

Student stress in a quarter system- an Ernest Stringer method action research report

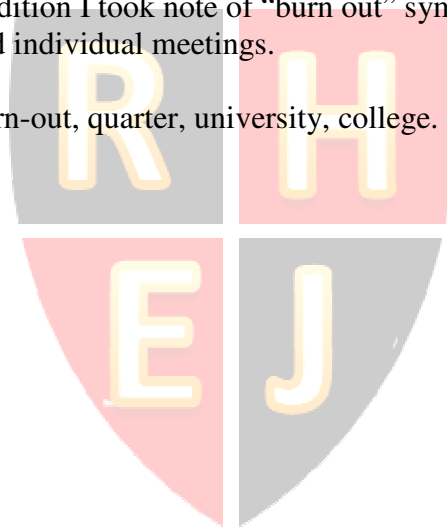
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Abstract

This case study helps answer the following question: Does the pace of a 10-week quarter turn to “burn-out” of the students? How can this be prevented? What situations cause this to happen?

Cal Poly Pomona’s academic calendar is based on a quarter system. Many students have expressed a concern over the accelerated pace and describe the last few weeks of the quarter as “stressful” and feelings of “burn out.” I observed the behaviors, experiences and patterns of four students as they progressed through the spring quarter (March-June), 2011, and they chronicled their journey through the quarter. I documented the frequency of key words used most and commonly among them. In addition I took note of “burn out” symptoms as reported in their journals and through group and individual meetings.

Keywords: Stress, student, burn-out, quarter, university, college.



SECTION 1: FOCUS AND FRAMING THROUGH SETTING THE STAGE

In an accelerated ten-week quarter system, students of Cal Poly Pomona are tasked with a duty to work at a rapid pace in order to fulfill the requirements of the course. Many students have expressed a concern over the accelerated pace and describe the last few weeks of the quarter as “stressful” and a feelings of “burn-out.” However, in surveys conducted in 2004, students overwhelmingly supported the quarter system, and its pace and rigors over the alternative- the semester system. Behaviors, experiences, and patterns of four students were observed as they progress through the Spring Quarter (March-June) to see if their phenomenon is analogous to a problem campus-wide. Using the Ernest Stringer Action Research (2007) method, the researcher attempts to answer these questions.

Stakeholding Groups

This was a group of five people. These stakeholders consist of four students and an administrative staff member. Two of the four students are from a past quarter, and the other two from the current spring quarter. Although positive confirmation was received from twenty students, it was narrowed down to the four students and one administrative member who remained until the end. However, as you will see later in the paper, the whole group of subjects voluntarily opted out by week eight.

This group of five was chosen based on their willingness to participate, their perception of the stress factor a quarter system produces, and their involvement with the campus at large. These five people represent a broad demographic of the campus. Two students graduate in June 2011, the other two are transfer students from a semester-based community college, and the administrative staff member is a department coordinator who interacts with students daily and has been employed in this capacity for six years. The department coordinator is in a position of leadership, and it is she who accesses the students’ academic data for the release of “holds” (an accounting status when a student must pay a fee or fulfill a registrar requirement). She also schedules student advising with the department chair, and coordinates paperwork for registration. Her primary role is as liaison between the student and the University.

Role, Position, and Agenda

The role as researcher for this project was to inquire with an opinion-free open mind to uncover the reasons behind student anxiety during a 10-week quarter. A dynamic evolving research process was facilitated that had structure insofar as to coordinate journal entries and student collaborative meetings. The researcher’s role as professor was used to informally “poll” students (not part of the formal research process) on their levels of stress during the quarter. While this study was approached with a preconceived anticipation of stress causers such as multiple exams in one week, work pressures, and pace, the researcher was not presumptuous with the students’ acknowledgements of their experiences; letting the data unfold as it happened.

As Stringer (2007) noted, “Initial statements should provide the tacit understanding that the researcher is a resource person whose role is to assist stakeholders, rather than to prescribe their actions” (p. 48). The students expressed their anxieties, and it was consistent with other quarters as it peaked at the sixth week of instruction. With the use of coding and analyzing

journaling, I came to understand a few of the reasons behind the stressors, why they hit during a similar time period and, ways of handling the pressure. By conducting my research at the University, I viewed students' on-campus activities first hand and inquired about off-campus activities as well.

