South Korean college freshmen students' perceptions of happiness during the COVID-19 pandemic in 2020

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Happiness is an important factor influencing academic performance, and many college freshmen have experienced adjustment difficulties during the COVID-19 pandemic. We applied Q methodology to explore South Korean freshmen students' perceptions of happiness in 2020. Participants were divided into three groups according to perceptions of happiness: (a) those who considered relationships as vital for happiness, (b) those who considered freedom to have new experiences as vital for happiness, and (c) those who considered setting and achieving goals as vital for happiness. These findings can serve as basic data for the development of curricula and programs to help college freshmen adapt to college life.

Freshmen students' *adjustment to college life* is pivotal because it is a transition to adulthood in which they assume independence and responsibility for their behavior (K. H. Kim & Kang, 2016). Young people face great stress in adapting to the complex social environment at college (Jeong, 2018). In particular, students who entered college in 2020 faced an unexpected situation with the COVID-19 pandemic, experiencing additional stress and adjustment difficulties (Bono et al., 2020; Rager, 2020). College students have encountered severe difficulties in their academic endeavors, in daily life, and with mental health issues, experiencing depression, anxiety, mood fluctuations, and even suicidal thoughts during the pandemic (Gupta et al., 2021; Kecojevic et al., 2020; Wang et al., 2020).

Previous studies have indicated that happiness fortifies college freshmen against stress and improves their adaptation to college life (Xu et al., 2019). *Happiness* is defined as a person having a positive attitude toward life, and a positive disposition to experience satisfaction and joy in important areas of life, such as work, love, play, and child-rearing (Joodat & Zarbakhsh, 2015; Seligman & Csikszentmihalyi, 2014). Seligman et al. (2005) found that happiness is a life habit and skill that anyone can cultivate through discovery and practice.

College students' happiness has been studied in multiple countries. Peltzer and Pengpid (2013) found in their study conducted with Indian college students that daily routines, such as having normal sleeping hours (i.e., 7–8 hours) and eating breakfast regularly, contributed to happiness. According to Tarrahi and Nasirian's (2017) study conducted at Iran's Khorramabad University, happiness was positively related to physical activity and negatively related to smoking cigarettes. Karaşar and Baytemir (2018) found in their study conducted with Turkish college students that a greater desire for social approval was associated with greater social anxiety and less happiness. According to Abdel-Khalek and Lester's (2017) study conducted

with Arab college students, individuals who considered themselves as more (vs. less) religious were happier.

In addition, studies on college students' happiness have varied in their content with respect to factors influencing happiness, scale development, and the testing of programs for improving happiness. Studies on the factors affecting happiness have shown that social support, cooperative learning, cognitive flexibility, academic success, financial stability, family support, peer support, life satisfaction, religious maturity, and living environment contribute to college students' happiness (Bum & Jeon, 2016; Demirtaş, 2020; Flynn & MacLeod, 2015; Jang, 2020; Koçak, 2008). Further, Jo and Park (2019) showed that happiness can improve college students' gratitude, self-esteem, and flow.

Nevertheless, happiness differs according to individual characteristics, and current research on subjective perceptions of happiness is insufficient (Choi & Cho, 2016; Cloninger & Zohar, 2011). An examination of factors affecting college freshmen's happiness may help to find ways to foster happiness tailored to each individual. As predetermined variables have previously been measured quantitatively, these results may be limited regarding participants' true thoughts about happiness (Economos et al., 2008; K. Kim & Lim, 2012; H. Zhang & Dai, 2018; R. P. Zhang, 2016).

Therefore, to examine the subjective elements of happiness as perceived by college freshmen, with the aim of improving their happiness and facilitating their adjustment to college life, we posed two research questions:
Research Question 1: How can college freshmen students' subjective perceptions of happiness be grouped?
Research Question 2: What are the characteristics of the resulting grouped perceptions found with the use of Q methodology?

