# STUDENT STRESS AND QUALITY OF EDUCATION

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**RESUMO:** Os autores apresentam um artigo exploratório sobre o *stress* do estudante. Após examinar a relação entre trabalho e *stress*, o artigo passa a analisar o modelo de McLean sobre contexto, vulnerabilidade e fatores que causam o *stress*. Esse modelo serve de quadro de referência para a pesquisa elaborada, tendo em vista avaliar como um grupo de estudantes de administração enfrenta o stress cotidiano. O artigo também sugere medidas para reduzir os efeitos prejudiciais do *stress* no estudante e na qualidade de ensino.

***ABSTRACT:*** *Today, managers are increasingly interested in knowing how the work in organizations affects employees' health. Less common is the interest in stress erupting in the academic community – among students, faculty and administrators. The authors present a reflection paper focused on student stress. In this paper, they first examine McLean´s model of context, vulnerability and stressors. This model provides the framework for the student surveys and for the entire paper. Based on the students surveys, an assessment is made of how a small group of students are coping with stress. The paper finally suggests what can be done by students, faculty, and administrators to install and/or improve social support systems that might reduce the harmful effects of stress on students and thus impact the quality of education.*

**PALAVRAS-CHAVE:** *stress* do estudante, fadiga mental, tensão mental, qualidade do ensino.

***KEY WORDS:*** *student stress, mental fadigue, mental tension, quality of education.*

In the past, business leaders did not readily accept the notion that work could adversely affect both mind and body. Today, managers express interest in knowing how their organizations affect employees' health. Concern about job stress, executive stress, and the like now abounds. Witness, for example, the stress prevention series published by the United Nation's International Labor Organization.[1] Unfortunately, less common is the interest in stress erupting in academic environments — among students, faculty, and administrators. This paper begins to fill that gap. The authors present a reflection paper focused on student stress, drawing on a descriptive analysis of two surveys of a small sample of undergraduate business students in the United States. The surveys were aimed at identifying ongoing sources of stress and assessing how the students were coping with stress in their daily lives.

**The five-point idealized model for effectively coping with stress portrays a person who knows himself or herself, is well-rounded and multi-dimensional, who recognizes and embraces different value systems, and is active and productive.**

The results of the surveys point to major sources of stress that may be prevalent in other university settings and might inspire others to do further research. Basic statistics show that students are not coping effectively with stress which may impact the quality of their academic work. We think that faculty and administration can positively intervene to provide adequate social support systems which could reduce students' vulnerability to more potent stressors.

This paper will first examine the better known relationship between work and stress, including some common psychosomatic reactions discussed in research, clinical cases and medical experience. In a second section, the authors examine Alan McLean's model of context, vulnerability and stressors. This model provides the theoretical basis of the student surveys and constitutes a very useful framework for the entire paper. The third section discusses the results of the surveys and assesses how students are coping with stress. The final section suggests what can be done by students, faculty and administrators to create and improve social support systems that might reduce the harmful effects of stress and thus impact the quality of education.

## Stress and work

We live a good part of our lives in work settings. While work is, potentially, a source of many forms of gratification, it can cause us much harm. Stress at work is sufficiently widespread to be accepted as part of the necessary frustration of daily living. Similarly, stress in students' lives is no different.

An enormous amount of researches has centered around work stress. The research highlights the relationship between job stressors and physical and emotional changes in individuals. Numerous studies demonstrate that psychological stressors produce altered measurements of various bodily chemicals, hormones, and organic functions, along with altered levels of anxiety. Whereas many stressors are simply annoying, some lead to serious disability, while others may actually cause death. Note highlights of three early research studies (primary sources) related to work stress that may help us shed light on student stress.

In several studies, John French and Robert Caplan at the University of Michigan showed that work overload can produce at least nine different kinds of psychological and physiological signs of strain in the worker. Four of these signs (job dissatisfaction, a high cholesterol level, elevated heart rate, and smoking) are risk factors associated with heart disease. They conclude that reducing work overload will reduce heart disease.

Another research study[2] connected perceived occupational stressors with disease or the risk of disease. After studying 1540 executives of a major company, Weiman demonstrated that executives who are bored

1. INTERNATICIONAL LABOR ORGANIZATION (ILO). (1) *Stress prevention in the offshore oil and gas exploration and production industry.* (2) *Occupational stress and stress prevention in air traffic control.* (3) *Work-related stress in nursing: Controlling the risk to health.* (4) *Occupational stress and stress prevention for bus drivers.* (5) *Stress prevention for blue collar workers in assembly line production.* Geneva: International Labor Office, 1996.

2. WEIMAN, Clinton. *Journal of occupational medicine.* February, 1977.

or under-stimulated and those who feel highly pressured represent two ends of a continuum, each extreme exhibiting an elevated number of symptoms. This research confirmed the hypothesis that the relationship between stressors and disease is curvilinear, for too little or too much pressure can induce stress.

