

Stress Perception, Stressful Experiences and Stress Management Strategies

A Comparative Case Study of Swedish and Peruvian Teacher Students

María del Pilar González Vigil
MA in Comparative and International Education
Stockholm University, Sweden

Abstract

In modern life stress is a common problem. The negative effects of stress affect individuals' health and performance. As a result, individuals have their own stress perceptions and they develop different kinds of strategies in order to manage stressful situations. Culture is a relevant aspect that influences this process.

Considering that stress is presented in different dimension of daily life, educational experiences can also be perceived as stressful. In addition, stress could be strongly experienced at work, and to be teacher is considered one of the most stressful jobs.

Therefore, this study focuses on the stress perception, stressful situations, and stress management strategies in studies of Swedish and Peruvian students from a teacher-training program. The research design that is applied for this purpose is comparative. The sample includes Swedish and Peruvian second year students and administrative staff from a teacher-training program. The research instruments are questionnaires and interviews.

The main findings of this study indicate that in spite of the cultural differences, both groups of students present as many similarities as differences. On the one hand, Swedish and Peruvian students manifest a particular profile in the way they perceive the concept of stress, experience specific stress effects in studies, and manage stressful academic situations. On the other hand, both groups present some similarities considering specific stressful situations in studies; their perception of stress as negative in their academic performance, emotional state and health; their variable competence to manage stress in studies; and their desire for having a course on stress management.

Descriptors: Stress in Studies, Stress Perception, Stressful Experiences, Stress Management Strategies, Teacher-Training Program in Sweden, and Teacher-Training Program in Peru.

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1. Introduction

1.1 Background

In modern life most individuals experience or have experienced stress. Competition and constant changes result in a demanding environment that often turns stressful. The negative effects of stress on health are well known (Barrón López de Roda, 1997; Hill, 2000; Selye in Appley and Trumbull, 1986). As a result, it is important that individuals develop different strategies in order to manage stressful situations.

Educational institutions are created in order to socialize and select students to the performance of adult roles in the society (Blackledge and Hunt, 1985). Students spend most of their time involving themselves in educational tasks. Consequently, educational institutions have a key role in the development of students' skills. Students are expected to learn knowledge and skills that will be useful in their lives. Considering that stress is presented in different dimensions of daily life and it affects individuals' well being, is it not important that educational institutions promote the development of students' stress management strategies? Unfortunately, there is no course that refers to stress management explicitly at primary, secondary or higher education level. Nevertheless, it is possible that some stress management strategies are promoted indirectly at educational institutions.

On the other hand, educational experiences may be perceived as stressful by students (Muñoz, 2003; Polo, Hernández, and Pozo, 1996) who develop both their own stress perception and strategies to manage stressful situations. In addition, stress could be strongly experienced at work (Fletcher, 1988; Fletcher, 1991; Warr, 2005), and there are jobs which are considered more stressful than others, for instance to be teacher (Carlyle and Woods, 2002; Kyriacou, 1998).

Another important aspect that is not always considered but it is implicit in the stress process is culture. Researchers have shown that there are specific stressors and stress effects in each culture. Moreover, there are evidences of differences in stress strategies attributed to culture (Liu and Spector, 2005). However, these results are from studies on job stress. In the case of stress in studies, cross-cultural research is at an explorative level.

Taking into account all the previous arguments, this study compares stress perception, stressful experiences and stress management strategies in studies of both Swedish and Peruvian students who take part in a teacher-training program.

1.2 Aims and Objectives of the Study

The overall objective of the study is: *To identify and compare the stress perception, stressful experiences, and stress management strategies of Swedish and Peruvian students from a teacher-training program.* This overall objective can be specified into some basic research questions:

- *Stress Perception*: What do Swedish and Peruvian students from a teacher-training program mean by the word ‘stress’?
- *Stressful Experiences*: What is the most stressful situation for Swedish and Peruvian students from a teacher-training program that can occur during studies? What are the stress effects experienced by Swedish and Peruvian students from a teacher-training program during their studies?
- *Stress Management Strategies*: Which stress management strategies do Swedish and Peruvian students from a teacher-training program use to manage stressful situations in their studies? Where do these students learn to manage stress? Do these students require a course on stress management at school or university level?

1.3 Limitations of the Study

It is necessary to emphasize that stress is seen as a process in this study. As far as it is included in a transactional model (Lazarus and Folkman, 1984), there are many factors, both individual and environmental, that play a role. In this sense, individuals’ stress susceptibility varies over time. The environment can also vary its conditions. Since stress is a complex and dynamic process presented in different areas of life, this research focuses only on studies, as way to upgrade the results’ accuracy. In Parker and Endler’s words (1996) this study presents an intra-individual approach since it attempts to identify basic stress management strategies applied by individuals in a particular type of stressful situation. However, this approach restricts the findings to a specific kind of experience: studies in a teacher-training program.

Another aspect is the size of the sample. Since the number of students that took part of the study is limited, the intention here is not to generalize, and the findings do not allow any generalizations either. Furthermore, it is not possible to establish gender implications of the findings because the number of men is not big enough to allow statistic comparisons. Nevertheless, Barnett and Hide (in Desmarais and Alksnis, 2005) consider that there are more commonalities than differences in the experience of stress between men and women. Nowadays women are greatly engaged in the workplace and men are increasing their family involvement, thus both genders experience difficulties in managing their time, multiple demands, conflicting role pressures, role overload, and increasing stress.

There are also limitations related to the accuracy of answers given by questionnaire and interviews. Zeidner and Saklofske (1996) mention that retrospective self-reports may suffer from memory distortions. Considering that the instrument of this study has been translated, Bryman (2004:53) notes that *even when translation is carried out competently, there is still the potential problem of an insensitivity to specific national and cultural contexts*. Another aspect related to the cross-cultural feature of this study is that nationality may not be the best unit to study cultural differences, however, it is an important available unit for comparisons (Hofstede, 2001).

Besides this, it is important to clarify that this study is not aimed to determine which students, the Swedish or the Peruvian, experience stress more often, which are more affected negatively by stress, and which manage stress more effectively. The reason is that all these aspects can not be measured accurately by a questionnaire or interviews.

1.4 Organization of the Study

The whole study is organized in five parts. This first part presents the introduction, the aims and objectives, the significance and the limitations of the study, and an overview

of both the Swedish and the Peruvian education, especially their teacher-training programs. The second part focuses on the theoretical basis of this study. For this purpose, the second part defines the concept of stress, the transactional model of stress including both psychological appraisal and coping, and the strategies to manage stress. Moreover, the relationship between stress, education, and culture is described considering both the teachers and students, and both the Hofstede and the Schwartz's cultural theories. The third part presents the research design of the study including the sampling and methodology. In the fourth part, a summary of the results is presented, and it is analyzed and discussed in the fifth part. In addition, the fifth part includes a summary of the main findings and conclusions.