Method

Q methodology combines qualitative and quantitative methods to better understand individuals' subjective perceptions of a specific phenomenon (Herrington & Coogan, 2011). This methodology is useful for addressing the limitations of a quantitative approach, because it involves the systematic compiling and objective analysis of the cultures, perceptions, cognitions, and attitudes of groups in a given environment. It is also suitable for analyzing the internal structure of individual perceptions of what constitutes happiness (H. K. Kim, 2008). Thus, Q methodology is appropriate for examining college students' subjective perceptions of happiness because the statements are presented from the participants' (vs. the researcher's) perspective. In the research process, researchers create a Q concourse, select a Q set and P sample, collect data using Q sorting, and analyze the data and interpret the results via QUANL analysis (see Figure 1).
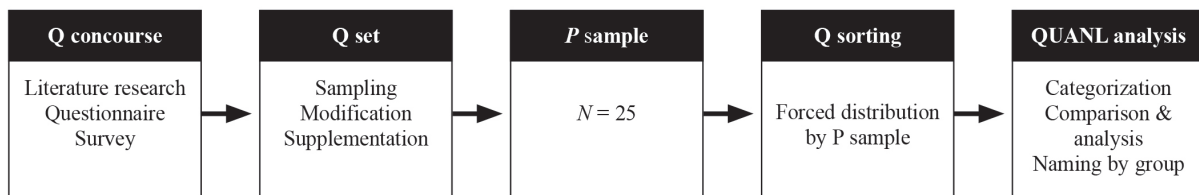
Q concourse		Q set		*P* sample		Q sorting		QUANL analysis
Literature research Questionnaire Survey	→	Sampling Modification Supplementation	→	*N* = 25	→	Forced distribution by P sample	→	Categorization Comparison & analysis Naming by group

Figure 1. *Research Process*

Q Concourse

A Q concourse consists of the collection of ideas, values, and attitudes about a specific topic. To create the Q concourse, we compiled survey items regarding happiness through a literature review. We also conducted

a semistructured survey with 120 freshman college students at Dongguk University, in which we asked them to write about their ideas of happiness. The resulting concourse comprised a diverse range of content regarding happiness, such as relationships, desires, and self-development.

Q Set

A Q set is a broad representative sample composed of items selected from the Q concourse through the repeated review and exclusion of overlapping material. We selected the most diverse ideas about happiness to create the 33 items for the Q set (see Table 3).

P Sample
A P sample is a small group of participants who are theoretically relevant to the specific topic (Brown, 1980). Hylton et al. (2018) claimed that demographic representativeness is not necessary for a P sample because the primary goal is not to make demographic generalizations. We used purposive sampling to select 25 freshmen students from Dongguk University in Seoul as participants, and conducted the survey during the last week of the first semester of 2020. We thoroughly explained the study's aims and procedure to the participants before they read and signed the informed consent form.

Q Sorting and Data Analysis

According to Brown (1980), Q sorting is a rank-ordering procedure in which the items are arranged in a way that is significant from the participants' standpoint. In this study, participants ranked the 33 Q-item cards by dividing them into three piles on a Q-sort table, according to their degree of agreement on a 9-point rating scale ranging from +4 = *most agreeable* to −4 = *most disagreeable*. They recorded their reasoning for their two most agreeable and two most disagreeable Q-items. We then analyzed and interpreted the Q-sorts using principal component analysis in the QUANL program. Of the resulting *z* scores for each perception group, we selected items with eigenvalues exceeding 1.0 only as being significant for interpretation. We analyzed participants' detailed written descriptions of their selected items, which we deemed significant for a more robust interpretation of the responses.

Results

Three groups, each with different perceptions of what made them happy, emerged from the totals (see Table 2). The eigenvalues for each group are shown in Table 1.

Table 1. *Eigenvalues and Explanatory Variance of Perceptions According to Group*

Content/group	1	2	3
Chosen eigenvalues	7.2441	3.4059	1.6957
Total variance	0.2898	0.1362	0.0678
Cumulative variance	0.2898	0.4260	0.4938

The correlations among the groups indicate their degree of similarity. The correlation between Groups 1 and 2 was .262, that between Groups 1 and 3 was .314, and that between Groups 2 and 3 was .481. Factor weights for each group and participants' demographic characteristics are shown in Table 2. The factor weight was derived from the analysis and indicates how well each participant matches or represents that group.