The work of Hans Selye also deserves mention, for no single individual has contributed more to both scientific and popular thinking on stress than Professor Selye, of the University of Montreal. It is illuminating to understand how Selye defines stress. According to Selye, stress is a nonspecific response of the body to any demand made upon it.[3] Selye demonstrated that essentially different things like cold, heat, drugs, hormones, sorrow, and joy can provoke an identical biochemical reaction in the body. As far as back in the 1930s, he named this phenomenon the "general adaptation syndrome" or G.A.S.. Selye noted that G.A.S. may not necessarily produce harmful effects. Its effect depends on the *intensity* of the demand made upon the adaptive capacity of the body. Any kind of normal activity — a game of chess or even a passionate embrace — can produce considerable stress without causing any harmful effect.[4]

Might work overload, boredom and under-stimulation, along with demand intensity also be found in student stress? Let us see how these seminal research findings can inform our analysis of stressful factors in a student's life. First of all, let us create framework for looking at the impact of such stressors on students by taking into consideration the environment and the individual vulnerability to stressors as denoted by McLean.

## Context, vulnerability and stressors

According to Alan McLean,[5] two factors determine whether a specific stressor will produce symptoms: (a) the context or external environment in which the interaction takes place, and even more important, (b) the vulnerability of the individual at the time, as noted in Figure 1.

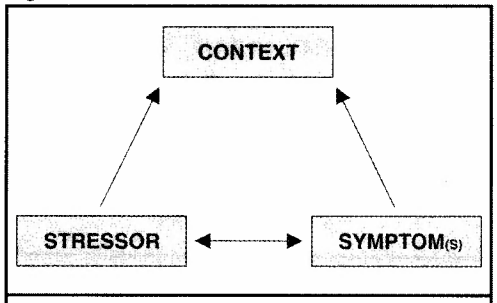
Unless the stressor itself is very powerful, stressors produce deleterious symptoms only when the context and individual vulnerability become counterproductive. One can withstand otherwise harmful stressors if the context is deemed supportive and the vulnerability low. Let us keep this framework or schemata in mind for the remainder of the paper as we aim to better understand this dynamic triadic relationship.

## The "context" variable

The external environment, or *context*, may be as broad as an economy or as small as a family unit. It is the influence of the community, the family, the economy, and society at large which the organization member brings to work. At work, the organization member is further influenced by peers, subordinates, and superiors, who all help to create a corporate culture as defined by management policy and practices.

Like employees, students do not leave the influences of their nonacademic lives at the university door. Students bring to the university the influences of family, community, economy and society at large. As these external factors change, so do students' attitudes and behaviors at school. Students are further conditioned by faculty, administrators and their peers in university settings. Since many students increasingly have to work for a living to pay tuition and other educational costs, we can see the full complex of overlapping stresses in the nonacademic and academic settings that form a part of many students' daily lives.

**Figure 1: McLean's basic framework**




*Source:* MCLEAN, Alan A. *Work Stress.* MA: Reading, *1979, p. ix.*

The economy also can affect both employee and student attitudes, their confidence, and their performance. This is especially true when countries experience high unemployment or inflation, reduced productivity, and slow rates of growth. According to the *World Employment 1996-97*,[6] nearly one-third of the world's labor force is either unemployed or underemployed in most regions of the world, except in East Asia. Although unemployment levels vary from

3. SELYE, Hans. *Stress without distress.* New York: J. B. Lippincott, 1974.

4. Idem, ibidem

5. MCLEAN, Alan. *Work stress.* Reading, MA: Addison-Wesley Publishing Company, 1979.

6. INTERNATIONAL LABOR ORGANIZATION (ILO). Op. cit.

country to country, the fear of unemployment constitutes a very potent stressor. Brenner[7] showed that mental disorder and lack of work are correlated. Unemployment affects students' families and the students themselves. Many countries — both developed and developing — have set as a goal to make education more accessible to their citizens. However, low rates of growth and high unemployment have been hindering the immediate utilization of graduates' newly acquired skills. Consequently, economic concerns can compound fear and anxiety among temporarily displaced employees, employees who fear loosing their jobs, and students who cannot find challenging jobs in a stagnant economy.

One indication of increasing environmental cynicism can be noted in how students' attitudes toward work and the meaning of work have changed over time. In the sixties, the majority of American students answered "yes" to the question "Does hard work always pay off?" By the seventies and eighties, the majority of students answered "no" to the same question. This perceptual reversal shows how the value of a college education has depreciated in the last twenty years. One recent study shows that discouragement may come about as a result of the growing gap between the higher skill requirements needed in organizations and the level of training offered even at the college level.[8] The change in the meaning of education and work in Western societies also seems to bring increasing suspicion of and disrespect for authority and institutions. We have seen this change in schools where the students openly confront their teachers, and in the work place where young workers refuse to take orders from their managers if they disagree.

