteristics, to what interferes with their learning and to their self-efficacy.

Theoretical Frame

When learning a second language, learners are asked to participate actively and to collaborate with their teachers (Krashen, 1981; Perrenoud, 2002, 2008). They have to be more conscious of the most effective ways they learn so that they can reach their full potential and be able to communicate in their second language into functional situations (Ellis, 2008). According

to the communicative approach, learners are invited to participate in interactive and oral exercises to develop their competences and skills in communication (Germain and Netten, 2005, 2006 a., 2006 b.). The teacher should choose teaching activities based on the reality of the learners. Their learning should include words, pronunciation, verbs conjugation, agreements, and above all sentences created from: authentic documents, role plays, debates, discussions oriented toward the career of the learner and his life experiences (Cohen, 1996; Germain and Netten, 2005, 2006 a. and b.; Germain and Séguin, 1993; Knowles, 1980, 1984, 1990; Krashen, 1981; Loiola and Tardif, 1992; Puren, 2001).

Beside the communicative approach, in order to develop language skills and knowledge at the same time, Knowles (1980, 1984, and 1990) believes in andragogy which is the art and science of adult in education. This theory has been developed more than thirty years ago and is based on the experience of the learners. What is special about this research is that the experiences of the learners include homicide, peace keeping operations, humanitarian interventions, search and rescue, NATO and UN missions and the defense of the country. Military personnel have to deal with stressful situations thorough their careers; their learning should be oriented toward their communicative needs at work to direct military operations. However, some of the learners will meet challenges during their learning. Most of the stressors related to those challenges can be divided into four different categories: cognitive, social, psychological and environmental.

Cognitive

In order to learn a language, one must process and memorize some information. Learning a language involves many actions and the ways to encode the information could differ from one person to another. According to many authors (Chamot, 1987; Cohen, 1996; Oxford, 1990), there are four learning strategy levels: cognitive, metacognitive, affective and social. For Begin (2008), a learning strategy is defined as a series of actions, metacognitive or cognitive, used in learning situations, oriented in the goal of completing a task.

When an individual attempt, consciously or unconsciously, to memorize and to learn a second language, he tries to cease new information and to transform it in mental representations (Ellis, 1985, 2008). When the individual is encoding information, all the mental representations are regrouped in three categories: 1. visual codes; 2. phonologic codes; 3. semantic codes. Each code comprises elements like: colors, shapes, series of letters, etc. (Dworczak, 2004). Among those codes, the visual codes are really important because according to Squire and Kandel (2002), vision is the main sensorial modality for humans. For those authors, more than half of the cortex is dedicated to the treatment of the visual information, either the colors, the shapes, the movements, the orientation, and the spatial localisation of an object. Bourassa (2006) supports this statement and says that visual acuity regroup seventy percent of the sensorial receptors.

Once the information is transformed in mental representations and encoded, its recall should be efficient afterward. However, by constantly adding new information, it is necessary to modify the way the information is already represented. The restructuration of the information into the linguistic system is affected by the life experience of the learner, his memories and the information attached to it in relation to the new information to memorize. According to Dworczak (2004), there is an important flexibility in regards to the treatment of the information. The more the frequencies of associations to memorize are high, the more the memory stabilizes: and the individual forgets less. For Ellis (2008), the more the learners are advanced, the more they are competent and have more skills to learn and overcome their learning challenges. Bourassa (2006) agrees to this and adds that some experience's memories have a bigger

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emotional charge; therefore, it could facilitate the treatment of some information in a certain way, because some words might have a strong emotional dimension and might not need many repetitions to be encoded; or, on the other side, it could harm the memory process if the learner prefers avoiding some words with a strong emotional charge. Grossman (2008) tells that the memorisation and the encoding of some information related to a traumatic event are done in a selective way for warriors. All the information is not treated and encoded the same way.