2. Conceptual Framework

2.1 Stress

Stress is a concept that, although it is familiar for all, is understood in different ways. The use of this term in a vague and general form creates this context of different interpretations that sometimes are contradictory (Rutter, 1983). In this context, authors attempt to categorize the different definitions of stress instead of creating a general definition. Barrón López de Roda (1997) considers three kinds of stress definitions:

- Stress as *stimulus*: stress is defined as any situation that provokes alteration in the homeostatic processes. This definition has been criticized since it does not consider individual differences in response to the same situation. Individuals are not passive and there are many situations that result in changes of the homeostatic processes but they are not stressful, for instance to breath.
- Stress as *response*: stress is defined in terms of the reactions provoked in the organism. Some authors argue that this kind of definition of stress can be misunderstood since there are both emotional and physical responses that can fit in this definition of stress and they result from non stressful situation, for instance to practice sport.
- Stress as *interaction*: many authors suggest that stress should be understood as a relationship between individuals and their environment. In this specific relationship, the environment is perceived as threatening by individuals who experience that environmental demands exceed their personal resources.

Hence, the definition of stress is equally applied to a form of stimulus or stressor, a form of bodily reaction or response, and an interaction of all these elements.

The definition that views stress as an interaction of elements is the one used in this study since it comprises the entire dynamic process between individuals and environment. This definition is developed in the *transactional model of stress* that will be explained as follows.

2.2 The Transactional Model of Stress

Lazarus and Folkman (1984) have developed a model of the psychological processes involved in stress. According to these authors, stress is best understood in terms of the individual's cognitive interpretation of potentially stressful events. How events are perceived is more important than the objective events themselves. Stress is neither an environmental stimulus nor a psychological response, but rather a relationship between environmental demands and the ability to deal with them. Thus, stress is seen as a transaction between individual and environment. In this transaction exist two important processes: *appraisal* and *coping*.

Psychological appraisal refers to individuals' constant assessment of the situation and the resources available for dealing with it (Lazarus and Folkman, 1984; Lazarus, 1999). When individuals face a potentially stressful situation, they appraise the amount of potential danger as well as their resources for dealing with that danger. Individuals experience stress when the perceived threat exceeds perceived available resources for coping with it. *Coping* is defined as individuals' effort, cognitive and behavioral, to deal with a stressful situation (Lazarus, 1999).

In other words, stress is a dynamic process involving both the individual and the environment. The environment provides the initial stimulus, but the key determinants of stress are the way the individual perceives the environment and the coping resources selected to face it. In the case of this study the terms *coping* and *stress management strategies* are used as synonymous.

2.3 Strategies to Manage Stress

2.3.1 Coping's Strategies

Dealing with stress, individuals use coping strategies and resources that help them to adapt to environmental demands. These strategies play a key role in determining the nature and extent of the stressor's impact. Coping correctly with stressors facilitates successful adaptation, while a failure in this process puts individuals in risk of poor adaptation.

There are two types of strategies that have been assessed by almost all coping measures developed in the past few decades (Parker and Endler, 1996): *problem-focused* coping and *emotion-focused* coping. The *problem-focused* coping refers to modification of the objective situation by changing either something in the environment or how individuals interact with the environment. This kind of strategy focuses on solving, reconceptualizing, or minimizing the effects of a stressful situation. The different *problem-focused* coping strategies are as follows: to take direct action in dealing with the stressor (for example in case of illness looking for medical treatment), to seek information, to suppress competing activities, to restrain coping (waiting for an appropriate opportunity to act), or to seek social support for instrumental reasons (Bishop, 1994).

The *emotion-focused* coping consists of individual's effort to control the emotional distress associated with a situation. This kind of coping includes self-preoccupation, fantasy, or other conscious activities related to affect emotional regulation, and it is most likely to occur when individuals believe that there is little or nothing concrete that they can do to alter the current situation. In these circumstances, individuals focus on learning to adapt to negative situations. The different *emotion-focused* coping strategies are as follows: to make a positive reinterpretation, to accept the reality of the situation, to deny the reality of the situation, to turn to other activities as a way to distract one's attention of the stressful situation, to focus on whatever is distressing and ventilating those feelings, to seek social support for emotional reasons, and so on (*ibid.*).

There are some authors that consider *avoidance* as another kind of coping. Parker and Endler (1996) note that along with assessing *problem-focused* and *emotion-focused* coping, most of the coping measures that have been created include scales to evaluate *avoidance* coping responses separately. In the case of this study, *avoidance* is considered within the framework of *emotion-focused* coping since its conceptualization in this study coincides with the *emotion-focused* strategy of involving in activities to provide distraction of the stressful situation.

2.3.2 Social Support

Social support implies the kind of aid and backing that individuals receive from their interactions with other persons (Bishop, 1994). There are two kinds of social support (Caplan et al, in Liu and Spector, 2005): *emotional* and *instrumental*. The *emotional* support helps individuals to feel better about themselves and their relationships with others. Persons around (family, friends, and colleagues) give support because they provide encouragement and acceptance. In addition, these persons can help simply by being there, as they provide a degree of companionship. Considering the *instrumental* support, persons around bring useful information, helping in this way to understand or define stressful situations and cope with them. Moreover, this kind of support may also consist of concrete assistance in the form of financial aid, needed services, or material resources.

Social support could enhance well-being by promoting positive feelings as well as giving a sense of belonging and self-esteem to individuals. Thus, social support may have a main effect on illness regardless of stress levels, in other words effects of social support may be evident in both high and low stressful situations (Underwood, 2000).

On the other hand, social relationship can not always be positive. Having others around can become a source of stress. Therefore, social support can be considered as positive for health, but it can also make individuals more vulnerable to psychological disorders when social relationships are perceived as upsetting or frustrating (Bishop, 1994).

2.4 Stress and Education

2.4.1 Stress in Students

Stress in studies or *academic stress* is basically defined as the impact that educational organizations may produce on their students (Muñoz, 2003; Polo, Hernández, and Pozo, 1996). Moreover, Muñoz (2003) states that there are four types of stressful situations identified in different studies on stress in students:

- *Assessment*: sometimes students feel anxious when they are assessed because they are afraid of failing the exam. Other causes could be the exam overload (many exams at the same time or the preparation for the exam comprises a large amount of information) and ambiguity (uncertainty about the way that the exam will be evaluated by the teacher).
- *Work overload*: excessive assignments, excessive class hours, difficulties in planning time, lack of free time, difficulties in combining academic life and personal life, difficulties in keeping concentration, demands of practical activities, and failed or lost courses.
- *Other conditions of the learning process*: relationship between the teacher and the students that involves variables such as teacher style, teacher expertise, teacher personality, feedback and support to students, expectations and conflict in the objectives, role ambiguity, and so on. On the other hand, organizational variables such as schedule, course plan, class size, physical conditions and resources, and student participation in the decision-making process could create a stressful environment.
- *Adaptation and transition problem in education*: students make an effort when they have to adapt to a new role, rules, responsibilities, and demands in a competitive academic environment.