The researcher's positive student rapport, helped keep the study easy going and nonthreatening. The department coordinator has a very casual relationship with pleasant interactions with the researcher as well. This established positive rapport with both groups helped aid in approachability; fostering candid responses. Because the research revolved around the student, they had little difficulty expressing their feelings. There was concern that the department coordinator might experience difficulty in divulging her experiences with students and their stressors as it related to the departmental protocols. But indeed she was very forthcoming in her disclosure.

SECTION 2A: LITERATURE REVIEW

The following is representative of the available literature on student stress. There was neither specific nor definitive research conducted on stress in a 10-week quarter system; however, the literature did provide a framework in which I based my theoretical findings later in this paper.

“Concerning the measurement of such experiences, psychologists have defined stress as a stimulus (e.g., Holmes & Rahe, 1967), a response (e.g., Selye, 1976), or a stimulus response interaction (e.g., Lazarus & Folkman, 1984)” (de Carvalho et al., 2009). Cushman & West (2006) define stress as “a global term that refers to how stimuli negatively or positively affect an individual.” Weckwerth et al. (2006) noted, “Stress, is often referred to as any emotional experience that is negative, and is accompanied by biochemical, physiological, cognitive, and behavioural changes that predictable by nature, and are directed either toward adapting to the effects of the stressful event or altering the stressful event itself (Taylor, 1999).”

The literature maintains that stress can lead to burnout which “has been operationalized as a three-dimensional concept: emotional exhaustion, depersonalization, and lack of personal accomplishment (Maslach & Jackson, 1981)” (Cushman & West, 2006). There are other studies indicating burnout as “a psychological syndrome stemming from one's relationship with work, and characterized by three dimensions: overwhelming exhaustion, feelings of cynicism and detachment, and a sense of ineffectiveness on the job (Maslach, Schaufeli, & Letter, 2001; Schaufeli & Buunk, 2003)” (Pisarik, 2009).

The literature search identified various measurement tools to study stress. Early studies of burnout centered around the human service industries with less focus on the student experience (Edwards et al., 2001; Deckro et al., 2002; Pillay & Ngcobo, 2010; Schaufeli et al., 2002; Weckwerth, 2006). Researchers use a self-report questionnaire, the Maslach Burnout Inventory (utilized primarily in the human service area), to measure stress. Adjusting the questions with a focus on college students created a focus on the student experience. This questionnaire is now known as the Maslach Burnout Inventory- Student Survey (MBI-SS) (Schaufeli et al., 2002). Other tests and methods in stress levels are the Life Experiences Scale, the Hassles Scale, the Social Support Survey, the Test of Negative Health Exchange, the Mental Health Index, and the Pennebaker Inventory of Limbic Languidness (Edwards et al., 2001; Deckro et al., 2002; Pillay & Ngcobo, 2010; Schaufeli et al., 2002; Weckwerth, 2006); although, the MBI is used most often in determining stress levels and causes (Robotham, 2008).

Studies in the past decade depict varying sources of stress for University students which lead to burnout (Cushman & West, 2006; Darling et al., 2007; Law, 2010; Schaufeli, 2002). Stressors are linked to many sources; a few of which are, emergence from adolescence to adulthood (Broughman et al., 2009), moving away from home (Darling et al., 2007) assignment overload, instructor attitude and behaviors, lack of personal motivation (Cushman & West, 2006), and work related or financial problems (Cushman & West, 2006; Law, 2010).

Darling et al. (2007) said this about adolescent development in adapting when moving away from home in correlation to academic success:

“Developmental tasks of adolescence include individuation, differentiation and independence (Fulmer, 2005). A college student’s struggle for individuation is an indicator of academic success, whereas systems theorists describe the concept of differentiation as an individual striving and working towards achieving a sense of separateness from one’s family of origin while simultaneously maintaining connectedness (Rice, Cole, & Lapsky, 1990).”