Social

On the social aspects, some authors like DiRamio, Ackerman and Mitchell (2008) have studied the integration of veterans on campus and they have discovered that, for some veterans, a transition was needed in order to adapt to a new environment and new interactions. They felt a difference of age between veterans and other students of the institution; and reported that several veterans mentioned having less tolerance toward immaturity of certain students. They had integration difficulties, "*difficulty to stay in the game*". Therefore, the environment and the interactions have an impact on learner's perception of their elf-efficacy and performances. DiRamio, Ackerman and Mitchell (2008) point out the importance of a belonging to a community for the majority of the veterans. It was important to create a place for them to meet and gather. Beside the social aspects, it must be taking into account also that their affective and psychological specific needs could be different from other students because they might have been exposed to one or traumatic events and it could interfere with their learning.

Psychological

A lot of psychological and affective elements can interfere with second language learning. The main one could be stress management. Stress is an element to consider because of the short timeframe and the age of the learners. Having a short amount of time to learn can be stressful. Also, experiencing memory difficulties can increase stress and affect learning. Some learners feel frustrated sometimes, discouraged, and diminished because of their lack of vocabulary to express a specific idea. Also, it is necessary to consider the possibility that some learners might experience PTSD symptoms like flashbacks, lack of attention and concentration, short temper, lack of sleep and difficulty to listen and to take note at the same time. The learner's perseverance toward learning and his ability to overcome difficulties influence his perception on his self-efficacy and his development. Moreover, there are environmental elements which could promote learning or on the opposite affect negatively self-efficacy.

Environmental

According to many specialists working with military personnel and veterans, the disposition of the environment must consider that for the most part they have knee and back injuries, and impaired hearing. Consequently, many breaks should be provided so they can walk around the room and stretch a little bit. Also, conversations should be interactive and the desks should be organized in the shape of a "U", where each student is facing each other, and can read on the lips of the other if needed. There should be also some care to limit background noise, promote natural brightness, and develop a "zen" environment. It should be mentioned also that some military personnel would be incline to choose their place, and if it is the case, they should have the right to do so. For some of them, it might be something important related to a traumatic event. Because of the nature of the event, some would prefer to sit by the door while others will insist to sit in the corner. A good communication and collaboration with the teacher is needed.

In addition, the best learning environment should be a safe and respectful environment based on collaboration instead of competition among learners. It should take into account the personal experiences of the learner; the ranks (officers or non-commissioned members); and the service commanders (Navy, Army, Air Force, Special Forces).

If they can learn in a healthy and warm climate, it can reduce or eliminate stressful conditions and the emotional distress attached to it. It might increase their perception of their self-efficacy and their performances.

Methods

This research studies socio-psycho pedagogical dimensions. It is an interpretative research articulated around the relationship and the interactions between the learner and his learning environment, between the learner and the teacher, between the researcher and the learner, and between the researcher and her environment. It aims to describe a particular learning context with the perception of the main actors: the learners. It is an exploratory and a descriptive research based on a mixed design with a qualitative approach: which includes an interview (60-90 minutes) and a questionnaire (115 questions).

The interview is divided in two sections. In section one, there are questions comprised in the psychological dimension: some questions related to the historical of the participant to better understand his specific characteristics and his perception about PTSD. Others related to the military career and his participation in a mission or in military operations (Bouchard, Baus, Bernier and McCreary, 2010). In the second section, there are some questions in link with the teaching strategies and the education dimension, the environmental and social dimensions and their perceptions of their ideal learning environment.

After the interview, participants are asked to answer a questionnaire (115 questions) including four measuring scales and some demographic questions.

Measuring scales

Some scales can predict performance of the learners in their second language. The Strategy Inventory for Language Learning (SILL) scale from Oxford and Burry-Stock (1995) has 50 questions. It allows analyzing the factors that may identify the frequency of the linguistic strategies used by learners in a second language; because according to those authors, there is a strong relationship between frequencies SILL and the level of performance in the second language. Besides, according to Mizumoto (2013), self-efficacy and learning FL2 are strongly related. He developed a scale of 23 questions and the results of this study showed that self determination learning can considerably increase vocabulary knowledge.