Stressful situations in the studies have negative effects on both student health and performance (*ibid.*). Considering health, stress has negative effects on student immune system. In the short term, students could experience changes in their emotional state

(anxiety related to exams) and cognitive and emotional responses (consume cigarettes and coffee, dream alterations, appetite alterations, and so on). In the long term, negative effects could reflect on distress, burnout, depression, low self-esteem, difficulties in relationships, consume of drugs, and so on. Considering performance, when students experience high level of stress, this condition affects negatively their motivation, exam performance, class assistance, class participation, and so on.

2.4.2 Stress in Teachers

As it was mentioned, teaching is considered one of the most stressful jobs. Nowadays there are many studies that analyze this phenomenon (Valero, 1997; Verdugo and Vere, 2003). Kyriacou (1998) notes five sources of stress in teachers that have been reported consistently in a wide range of studies: *poor pupil behavior, time pressure and work overload, poor school ethos, poor working conditions, and poor prospects.*

The School of Education at the university of Manchester conducted an extensive research on stress in teachers (in Brown and Ralph, 1998). The work-related factors that produce stress in teachers were as follows:

- *Teacher/pupil relationship:* class size and ability mix, lack of discipline as perceived by teachers, changes in pupil motivation and attitude, and anxiety over test and examination results.
- *Relationships with colleagues:* uneven distribution of work loads, personality clashes/differences, poor systems of communication at every level, lack of community spirit, and scarce or no social interaction between different staff groupings.
- *Relationships with parents and the community:* parental pressure to achieve good results, the threat of performance management systems, poor status and pay, biased media coverage, being obliged to accommodate unrealistic expectations, and general societal cynicism about the role of teachers.
- *Innovation and change:* apparent lack of rationality behind constant demands for change, feelings of powerlessness and of failure, and lack of resources and information to facilitate change.
- *School management and administration:* scarce real involvement in the decision-making process, poor overall school organization, poor models of communication, lack of appropriate training to meet new job demands, poor technical and administrative support, and poor staff facilities.
- *Time factors:* increasing variety and number of tasks, additional work demands outside the normal school hours, and frequency and ineffective organization of meetings.

In addition, Brown and Ralph (1998) list the most common stress effects on teachers:

- *Performance at work:* feeling like staying off work, inability to manage time well, inability to meet deadlines, inability to concentrate, having a heavy workload, inability to delegate, feelings of inadequacy related to performance at work, job dissatisfaction, taking work home more frequently, and low level of productivity.
- *Relationships with colleagues:* increased feelings of irritation or aggression, becoming increasingly introverted, inability to relate to colleagues, unwillingness to cooperate, frequent irrational conflicts at work, inappropriate humor, demotivation, withdrawing from supportive relationships, lying, role ambiguity, and role conflict.

- *Behavioral and emotional indicators*: loss of appetite, reduced self-esteem, increased use of drugs (alcohol, tranquilizers, coffee, cigarettes, and so on), insomnia or nightmares, being unduly fussy, feelings of alienation, loss of confidence, too busy to relax, frequent illness (colds, influenza or other infections) pains, or palpitations, accident prone, and persistent negative thoughts.

2.5 Stress and Culture

2.5.1 Culture

Culture is a concept that has been defined in different ways. Triandis (1994) distinguishes three aspects that almost all researchers see as features of culture: it emerges in adaptive interactions, it consists of shared elements, and it is transmitted across time periods and generations. This author defines culture as *a set of human-made objective and subjective elements* (1994:22). Objective elements refer to the specific physical resources from a culture, for instance, tools, roads, and so. On the other hand, subjective elements refer to the specific categorizations, associations, norms, roles, and values from a culture. These subjective elements express the unique ways in which individuals from different cultures perceive, categorize, believe, and appreciate their social environment. In addition, in Kluckhohn's words, culture consists of:

patterns, explicit and implicit, of and for behavior acquired and transmitted by symbols, constituting the distinctive achievement of human groups (...) the essential core of culture consists of traditional (i.e., historically derived and selected) ideas and especially their attached values; culture systems may, on the one hand, be considered as products of action, on the other as conditioning influences upon further action (1962:73).

Hence, culture includes systems of values, and Kluckhohn defines *values as a selective orientation toward experience, implying deep commitment or repudiation, which influences the ordering of "choices" between possible alternatives in action* (1967:18). Values are invisible until they become evident in behaviour. Hofstede (2001) also notes that:

[t]he degree of national cultural homogeneity varies from one society to another (...). Even if a society contains different cultural groups (...), these usually share certain cultural traits with one another that make their members recognizable to foreigners as belonging to that society (2001: 10).

2.5.2 Cultural Theories

Hofstede (2001) suggests that individuals have their own "mental programs" that are developed in the family in early childhood and reinforced in schools and organizations. These "mental programs" include a component of national culture. Hence, he describes culture as *the collective programming of the mind that distinguishes the members of one group or category of people from another* (2001:9). "Mind" refers to thinking, feeling, and acting, with consequences for beliefs, attitudes, and skills.

Taking into account the previous ideas, Hofstede has explored the differences in thinking and social action that exist among their members from fifty countries. As a result, the following five dimensions of national culture differences were identified:

- *Individualism and Collectivism*: individualism represents the subordination of group goals to personal goals. Individualistic cultures have a sense of independence and a lack of concern for persons who are not part of their immediate family. Collectivism represents the subordination of personal goals to

group goals. Collectivistic cultures have a sense of harmony and interdependence, and concern for other.

- *Power Distance*: this dimension is related to social inequality and the amount of authority of one person over others. In low power distance cultures, persons disagree with the unequal distribution of power. In this kind of culture, the consultation and participation are preferred. In high distance cultures, low power groups accept the unequal distribution of power. In this kind of culture, authority is highly respected and obeyed.
- *Masculinity and Femininity*: this dimension refers to achievement and ambition versus nurturance and well-being. Masculine cultures value wealth, independence, recognition, and careers. Earning, advancement and ambition at work are emphasized. In contrast, feminine cultures value nurturance, affiliation, helpfulness, and humility. Social network and participation at work are very important in this kind of cultures.
- *Uncertainty/Avoidance*: this dimension emphasizes on individuals feelings in an uncertain situation. In a low uncertainty/avoidance culture, persons value change, risk taking, and adventure. In a high uncertainty/avoidance culture, persons value tradition and they are resistant to change.
- *Long-term and Short-term* orientation, this dimension refers to the extent to which a culture shapes its members to accept delayed gratification of their material, social, and emotional needs. In general, this dimension is related to the choice of focus for individuals' efforts: the future or the present.