In addition, the changing family structure — from single to serial marriages, from heterosexual to homosexual marriages, and from one to dual career families where both partners share the financial responsibility — all provide a different context in which stressors take place and affect work and family life. These same factors also influence students' life.

Given the above socioeconomic environmental changes, is it not accurate to say that society is changing faster, much faster than the workplace and the academia? The bureaucracies of business, government, the military and universities remain recalcitrant and seem impervious to such changes. An accumulation of these contextual factors prompted McLean to highlight their potentially negative impact on individual stress, in addition to what he termed the vulnerability factor which we now explain.

## The individual "vulnerability" variable

According to McLean,[9] individual vulnerability to specific stressors varies widely and it is even more important than context in determining the reaction to specific factors in a work environment. Generally speaking, people dislike and fear change. Nonetheless, change is a common denominator. Stressors appear to involve change in some way. It has been demonstrated that the occurrence of several important changes at once may contribute to increased individual vulnerability and thereby lead to illness. The work of Dr. Thomas Holmes and Richard Rahe at the University of Washington is considered the seminal effort in measuring changes based on life events.[10]

**Heavy course load, procrastination, money problems, outside commitments conflicting with school work, and uncertainty about career objectives were found to be the five major causes of student stress.**

Holmes and Rahe constructed a Schedule of Recent Events (SRE) questionnaire to document life events reported by 400 research subjects during the years prior to developing major illnesses. The forty-three questions about life-changes, contained in the SRE, were scaled and assigned a numerical value based on the life-change-unit (LCU) value given by the subjects for the remaining life-change events. For the analysis, marriage was used as a reference point worth an arbitrary value of 500, to which other changes, such as the loss

7. BRENNER, H. M. *Mental illness and the economy*. Cambridge, MA: Harvard University Press, 1973.

8. MURNANE, Richard and LEVY, Frank. *Teaching the New Basic Skills*. New York: Simon and Shuster, 1996.

9. MCLEAN, Alan. Op. cit.

10. HOLMES, T. H. and RAHE, R. H. Social readjustment rating scale. *Journal of psychosomatic research*, 11: 213, 1967.

of a spouse or a change in residence, were compared. This process was repeated for each of the life-change events in the SRE questionnaire. In spite of marked diversity of age, sex, race, religion, and educational background, considerable agreement was found on values among the subjects. Figure 2 shows the life events and their values.

As noted in Figure 2, the death of a spouse, divorces, and marital separations are dramatic life changes that heighten the vulnerability of individuals, whether they workers or students. When individuals go through numerous life changes at once, the research found that an increase in the LCU values was positively correlated with the

**Figure 2: The Holmes-Rahe schedule of recent life events.**
**Rank event value**

| RANK | EVENT | VALUE |
|---|---|---|
| 01 | Death of spouse | 100 |
| 02 | Divorce | 73 |
| 03 | Marital separation | 65 |
| 04 | Jail term | 63 |
| 05 | Death of close family member | 63 |
| 06 | Personal injury or illness | 53 |
| 07 | Marriage | 50 |
| 08 | Fired from work | 47 |
| 09 | Marital reconcilliation | 45 |
| 10 | Retirement | 45 |
| 11 | Change in family member's health | 44 |
| 12 | Pregnancy | 40 |
| 13 | Sex difficulities | 39 |
| 14 | Addition to family | 39 |
| 15 | Business readjustment | 39 |
| 16 | Change in financial status | 38 |
| 17 | Death of close friend | 37 |
| 18 | Change to different line of work | 36 |
| 19 | Change in number of marital arguments | 35 |
| 20 | Mortgage or loan over $10,000 | 31 |
| 21 | Foreclosure of mortgage or loan | 30 |
| 22 | Change in work responsibilities | 29 |
| 23 | Son or daughter leaving home | 29 |
| 24 | Trouble with in-laws | 29 |
| 25 | Outstanding personal achievement | 28 |
| 26 | Spouse begins or stops work | 26 |
| 27 | Starting or finishing school | 26 |
| 28 | Change in living conditions | 25 |
| 29 | Revision of personal habits | 24 |
| 30 | Trouble with boss | 23 |
| 31 | Change in work hours, conditions | 20 |
| 32 | Change in residence | 20 |
| 33 | Change in schools | 20 |
| 34 | Change in recreational habits | 19 |
| 35 | Change in church activities | 19 |
| 36 | Change in social activities | 18 |
| 37 | Mortage or loan under $10,000 | 17 |
| 38 | Change in sleeping habits | 16 |
| 39 | Change in number of family gatherings | 15 |
| 40 | Change in eating habits | 15 |
| 41 | Vacation | 13 |
| 42 | Christmas season | 12 |
| 43 | Minor violation of the law | 11 |