In addition to individuation, Broughman et al (2009), said this of adolescents and stress, “It has been hypothesized that emerging adulthood, the transition from adolescence into adulthood, increased college students’ vulnerability to stress (Towbes and Cohen 1996).”

Feelings of being overwhelmed due to assignment overload were also listed as possible sources of stress. “Responses indicate that students find their course load excessive and instructors’ expectations unreasonable” (Cushman & West, 2006). In addition, students felt stress when instructors were flippant, uncaring or indifferent. In more severe cases, a teacher with verbal aggression towards students can also lead to burnout (Cushman & West, 2006).

Law (2010) made an interesting observation when he said:

“This characteristic qualifies job burnout as a potentially useful construct in assessing and researching stress in university students. Yet, compared with the number of studies undertaken in the workforce, the construct has only lightly been addressed in university students. One reason for the lack of research involving university students and job burnout is that university students are in fact preparing for jobs and are not as yet considered employed. However, it is arguable that full-time student status in a business program can be regarded as an occupation by itself due to the rigorous nature of the coursework. This may be compounded for those students who work full- or part-time. Similar to their counterparts in the workforce, business students are continually subject to assignments, deadlines, and potentially long hours. These work stressors have been tied to job burnout (Garrosa, Moreno-Jimenez, Liang, & Gonzalez, 2008; Pines & Maslach, 1978; Sweeney & Summers, 2002); thus, business students may be susceptible to burnout.”

The reason to study stress is most aptly stated by Pisarik (2009). “An empirical examination of burnout among college students is important for several reasons. First, as mentioned earlier, research results suggest that the general college student population experiences fairly high levels of burnout (Jacobs & Dodd, 2003; Meier & Schmeck, 1985). However, more research is needed to examine the prevalence of burnout within this population using the most current constructs and assessments. Second, academic performance is found to be significantly related to measures of burnout in the college student population (Jacobs & Dodd, 2003; McCarthy, Pretty, & Cattano, 1990). Third, burnout has been empirically associated with a myriad of mental health related issues such as depression (Glass & McNight, 1996), and

substance abuse (Nowack & Pentkowski, 1994). Lastly, burnout has been associated with factors in the world of work that are analogous to student retention and persistence such as intention to leave employment, and reduced organizational commitment (Lee & Ashforth, 1996).”

Other researchers noted that a severe accumulation of stress leading to burnout (Cushman & West, 2006) could also lead to drug related problems (Pillay & Ngcobo, 2010), as well as physical problems through negative social changes (Edwards et al., 2001). Other causes of stress and burnout are exhaustion, lack of self- efficacy and cynicism (Schaufeli et al., 2002), as well as stressors related to studying and examinations (Robotham 2008).

While there are many sources of stress in college students’ surroundings, the literature points to personal low self-efficacy as the prevailing source (Broughman et al., 2009; de Carvalho et al., (2009); Deckro et al., 2002; Pisarik, 2009; Sizoo, 2008; Schaufeli et al., 2002). Self-efficacy is an intrinsic motivation to achieve, and when challenged or placed in challenging situations, the level of self-efficacy wanes (Chemers et al., 2001; de Carvalho et al., 2009; Deckro et al.; Pisarik, 2009). Highly efficacious students experience greater amounts of stress than other students in similar circumstances (Chemers et al., 2001). Students will also experience stress as their relative “locus of control” (de Carvalho et al., 2009) dictates. Those with high internal locus of control experienced higher, more severe stress, and related their stressors to behavioral situations (de Carvalho et al., 2009).

SECTION 2B: THE LITERATURE GAPS

While the studies are replete with sources of stress, there is missing research specifically geared towards quarter-system University students. The unique nature of quarter systems introduces a variety of additional stressors; none of which is represented. The quarter system has been in place at this institution since 1938. There was discussion of converting to a semester system this January with a prior conversion debate in 2001. The current failure to convert to a semester calendar stemmed from financial shortcomings on behalf of the state and a University-wide vote to maintain the status quo (http://www.csupomona.edu/~calendar_convert/). Student surveys reflected overwhelming support for the quarter system even when there are complaints of the speed-related stressors. This seems a contradiction to relieving stress and a point of further research.