Furthermore, Schwartz (1999) has also created a model of cultural values that is compatible with the Hofstede's theory in many aspects. He mentions one dimension that focuses on the relationship between the individual and the group. This dimension is similar to the Hofstede's dimension individualism/collectivism, nevertheless Schwartz explains that at one extreme of this dimension (*autonomy*) individuals behave as autonomous finding their life meaning through their uniqueness, own success, and interests. This author distinguishes two kinds of autonomy: *intellectual* when individuals have independent ideas and intellectual directions, and *affective* when individuals show independent feelings and emotions. The other extreme of this dimension (*conservatism*) presents cultures where individuals are embedded in the collectivism finding their life meaning mainly through social relationships and group interests.

The second dimension of Schwartz is similar to Hofstede's dimension *power distance*. One extreme of this dimension is named *hierarchy*, and it describes cultures where responsible social behaviour is ensured through power differences based on legitimacy of an unequal distribution of power, authority, and resources. The other extreme of this dimension is called *egalitarianism*, which implies the education of the individuals to cooperate voluntarily with others sharing the same basic interests as moral equals.

A third dimension, according to Schwartz, describes the relationship between humankind and both the natural and the social world. One extreme of this dimension is called *mastery* and it implies individuals that concur with the world and get ahead with active self-assertion. The other extreme of the dimension is *harmony*, and it describes individuals who attempt to fit into nature and the social world rather than change them.

Both authors, Hofstede and Schwartz, launched cross-cultural studies to assess the cultural dimensions they propose. Liu and Spector (2005) analyzed these cross-cultural studies in all dimensions except the Hofstede's dimension *long-term* and *short-*

term. They add the terms “high”, “moderate”, and “low” for making comparisons among countries in each dimension. Since Sweden and Peru are the two countries that are compared in this study, it is relevant to mention their particular cultural values. Regarding Hofstede’s dimensions, Sweden represents both a high level of individualism and femininity. In addition, Swedish culture is characterised by low levels of power distance and uncertainty/avoidance. In contrast, Peruvian culture shows high levels of collectivism, power distance, femininity, and uncertainty/avoidance.

According to Schwartz’ dimensions, Western European countries represent a high level at: intellectual and affective autonomy, egalitarianism, and harmony. Instead, those countries score low in the following values: conservatism, hierarchy, and mastery. In the case of the Latin American countries, they show a high level at these values: conservatism and hierarchy. On the other hand, Latin American countries present a moderate level in the following values: intellectual and affective autonomy, egalitarianism, mastery, and harmony (*ibid.*).

Moreover, Triandis (1994) emphasises that in the comparison of two cultures, it is important to take into account five aspects: language, family structure, religion, GNP (*gross national product*), and values. Inglehart et al (1998) also note the importance of the aspect GNP to determine the cultural values of a country. These authors consider that values and beliefs are related to a society’s level of economic development.

Table 2-1: Description of Sweden and Peru

Country	Sweden	Peru
Area ¹	449,964 Sq Km	1,285,216 Sq Km
Population ²	8,876,000	27,167,000
Capital	Stockholm	Lima
Language	Swedish	Spanish, Quechua, Aymara
Religions ³	Protestant, Roman Catholic	Roman Catholic, Protestant
GNP ⁴	25,400	1,980
Family structure	Parents and children (nuclear family)	Parents and children including the extended family
Cultural Values ⁵	<ul style="list-style-type: none"> • high individualism • high intellectual autonomy • high affective autonomy • low conservatism • low power distance • low hierarchy • high egalitarianism • high femininity • low mastery • high harmony • low uncertainty/avoidance 	<ul style="list-style-type: none"> • high collectivism • moderate intellectual autonomy • moderate affective autonomy • high conservatism • high power distance • high hierarchy • moderate egalitarianism • high femininity • moderate mastery • moderate harmony • high uncertainty/avoidance

¹ Source: *The Times Concise Atlas of the World* (2004)

² *ibid.*

³ *ibid.*

⁴ Per capita, taken from the UNESCO’ EFA Global Monitoring Report (2004)

⁵ on basis of Hofstede (2001) and Schwartz (1999)

The table 2-1 presents information about the aspects mentioned before and some extra details. In general, regarding the geographic, demographic, economic, social, political, historical, and cultural features of Sweden and Peru, both countries are very different. In the specific case of the cultural values, the table 2-1 shows that Swedish and Peruvian cultures are in almost all the dimensions opposite in their values, and they are only similar in the dimension of femininity.

2.5.3 Cross-Cultural Research on Stress

Cross-cultural research on stress is growing in importance specifically in the area of job stress (Liu and Spector, 2005). Many organizations are becoming international, thus they have to operate in different cultures. Besides this, it is doubtful whether one can assume that American and Western-developed theories can be applied to other countries. This context is the basis to research on the nature and magnitude of job stress experiences by people from different cultural backgrounds. Studies have shown that there are specific job stressors and job stress effects in each culture. In addition, there is evidence of differences in stress strategy to face job stress attributed to culture. Notwithstanding, since there are few cross-cultural studies on job stress with theoretical basis, it is suggested to use models of cultural theories, for instance those proposed by Hofstede and Schwartz, as way to create an own body of cross-cultural theory on stress. Unfortunately cross-cultural research on stress in studies is still at an explorative level. However, findings of cross-cultural research on job stress may be a starting point for this type of study.

In this sense, on the basis of Hofstede's model it is possible to analyze cultural differences in experiencing stress. Considering the dimension individualism/collectivism, studies show that persons from individualistic countries prefer to have direct control over various aspects of life including work, and they tend to look for high control over situations. Thus, lack of control might be seen as a stressful experience. In contrast, for persons from collectivistic countries lack of control is not perceived as stressful, since they view the group as having legitimate control over their actions.

Another difference among cultures is that individuals from collectivistic countries are more susceptible to social influence. Collectivistic individuals share material benefits, nonmaterial (emotions, time, fun, and so on), and outcomes. Furthermore, on the one hand, they have feelings of involvement in and contribution to other lives, and on the other hand, other individuals' experiences may have direct or indirect consequences for their own lives. Consequently, in collectivistic countries individuals appreciate close interpersonal relationships and provide stronger social networks. While in individualistic countries a relatively loose interpersonal network is created (*ibid.*).

3. Research Design of the Study

3.1 Research Design

The research design is *comparative* (Bryman, 2004) since this study employs the same methods to compare two contrasting cases: Swedish and Peruvian students. This comparative design is both quantitative and qualitative. Both quantitative and qualitative research collect and analyze data but of different types, the former focuses on quantified data while the latter emphasizes words. Moreover, quantitative research represents a deductive approach incorporating the knowledge of the natural sciences and a view of social reality as objective, while qualitative research gives importance to an

inductive approach, emphasizing the ways in which individuals interpret their social world (*ibid.*, 2004).