*Source:* HOLMES, T.H. and RAHE R. H. Social readjustment rating scale. *In: Journal of Psychosomatic Research, v.11 p. 213, 1967.*

onset of illness. Notice that the likely sum of life events for college entrants including starting school, and changes in living conditions, work hours, number of family gatherings, social activities, and recreational, sleeping, and eating habits rises to 154 LCU values. These changes are above the threshold level Holmes and Rahe found acceptable. They found that subjects with LCU values ranging between 150 and 300 reported an illness during the following years in about 50% of the cases. Those who scored more than 300 LCU per year, reported an illness during the following year in 70% of the cases. In contrast, the majority of subjects who recorded a total of 150 LCU or less in the preceding year reported good health on the following year. Over time, the results of the SRE questionnaire have been strengthened, finding support from a wide range of people from different countries and cultures.

Another study relating individual characteristics to propensity to stress reactions can be traced to the work of Drs. Friedman and Rosenman, two San Francisco cardiologists.[11] Their research distinguishes two personality types: "Type A" and "Type B" personalities. They found that aggressive achievers, whom they described as exhibiting "Type A" behavior, are more vulnerable to heart attacks than those at the opposite end of the personality spectrum, or those of "Type B" orientation. "Type A" behavior is an action-emotion complex that can be observed in any person who is aggressively involved in a chronic, incessant struggle to achieve more and more in less and less time, and if required, to do so against the opposing efforts of other things or other persons.

In short, the work of Friedman and Rosenman, along with that of Holmes and Rahe have clear implications for the studying of student stress. Holmes and Rahe's life change units are useful because they enable us to assess how a recent buildup of major changes makes the average individual, including the student, more vulnerable to subsequent illnesses. It is also very likely that students with "Type A" personalities may experience more stress as they strive to over achieve in the classroom setting. Let us now review some important stressors that may be found in the daily lives of students.

## Stressful events

In addition to work overload and boredom as stressors already identified in the early studies, evaluations, mass instruction, and intrinsic conditions related to university life are likely to increase students' stress.

**Administrators, faculty and students can actively seek to further alleviate student stress by engaging in the formation of social support systems, making the context of learning more supportive and reducing individual vulnerability to stress.**

Like performance appraisals in work settings, evaluations surface as major stressors in academic environments. Evaluations tend to be interpreted as a relative test of one's adequacy in comparison to others. Examinations fall into the category of evaluations. Although they compose a part of our lives since childhood, examination anxiety can be harmful when used in a punitive way.

Similarly, many cite assembly line production as stressful because of its fragmentation of work and the lack of employee participation in decisions impacting the work process.[12] Researchers have connected poor mental health and coronary disease with assembly line work. In many large public universities, we find the analogue of assembly line work: large classes, with mass examinations resembling mass inspections, especially in the first two years of college. This hazing process, derived from a productivity model of teaching, was condemned by Deming, given its focus on quantitative versus qualitative pedagogical orientation.

Furthermore, five conditions that researchers have deemed stressful in a work setting[13] also have their equivalents in the typical academic setting. These stressors

11. FRIEDMAN, M. and ROSENMAN, R. H. *Type A: your behavior and your heart.* New York: Knopf, 1974.

12. INTERNATIONAL LABOR ORGANIZATION (ILO). Op. cit.

13. COOPER, Cary L. and MARSHALL, Judy. Occupational sources of stress: A review of the literature relating to coronary heart disease and mental ill health. *Occupational psychology*, v. 49, pp. 11-28, 1976.

include: factors intrinsic to a job, role in organization, career development, relationships at work, and organizational structure/climate. What analogues does each have in academia?

**FIGURE 3: McLean's coping with stress checklist.**

Read each of the following twenty statements. Assess the extent to which each statement describes the way you are now (or will probably be in a future job). Circle the appropriate number in each line.