The role as a researcher for this project was to inquire with an opinion-free open mind to uncover the reasons behind student anxiety during a 10-week quarter. The researcher aims to add to the literature with a new time-dimension as it relates to student stress. Some areas for further inquiry may include the question of: If a student is pressed for time in a quarter system, thus creating stress, why, then vote to maintain the status quo?

SECTION 3: METHODOLOGY VIA CONTEXT PICTURE

Utilizing the context tool on page 53, Stringer offered insight and understanding of the dynamics and history of the Situation That Needs Attention or SiTNA. In essence this is qualitative research. Because this research focused on inner conflict students have over the workload and its accompanying stresses, the social dynamics lean towards personal coping issues which might affect students at large. There are studies related to student stress (see Literature Review) none of which focus on the unique quarter system as a factor of stress. Because of this gap, the focus of attention was on the 10-week dynamic.

Relationship- the students are “related” in as much as they are all co-eds working towards an undergraduate degree. The department coordinator is related to the students via one-on-one, in-office contact.

History- the quarter system has been in place since 1938. There is a discussion of converting to a semester system at present. The prior conversion debate was in 2001. The failure to convert to a semester calendar stemmed from financial shortcomings on behalf of the state. Student surveys show overwhelming support for the quarter system.

Groups- The primary focus of this research was the 4 students. Demographic specifics were not a factor to this problem. Through this process there was anticipated negativity towards some professor’s workload adding to their stress (an assumption). The prediction, therefore, considered a pool of professors as overloaders in the groups. In the findings, you will see this to be a minor factor.

Past Problems- The problems that plague Cal Poly is the location of the University. It is considered a “commuter school.” Most students are employed either full or part time in addition to going to school full time. Student stress reaches beyond the campus as most juggle myriad activities outside of the University. I keenly focused on the problem of balance for the student, as this became a prevailing theme as I coded the data.

Resources-This researcher is unaware of resources, outside of University counseling services, addressing student mid-term stress. However, there was an on campus program whose primary focus was addressing student stress via group-counseling sessions. When the Center for Counseling and Psychological Services was contacted about the program, they mentioned the program received little interest and was subsequently disbanded. Further inquiry was conducted into various other programs and services related to student stress. I was discovered that most counseling sessions were conducted one-on-one, and although they would not offer specific case discussion, they affirmed that “there are more students making appointments for counseling during the middle and latter third of the quarter mostly due to stress-related issues.” After continued inquiry, they declined to answer any more questions based on the privacy and IRB issues.

Ethics

The intent of the research was to determine reasons for stress without placing students and the department coordinator in uncomfortable positions. The students were very open with their interview answers and their candid journal entries. Stringer (2003) states, “Because of the participatory nature of action research, ethical considerations work in a special way. The same provisions for duty of care apply, and all stakeholders have the same rights to safety and informed consent that apply in other forms of research” (p. 55). The transparency of this research required debriefing through every step; which they appreciated as it made them part of the process. The PAR nature of the research design allowed the researcher to journey with them on their path, while focusing on their experience of stressors as they occurred. There was not a deliberate agenda, merely a focused research aspect.

In reference to Glesne’s (2011) summary in her book, *Becoming Qualitative Researchers*, for a proper informed consent outline, she suggests a research summary be used for Institutional Review Boards to best notify and educate all participants in the following areas: the study background, the use of results, how the participants were chosen, a promise of anonymity, a disclosure of benefits and risks, the length of the research, and data collection methods. To

satisfy this, a prepared statement via email about the nature of my Action Research and its inevitable evolving process was sent to all stakeholders. This information was sent along with a request for participation making certain all the parameters of the study were upheld as indicated in email sent (Appendix).

Rigor

When conducting dynamic research such as this, Stringer (2007) advises ensuring “the outcomes of the research are *trustworthy*” (p. 57). He suggests this can be established via four study elements: Credibility, Transferability, Dependability, and Confirmability.