3.2 Sampling

3.2.1 Sampling of Participants

The participants in this study are both Swedish and Peruvian students, and administrative staff from a teacher-training program in their respective countries. Students from the teacher-training program were chosen as participants because, as it was mentioned before, teaching is one of the most stressful jobs, and there is a lack of cross-cultural research on stress in this aspect. Moreover, only second year students have been considered. In this sense, the sample does not include students from the first year since they have no study experiences at the teacher-training program. Only the students from the first and second year have basic courses that are compulsory for all the students, it means that both Swedish and Peruvian students from different teaching specializations are together in the same class. Therefore, the fact that the sample consists of students from the second year also facilitates the access to a larger sample.

The samples consist of seventy-two Swedish students and thirty-five Peruvian students from a teacher-training program. As to gender (table 3-1), 79% of the Swedish students are women and 21% of them are men, while in the case of the Peruvian students, 74% are women and 26% are men. Therefore, the samples consist mainly of women and both the Swedish and Peruvian students present an equivalent proportion of both genders. This characteristic of the sample expresses gender preferences related to the career.

Table 3-1: Sex Distribution of Swedish and Peruvian Students of the Sample

Sex	Nationality				Total	%
	Swedish	%	Peruvian	%		
Woman	57	79	26	74	83	78
Man	15	21	9	26	24	22
Total	72	100	35	100	107	100

Table 3-2: Age Distribution of Swedish and Peruvian Students of the Sample

Age	Nationality				Total	%
	Swedish	%	Peruvian	%		
17			1	2,9	1	0,9
18			8	22,9	8	7,5
19			4	11,4	4	3,7
20	3	4,2	4	11,4	7	6,5
21	12	16,7	4	11,4	16	15,0
22	8	11,1	3	8,6	11	10,3
23	11	15,3	6	17,1	17	15,9
24	10	13,9	1	2,9	11	10,3
25	4	5,6	3	8,6	7	6,5
26	8	11,1			8	7,5
27	6	8,3			6	5,6
28	6	8,3	1	2,9	7	6,5
29	4	5,6			4	3,7
Total	72	100	35	100	107	100

Another important characteristic of the sample is the age (table 3-2). The average age of the Swedish students is twenty-four years, while in the case of the Peruvian students, it

is twenty-one years. It is important to mention that only students up to twenty-nine years old are considered as part of the sample as a way to avoid possible age bias.

It is relevant to emphasize that although the age difference between samples has not been analyzed statistically, it is likely that this aspect does not affect the results since both samples share the same academic experience in the teacher-training program which is the focus of this study. Besides this, despite the fact that more Swedish students are married (25 percent while 3 percent of the Peruvian students are married), the percentage having children is similar in both cases (10 percent in the case of the Swedish students and 9 percent in the case of the Peruvian students). In addition, Swedish students receive state support for their studies, and Peruvian students have family support for this purpose.

3.2.2 Research Procedure

First of all, the questionnaire *Stress and Stress Management Strategies Questionnaire* was elaborated for this study according to stress theories and the research objectives. Both experts on stress and students that answered the first version made suggestions that were used to make changes and reach the final version of the questionnaire in English. This original version was translated to Spanish.

After the elaboration of the final version of the questionnaire, contact was established with both the Swedish and Peruvian teacher-training programs in order to explain the research objectives and get the permission to apply the questionnaire to their students. The time for distribution of the questionnaire was coordinated with the respective administrative staff. In both cases, the questionnaire was applied at the end of a class (from a compulsory course of second year), after the researcher had introduced herself and explained the aims of the study and the ethical aspects involved. The completion of the questionnaires took around fifteen minutes and the questionnaires were collected the same day.

The next step was the analysis of data collected. The data analysis focused on the following areas according to the research objectives: students' stress perception, stressful situations in studies, stress management strategies in studies, effects of stress in studies, overall effect of stress in studies, stress management competence in studies, source of stress management competence in studies, course on stress management, and reasons for taking and not taking a course on stress management. On the basis of the content analysis of the data collected, the responses in each area were grouped into categories. Therefore, the technique applied is qualitative in terms of data collections (open-ended questions), but the information is quantified with content analysis. Then, the entire categorized data was entered into a computer statistical program (SPSS).

In the statistical analysis of the data collected, a descriptive analysis of the entire data was conducted. In the case of the quantitative data (age), statistical measures such as mean, standard error, and percentage of distributions were calculated. In the case of the qualitative data, the answers were classified into categories, and the percentages of distribution were measured. Since the respondents could give more than one alternative response to the questions, the sums consist of number of answers and not number of individuals. Thus, most of the percentages presented in the next chapter cannot be sum up as a hundred percent since these numbers represent the percentage of answers given in each category instead of the numbers of individuals who answer.

After this descriptive analysis of the results, the responses of both Swedish and Peruvian students were compared. Due to the small size of the two samples, only statistically significant differences are taken into account in the description of results (see chapter 4). Unfortunately, it was not possible to make comparisons in relation to

gender because of the limited size of the samples and the small number of male students.

In order to compare the Swedish and Peruvian students, both the statistical *Z-test* and *chi-square* test were applied. These two statistical tests were selected since the variables used are of nominal scale nature. Thus, the frequency of each category is registered as proportion, and the two groups of students are compared by their proportions. Moreover, the *Z-test* is often used to compare proportions (Argyrous, 1997) in the case of nominal variables. In this study this test was used with both 95 percent and 99 percent of confidence interval, and the “*h*” of *Cohen* is its statistical differences’ indicator of effect (Cohen, 1988):

- If $0.2 \leq h < 0.5$ the effect is “small”
- If $0.5 \leq h < 0.8$ the effect is “medium”
- If $0.8 \leq h$ the effect is “large”

On the other hand, when the nominal scale variables are involved, and there are few cells and five cases per cell theoretically, the *chi-square* might be used. However, *chi-square* has not been used in all such cases. Finally, the information from the questionnaires was complemented with interviews to both some students, and administrators from the teacher-training program. Interviews aimed to clarify some answer given to the questionnaire.

3.3 Methodology

3.3.1 Research Instruments

The instruments used in this study are questionnaires (*Stress and Stress Management Strategies Questionnaire*, see Appendix 1) and interviews. Muñoz (2003) notes that research on stress in studies usually applies questionnaires and students have to report their stressful experiences. These questionnaires could consist of open-ended questions or list of different academic situations.

