Happy but Not Happy
The Correlation between Chinese High School Students' Grades and Their Level of Happiness

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Abstract: The purpose of this research is to address the growing attention on students' mental health by examining how grades, which take up a huge portion of every student's daily life, can positively or negatively affect a student's happiness level. Many previous pieces of research on this topic adopted a very general perspective and focused on the global sample size. As a result, this study aims to concentrate exclusively on examining the correlation between grades and the daily happiness level of 39 Chinese high school students attending Shanghai Foreign Language High School. By drawing on reviews of similar studies before and distributing an online survey to participants through Wechat, the main Chinese communication platform, a curious phenomenon was identified. Despite reporting to be under great stress and suffering from occasional anxiety attacks, the participants reflected very positively on their daily mood and energy level, and I failed to identify a correlation due to the conflicting survey results. Future research should be conducted by further expanding on the sample size and investigating the special mental mechanism Chinese high school students potentially develop from their unique educational environment.

Keywords: Life Satisfaction, Chinese Education System, Contradiction, Perception of Stress

1. Introduction

It is commonly believed that having a good grade results in a greater happiness level for students as it can give them a huge sense of achievement, yet little do people know about the actual extent to which this accomplished feeling can boost one's overall degree of happiness. Many previous studies have investigated the correlation between students' grades and their daily happiness level and ended up with varying results. Some suggested a positive influence of higher academic performance on a student's daily well-being level [1], while others identified no statistically significant correlation between grades and happiness [2]. In all, these researches proceeded with the problem through a border scope of a global perspective by investigating the relevance of academic performance and students' daily happiness and mostly tried to render a certain yes-or-no identification to the correlation. In contrast, I adopted a more local perspective, believing in the importance of having a more elaborated and regional report on the influence of grades on students' life contentment as detailed studies on this topic can enable parents to reconsider their bias or overemphasis on grades

and also assist local governments in polishing and enhancing the current education system. Therefore, I focused on one particular school in Shanghai by polling 39 current students there, and I hypothesized that having a good grade only has a temporary and minor positive effect on the general happiness of Chinese high school students. The result supported our hypothesis, denoting that those who rank near the middle seem to be the happiest while the top students actually demonstrated the lowest level of happiness.

2. The Happiness Correlation Test

2.1. Designs & Procedures

A questionnaire survey was posted on the WeChat Moment platform, the Chinese resemblance of Instagram where user's posts on Moment are only visible to the user's followers rather than to everyone using WeChat. The survey consisted of 22 Likert scale questions in the form of multiple choices.

The survey was first posted publicly on the Wechat Moment platform so anyone who was interested or merely just wanted to help out could click on the survey. Once they logged into the questionnaire page, participants were then firstly given seven background information questions that asked the participants about their gender, age(grade), the types of school they go to (public/private), their general rankings at school, the stability of their academic performance, and their major sources of pressure. The student's ranking at Chinese high school is based completely on an individual's test scores and will thus present us with a good picture of the participant's general grade level. The question on the stability of academic performance ensures that we are not looking at potential outliers where for one specific test the student did extremely well or poorly, but instead, their overall grade.

After filling out all those questions which allow us to gain a general picture of each of the participants, they were then asked to fill out 15 rating questions which asked them to choose the most suitable statement that describes the extent or frequency to which they experience the feelings mentioned in the survey questions. For these 15 rating questions, we presented the Likert scale in qualitative form. Participants chose from a series of statements like "All the time", "Most of the time", "Not at all", "Very happy", "A bit depressed", and "Very depressed" to reflect their feelings. The 15 rating questions were divided into two types, with ones that reflected positive emotions like mental stability and relaxation level, and ones that asked about negative emotions like frequency of depression and daily anxiety level. In question 22, participants were given a list of activities and asked to rank them based on the amount of happiness they can derive from each, with 1 being the most enjoyable and 5 the least. The last question asked about the participant's subjective opinions on how much they think their daily happiness level is related to their grades.