Furthermore, according to Yilmaz (2010), SILL questionnaire describes the various learning strategies. However, this author was also preoccupied by the participant's perception on their self-efficacy. So he created six questions related to the six subscales of the SILL questionnaire: 1. memory strategies; 2. cognitive strategies; 3. compensatory strategies; 4. metacognitive strategies; 5. affective strategies; 6. social strategies. Those two scales are, according to Yilmaz (2010), a great tool to better understand learner's strategies and to describe their perception on their self-efficacy.

The learner's judgement on his belief in hi competences to succeed play a crucial role in his engagement and his performances during his learning (Bandura, 2007). For this reason, Noels, Pelletier and Vallerand (2000) created the Language Learning Orientations Scale built with 21 questions and based on the Learning Orientations Subscales (LLOS-IEA) from Deci and Ryan (1985, 1995). It measures the self-regulation and self-determination of the learner. This

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scale helps to understand better and describe needs and specific characteristics of military learner by taking into account their preferences and their perception on their actions. It includes: 1. amotivation on one side of the spectrum; 2. extrinsic motivation by regulation; 3. extrinsic motivation introjected; 4. extrinsic motivation identified; 5. intrinsic motivation by accomplishment; 6. intrinsic motivation by learning; 7. and motivation by sensations on the other side of the spectrum. The more the motivation is internalised, the more the determination to succeed is strong. The more the motivation is extrinsic, the more it affects negatively selfdetermination. With this scale, is it possible to better understand all the actions that a learner will take to learn and to progress and his motivation behind his actions.

The last section of the questionnaire included 13 questions to collect personal information like gender, age, rank, trade, etc.

This research has been approved by DGMPRA Social Science Research Review Board and the Office of the General Doctor (Mental Health Specialists) of National Defence of Canada; also, by the ethical board of the Université du Québec en Outaouais, in Gatineau.

Conclusion

I am still collecting the data, but from what I have learnt so far, I could say that just a few changes will positively affect the learning context for military personnel. As Puren (2001) has mentioned, there is not an absolute linguistic system, there are so many different ways to learn and to make progress. It is necessary to better understand the needs of military learners, who have experienced one or more traumatic events in order to provide them a better learning environment in regards to their specific characteristics. And to identify those factors that interfere with their learning and perception of their self-efficacy based on their learning strategy inventory.