| | | VERY TRUE | QUITE TRUE | SOMEWHAT TRUE | NOT VERY TRUE | NOT AT ALL TRUE |
|---|---|---|---|---|---|---|
| 1 | I roll with the punches when problems come up. | 1 | 2 | 3 | 4 | 5 |
| 2 | I spend almost all of my time thinking about my work. | 5 | 4 | 3 | 2 | 1 |
| 3 | I treat other people as individuals and care about their feelings. | 1 | 2 | 3 | 4 | 5 |
| 4 | I recognize and accept my own limitations and assets. | 1 | 2 | 3 | 4 | 5 |
| 5 | There are quite a few -people I could describe as "good friends." | 1 | 2 | 3 | 4 | 5 |
| 6 | I enjoy using my skills and abilities both on and off the job. | 1 | 2 | 3 | 4 | 5 |
| 7 | I get bored easily. | 5 | 4 | 3 | 2 | 1 |
| 8 | I enjoy talking with people who 50 have different ways of thinking about the world. | 1 | 2 | 3 | 4 | 5 |
| 9 | Often in my job I bite off more than I can chew. | 5 | 4 | 3 | 2 | 1 |
| 10 | I'm usually very active on weekends with projects or recreation. | 1 | 2 | 3 | 4 | 5 |
| 11 | I prefer working with people who are very much like me. | 5 | 4 | 3 | 2 | 1 |
| 12 | I personally work primarily because I have to survive, not because I enjoy what I do. | 5 | 4 | 3 | 2 | 1 |
| 13 | I believe 13 I have a realistic picture of my strengths and weaknesses. | 1 | 2 | 3 | 4 | 5 |
| 14 | Often I get into arguments with people who don't think my way. | 5 | 4 | 3 | 2 | 1 |
| 15 | Often I have trouble getting much done on my job. | 5 | 4 | 3 | 2 | 1 |
| 16 | I'm interested in a lot of different topics. | 1 | 2 | 3 | 4 | 5 |
| 17 | I get upset when things don't go my way. | 5 | 4 | 3 | 2 | 1 |
| 18 | Often I'm not sure how I stand on a controversial topic. | 5 | 4 | 3 | 2 | 1 |
| 19 | I'm usually able to find a way around anything that blocks me from an important goal. | 1 | 2 | 3 | 4 | 5 |
| 20 | I often disagree with my boss or others at work. | 5 | 4 | 3 | 2 | 1 |

Scoring directions: Add together the numbers you circled for the four questions contained in each of five coping scales listed below.

| COPING SCALE | ADD TOGETHER YOUR RESPONSES TO THESE QUESTIONS | YOUR SCORE (WRITE IN) |
|---|---|---|
| Knows self | 4, 9, 13, 18 | |
| Many interests | 2, 5, 7, 16 | |
| Variety of reactions | 1, , 17, 19 | |
| Accepts other's values | 3, 8, 14, 20 | Total score |
| Active and productive | 6, 10, 12, 15 | |

*Source:* MCLEAN, Alan A. *WorkStress*. MA.: Reading, 1979, p.127.

*Factors intrinsic to a job*, refers to quantitative and qualitative overload previously discussed. Quantitative overload refers to having too much to do. Qualitative overload means that the work is beyond one's ability or comprehension. As we shall note in the following section, qualitative and quantitative overloads plague the lives of students as well as the lives of employees.

*Role in organization* presents the paradoxical situation of having the students' learning be the primary concern of universities in theory, although that may actually end up obfuscated in the priority list of faculty and administration.

Although *career development* is the business of universities, it can elude many students who realize that each progressive year of college may have better equipped them to identify professions which definitely do not interest them rather than the contrary situation.

*Relationship at work* refers to one's relationship with his/her superior, subordinates, and peers in a work setting, who are analogous to faculty, administrators and other students in an academic setting. Again, as we shall soon note, the interaction may create conditions identified as sources of stress.

Finally, *organizational structure/climate* refers to the degree of participation in decision-making processes related to one's job, restrictions on flexibility of work behavior, and interference with desirable communication processes. The absence of participation in decision-making was found to be significantly related to (1) overall poor physical health, (2) escapist drinking, (3) depressed mood, (4) low self-esteem, (5) low job satisfaction, (6) low motivation to work, and (7) intention to leave one's job. Might lack of participation in decisions that affect employees produce similar symptoms and