2.2. Participants

39 Chinese high school students studying at Shanghai Foreign Language High School participated in this research. There were 21 males and 20 females, with 23 participants coming from a private middle school while 18 people coming from a public middle school. There was also a relatively even distribution of the 39 participants in their rankings at school, which is a great evaluation of how well an individual participant's grade is (higher rankings mean better grades) (Figure 1). Participants were selected at random among the researcher's connections. No incentives were used as the participants volunteered to fill out the survey.
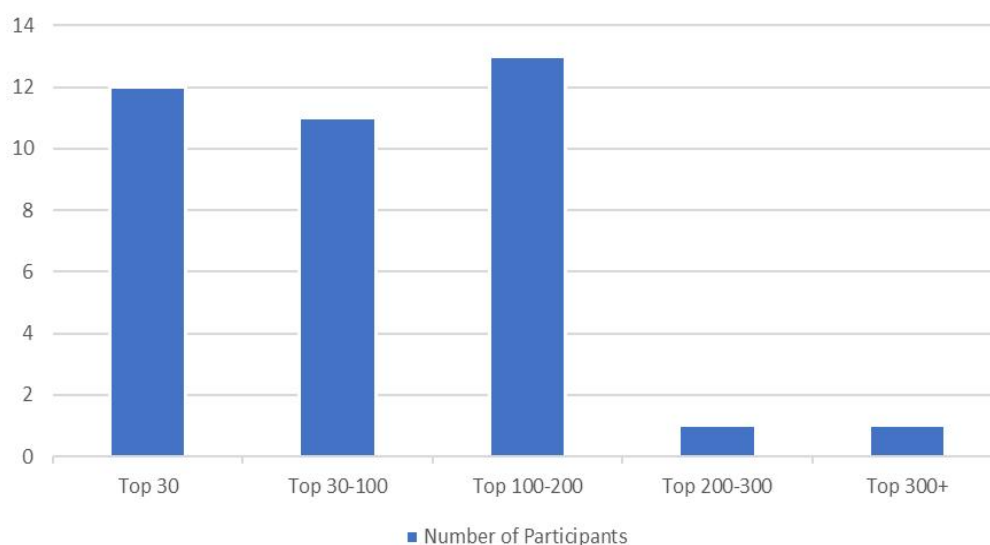
Figure 1: Distribution of Participants' Rankings at School.

2.3. Calculations

Participants got different points in the range of 1-5 for each question based on the statement they chose, with statements that represented higher frequencies such as "Always", "Most of the time" or stronger feelings like "Very Good", "Very Stressful" scoring more points. Once the surveys were finished, the participants' choice of each question was translated into corresponding numbers, and the final happiness score was calculated for each individual by doing addition for the points of positive emotion questions and subtractions for the points of negative emotion ones. The happiness score aimed to reflect an individual's general level of happiness in the past few months, with higher scores representing greater life satisfaction. In the end, I hope to identify a correlation between grades and one's daily happiness level by relating each happiness score to participants' answers on their general rankings at school.

3. Results

3.1. Results

By categorizing each individual into their corresponding ranking group and calculating the mean happiness score of each group, the top-30 student group appeared to have a much lower average score, which in other words, a much lower level of happiness, than the student groups that ranked below them (Figure 2). The student who ranked middle in the top 30-100 range appeared to have the highest mean happiness score and thus greatest satisfaction with their life.

The trend was also regarded across individual cases with almost no exceptions as the score line (Figure 3) formulated by connecting individual scores for the top 30-100 participants appeared to constantly override the other two ranking groups. In addition, there were 2 participants who ranked in the top 200-300 and top 300+ groups and each earned a happiness score of 19 points and 17 points, as illustrated by the two dots in Figure 3. Since those two ranking groups only had one participant belonging to each of them, the average happiness score of those two intervals was not calculated or included in the graph in Figure 2.

In summary, the accordance between the mean score bar graph which adopted a more general perspective and the line chart which looked more specifically at individual scores indicated that Chinese high school students, especially those studying at the Shanghai Foreign Language School,