References

- Acheson, D.T., Gresak, J.E. and Risbrough, V. (2012). Hippocampal Dysfunction Effects on Context Memory: Possible Etiology for Posttraumatic Stress Disorder. *Neuropharmacology*, 62, 674-685.
- Bandura, A. (1988). Self-Regulation of Motivation and Action through Goal Systems. *Cognitives Perspectives on Emotion and Motivation*. Dordrecht: Kluwer Academic Publishers, 37-61.
- Bandura, A. (1997). *Self-Efficacy: The Exercise of Control.* New York: W.H. Freeman and Company.
- Bandura, A. (2007). Auto-efficacité: le sentiment d'efficacité personnelle. Bruxelles: De Boeck.
- Bégin, C. (2008). Les stratégies d'apprentissage: un cadre de référence simplifié. *Revue des sciences de l'éducation*, 34 (1), 47-67.
- Bouchard, S., Baus, O., Bernier, F. and McCreary, D.R. (2010). Selection of Key Stressors to Develop Virtual Environments for Practicing Stress Management Skills with Military Personnel Prior to Deployment. *Cyberpsychology, Behavior, and Social Networking,* 13 (1), 83-94.
- Bourassa, M. (2006). Le cerveau nomade. Ottawa: Les Presses de l'Université d'Ottawa.
- Boyer, R., Guay, S. and Marchand, A. (2006). Épidémiologie de l'état de stress posttraumatogène. *Les troubles liés aux événements traumatogènes*. Montréal: Les presses de l'Université de Montréal, 23-50.
- Branker, C. (2009). Deserving Design: The New Generation of Student Veterans. *Journal of Postsecondary Education and Disability*, 22 (1), 59-66.
- Buchanan, T., Eztel, J.A., Adoplh, R. and Tranel D. (2005). The Influence of Automic Arousal and Semantic Relatedness on Memory for Emotional Words. *International Journal of Psychophysiology*, 61, 26-33.
- Burke, H.S., Degeneffe, C.E. and Olney, M.F. (2009). A New Disability for Rehabilitation Counselors: Iraq War Veterans with Traumatic Brain Injury and Post-Traumatic Stress Disorder. *Journal of Rehabilitation*, 75 (3), 5-14.
- Carré, P. (2003). La double dimension de l'apprentissage autodirigé contribution à une théorie du sujet social apprenant. *The Canadian Journal for the Study of Adult Education/La Revue canadienne pour l'étude de l'éducation des adultes*, 17 (May/mai), 66-91.
- Carré, P. (2004). Bandura: une psychologie pour le XXIe siècle? *Cairn: Chercher, repérer, avancer.* <u>http://www.cairn.info/article_p.php?ID_ARTICLE=SAVO_HS01_0009</u></u>
- Chamot, A.U. (1987). The Learning Strategies of ESL Students. In Wenden A. and Rubin J., *Learner Strategies in Language Learning*. Englewood Cliffs, NJ: PrenticeHall.
- Cohen, A.D. (1996). Second Language learning and Use Strategies: Clarifying the Issues. A Revised Version of a Paper Originally Prepared for Presentation at the *Symposium on Strategies of Language Learning and Use*, Seville, Spain, December 13-16, 1994.
- Cordier, F. and Gaonac' h, D. (2007). Apprentissage et mémoire. Paris: Armand Colin.
- Cossar, R. (2010). Formation de soldats résilients à la recherche de solutions au stress opérationnel. Le journal de l'armée du Canada, 89-109.
- Couchaere, M.-J. (2001). Le développement de la mémoire: outils pour une mémoire dynamisée. Issy-les-Moulineaux cedex: ESF éditeur, division d'Elsevier Business Information.
- Deci, E. L. and Ryan, R. M. (1985). The General Causality Orientations Scale: Self-Determination in Personality. *Journal of Research in Personality*, 19 (2), 109-134.
- Deci, E. L. and Ryan (1995). Human Autonomy. *Efficacy, Agency, and Self-Esteem*, Springer US, 31-49.

