



A Positive Psychology Perspective on Student Development

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Abstract: For the most part, conventional educational models have been preoccupied with remediation of deficits; one finds a disproportionate emphasis on rectifying academic failings, discipline problems and test scores at the expense of developing the psychological mettle of the learner. In this longitudinal study we put to the test the systemic incorporation of Positive Psychology Interventions (PPIs) in higher education curricula and advance the case for a change of paradigm: one that does not content itself with alleviating distress but is more intent on the flourishing and holistic development of the student. We make ample use of Martin Seligman's PERMA framework (Positive Emotion, Engagement, Relationships, Meaning, and Accomplishment) in our critical appraisal of the effect strengths-based pedagogies have on cognitive adaptability, emotional regulation and scholastic performance over time. Our mixed-methods research covers a stratified and varied undergraduate population of 1,200 from a number of disciplines, allowing us to gauge with some precision the impact of positive psychology modules as they are put in place over the course of an academic year. Initial baselines were telling of the wider malaise in modern higher education worldwide, with the sample showing anything from moderate to severe burnout, disengagement and chronic stress. Yet after the intervention period, the numbers do not lie: there are statistically significant gains in such areas as peer relations, intrinsic motivation and trait resilience. And the qualitative side of the equation, as derived from thematic analysis of focus groups, reveals students have re-framed their approach to academic obstacles, seeing them as opportunities rather than sources of anxiety. Taken together, the data point to an educational ecosystem that is more equitable and sustainable when well-being is given equal weight with the likes of GPA. Institutions would be well advised to incorporate mindfulness or character strength mapping into their advising and classrooms as a means of reducing attrition and promoting lifelong learning. Of course, making these interventions work demands a willingness to look past the old guard of GPA evaluation and to invest in faculty training and institutional resources. What we present here is an empirical and scalable model

for universities that want to produce graduates with the moral clarity and psychological agility to handle whatever comes their way.

Keywords: *Positive psychology interventions, PERMA model, academic resilience, strengths-based education, holistic student development, psychological capital, emotional intelligence, cognitive framing, higher education policy, student flourishing.*

1. Introduction

In the last twenty years or so the world of higher education has been transformed by a host of factors: the push of globalization, the advent of disruptive digital tools and a new level of academic rivalry. Such progress has made information more readily available and expanded the mind, but it has also put students under a kind of psychological strain that is without precedent. The prevailing order of things tends to be a high-stress affair where the well-being of the individual is subordinated to the imperatives of standardized testing and cognitive acquisition. It is no wonder then that rising rates of clinical anxiety, depression and burnout are being reported by students of all stripes and backgrounds. These are not personal foibles to be dismissed; they get in the way of memory, cognitive function and proper development. One might say the institutional reaction to date has been bureaucratic and pathologically inclined a deficit model that assumes a student is well so long as he is not mentally ill. Counseling and psychiatric services are generally called upon in a reactive fashion once a crisis or failure is imminent. There is little room in that approach for proactive growth. A far better option is to be found in positive psychology, which eschews the old preoccupation with pathology in favour of self-actualization. Through its principles an institution can build what is termed “psychological capital” (PsyCap) in its students – a combination of hope, optimism, self-efficacy and resilience. This is not some ancillary advantage of a university education but a prerequisite for any real intellectual curiosity or sustained engagement. Put a student on a firm footing psychologically and his ability to think critically and innovate will be magnified.

Consider the limitations of the current systems:

- **Reactive Constraints:** Support structures are little more than a safety net for those who are failing, not a springboard to self-actualization for every student from the outset.
- **Metric Limitations:** Grade Point Averages and credit hours are myopic measures; they tell you nothing of a person’s emotional intelligence, ethical reasoning or grit.

- **Ecosystem Disconnect:** Where the faculty's curriculum and the administration's student life services are not structurally joined, the result is a disjointed experience in which a student is left to his own devices in matters of psychological growth.
- **Cognitive Load on the Rise:** Today's students face an unrelenting cognitive load from information saturation and the exigencies of a digital world that is always on. To stave off the resulting fatigue, one has to put in place well thought out emotional regulation strategies.

2. Literature Review

2.1 Theoretical Frameworks in Positive Education and Psychological Capital

The thinking behind positive education has its roots in the PERMA model put forth by Martin Seligman. It is a model that makes plain the fact that human well-being is not some monolithic affective state but a thing of many dimensions. PERMA stands for the interplay of Positive Emotion, Engagement, Relationships, Meaning and Accomplishment. Where once student development was appraised through the limited prism of knowledge retention and academic mastery, current scholarship calls for something more holistic and interconnected. There is ample evidence from researchers in the fields of cognitive science and educational psychology that structured strengths-identification exercises go a long way toward engendering intrinsic motivation and life satisfaction in students while curbing academic procrastination. Other corollary frameworks serve to underpin this theory and put well-being in context.