who had a middle ranking and medium level academic performance were more likely to be happier, whereas students with top academic performance actually tended to be less happy. This result surely rendered a substantial opposition to most Chinese parents' idea that getting a good grade makes students happier and supported our hypothesis that good grades only had a temporary and minor positive effect on the general happiness of Chinese high school students.
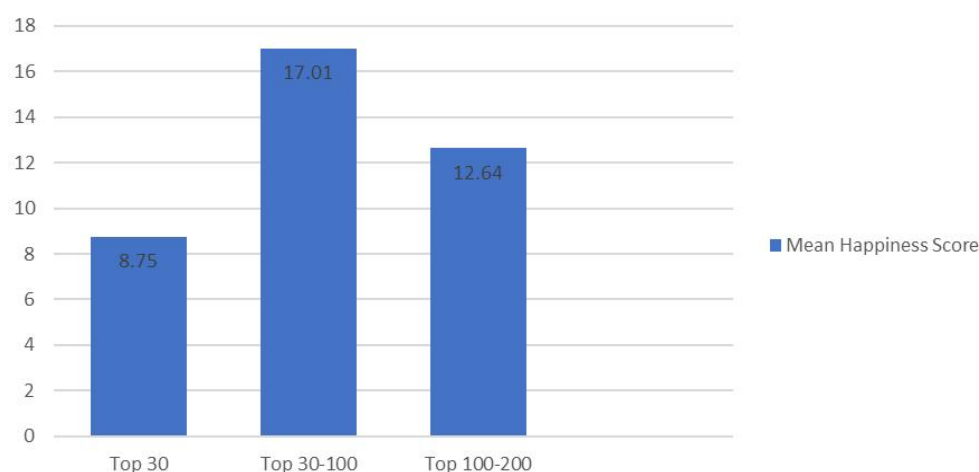

Figure 2: Mean Happiness Score of Participants at Each Ranking Interval.
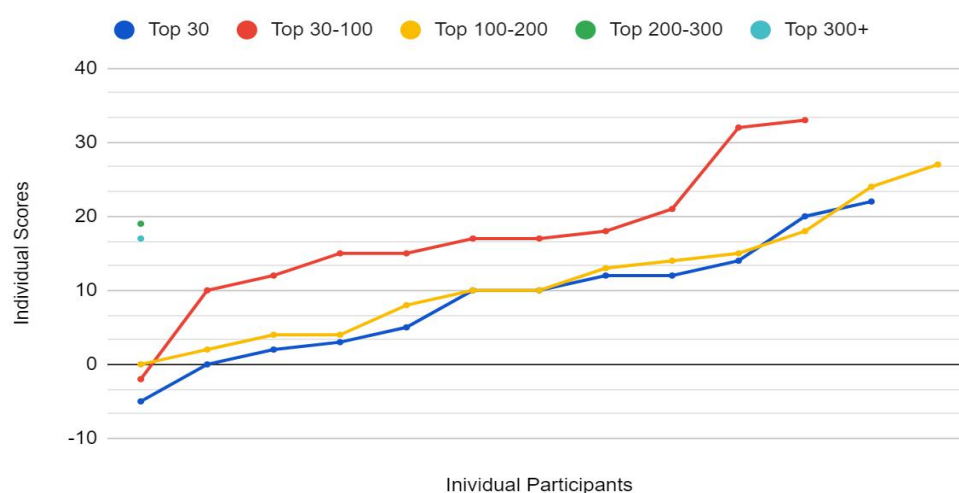

Figure 3: Individual Happiness Score Results of the Online Survey.

3.2. Unexpected Discovery

The above discovery was concluded when looking at the participants' well-being level at a relatively general level using the happiness score. Nevertheless, inspections of results across individual questions within the survey presented a curious contradiction.

Firstly, it seemed like the majority of respondents experienced frequent negative emotions in the past month -- 69.2% of participants have at least felt some anxiety, if not more, in the past month, and 66.7% of participants have at least sometimes felt depressed and sad for the past month, if not worse (Figure 4).

These two statistics combined seemed to present the picture that the participants were generally quite anxious and thus unhappy in the past month. However, when being asked about their general satisfaction of life for the past month, 76.9% of participants actually rated it as at least satisfying,

with 0 participants being very unsatisfied with their life (Figure 5). This was quite an unexpected result as one would assume since the students were burdened with some anxiety and depression, the majority would answer their life to be "slightly dissatisfied" for the past month.