To cultivate Credibility, there must be synergy amongst the following activities: Persistent observation, Triangulation, Member checking, Participant debriefing, Diverse case analysis, and Referential adequacy. Because of the condensed nature of this study, not all areas of Credibility were feasible, but all axioms were considered while conducting the study.

Students were engaged face-to-face 2 times during the 10-week quarter, emailed once per week, and journal blogs were viewed two-three times per week. Weekly phone calls were attempted, but the students felt the other modes of communication worked better. This involvement allowed the researcher to persistently observe the students’ behavior and performance. The department coordinator was contacted every other week to assess her findings as well. The researcher wanted to have weekly conversations, but the department coordinator indicated her tight schedule would only allow for every other week debriefs via email. Unfortunately, by the end of week eight, the 4 student subjects stopped their journal entries to focus on their school studies and projects. The last group meeting on May 12 was the final discussion about the project. One student apologized for having to “bail” on the research. Although the study was cut short by six days, there appeared to be enough data for the paper.

In an effort to include other sources of information, counseling services at Cal Poly was contacted, but as mentioned above, they offered limited access to specific student inquiries because of privacy issues. Data triangulation was pursued using student, department coordinator and student services data to enhance the research and meet the goal of Rigor via Credibility in Stringer’s Action Research method.

Member Checking and Participant Debriefing, also recommended by Stringer, aided in providing research members information on the ongoing data collection with an opportunity to share their feelings and emotions aside from the research information. Because the subjects of the research were the heart of the project, complete participant perspective inclusion (Diverse case analysis) was the aim, without overt academic or institutional influence.

The concept of Referential adequacy was evident during the data interpretation. Having journal documentation via online blogs made it easier to code the journal entries in the true form in which it was delivered. The perspectives in this paper are that of the stakeholders and their reflective their input were put in terms easily understood by the stakeholders.

The findings and subsequent recommendations make portions of this research Transferable to the student body of the University. The data sources were reliable in that their perception was their experience; however, based on the tenets of Stringer’s data Dependability and Confirmability, it is proposed that this study be one mostly for the student body of Cal Poly Pomona. Efforts were made to provide thoroughness in the data collection processes while checking for impartiality, traceable links, meticulous field notes, and data storing sensitivity. Perhaps those efforts can aid in the potential Transferability of the findings.

SECTION 4: OUTCOMES AND FINDINGS

After eight weeks of discussion with my research subjects, their interest in the study waned toward the end of the quarter. Their projects and exams took precedence over this research. The data gathered was good to offer valid results. Perhaps if there were extended time allotted to dive deeper into this study, there might have been additional data in focused in a variety of areas. Albeit simplistic, it was helpful to divide the data in to three recurring themes: a. Coded words and repetitive stressor themes, b. Opinions on the quarter system and how it relates to stress, and c. Student remarks on relieving stress.

Coded words and repetitive stressor themes

Using a Microsoft Excel spreadsheet program, each participant's name and noted key words were listed. The researcher documented commonly used and in-common words and phrases; counted the number of times they were used in their journal, in group meetings and in one-on-one conversations and coded them accordingly as indicated in Figure A (Appendix). The themes of *workload* and *time crunch* were prevalent across participants and the complaining seemed to increase as the quarter progressed. Also the similarities among the journal entries became more noticeable. Even though each student expressed their opinions, it was a unique phenomenon to detect the similarities in their common experiences.

Most interestingly, the students became more open about their feelings about the amount of work to be done towards the end of the quarter. They expressed their true stressors more candidly the more there was connection throughout the quarter. The students were highly motivated at the start of the quarter and then experienced workload stress in correlation with the quarter-system speed. The department coordinator was queried about her opinions of the students during the sixth week of instruction. She said the students about to register for the next quarter's classes were showing signs of "anxiousness." She mentioned that academic holds (temporary suspensions to student accounts for various academic or financial reasons) were the main cause of stress at this time of year. She also mentioned the students complaining about the lack of coordination between professors and their project due dates.