**Figure 4: Coping with stress scale: summary of organizational behavior class.**

| STUDENT | KNOWS SELF | MANY INTERESTS | VARIETY OF REACTIONS | ACCEPTS OTHERS VALUES | ACTIVE AND PRODUCTIVE | TOTAL SCORE |
|---|---|---|---|---|---|---|
| 1 | 10 | 8 | 8 | 7 | 7 | 40 |
| 2 | 7 | 8 | 10 | 6 | 11 | 42 |
| 3 | 8 | 6 | 9 | 6 | 9 | 38 |
| 4 | 9 | 9 | 13 | 7 | 9 | 47 |
| 5 | 5 | 9 | 13 | 12 | 12 | 51 |
| 6 | 14 | 14 | 13 | 10 | 12 | 63 |
| 7 | 9 | 10 | 15 | 7 | 12 | 53 |
| 8 | 11 | 10 | 11 | 7 | 11 | 50 |
| 9 | 10 | 7 | 10 | 9 | 8 | 44 |
| 10 | 7 | 10 | 14 | 17 | 12 | 60 |
| 11 | 10 | 11 | 12 | 9 | 9 | 51 |
| 12 | 12 | 12 | 15 | 12 | 13 | 64 |
| 13 | 10 | 8 | 12 | 7 | 6 | 43 |
| 14 | 9 | 11 | 12 | 10 | 14 | 56 |
| 15 | 10 | 11 | 12 | 11 | 9 | 53 |
| 16 | 10 | 16 | 13 | 11 | 12 | 62 |
| 17 | 11 | 12 | 12 | 12 | 12 | 59 |
| 18 | 9 | 10 | 11 | 10 | 8 | 48 |
| 19 | 11 | 12 | 14 | 9 | 13 | 59 |
| 20 | 8 | 7 | 12 | 10 | 6 | 43 |
| 21 | 15 | 12 | 10 | 9 | 12 | 58 |
| 22 | 10 | 11 | 12 | 11 | 9 | 53 |
| 23 | 14 | 11 | 12 | 8 | 9 | 54 |
| 24 | 14 | 13 | 13 | 12 | 14 | 68 |
| 25 | 15 | 16 | 15 | 12 | 17 | 75 |
| Mean | 10.32 | 10.56 | 12.2 | 9.64 | 10.64 | 53.36 |
| Std. Dev. | 2.56 | 2.03 | 1.89 | 2.53 | 2.69 | 9.21 |

*Scores on each of the five areas can range between 5 to 20. Scores of 12 or above suggest that it might be useful to direct more attention to the area. The overall total score can range between 20 and 100. Scores of 60 or more may suggest some difficulty in coping on the dimensions covered.*

harmful consequences in the student population? In the next section we present and discuss the results of our surveys on student stress.

## How students are coping with stress

Following Alan McLean's model, we surveyed an Organizational Behavior class of 25 upper division business students enrolled in a state university in the United States to roughly measure individual vulnerability, one's personal context, and individual perception of specific stressors which may be active at any given point in time. In order to assess how the students were coping with stress, we used the McLean checklist noted in Figure 3.

The checklist in Figure 3 assesses the extent to which students are coping with stress relative to an ideally successful person who can adapt to a challenging work environment and yet be productive without extraordinary side effects. McLean describes five characteristics of such persons:

1. They know themselves at all levels, accept their strengths and weaknesses, and capitalize on their important skills.
2. They develop numerous interests away from work.
3. They vary their responses to stressful situations and learn to bounce back quickly.
4. They acknowledge and accept differences among people.
5. They remain active and productive at work as well as at home and in the community.

Summing up, the five-point idealized model that effectively copes with stress portrays a person who knows himself or herself, is well-rounded and multi-dimensional, who recognizes and embraces different value systems, and finally, is active and productive. As Figure 4 demonstrates, that profile was not reflective of the students surveyed.

Generally speaking, the coping scale summary in Figure 4 shows that students need to improve on four or the five scales, except for the "accepting other people's values" point. In particular, students surpassed the recommended 12 point threshold on the third scale representing "variety of responses." As Figure 4 shows, the mean score for this factor was 12.2, illustrating that the upper division business students were not able to: (1) roll with the punches when problems arose, (2) enjoy working with people different from themselves, (3) not get upset when things did not go their way, and (4) find a way around concerning anything blocking them from an important goal. Furthermore, mean scores of 10.5 and above in the second and fifth scales also point to student need for greater development of interests away from school and active and productive activities at home and in the community.

## Assessing the emotional impact of the context

In another survey using a checklist suggested by,[14] we asked the same students in the Organizational Behavior class to assess the emotional impact they experience, concerning several ongoing sources of stress, as shown in Figure 5.

For each of the events that occurred during the past month or so, the students indicated their emotional impact score ("1" for low impact to "10" for major impact). After assessing their emotional impact concerning each criteria, the students noted whether each criteria was intrinsically within their power to change (Column B), not within their power to change (Column A), or (c) split (between Columns A and B). Students were asked to score the items only if they had experienced the events in question.

In this survey, over 50 total scores suggest the need for more active confrontation when dealing with ongoing irritants. Furthermore, when column A scores are much higher than column B scores, one may want to take more responsibility for events in one's life in order to feel less helpless and "victimized," that is, greater internal locus of control is called for.

## Major ongoing sources of stress

Although the complete data of the Organizational Behavior class are not shown in this paper, the average number of points per student was 71.7, with a standard deviation of 24. 7 points and a modal score of 66.5 points. The maximum and minimum scores were 148 and 28 points respectively. More importantly, student scores fell below the 50 point threshold in only two out of 25 cases, highlighting the pervasive need for students to confront stress

14. KINDLER, Herbert S. Personal stress assessment inventory — Student Edition, in D. Marcic edition of *Organizational Behavior: Experiences and Cases*, St. Paul: West Publishing Company, 1989.