To illustrate the contradiction more, in a more straightforward question that directly asked about how happy or depressed the students felt in the past month, the majority (43.6%) reported that in general, they were unhappy but also not depressed in the past month, followed by a 35.9% suggesting that they felt generally quite happy last month - a result that, once again, seemed to be quite counterintuitive compared to the sad and anxious pictures painted by answers to question 11
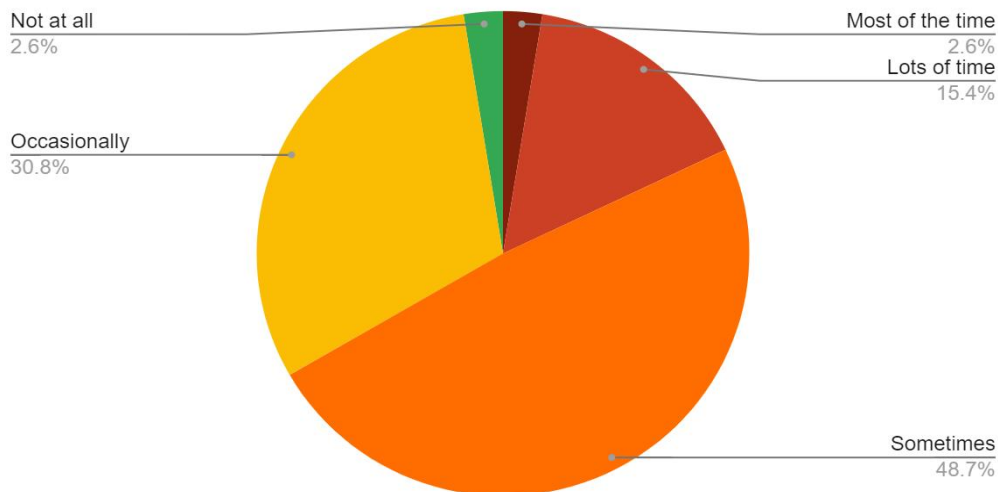

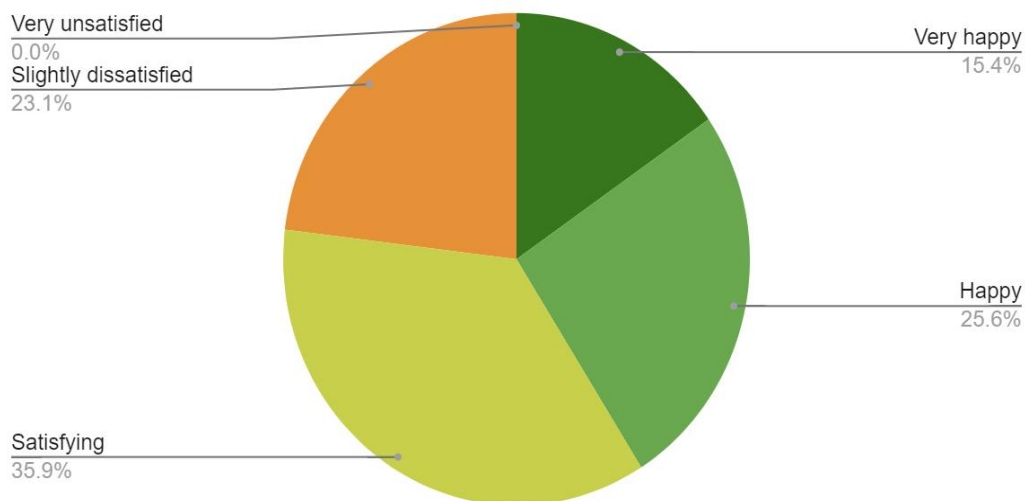Figure 4: Question 14: Have you felt sad and depressed (in the past month)?

Figure 5: Question 10: Has your life been happy, fulfilled, or enjoyable (in the past month)?

and 14.

So the message presented here through the inter-question comparison was that -- most respondents were satisfied with their life, but didn't feel a lot of joy; at the same time, most respondents also had frequent experiences with negative emotions like anxiety and frustration, they were not that depressed overall.

This was an interesting note as all the anxiety, worries, and some depression one felt over the past month should be great undermining factors that result in more negative evaluations of one's

general feelings and satisfaction with their life [3]. Nevertheless, the sample group in this survey seemed to suggest that being happy and satisfied with life was quite independent of and unaffected by the negative emotions they frequently experienced. This is a relative contradiction to the common belief that negative emotions are strongly and inversely related to one's well-being.

The inconsistency between individual answers to each question was a more directly demonstrated by the chart below, where the individual answers were translated into colors for more direct representation and identification of patterns. Response in green suggest that this response reflected a good well-being level -- whether it was because the response indicated low stress, good mental stability and energy level, or positive feelings. Similarly, orange suggested a moderate level of happiness, and responses in red suggested that the participant should have poor wellbeing, which was reflected in the answers as high stress, a lot of negative feelings, emotional instability, or low energy level.