The *Stress and Stress Management Strategies Questionnaire* has been created for this study combining items derived from stress theories and items related to the objectives of this study. The questionnaire consists of seven open-ended questions. This kind of question was selected because, although it requires more time to be analyzed, it provides more information and the possibility of creating new categories on the basis of the data collected. A standardized test on the topic of stress could have saved time in this research, but it could have resulted in some bias as well since most of the tests have been developed in USA or Western Europe. Indeed, there is a lack of test equivalence and this situation creates problems related to distortions in the translation of the test, and different interpretations by individuals from different cultural backgrounds (Liu and Spector, 2005).

Therefore, in a comparative study of different cultural groups that have not been compared before, open-ended questions seem to be the best way to reach more information, free of prefixed parameters. Besides this, qualitative methods are particularly appropriate in cross-cultural research because individuals can express themselves freely. Quantitative methods might distort the differences between cultures, and consequently, they may not adequately capture the experiences related to the unique features of each culture (*ibid.*, 2005).

Considering the organization of the questionnaire, the first part collects personal information: gender, age, nationality, marital status, number of children, number of years in higher education, and teaching experiences. The second part requests views on stress definition, stressful situations in studies at the teacher-training program, stress

management strategies and competence in facing these stressful situations (which they are and where students have learnt them), and stress effects in studies. One last question is aimed to explore students' opinion about a course on stress management strategies at school or university. This question was intended to find out the relevance that students give to the topic and their need to learn about stress management at school or university level. Both, experts on stress and university students, that answered the first version of the questionnaire, made suggestions that were important contributions to improve and reach the final version. The final version that was originally in English was translated to Spanish (Appendix 2). On the basis of both the theories on stress and the answers given to the questionnaire, the following categories were created (table 3-3):

Table 3-3: Categories for Each Area of the Questionnaire

Personal Information	a) Students' Stress Perception	b) Stressful Situations in Studies	c) Stress Management Strategies in Studies
<ul style="list-style-type: none"> • Gender • Age • Nationality • Marital Status • Number of Children • Number of Years in Higher Education • Teaching Experiences 	<ul style="list-style-type: none"> • Negative Effects • Time Pressure • Task Overload • Stressful Situation • Lack of Control • Obligation • Positive Effects • Emotional Condition • Pressure • Example • Physical Condition • Others 	<ul style="list-style-type: none"> • Examination • Task Overload • Lack of Information • Practical Application • Extra Activities • Resource Availability • Oral Presentation • Failed Examination • Adaptation • Studies in General • Others • None 	<ul style="list-style-type: none"> • Problem Solving • Avoidance • Emotional Control • Social Support • Cognitive Restructuring • Emotional Expression • Acceptance • Others • Not Required
d) Effects of Stress in Studies	e) Overall Effect of Stress in Studies	f) Stress Management Competence in Studies	h) Course on Stress Management
<ul style="list-style-type: none"> • Worse Performance • Emotional Effects • Health Effects • Better Performance • None 	<ul style="list-style-type: none"> • Negative • Variable Effect • Positive 	<ul style="list-style-type: none"> • Incompetence • Occasional Competence • Competence <p>g) Source of Stress Management Competence in Studies</p> <ul style="list-style-type: none"> • Myself • Others 	<ul style="list-style-type: none"> • No Course • Uncertain • Course <p>i) Reasons for Taking a Course on Stress Management</p> <ul style="list-style-type: none"> • Stress Management Improvement • Performance Improvement • Common Problem • Health • Future Job • Others <p>j) Reasons for Not Taking a Course on Stress Management</p> <ul style="list-style-type: none"> • Stress Management Competence • Self-Learning • Others

Another instrument used in this study was the interview. Some students from the sample, and administrators, including the corresponding directors of studies, from both the Swedish and the Peruvian teacher-training institutions were interviewed in order to get a better understanding of the data collected. Interview questions were related to the organization of the studies at both institutions and other aspects inquired in the questionnaire. Information from the interviews contributed to clarify some questionnaire answers, for instance those responses related to specific stressful situations in studies.

4. Results

First of all, both Swedish and Peruvian students perceive stress in terms of its *negative effects* and the *pressure* experienced. However, a large number of Swedish students specify that this pressure is a result of lack of time, whereas Peruvian students tend to relate stress to a specific stressful situation and an emotional condition, and a smaller percentage, to a physical condition.

Considering stressful situations in studies, both Swedish and Peruvian students mention the same two situations (*examination* and *task overload*) as the most stressful ones in studies. Furthermore, the results show that Peruvian students have a tendency to face stress in studies by means of strategies as *emotional control* and *avoidance*, which are *emotion-focused*. Swedish students, on the other hand, prefer to manage stress in studies by using *problem-focused* strategies such as *problem solving*.

Identifying the effects of stress in studies, both Swedish and Peruvian students relate stress mainly to negative effects on performance, health or emotions. Taking into account their own stressful experience in studies, both groups of students manifest a great variability of the same health effects with the exception of *stomach-ache* that is a typical stress effect of the Swedish students, and *muscular tension* that is a typical stress effect of the Peruvian students. Moreover, both the Swedish and Peruvian students recognize that the most common emotional effect of stress in studies is bad mood, and in general they report the same kind of emotional effects. However, Peruvian students show a tendency to experience depression. Besides this, a larger group of both Swedish and Peruvian students consider that the overall effect of stress in studies is negative.

Concerning their competence in managing stress in studies, most Swedish students consider that they cannot manage it, while in the case of the Peruvian students, there are equal proportions expressing they can manage stress in studies and expressing that they cannot. In addition, most of the Swedish and Peruvian students, who can manage stressful situations in studies, have learnt by themselves.

Finally, regarding a course on stress management at school or university level, most of the Swedish and Peruvian students would like to have such a course. In the case of the Swedish students the main two reasons for this choice are that stress is a common problem nowadays, and they want to improve their competence, while the Peruvian students want to improve their academic performance by means of a course.

Table 4-1: Summary of the Main Findings

Results	Similarities between Swedish and Peruvian Students	Differences	
		Swedish Students	Peruvian Students
Stress Perception	-Negative effects -Pressure	- Time Pressure	-Pressure in general -Specific stressful situation -Emotional condition -Physical Condition
Stressful Situations in Studies	-Examination -Task overload	-----	Studies in General
Stress Management Strategies in Studies	-----	-Problem Solving	-Avoidance -Emotional Control
Effects of Stress in Studies	Overall negative effects on Emotions (bad mood), Performance, and Health	Stomach-ache	-Muscular tension -Depression
Overall Effect of Stress in Studies	Negative	-----	-----
Stress Management Competence in Studies and its Sources	Variable answers	-----	-----
Course on Stress Management	Yes	-----	-----

5. Discussion and Conclusions

5.1 Discussion

This comparative study focuses on perception of stress, stressful experiences, and stress management strategies in studies of Swedish and Peruvian students from a teacher-training program. It is important to note that the two countries are different in demographic, economic, political, social, and historical terms. Nevertheless, both teacher-training programs that were chosen as a basis for the sample of this study share many similarities. In this sense, Daun (2002) describes the features of the western learning system in the following terms: more standardized, cover the whole country, an institution and a system at the same time, focuses mainly on the cognitive dimension of individuals, individualized, supported and monitored by the national state, and certificates' provision which are nationally, and sometimes internationally, valid to be inserted into certain fields, for instance a profession. In the case of both the Swedish and the Peruvian teacher-training program, they are similar in terms of duration, organization of the courses, students' assessment, certification, and so on. Both Swedish and Peruvian students get financial support from the state and parents respectively.