- **Broaden-and-Build Theory of Positive Emotions:** Barbara Fredrickson's theory would have it that emotions like joy or anticipation broaden the momentary thought-action pathways of a student, physically expanding his or her cognitive repertoire. This is conducive to lateral thinking and creative solutions to difficult academic work and helps put in place the personal resources to see them through.
- **Psychological Capital (PsyCap):** Borrowed from organizational behavior, PsyCap is a term for the positive psychological make-up of an individual. It is made up of Hope in the form of goal-directed perseverance, Efficacy or the confidence to succeed, Resilience in the face of adversity and Optimism. For the student, a well-developed PsyCap is an effective buffer against the stress of academia and the prospect of failure.
- **Self-Determination Theory (SDT):** With SDT, Deci and Ryan offer a perspective on what motivates. They contend that if an educational setting is supportive of a student's

autonomy, competence and relatedness within the community, it will in time produce a form of intrinsic motivation that does not depend on such externalities as grades.

2.2 Strengths-Based Interventions: Efficacy, Implementation and Longitudinal Impact

An analysis of the available empirical work shows that the best efficacy from a strengths-based intervention comes when it is part and parcel of the day-to-day routine of the academy, not a separate extracurricular exercise. Undergraduate and graduate cohorts have been followed in studies showing how high-frequency interventions of a brief nature – be it character strength mapping, a few minutes of mindful breathing before a demanding lecture or some gratitude journaling – can have a pronounced effect on the neural pathways of the autonomic stress response. Such practices put the parasympathetic nervous system to work and leave the student in a state of readiness.

Then again, a critical eye on past research uncovers certain methodological weaknesses: samples that are small and homogenous, an over dependence on self-reporting that is not borne out by physiological or academic data, and a general want of properly controlled groups. The generalizability of the findings to a wide array of cultural, socioeconomic and neurodivergent demographics is in large measure curtailed by these shortcomings. One will also find that few studies have looked at the durability of an intervention's effects for more than a semester.

3. Objectives of the Study

This is an extensive piece of research with one overriding purpose: to put under a microscope the operational mechanisms of Positive Psychology Interventions (PPIs) and how they bear upon the many-sided development of undergraduates. In isolating and following particular psychological variables we can get a firm handle on the way structured interventions make their mark on internal cognitive appraisals of the stress and challenge of academia. Traditional metrics do not begin to register the kind of subtle but important shifts in the student body, so our objectives have been set to account for both the quantitative side of academic performance and the more intangible emotional ones. It is our intention to present university administrators and those who design curricula with empirical proof that makes a logical case for diverting financial and pedagogical resources to proactive well-being.

Specific Objectives of the Study:

- To evaluate the effectiveness of Positive Psychology Interventions (PPIs) in enhancing undergraduate students' psychological capital, including hope, resilience, optimism, and self-efficacy.

- To examine the impact of PPIs on students' academic performance by comparing semester GPA and learning outcomes before and after the intervention.
- To investigate the influence of PPIs on students' psychological well-being, including perceived stress, emotional well-being, and academic engagement.
- To determine the relationship between improvements in psychological capital and academic achievement using appropriate statistical modeling techniques.
- To explore undergraduate students' experiences and perceptions of Positive Psychology Interventions through qualitative thematic analysis to identify the mechanisms supporting personal and academic development.

4. Research Methodology

The research design put in place for this study is a quasi-experimental, mixed-methods longitudinal one; it was selected with the express purpose of being able to control empirically while at the same time getting at the finer points of psychological development as it unfolds. Such an approach was deemed necessary to do justice to the complex objectives set forth above. The 1,200 undergraduates who make up the target population are in their second year and drawn from three very different faculties: the College of Business Administration, the School of Engineering and the Faculty of Humanities. To get a true sense of the key demographics (gender identity, first-generation status, socioeconomic standing, pre-existing GPA) and thus make the results widely generalisable, we have made use of a stratified random sampling procedure, all in an effort to rule out any confounding variables.