- DiRamio, D. Ackerman, R. and Mitchell, R. (2008). From Combat to Campus: Voices of Student-Veterans. *NASPA Journal*, 45 (1), 73-102.
- Dworczak, F. (2004). *Neuroscience de l'éducation: cerveau et apprentissage*. Paris: L'Harmattan.
- Ehlers, A. and Clark, D. (1999). A Cognitive Model of Posttraumatic Stress Disorder. *Behavior Research and Therapy*, 38, 319-345.
- Ehring, T. and Ehlers, A. (2011). Enhanced Piming for Trauma-Related Words Predicts Posttraumatic Stress Disorder. *Journal of Abnormal Psychology*, 120 (1), 234-239.
- Ellis, R. (1985). Understanding Second Language Acquisition. Oxford University Press.
- Ellis, R. (2008). *The Study of Second Language Acquisition* (Second Edition). Oxford University Press, Oxford Applied Linguistics.
- Fikretoglu, D. Brunet, A. Guay S. and Pedlar, D. (2007). Mental Health Treatment Seeking by Military Members with Posttraumatic Stress Disorder: Findings on Rates, Characteristics, and Predicators from a Nationally Representative Canadian Military Sample. *The Canadian Journal of Psychiatry*, 52 (2), February 2007, 103-110.
- Galand, B. and Vanlede, M. (2004). Le sentiment d'efficacité personnelle dans l'apprentissage et la formation: quel rôle joue-t-il? D'où vient-il? Comment intervenir? *CAIRN: Chercher, repérer, avancer,* <u>http://www.cairn.info/article_p.php?ID_ARTICLE=SAVO_HS01-0091</u>.
- Geninet, I and Marchand, A. (2007). La recherche de sens à la suite d'un événement traumatique. Santé mentale au Québec, 32 (2), 11-35. <u>http://id.erudit.org/iderudit/017795ar</u>
- Germain, C. and Netten J. (2006a). Stratégies d'enseignement de la communication à l'oral en L2, 1-23.
- Germain, C. and Netten, J. (2006b). La diversité des régimes pédagogiques du français L2 au Canada. *Dialogues et Cultures*, 50, 447-453.
- Germain, C. (1993). *Le point…l'approche communicative en didactique des langues*. Anjou: Centre éducatif et culturel, Inc.
- Grossman, D. (2008). On Combat (3 rd ed.). États-Unis: Warrior Science Publications.
- Herbert, C. and Wetmore, A. (1999). Overcoming Traumatic Stress: a Self-Help Guide Using Cognitive Behavioral Techniques. London: Robinson.
- Janoff-Bulman, R. (1992). *Shattered Assumption: Towards a new Psychology of Trauma*. New York: The Free Press.
- Jehel and Guay. (2006). Dépistage et évaluation des troubles liés aux événements traumatiques. *Les troubles liés aux événements traumatiques*. Montréal: Les presses de l'Université de Montréal, 1-22.
- Kleim, B., Ehring, T. and Ehlers, A. (2012). Perceptual Processing Advantages for Trauma-Related Visual Cues in Post-Traumatic Stress Disorder. *Psychological Medecine*, 42, 173-181.
- Knowles, M.S. (1980). *The Modern Practice of Adult Education: Andragogy versus Pedagogy*. New York: Association Press.
- Knowles, M.S. (1984). Andragogy in Action. San Francisco: Jossey-Bass Inc. Publishers
- Knowles, M.S. (1990). L'apprenant adulte : vers un nouvel art de la formation. Translate from *The adult learner: a neglected species*, American version, 1973, 1978, 1984. Paris: Les éditions d'organisation.
- Krashen, S.D. (1981). Second Language Acquisition and Second Language Learning. *University* of Southern California. Edition: Pergamon press Inc. First Printed Edition, 1981. First Internet Edition, December 2002.