**FIGURE 5: Checklist for ongoing sources of stress.**

Instructions: For each of the events that occurred during the past month or so, indicate your emotional impact score ("1 low impact, to '10" major impact). Place the number in either column A or B, whichever is applicable.

| | EMOTIONAL IMPACT SCORE | |
|---|---|---|
| | **Column A Events Beyond My Power to Change** | **Column B Events Within My Power to Change** |
| **a. My course load or study requirements feel excessive.** | | |
| **b. I find some instructors boring, or I feel inadequately challenged.** | | |
| **c. I haven't enough quiet to study, or have too many distractions.** | | |
| **d. My outside commitments conflict with school work.** | | |
| **e. My class schedule creates problems.** | | |
| **f. I feel too much peer or parent pressure.** | | |
| **g. I question what value I get from going to school.** | | |
| **h. My procrastination or cramming create excessive pressure.** | | |
| **i. I have continuing problems with one or more teachers, teaching assistants or the administration.** | | |
| **j. I am uncertain about my career objectives, or future plans.** | | |
| **k. I don't find school socially rewarding, or my standards and preferences conflict with other activities.** | | |
| **l. I miss social support from a relationship, family or roommate.** | | |
| **m. I don't have adequate privacy.** | | |
| **n. My budget is too tight.** | | |
| **o. Transportation creates problems for me (e.g., commuting,mobility).** | | |
| **p. I am concerned with security on or off campus.** | | |
| **q. Getting the kind of food I prefer is a problem.** | | |
| **r. I don't have easy access to my preferred forms of recreation.** | | |
| **s. School facilities, such as the library, health care, or the computer center are inadequate.** | | |
| **t. I feel self-conscious about a personal problem (such as weight, pimples, social ease).** | | |
| ***If not covered above, add on two emotionally unsettling events that occurred during the past month or so (positive or negative).*** | | |
| **u.** | | |
| **v.** | | |
| **Total for Emotional Impact Score:** | | |

**Total scores of over 50 suggest the need for more active confrontation in dealing with these ongoing irritants.**

KINDLER, Herbert S., Personal Stress Assessment Inventory. *In:* MARCIC, Dorothy. *Organizational Behavior: experiences and cases.* St. Paul: West Publishing Co., 1989, pp. 293-296.

more actively. Figure 6 shows the total scores for the ten major sources of stress (in decreasing order) given by the Organizational Behavior students.

According to the survey results — which are outlined in Figure 6 — the highest emotional impact is caused by heavy course load or excessive study requirements.

FIGURE 6: Ten major sources of stress ranked by emotional impact on students.

| SOURCE OF STRESS | COLUMN A (Beyond Student Control) | COLUMN B (Within Student Control) | TOTAL SCORE | RANK |
|---|---|---|---|---|
| Heavy course load | 60 | 73 | 133 | 1 |
| Procrastination | 10 | 113 | 123 | 2 |
| Money problems | 64 | 51 | 115 | 3 |
| Outside commitments | 34 | 59 | 93 | 4 |
| Career uncertainty | 26 | 59 | 85 | 5 |
| Perceived quality of teaching | 58 | 27 | 85 | 6 |
| Value of higher education | 25 | 54 | 79 | 7 |
| Quiet study place | 8 | 68 | 76 | 8 |
| Facilities inadequate | 58 | 3 | 61 | 9 |
| Personal problems | 15 | 41 | 56 | 10 |

Where the Column A scores are appreciably higher than Column B scores, one may want to take more responsibility for events in one's life in order to feel less helpless and victimized.

Procrastination was found to be the second major source of stress, followed by money problems, outside commitments conflicting with school work, and uncertainty about career objectives. Although to a lesser degree, the perceived quality of teaching, the value of higher education, inadequacy of school facilities and personal problems were also matters of concern for the students. Notice, too, that, of the ten major sources of stress, three of them — the personal budget, the perceived quality of teaching, and inadequacy of school facilities — were considered beyond the student's power to change. Might some of these results be indicative of the larger student population?

## What can be done?

It may be impossible or even undesirable to eliminate stress from universities. However, it can be managed productively. We think that much can be done that is not being done effectively at present, or is not being done at all by faculty, administration, and students alike. Students could try active measures for self-control of stress including physical exercise, progressive relaxation, biofeedback, and professional help. We fully endorse their contribution. Although we will not digress to extol the utility and virtues of each of these measures,which are better addressed by specialized literature, we acknowledge that these activities can be very costly for the usually tight budget of the typical student. University administrators can greatly contribute by making some or all of these active ways of coping with stress available to the student population at affordable costs. In addition, administrators, faculty and students can actively seek to further alleviate student stress. Each cohort can try to engage in the formation of social support systems by making the context of learning more supportive and by reducing individual vulnerability to stress.