Theoretically speaking, each row should demonstrate consistency in color -- either all generally green or all generally red with some orange. This was because, hypothetically, if someone had a bad energy level (red/orange for Q12, 16, 17, or 18) or felt very nervous or worried for the past months (red for Q11 & Q14), they should also feel depressed and rate their past month experience as not so
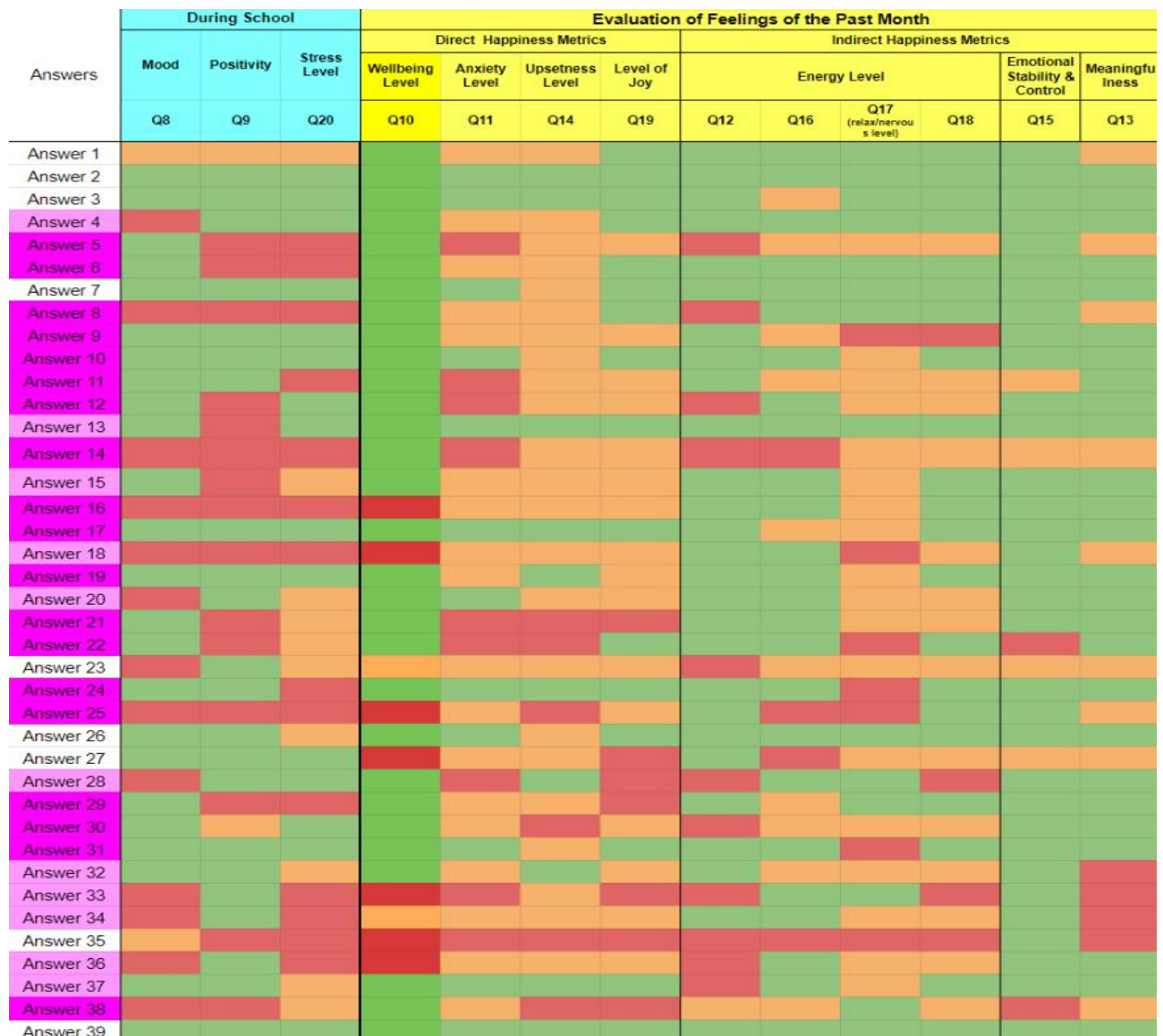

Figure 8: Individual Answers to Each Questions on the Survey in Color.

happy (red for Q10). The same for happy people, and since no one could apparently be happy or depressed all the time, some variance in color was viewed as normal.

The result, however, was a highly diverse and mosaic chart, suggesting inconsistency between answers. (Figure 8). For instance, many participants reported being in a good mood most of the time during school (green for Mood Q8) despite having great stress (red for Stress Level Q20). Also, some participants were pretty happy for the past month (green for wellbeing level Q10) but also quite nervous (red or orange for energy level Q17).