In conversation, the students shared similar feelings of frustration, fatigue and burn out. One student said this in a group meeting, "I'm sick and tired of all these professors making everything due at the end of the quarter and on the same day. Why can't all the professors get together and coordinate their stuff so we don't all have to suffer?" (Student participant 3, personal communication, April 14, 2011). Another student said, "And these stupid holds for a late library book is making me lose my priority registration" (Student participant 1, personal communication, April 14, 2011). It would seem an impossible task on behalf of professors to coordinate with each student to devise syllabi conducive to the students' due date desires. In addition, the advent of not remembering to turn in a library book hardly seemed like the responsibility of the university. Although these are the thoughts of the researcher, they were not expressed to the research subjects. There were questions as a result of their comments, like, "Would you prefer to turn in projects another time during the quarter, and if so when? What amount of time would you need to complete them?" The intent of the questions was to hear their opinion on timing to see if there were stressors that could be quelled. Interestingly, they said they wanted the projects due at the end of the quarter because there would not be enough time to

complete the task. After another look at the coded words, the researcher noticed the students did not state with resounding consensus a fear of not completing their work. So perhaps the time crunch was a motivator?

Opinions on the quarter system and how it relates to stress

Recently, the University polled the student body about their desire to maintain the current quarter system or replace it with a semester system. The students overwhelmingly supported maintaining the quarter system (http://www.csupomona.edu/~calendar_convert/), which afforded an opportunity to explore the student participants' perspectives.

During a group meeting on April 14, the students were asked their opinion on the University's decision to maintain the quarter system. All were happy about the decision, which begged the question, "Is stress really related to the speed of the academic calendar, or is it just the amount of work alone?" Their responses were candid and to the point. This is a paraphrasing of the points in aggregate: they all like the speed of the quarter system, and feel that complaining about the pace is therapeutic. They went on to say the quarter system has its upsides: it limits the possibility for procrastination, and it allows the student the ability to tolerate the class work and professor for a short time with the knowledge of a new quarter quickly approaching.

They emphatically agreed that the quarter system, with all its rapidness, makes for a more positive University experience because the length in which they have to *tolerate* stress is lessened than if it were a semester system. They were asked what they had to tolerate, and they responded with: professors, administration, and schoolwork.

Villanova (1984) stated in a paper presented to the Southeastern Psychological Association that 1/7 of student stress is related to the context of a University student's college experience. Issues such as dealings with administration, parking and relationships with professors seem to factor heavily in student stress.

So although there are questions of rapid pace and the ability to keep up, the focus group was not as concerned with the speed. In fact they found it to be more positive than negative. This is not assuming all students regard the quarter system with as much favor, but this group likes the quarter system.

Student remarks on relieving stress

There are many references to stress relief in the student journals. The researcher asked the students for a list of the top 10 stress relievers. Most were very similar and note a breakdown of top eight stress relievers as indicated in Figure B (Appendix). Most methods appeared to be innocuous ways to control or relieve stress; however, the number two stress reliever, drinking, was disturbing. The researcher wanted to remain as neutral as possible during this study, but found it impossible to avoid giving advice for the safety of the students. It felt like an ethical obligation to offer alternative stress-relieving methods as well as an admonition to consider designated drivers if they indeed wish to let off steam this way.

SECTION 5: SUGGESTED ACTION

In the researcher's capacity it would be impossible to change the ten-week quarter system, and as the student body voted, not desired. The focus for action to help the students

should be directed in two areas: 1) Recognizing stress and 2) Stress relievers. Student groups on campus have opportunities throughout the quarter to meet with guest speakers. The Student Senate at Cal Poly encourages groups to reach out to community member and on campus experts in a variety of subject matters.

Typically, the researcher speaks to different campus groups about business communication and networking once or twice during the school year. The opportunities to speak about stress should be suggested to the Student Senate as a possible topic. It is proposed that counseling services on campus send a representative to one of the larger groups on campus (the aggregate of Fraternities and Sororities are the largest at 29 chapters) to speak about signs, causes, sources and remedies of stress.