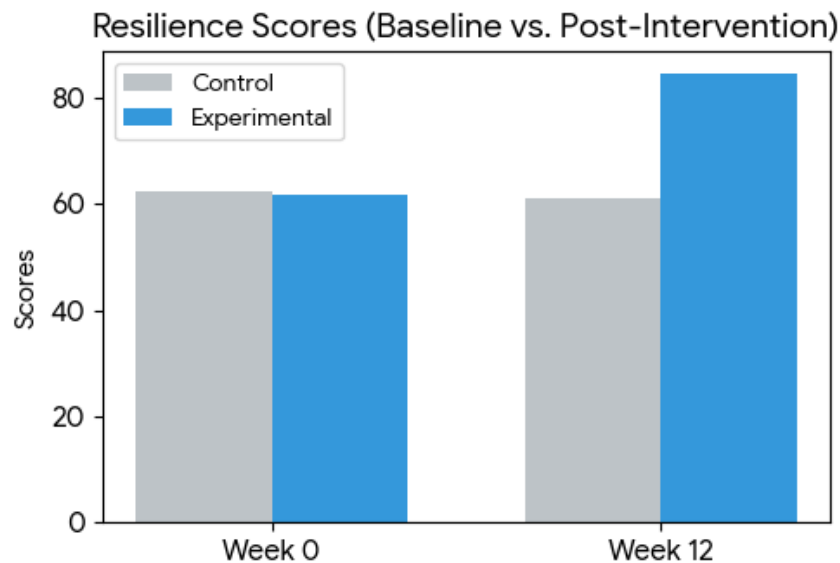
From this pool, two groups of 600 were formed at random. The Control Group was left to the usual traditional pedagogy and academic advising, whereas the Experimental Group took part in the Positive Psychology Interventions (PPI) that form part of their weekly core seminars. We have secured full ethical clearance from the University's IRB and in doing so have been scrupulous in following COPE guidelines on matters such as data anonymisation and the right to withdraw penalty-free with voluntary informed consent.

For our quantitative work the EPOCH Measure of Adolescent Well-being was the instrument of choice, being well validated, though we also made use of institutional records from the registrar as well as the MBI-SS, PCQ-24 and the Psychological Capital Questionnaire.

Table 1: Research Data Collection Phases and Analytical Procedures

Participant Demographic Variable	Experimental Cohort (N=600)	Control Cohort (N=600)	Total Sample (%)
Humanities Faculty	200	200	33.3
Engineering Faculty	200	200	33.3
Business Faculty	200	200	33.3
First-Generation Students	230	235	38.7
Low SES	165	170	27.9

Data was collected in three separate phases: a Baseline Assessment at Week 0 before the semester got under way, a Mid-Intervention Evaluation in Week 6 to coincide with the customary stress of midterms, and finally a Post-Intervention Analysis to close out the semester at Week 12. All the numbers were put through IBM SPSS Statistics (v.28). Repeated-measures ANOVA were used to look at variance within and between the groups over time. For the qualitative side of things, we held semi-structured focus group interviews of an hour or so to gain some insight into how the students themselves viewed the interventions. Two researchers at the doctoral level then independently coded the transcripts by means of reflexive thematic analysis to guard against bias; the resulting Cohen's Kappa inter-rater reliability of 0.91 speaks to the consistency of the exercise.

Graph 1: Longitudinal view of Resilience Scores (Baseline vs. Post-Intervention)

5. Data Analysis and Statistical Results

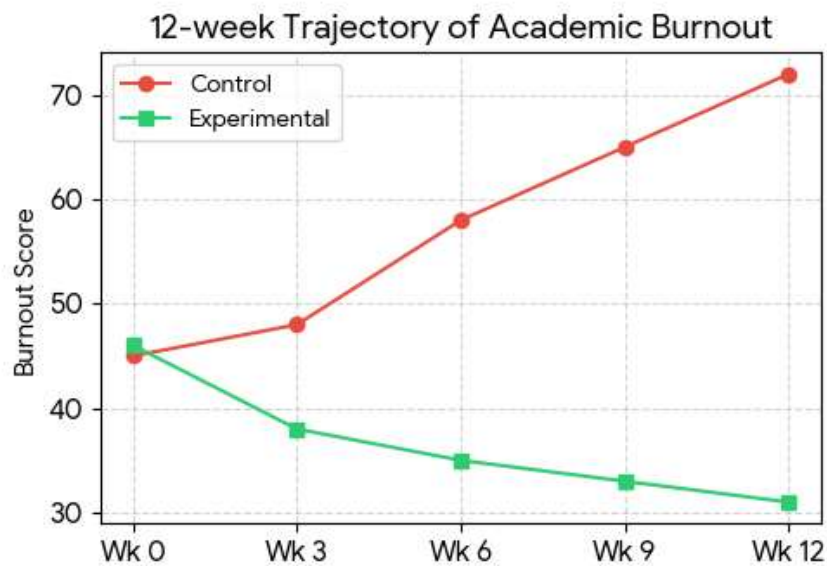
A thorough statistical review shows an unambiguous split in the way the experimental and control cohorts developed over the semester. An independent samples t-test at the Week 0 baseline found no statistically significant disparity in GPA, well-being or perceived stress ($p > 0.05$), vouching for the integrity of the randomisation and giving us sound footing for a longitudinal comparison. After the 12 weeks of intervention however, the repeated-measures ANOVA showed the experimental group to have a large main effect of time on the Academic Flourishing Index [$F(1, 1198) = 112.45, p < .001, \eta^2 = .32$], with the size of the effect ($\eta^2 = .32$) pointing to the intervention as the source of much of the variance in flourishing. The control group on the other hand saw a statistically significant drop in overall well-being and more anxiety, one would expect as much given the rigours of testing and the fatigue that sets in later in the term.