In summary, the sample group of Shanghai high school students seemed to be happy and satisfied with their life while being under great stress and feeling anxious and depressed; They also seem to be energetic overall but feeling quite nervous. Identifications of similar contradictions were also presented in Programme for International Student Assessment (PISA) 2018 assessment results analysis of Chinese 15-year-olds participants. The analysis showed that overall, while Chinese-15 year-old students scored lower than average compared to other countries on their satisfaction with life, 98% of them, a percentage higher than any other country participating in PISA, reported sometimes or always feeling happy [4].

4.   Analysis

The survey selected questions from the professional happiness test Oxford Happiness Inventory (Argyle and Hill) to investigate the correlation between Chinese student's grade and their level of happiness; nevertheless, the actual responses received seem to contradict each other, indicating the participants were somehow both a little depressed and satisfied with their lives. As a result, further research and interviews with a few individuals in the sample group were conducted to provide possible explanations for this intriguing inconsistency. The following are some of the insights gained from further studying.

Firstly, it is likely that the sample group, being under the Chinese education system for over 16 years, has developed a relatively different perception of stress and attitudes toward negative emotions like depression and anxiety. Compared to western students, who are raised under an educational culture that is more aware of individual feelings and mental health [5], most Chinese students are constantly under academic stress and concerned for their grades due to the exam-oriented educational approach, most notably the college entrance test named gaokao [6]. As a result, research indicated that students in China have developed more resilience when confronting extremely stressful conditions [7]. Very likely, the participants don't really consider being anxious or nervous something significantly distinctive but rather just part of their daily life, and this reduces the influence pressure or depressing experience has on the student's well-being level.

Secondly, the sample group is heavily under the influence of Chinese culture which imparts great meaning to a student's academic performance by erecting it as quantification and standard to evaluate a student's success [8]. Consequently, the participants might have developed a different standard on which they assess their daily happiness and well-being. The further interviews conducted suggest that the evaluation metrics of happiness adopted by Chinese students place more emphasis on how productive they are for the day rather than the emotion and feelings they've experienced that day. In simple terms, results appear to have a bigger impact on students' final evaluation of their day than the process. Consequently, despite the anxiety and other negative feelings, Chinese students can still derive a great amount of happiness from being productive -- like finishing all their homework, or completing their revisions after studying intensely and depressingly for hours. In other words, despite the fact that participants derive little to no emotional value from what they are doing, they are able to compensate for the boring and painful process with the sense of fulfillment they will experience at the end when they finish all their work. In summary, the fulfillment, to some extent, of the ultimate need of humans -- self-actualization and the pursuit of

meaning -- greatly compensated for the negative effect that a lack of positive emotions like enjoyment or relaxation has on one's happiness level, thus resulting in a relatively more positive assessment from the hindsight.

Thirdly, all the participants demonstrated a generally good energy level and unbelievable emotional stability. This is a good potential explanation of the contradiction between high anxiety and pressure and good well-being levels as emotional stability is credited as "the sole significant predictor of the happiness of younger people" [9].

Fourthly, the curious inconsistency in survey answers might be because of the background of the sample group -- Shanghai, a Chinese city heavily influenced by western culture. The participants generally come from an economically stable middle-class background, meaning that getting into a good college doesn't mean as much to them as compared to people in the more rural provinces of China with less access to opportunities, where grades and College entrance test is perceived as the sole opportunity to really change their life [10].

5. Future Discussions

5.1. Limitations and Improvements

The first limitation lies in our sample group. To begin with, with only two participants ranking below the top 200, there was a lack of sample for the lower ranking groups in order to more accurately reflect the influence of very bad grades on students' general happiness level. Secondly, the survey didn't consider differentiating the various grade levels of the participants in high school but rather adopted a more generalized perspective of examination by considering them all "high school students". Thirdly, the research focused specifically on a group of students at a relatively prestigious high school in Shanghai, the economic center of China. As a result, the sample group might not be very representative of the entire Chinese high school student population. Research on smaller Chinese cities, where the education environment is less influenced by western ideologies, opportunities are less prevalent, and grades render more weight to one's chance of pursuing a better life, may demonstrate a different result.