Their resources and licensed expertise could prove to be a valuable; at least they have an arena in which to discuss (which was particularly evident when my group met). Also, the counseling center could revive the now defunct group gatherings in this larger assembly format. The Greek council could advertise their guest speaking events to students outside their fraternity or sorority; encouraging additional student involvement. The counseling center could also provide tips for surviving stress healthfully. The number two stress relieving methods was drinking. Alcohol and partying can be a way of escaping the stress woes; however, the consequences outweigh the benefits for any long-term stress relief.

Several departments on campus could contribute to a forum providing helpful stress relief tips to students. Perhaps the Physical Education and Nutrition Sciences department work side-by-side in providing seminars to students about how exercise and eating right benefit student health and the impact it has on stress. Outside community members and alumni could come to speak about other methods of stress relief such as meditation, journaling, counseling, and time management tools. With a diverse pool of resources and experts, this constructive educational endeavor could be very helpful in addressing student stress.

CONCLUSION

Although this research was brief, there was insight gained into the student subjects' source of stress. The literature focuses primarily on college student's coping mechanisms and causes of stress and the similarities were many. Research from the literature states student stress stems from course workload, outside interpersonal influences, jobs, and administrative hurdles. The research subjects also experienced these stressors in addition to the quarter system.

Curiously, the students in the research group found the quarter system to be a bonus in helping them manage time and avoid procrastination. So perhaps a further study is in order to examine the effects of deadlines and time demands on college students and stress. Could it be helpful or could it worsen the effects? Because the study was limited to only 4 students in a short time frame, it was difficult to generalize the findings and opinions of the quarter system speed as a factor in causing stress. However, the researcher found students were more apt to vent their frustrations in a constructive forum and ultimately felt better having unloaded a bit; perhaps helpful for the student body at large. Group dynamics as a way of relieving stress in a quarter-system might in fact be a viable second study.

One student mentioned she had an increased desire to be more "Zen" having participated in this research study for the past eight weeks. Although, she opted out in week eight, she continues to journal and finds it a satisfying way to relieve some stress.

References

- Anonymous. (n.d.). In Cal Poly Pomona's online site. Retrieved May 20, 2011, from http://www.csupomona.edu/~calendar_convert/
- Brougham, R., Zail, C., Mendoza, C., & Miller, J. (2009). Stress, sex differences, and coping strategies among college students. *Current Psychology*, 28(2), 85-97. doi: 10.1007/s12144-009-9047-0
- Chemers, M. M., Li-tze, H., & Garcia, B. F. (2001). Academic self-efficacy and first-year college student performance and adjustment. *Journal of Educational Psychology*, 93(1), 55. doi: 10.1037//0022-0663.93.1.55
- Chiauzzi, E., Brevard, J., Thurn, C., Decembrele, S., & Lord, S. (2008). MyStudentBody-stress: An online stress management intervention for college students. *Journal of Health Communication*, 13(6), 555-572. doi:10.1080/10810730802281668
- Cushman, S., & West, R. (2006). Precursors to college student burnout: Developing a typology of understanding. *Qualitative Research Reports in Communication*, 7(1), 23-31.
- Darling, C., McWey, L. M., Howard, S. N., & Olmstead, S. B. (2007). College student stress: the influence of interpersonal relationships on sense of coherence. *Stress & Health: Journal of the International Society for the Investigation of Stress*, 23(4), 215-229. doi:10.1002/smi.1139
- de Carvalho, C. F., Gadzella, B. M., Henley, T. B., & Ball, S. E. (2009). Locus of control: Differences among college students' stress levels. *Individual Differences Research*, 7(3), 182-187.
- Deckro, G. R., Ballinger, K. M., Hoyt, M., Wilcher, M., Dusek, J., Myers, P., & Benson, H. (2002). The evaluation of a mind/body intervention to reduce psychological distress and perceived stress in college students. *Journal of American College Health*, 50(6), 281.
- Dobransky, N. D., & Frymier, A. (2004). Developing teacher-student relationships through out of class communication. *Communication Quarterly*, 52(3), 211-223.
- Edwards, K. J., Hershberger, P. J., Russell, R. K., & Markert, R. J. (2001). Stress, negative social exchange, and health symptoms in university students. *Journal of American College Health*, 50(2), 75.
- Frost P., & Stablein R. (1992). *Doing exemplary research*. Newbury Park, CA: Sage Publications
- Glesne, C. (2010). *Becoming qualitative researchers*. Boston, MA: Pearson Education
- Law, Daniel W. (2010). A measure of burnout for business students *Journal of Education for Business*, 85 (4), 195-202. doi: 10.1080/08832320903218133
- Pillay, A. L., & Ngcobo, H. B. (2010). Sources of stress and support among rural-based first-year university students: An exploratory study. *South African Journal of Psychology*, 40(3), 234-240.
- Pisarik, C. T. (2009). Motivational orientation and burnout among undergraduate college students. *College Student Journal*, 43(4), 1238-1252.
- Robotham, D. (2008). Stress among higher education students: Towards a research agenda. *Higher Education*, 56(6), 735-746. doi: 10.1007/s10734-008-9137-1
- Sizoo, S., Jozkowskia, R., Malhotra, N., & Shapero, M. (2008). The effects of anxiety and self-efficacy on finance students. *Journal of Instructional Psychology*, 35(4), 347-356.