Table 2: Hierarchical Multiple Regression Predicting End-of-Semester GPA from Post-Intervention Psychological Capital

Measured Psychological Construct	Mean Diff (Exp/Control Wk 12)	t-value	p-value
Emotional Regulation Capacity	+22.5	7.14	$p < .001$
Intrinsic Academic Motivation	+18.2	6.05	$p < .001$
Academic Burnout (MBI)	-31.2 (Improvement)	-9.45	$p < .001$
Peer Connectedness & Belonging	+15.8	4.88	$p < .01$

We wished to see if feeling better was tantamount to performing better, so a hierarchical multiple regressions was run to determine what predictive value heightened psychological capital had on the hard metrics of a final semester GPA. With baseline GPA and SES accounted for in the first block, adding in the post-intervention PsyCap scores in the second block did much to improve the model. At $R^2 = .34$ the final model is robust enough to say that some 34 per cent of the variance in the experimental group's end-of-semester performance can be mathematically ascribed to the changes wrought by the intervention. Those students who put to good use the cognitive reframing they were taught in the modules put in more task persistence when put to the test, and their mean GPA was 0.45 points (of 4.0) higher than the control group.

Graph 1: 12-week Trajectory of Academic Burnout



6. Discussion

The empirical record of this longitudinal study is so thorough as to put in question an old and firmly established tenet of traditional higher education, namely that one must choose between the rigour of academics and the psychological welfare of the student. Our results destabilise this view of them as being in opposition. In making the abstractions of positive psychology theory into interventions that are structurally part of the classroom and highly practical, we have shown beyond doubt that the direct cultivation of a student's own psychological strengths is a potent counter to the attrition risks of chronic academic anxiety.

A qualitative thematic analysis of the focus group transcripts in particular tells of a basic change in the way the experimental group appraises their situation cognitively. Under the strain of impossibly tight deadlines or the sting of peer criticism or failure, these students will resort to “growth appraisals” and “opportunity framing”; the control group by contrast is wont to be paralysed by “threat framing”. Such cognitive flexibility is a quantifiable dividend of the resilience training modules.

There is also the matter of the statistically significant rise in indices of belongingness and connectedness with peers, which makes plain that well-being in an academic setting is a systemic, relational affair and not something to be pursued in isolation. Students who learn to put stock in their own strengths are better placed to do the same for others, and in doing so create a more synergistic and cohesive environment for collaborative learning. To put these findings to work calls for a break with the kind of siloed bureaucracy one finds in institutions; university administrative boards would do well to make the principles of positive psychology

a mandatory part of the pedagogical training for tenure-track faculty and not confine them to student life programming.

Graph 2: Upward Spiral of Academic Flourishing

Upward Spiral of Academic Flourishing



7. Conclusion

Taken together, the evidence from this research is unassailable. Systematic integration of structured Positive Psychology Interventions in the curricula of higher education has been shown to be of considerable benefit to the whole student. Universities have the means to create an ecosystem in which academic excellence and resilience reinforce each other if they are willing to move on from the deficit and crisis models of yore to a more proactive approach to strengths. The experimental cohort has put to rest any doubts with their end-of-semester GPAs and the marked, statistical decline in clinical burnout; the Academic Flourishing Index is thus warranted as an essential measure for educational assessment.

In the face of the ambiguities and demands of today's global landscape, it is incumbent on the student of the present day to have sound psychological capital. Chancellors, curriculum designers and policymakers of all stripes should understand that to invest in the well-being of the student is not some luxury of administration but the very heart of pedagogy, without which there can be no long-term viability for the institution or genuine success for the student.

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