Analyzing the results, first of all, both Swedish and Peruvian students perceive stress in terms of its *negative effects* and the *pressure* experienced. However, a large

number of Swedish students specify that this pressure is a consequence of lack of time, whereas Peruvian students tend to relate stress to a specific stressful situation and an emotional condition, and in less percentage, to a physical condition. This result is interesting since it is expected that individuals from different cultures, in this case very heterogeneous (see table 1-1), perceive stress in very different ways. Nevertheless, both cultural groups remark the negative effects of stress (definition of stress as a *response*, see chapter 2), and they refer to the pressure experienced (definition of stress as a *stimulus*).

To relate stress to pressure, is another key information that must be analyzed more in detail to understand further results. Both Swedish and Peruvian students relate stress to pressure, but Swedish students specify that this pressure is in terms of time. Besides this, Balldin notes that *[w]estern culture has other specific concepts for time that indicate their importance and place in the ordinary lives of individuals* (2003:175). Moreover, Levine (1997) conducted a study on *pace of life* in thirty-one countries. Three measures were developed for this study: walking speed (with which pedestrian in down-town areas walk a distance of sixty feet), work speed (how quickly postal clerks complete a standard request to purchase a stamp), and the accuracy of public clocks. The results show that individuals are prone to move faster in places with vital economies, a high degree of industrialization, larger populations, cooler climates, and a cultural orientation toward individualism. Therefore, in the context of this research the fastest individuals lived in Western European countries and Japan. On the other hand, the slowest individuals lived in countries in Africa, Asia, the Middle East and Latin America. In this sense, it is interesting that Sweden is situated in the seventh position. Peru did not take part in this research, nevertheless other Latin American countries such as Brazil and Mexico did, and they are situated in the twenty-ninth and thirty-first positions respectively. This picture presents the difference in importance given to time. That is why, it is not surprising that Swedish students relate stress to time pressure since they are part of a culture that values more punctuality and effective use of the time.

Considering stressful situations in studies, both Swedish and Peruvian students mention the same two situations (*examination* and *task overload*) as the most stressful ones in studies. Indeed, these two stressful situations are interrelated since many students of the sample consider the *examination* process stressful because it involves task overload, and other students refer the *task overload* to an excess of exams. In this sense, it is relevant to emphasize that although most Swedish and Peruvian students have different ways of perceiving the concept of stress, these differences do not affect their perception of specific stressful situations in studies which are similar in both countries. Moreover, the two situations mentioned previously are listed as stressful situations in studies by other researchers (Muñoz, 2003).

Daun (2002) notes that schooling contributes not only to students' self-actualization and their reinforcement of knowledge, but also to their selection. According to this, academic situations such as examinations are part of studying and they can not be avoided in this process. Nevertheless, the conditions of the examination can be analyzed as a way to make changes resulting in an evaluation system that keeps its original goal of selection without affecting students' health, emotions, and performance. In the case of the *task overload*, this is a stressful situation that is also presented in the teaching job according to most of the studies (Kyriacou, 1998). Therefore it is perhaps relevant that students experience this situation previously, and they learn how to manage it.

Furthermore, the results show that Peruvian students have a tendency to face stress in studies by means of strategies such as *emotional control* and *avoidance* which

are *emotion-focused*. On the other hand, Swedish students prefer to manage stress in studies by using *problem-focused* strategies such as *problem solving*. In the specific selection of the strategy *social support*, due to the characteristics of the questionnaire used in this study, it is not possible to conclude if this strategy is aimed to find ways to face the stressful situation (*instrumental support*) or regulate the emotion (*emotional support*).

Narayanan et al (1999) conducted a cross-cultural study that compared coping mechanisms between Indian and American employees. These authors found that Indian employees face job stress in two manners: talking to either family members or friends who provide emotional comfort, or accepting the situation; whereas American employees prefer to take more direct action by talking to co-workers. This tendency also appears between Swedish and Peruvian students. Both, Peruvians and Indians come from countries with collectivistic oriented cultures and they tend to handle stress by *emotion-focused* coping, while both Swedish and Americans prefer to manage stress using *problem-focused* coping. Notwithstanding, it is necessary to note that the Peruvian students not only apply *emotion-focused* coping; they use *problem-focused* coping and *social support* in significant percentages as well, showing in this sense a greater variability of responses to face stress in studies.

Regarding strategies to manage stress in studies applied by Swedish and Peruvian students, some of these strategies may alleviate the problem or reduce the resulting stress, others may actually exacerbate the problem or become problems or interfere with the outcomes, and others may not result in any benefit. Zeidner and Saklofske (1996) mention the following criteria for determining the effectiveness of stress management strategies: resolution of the conflict or stressful situation, reduction of physiological and biochemical reactions, reduction of psychological distress, normative social functioning, return to pre-stress activities, well-being of self and others affected by the situation, maintaining positive self-esteem, and perceived effectiveness. These criteria are not covered by this study. Therefore, it is not possible to state which of the stress management strategies or coping styles that are used by Swedish and Peruvian students is the most effective.

On the other hand, these authors note that *each coping strategy has both its benefits and its costs (ibid.: 522)*, and *there is no consensus about which coping strategies are most effective and adaptative in promoting positive outcomes (ibid.:525)*. Nevertheless, there is some evidence that *avoidance* strategies are less efficient in stressful situation with effects in the short term. In addition, *problem-focused* coping can be more adaptative in situations viewed as changeable whereas *emotion-focused* can be better in unalterable situations. According to this, in the specific situation of studies, it seems that *problem-focused coping* might be more effective before an exam, where something could be done to change the results, while *emotion-focused strategies* might be more effective after an exam. But, is this the case in this study? It is important to remember that evaluations of stress management or coping effectiveness must be sensitive to broader social and cultural factors including social values (*ibid.*). Indeed, the results of this study show that stress perception is differentiated between Swedish and Peruvian students, and their particular perceptions affect the strategies they use to face stress in studies. Coping or stress management strategies should not be prejudged as adaptative or maladaptative, rather the concern should focus on whom and under what circumstances a particular coping mode has adaptative consequences.