- Loiola, F. and Tardif, M. (1992). Formation pédagogique des professeurs d'université et conceptions de l'enseignement. *Recherches féministes*, 5 (1), 211-213. *Revue des sciences de l'éducation*, 27 (2), 2001, 305-326.
- MacLennan, D.L. and Maclennan, D.C. (2008). Assessing Readiness for Post-Secondary Education after Traumatic Brain Injury using a Simulated College Experience, *NeuroRehabilitation*, 23, 521-528.
- Maheu, F.S. and Lupien, S.J. (2003). La mémoire aux prises avec les émotions et le stress: un impact nécessairement dommageable? *Médecine sciences*, 19 (1), 118-124.
- Martin, M., Germain, V. and Marchand, A. (2006). Facteurs de risque et de protection dans la modulation de l'état de stress post-traumatique. *Les troubles liés aux événements traumatiques*. Montréal: Les presses de l'Université de Montréal, 24-50.
- McKay, J. (2012). Time for a National Dialogue on Mental Health. *The Hill Times, Monday*, October 8, 17.
- Mizumoto, A. (2013). Effects of Self-Regulated Vocabulary Learning Process on Self-Efficacy. *Innovation in Language Learning and Teaching*, 7 (3), October, 253-265.
- Netten, J. and Germain, C. (2005). Pedagogy and Second Language Learning: Lessons Learned from Intensive French. *Canadian Journal of Applied Linguistics / Revue canadienne de linguistique appliquée*, 8 (2), 183-210.
- Noels, K., Pelletier, L.G., Clément, R. and Vallerand, R.J. (2000). Why are you Learning a Second Language? Motivational Orientations and Self-Determination Theory. *Language Learning*, 40 (1), February, 57-85.
- O'Herrin, E. (2011). Enhancing Veteran Success in Higher Education. *Peer Review*, AAC&U, Winter 2011, 15-18.
- Oxford, R.L. (1990). *Language Learning Strategies: What Every Teacher Should Know*. New York: Newbury House/ Harper Collins.
- Oxford, R.L. and Burry-Stock, J. (1995). Assessing the Use of Language Learning Strategies Worldwide with the ESL/EFL Version of the Strategy Inventory for Language Learning (SILL). 0346-251X (94)00047-6, *Pergamon, System*, 23 (1), 1-23.
- Paradis, M. (2004). A Neurolinguistic Theory of Bilinguism. Amsterdam, Philadelphie: John Benjamins Publishing Company.
- Perrenoud, P. (2002). Les cycles d'apprentissage: une autre organisation du travail pour combattre l'échec scolaire. Sainte-Foy (Québec): Presse de l'Université du Québec.
- Perrenoud, P. (2008). *Pédagogie différenciée: des intentions à l'action (4^e édition)*. Issy-les-Moulineaux cedex, France: ESF éditeur (1997).
- Petitto, L.-A. and Dunbar, K. (2004). New Findings from Educational Neuroscience on Bilingual Brains, Scientific Brains, and Educational Mind. Conference on Building Usable Knowledge in Mid, Brain, & Education, Harvard Graduate School of Education, October 6-8.
- Puren, C. (2001). Méthodes et constructions méthodologiques dans l'enseignement et l'apprentissage des langues. *Langues modernes*, 1/2000, 68-70. Paris: APLV.
- Revill, E and Dre C. Pinsent, Goss Gilroy Inc. (2009). Formation et éducation des personnes présentant des difficultés d'apprentissage. *Rapport de consultation, division des leçons retenues, direction de l'apprentissage et de l'innovation de l'Académie canadienne de la Défense.*
- Rodriguez Martin, I. (2009). Warriors and Healers: Preparing for Returning Veterans. *Smith College Studies in Social Work*, 79 (3-4), 464-470.

- Schaefer, A., Pottage, C.L. and Rickart, A.J. (2011). Electrophysiological Correlates of Remembering Emotional Pictures. *Neuroimage*, 54, 714-724.
- Simoneau, H. and Guay, S. (2008). Conséquences des troubles liés à l'utilisation de substances et à l'état de stress post-traumatogène sur le traitement. *Drogues, santé et société*, 7 (2), December, 2008, 125-160.
- Sinski, J.B. (2012). Practice Brief: Classroom Strategies for Teaching Veterans with Post-Traumatic Stress Disorder and Traumatic Brain Injury. *Journal of Postsecondary Education and Disability*, 25 (1), 87-95.
- Spencer, E. (2009). *Une guerre difficile*. Kingston, Ontario: Les Presses de l'Académie canadienne de la Défense.
- Squire, L.R. and Kandel, E.R. (2002). La mémoire. Bruxelles: DeBoeck Université.
- Tapia, G., David C., Michel, I. and Wissam, E.-H. (2007). Mémoire et émotion dans le trouble de stress post-traumatogène (ÉSPT). *Canadian Psychology*, 48 (2), May 2007, 106-119.
- Tychey, C. (2001). Surmonter l'adversité: les fondements dynamiques de la résilience. Cahiers de psychologie clinique. De Boeck Université, 16, 49-68.
- Walki, A. and Ed, W. (2000). Contextual Factors in Second Language Acquisition. Eric Clearinghouse on Languages and Linguistics, Center for Applied Linguistics. Washington, September 2000, EDO-FL-00-05.
- Yilmaz, C. (2010). The Relationship between Language Learning Strategies, Gender, Proficiency and Self-Efficacy Beliefs: a Study of ELT Learners in Turkey. *Science Direct, Procedia Social and Behavioral*, 2, WCES-2010, 682-687.