Another potential limitation stands in the survey. Firstly, the survey was distributed and answered over the summer vacation, thus it was likely that students were relatively more relaxed and reflected more positively on their feelings and happiness level for the past months compared to results gathered during school time. Also, the survey questions required participants to conduct self-evaluations, which could include minor biases sometimes due to the inaccuracy of memory.

5.2. Improvement and Future Studies

It is therefore suggested that future studies draw on a larger and more representative sample group of Chinese high school students. Participants should all be attending the same grade, and should especially include more participants that rank below 200 at their school to provide a more comprehensive inspection of the impact of grades on Chinese high school students' daily well-being. The research should be conducted during the school year, and it would be beneficial to take sample groups of students in different cities in China to eliminate regional differences and compare results. The questionnaires used by the survey can also include more questions, allow the students to evaluate on a larger scale for more accuracy, and also eliminate a middle option by avoiding an odd number of choices so students can be forced to take a stance and choose their inclination for a more positive or negative reflection.

Lastly, due to various limitations, this paper only conducted some preliminary investigation on the potential mechanisms and reasons behind the inconsistency between participants' answers to each question. Many factors remain open for closer inspection, and it is therefore highly

recommended that future research should further explore this intriguing contradiction and the correlation of this phenomenon with China's unique biopsychosocial factors. Future research can be conducted in person, so that after collecting the results and seeing an inconsistency, researchers can directly ask the participant about the reasons behind their choice. In addition, it would be interesting to perform similar research on American students to see if American students show more consistency between their level of pressure and happiness level. Then those results can be used as a comparison to assist in further understanding the discrepancy in mindset and attitudes towards academic stress between Chinese and American students and how this difference can impact one's future and experience with society.

6.   Conclusion

Through surveying 41 students from a high school in Shanghai, China, the paper indicated that a middle level grade seemed to render a greater happiness level. The research also revealed an interesting contradiction between student's reported happiness level and their experience with negative emotion. This provided further insights on the special mentality and definition of happiness students can potentially develop under China's unique education system. Future research can investigate the role these mentalities and perceptions play in one's success in life and career, and propose suggestions on possible reforms for schools and teaching methods in China.

Still, this research reveals the ingrained and underlying mental health issue of the Chinese education system, and strongly calls for prioritization for concerns about students' mental health and increased attention on providing assistance in this aspect.

References

[1] Suldo, S. M., Shaffer, E. J., & Riley, K. N. (2008). A social-cognitive-behavioral model of academic predictors of adolescents' life satisfaction. School Psychology Quarterly, 23(1), 56-69. https://doi.org/10.1037/1045-3830.23.1.56

[2] Huebner, E. S. (1991). Correlates of life satisfaction in children. School Psychology Quarterly, 6(2), 103-111. https://doi.org/10.1037/h0088805

[3] Brenes, G. A. (2007). Anxiety, Depression, and Quality of Life in Primary Care Patients. Primary Care Companion to the Journal of Clinical Psychiatry, 9(6), 437-443. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2139931/

[4] The Programme for International Student. (n.d.). Retrieved January 4, 2020, from https://www.oecd.org/pisa/publications/PISA2018_CN_QCI.pdf

[5] Woolsey, C., & Jarlais, D. (n.d.). Cultural Characteristics of Western Educational Structures and Their Effects on Local Ways of Knowing. https://scholarworks.umt.edu/cgi/viewcontent.cgi?article=2320&context=etd

[6] Zhao, X., Selman, R. L., & Haste, H. (2015). Academic stress in Chinese schools and a proposed preventive intervention program. Cogent Education, 2(1). https://doi.org/10.1080/2331186x.2014.1000477

[7] Li, H. (2017). The "secrets" of Chinese students' academic success: academic resilience among students from highly competitive academic environments. Educational Psychology, 37(8), 1001-1014. https://doi.org/10.1080/01443410.2017.1322179

[8] Qi, L. (2020, February 5). On Grades. China Research Center. https://www.chinacenter.net/2020/china_currents/19-1/on-grades/

[9] Hills, P., & Argyle, M. (2001). Emotional stability as a major dimension of happiness. Personality and Individual Differences, 31(8), 1357-1364. https://doi.org/10.1016/s0191-8869(00)00229-4

[10] Liu, G. X. Y., & Helwig, C. C. (2020). Autonomy, Social Inequality, and Support in Chinese Urban and Rural Adolescents' Reasoning About the Chinese College Entrance Examination (Gaokao). Journal of Adolescent Research, 074355842091408. https://doi.org/10.1177/0743558420914082