- Schaufeli, W. B., Martinez, I M., Pinto, A., Salanova, M., & Bakker, A.B. (2002). Burnout and engagement in university students: A cross-national study. *Journal of Cross-Cultural Psychology*, 33(5), 464-481 doi: 10.1177/0022022102033005003
- Stringer, E. (2007). *Action research*. Thousand Oaks, CA: Sage Publications
- Villanova, P., & Bownas, D. A. (1984). Dimensions of college student stress. Retrieved from EBSCOhost.
- Weckwerth, A. C., & Flynn, D. M. (2006). Effect of sex on perceived support and burnout in university students. *College Student Journal*, 40(2), 237-249.

APPENDIX

Email Excerpt for Participation

Dear Student A,

I am conducting a small research study on the nature of student stress in the quarter system at Cal Poly.

If you would consider being a part of the study, your requirements would consist of:

1. Journaling your levels of stress (daily or at least 3 times a week)
 - Why you are experiencing stress
 - What in your life is causing stress
 - When did the stress begin
 - How you feel during times of stress
 - What do you do to alleviate stress
 - How does the quarter system play a role in your stress level
 - And any other thoughts
2. 3-4 face to face meetings throughout the quarter

You don't have to follow the exact guideline above, but the more candid you are, the better sense I have of your stress levels and causes. Also, please know that all your responses are completely safe with me. I will not share this information with anyone. And only the results in aggregate will be part of my research paper.

Thank you,
Mrs. Laura Pohopien

Figure A

Word(s)	Documented Word(s), frequency and where they were expressed											
	Participant 1			Participant 2			Participant 3			Participant 4		
	# times journal	# times group mtg	# times face/face	# times journal	# times group mtg	# times face/face	# times journal	# times group mtg	# times face/face	# times journal	# times group mtg	# times face/face
overload	3	0	0	4	5	2	0	6	3	5	2	3
workload	6	5	3	7	2	2	5	3	4	5	3	1
so fast	2	6	2	2	7	1	3	2	2	6	1	1
all due at once	5	3	1	5	2	1	6	3	3	4	2	2
too much work	2	5	2	3	3	0	5	6	2	3	3	2
professors make things due at same time	3	2	1	4	3	2	7	3	4	2	3	2
can't finish on time	0	0	0	5	2	1	2	1	1	1	3	0
procrastinate	7	6	2	5	4	2	5	5	2	4	2	1
work and school	6	2	3	2	0	0	3	1	1	3	1	1
stressed out	6	6	5	6	5	1	7	6	4	5	2	3
motivated	2	1	1	1	0	0	2	2	1	2	1	2
can't wait for the end of the quarter	2	1	1	3	1	1	4	3	1	2	2	1

Figure B

Top 8 Student Stress Relievers

- 1 Gym/Exercise
- 2 Drinking
- 3 Sleeping
- 4 Eating junk food
- 5 Hanging out with friends
- 6 Computer games
- 7 Television
- 8 Family gatherings