Identifying the effects of stress on studies, both Swedish and Peruvian students relate stress mainly to negative effects on emotions, performance, and health. Taking into account their own stressful experiences in studies, both groups of students manifest

a similar pattern of variability in the health effects except *stomach-ache* that is a typical stress effect of the Swedish students, and *muscular tension* that is a typical stress effect of the Peruvian students.

In another study on stress effects between Chinese and American employees, the results show that both employees present fatigue, but whereas Chinese employees report sleeping alterations, Americans report stomach problems (Liu and Spector, 2005). According to cultural theories (see chapter 2), China and Peru are countries with collectivistic cultures, while USA and Sweden are countries with individualistic cultures. Therefore, it is interesting that stomach problems is coincidentally a particular stress effect in both individualistic countries (none among the Peruvian students report this effect).

On the one hand, these results may be evidences of cultural differences in stress effects. But, on the other hand, they can express the particular cultural perception on what is a stress effect. For instance, that the Swedish students do not report muscular tension as a stress effect in studies does not necessarily mean that they do not experience this condition. On the contrary, the case could be that the Swedish students do not perceive muscular tension as a stress effect, and because of this reason they do not report it. This assumption is applicable to the group of Peruvian students as well.

Moreover, both Swedish and Peruvian students recognize that the most common emotional effect of stress in studies is *bad mood*, and in general they report the same kind of emotional effects. However, Peruvian students show a tendency to experience depression. Furthermore, despite the fact that the Peruvian students define stress as an emotional condition, it is interesting that both Swedish and Peruvian students report the same kind of emotional effects of stress in studies, but a significantly smaller proportion of the Swedish students report such effects, and in the case of depression there is a significant difference as well.

In Levine's study (1997) mentioned before, the results show that the countries with a faster pace of life are much more likely to have higher rates of death from hearth disease. Besides this, the author emphasizes that "faster" countries are stressful environments where individuals might be involved in unhealthy behaviors, for instance, the use of tobacco, alcohol, or drugs; an unhealthy diet, and a lack of physical activities. On the other hand, economic prosperity that seems to cause a faster pace of life, promotes individuals' well-being. Liu and Spector (2005) also note in their review of cross-cultural researches on job stress that employees' well-being is better in individualistic than in collectivistic countries. Thus, Levine (1997) states that the conditions of economic prosperity, individualism, and time urgency have both positive and negative effects for individuals' well-being. On the one hand, these conditions provoke negative effects on health, and on the other hand, they provide material resources and a standard of living that enhance the quality of life. In brief, *[a] rapid pace of life is neither inherently better nor worse than a slow one* (ibid, 1997: 159).

Besides this, a larger group of both Swedish and Peruvian students relate stress to an overall negative effect on their academic performance. This result is coherent with the previous one that relates stress in studies to a worse performance, and with the stress perception of most of the students that link stress to its negative effects.

Concerning the competence in managing stress in studies, most of the Swedish students consider that they cannot manage it. In the case of the Peruvian students, the respondents are divided into two equal proportions: those who express they can manage stress in studies and those who express they cannot manage it. Since teaching is considered a stressful job, it is relevant to analyze if students from the teacher-training program are provided with the stress management strategies needed in their future jobs.

In this case, the results only show the students' perception of their own competence in facing stress studies. Thus, it is not possible to conclude which group of students is more competent to manage stress in studies. However, it is interesting that despite the fact that the groups of students come from very different cultural background, they register similar percentages (there is no statistical differences) in their responses on self-perception of stress management competence.

Another important aspect is that most of the Swedish and Peruvian students, who can manage stressful situations in studies, have learnt this by themselves. This result is not surprising since there is no course on stress management at school or university level. In this sense, researches on stress in studies underline the stressful conditions experienced by students and teachers. Consequently, to provide a course on stress management strategies to students, especially those who will be involved in teaching, is a relevant aspect. Moreover, the results express that most of the Swedish and Peruvian students would like to have such a course. In the case of the Swedish students, the main reasons for this choice are that stress is a common problem nowadays and they want to improve their competence, while the Peruvian students want to improve their academic performance by means of a course. Therefore, this result expresses the students' desire for getting support to improve their competence in managing stressful situations. It is also important to mention that the few students who did not want to attend a course of such type express as reasons either that they could already manage stress in studies or that this competence is a result of a self-learning. The first reason does not deny the relevance of providing a course on stress management because according to their students' responses in this study, there are some students that can manage stress in studies but there are more students that cannot. Considering the second answer, it reflects the wrong idea of many students who learnt by themselves how to face stress in studies since there is no course about, and consequently they can not imagine that this competence can be taught.

Lazarus and Folkman (1984) state that stress is a dynamic process that involves individuals' appraisal and environmental conditions. Therefore, individual's perception (or appraisal in the authors' words) and the characteristics of the environment influence the way individuals experience and face stress. And this is the case in this study, where the results from both Swedish and Peruvian students are consistent considering their particular cultural background, stress perception, stressful experiences and stress management strategies.

5.2 Conclusions

This comparative educational research focuses on stress perception, stressful experiences, and stress management in studies of both Swedish and Peruvian students from a teacher-training program. Hantrais (in Bryman, 2004:53) emphasizes that the aim of cross-cultural research may be *to seek explanations for similarities and differences or to gain a greater awareness and a deeper understanding of social reality in different national contexts*. Taking into account the difference in cultural background, it is interesting to emphasize that the results of this study express both similarities and differences. In Triandis' words *[a]ll cultures are simultaneously very similar and very different* (1994:6). Therefore, despite the differences in cultural backgrounds, both groups of students present as many similarities as differences. On the one hand, both Swedish and Peruvian students manifest a particular profile in the way they perceive the concept of stress, experience specific health and emotional effects due to the stress in studies, and manage stressful academic situations. On the other hand, both groups share some similarities in terms of specific stressful situations in studies, their perception of

stress as negative in their academic performance, emotional state and health, their variable competence to manage stress in studies, and their desire for having a course on stress management.

It is important to emphasize that stress is a topic rather studied in psychology and medicine but there are few studies on development of stress management strategies in education, and even less studies from a cross-cultural perspective. Therefore, this study is an attempt to explore this area, and its results create new questions and suggest the need of further cross-cultural researches on stress, specifically in the context of studies.

Finally, stress is a common problem in modern life that affects the health and performance of students and teachers. Nowadays globalization, resulting in competitive pressures, alterations in work organization, and the constant need to adjust to ever-changing technological progress, creates greater demands for highly skilled and adaptable workers (World Bank, 2002). Nevertheless, individuals can not expect to have a life without stress, as Selye states (in Appley and Trumbull, 1986:7), *complete freedom from stress is death*. Consequently, what is necessary is to give individuals opportunities to learn the strategies required to manage stressful situations in order to improve their performance and enhance their well-being.

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