**Social support systems.** No simple advice can be presented to change personality traits or coping mechanisms. However, there are ways of improving one's ability to cope with the threat of stressors — to reduce, to some extent, one's vulnerability. We offer one major approach which House and his colleagues at Duke University[15] tested. They have perceived that stressors bear little or no relationship to ill health when a person enjoys high levels of social support. People are said to have *social support* if they have a relationship with one or more persons that is characterized by frequent interactions, by strong and positive feelings, and by a capacity and a determination to provide and receive emotional and/or practical assistance in trying times. We would like to expand on how faculty, administrators, and other students could offer four forms of social support: instrumental, informational, evaluative, and emotional.

**Instrumental support** includes pitching in to help a student who is having trouble completing a task. This type of support would be especially important for students who feel overwhelmed by heavy course loads and excessive study requirements. They may genuinely not understand the nature of the assignments or the most efficient way to complete the task. Accessability and modeling

15. HOUSE, J. S. *Work Stress and Social Support*, Reading, MA: Addison-Wesley, 1981.

would be particularly helpful. One-on-one interaction with the professor or teamwork with colleagues, in groups where collaboration is valued and acknowledged might supply trust for individual vulnerability while the student learns to ask the necessary questions to allow creativity to enter in. For more than fifty years, behavioral scientists and other experts concerned with job satisfaction have urged increasing workers participation in defining and programming their tasks. In the late 1940s, Coch and French demonstrated that the mastering of a new task best occurs under supportive conditions.

**Informational support** involves giving a person information that lets her more easily handle task demands. An invitation from the instructor for students to participate in the planning, design, and implementation of a course, or parts of it, acts as a powerful support to students' self-esteem. Establishing a psychological contract about the future course direction can also bring down the barriers created by procrastination. Lack of control over the learning process is replaced by ownership of relevant learning. We can argue that any support to self-esteem facilitates learning and individual coping with stress factors. Faculty can also contribute by assigning work which is more supportive to the student, with the goal of building a system in which students perceive themselves genuinely valued.

**Appraisal support** gives information to a person about his/her performance. Instructors can aim to make learning and teaching more collaborative instead of more competitive. The grade "*phobia*" should be minimized by using evaluations as feedback loops to reorient student awareness to development opportunities rather than having them be threatening and punitive. Attaining excellence should be the goal for all students and faculty not only for the top ten or twenty percent of the class. Students with different learning rates or different learning paths should be given time to achieve the only possible goal of education: EXCELLENCE. Just as Dr. Deming stated at one point that, in the name of quality, fear should be driven out of the work place, we say today that fear should be banned from the classroom.

**Emotional support** includes caring and empathic listening to a person who feels troubled.

**Discussion** is also useful in coping with the stress of change. In a typical business firm, talking with one's peers, supervisors, and subordinates allows people to vent whatever feelings of anger, tension, and grief they may be experiencing. There is reassurance in sharing, in discovering that others have the same apprehensions, anxieties etc. A valuable technique is to enlist the involvement of all who are facing similar types of stresses together in further planning. Discussion can be fomented in the academic setting, especially by creating natural meeting places where students can enjoy meeting with their counterparts, their teachers and supportive administrators.

In short, support systems for the student body in the academic organization have to stem from policies and administrative practices. In industry, Employee Assistance Programs (EAPs) help employees cope with personal problems that are interfering with their job performance, such as drug and alcohol abuse, financial difficulties, and family relationship concerns.[16] EAPs can help employees suffering from anxiety and stress. For example, EAPs played a useful role in recent times, by helping to ease the effects of organizational restructuring and downsizing on employees.[17] Universities can create Student Assistance Programs (SAPs) to facilitate similar coping strategies.

Where EAPs focus on treating troubled employees, Wellness Programs focus on preventing health problems. These programs encourage employees to change their life styles through exercise, good nutrition, and health monitoring. They help employees to identify potential health risks through screening and testing. Finally, they educate employees about health risks such as high blood pressure, smoking, poor diet, and stress.[18]

Although some universities have similar programs, they still lag far behind industry in scope and budget. From an ethical point of view, some organizations feel that wellness and employee assistance programs should be evaluated on a cost-benefit basis and discontinued if it cannot be demonstrated that their benefits exceed their costs. Other organizations feel that since they contribute to create many of the stressful conditions that cause employee health problems, they are ethically bound to continue providing these types of programs. The same argument can be made used in the case of universities. Don't they create many of the stressors in the daily life of students instead of creating learning communities? ❑

16. KIRRANE, D. EAPs: Dawning of a new age. *HR Magazine*, v. 35, n.1, pp. 30-34, 1990.

17. WISE, D. Employee assistance programs expand to fit companies needs. *Business and Health*, April, 1993, pp. 40-45.

18. BUNCH; D. Coors Willness Center-Helping The bottom line. In: *Employer benefits journal*, v.14, march 1992.