Table 2. *Participants' Demographic Characteristics and Factor Weights by Group*

Group	Person	Gender	Major	P weight
Group 1 (n = 12)	P4	Female	Economics	1.2439
	P6	Female	International commerce	0.5315
	P9	Female	Police administration	1.0924
	P11	Female	Electronic and electrical	2.1246
	P12	Male	Electronic and electrical	0.4752
	P18	Female	Chemical and biological	0.8582
	P19	Female	Chemical and biological	2.5841
	P20	Male	Mechanical robot energy engineering	1.0421
			Architectural engineering	
	P21	Male	Architectural engineering	0.6565
	P22	Female	Korean painting	0.5760
	P24	Female	Social welfare counseling	1.1627
	P25	Female		1.0546
Group 2 (n = 10)	P2	Female	Political science and diplomacy	0.8529
	P3	Male	Administration	1.1062
	P7	Female	Media communication studies	0.3195
	P8	Female	Media communication studies	0.7128
	P10	Female	Police administration	0.7919
	P13	Male	Electronic and electrical	1.8341
	P14	Male	Electronic and electrical	1.2699
	P16	Male	Construction and environment engineering	0.8138
	P17	Male	Construction and environment engineering	0.9511
	P23	Male	Not provided	0.7434
Group 3 (n = 3)	P1	Male	Social welfare counseling	1.2044
	P5	Female	International commerce	2.4387
	P15	Not provided	Not provided	0.7377

Items in the Q set and the *z* scores whose absolute values were greater than 1 for each type are shown in Table 3.

Table 3. *Statements in Q Set and Group z Scores*

No.	Item	Group 1	Group 2	Group 3
Q1	Having time for myself			−1.15
Q2	Meeting compatible people	1.41		1.15
Q3	Learning something new	−1.12		
Q4	Having a family	2.26		1.42
Q5	Watching movies			−1.33
Q6	Eating delicious food			
Q7	Having good weather	−1.24		−1.27
Q8	Achieving goals		1.58	1.42
Q9	Having good friendships			
Q10	Setting goals		1.24	1.60
Q11	Having hobbies	1.00	1.65	
Q12	Not facing bad situations		−1.42	
Q13	Being able to make decisions independently			
Q14	Listening to music			−1.63
Q15	Raising pets			−1.53
Q16	Being able to spend money without worrying	1.62		
Q17	Being a responsible college student	−1.68		
Q18	Dating			
Q19	Shopping		−1.75	
Q20	Not having to worry about what others think of me			
Q21	Being engaged in daily conversation			
Q22	Being involved in self-development activities			
Q23	Receiving compliments			
Q24	Participating in new experiences			
Q25	Helping others			
Q26	Being a celebrity fan	−1.18	−2.03	−2.03
Q27	Having freedom for myself		1.50	
Q28	Exercising	−1.87		
Q29	Resting			
Q30	Being on my smartphone			
Q31	Having someone I can depend on	1.84		2.03
Q32	Being able to enjoy my daily life			
Q33	Having time for a cup of coffee		−1.85	−1.18

Table 4. *Statements with Group Difference Eigenvalues Exceeding One*

No.	Item	Group 1	Group 2	Group 3
Q1	Having my own time		1.072	−1.907
Q2	Meeting compatible people			
Q3	Learning something new	−1.574		
Q4	Having a family	1.061		
Q5	Watching movies		1.144	−1.015
Q6	Eating delicious food	1.526		
Q7	Having good weather			
Q8	Achieving goals	−1.410		
Q9	Having good friendships			
Q10	Setting goals	−2.275		1.405
Q11	Having hobbies		1.224	−1.474
Q12	Not facing bad situations		−0.611	1.383
Q13	Being able to make decisions independently			
Q14	Listening to music		1.077	−1.810
Q15	Raising pets			−1.002
Q16	Being able to spend money without worrying	1.274	−1.427	
Q17	Being a responsible college student	−1.340		
Q18	Dating			
Q19	Shopping		−0.957	
Q20	Not having to worry about what others think of me			
Q21	Being engaged in daily conversation			
Q22	Being involved in self-development activities	−1.630		
Q23	Receiving compliments			
Q24	Participating in new experiences	−1.650		
Q25	Helping others	−1.537		
Q26	Being a celebrity fan			
Q27	Having freedom for myself		1.297	−0.267
Q28	Exercising	−2.027	1.113	
Q29	Resting			−1.234
Q30	Being on my smartphone	1.548	−1.656	
Q31	Having someone I can depend on		−1.389	
Q32	Being able to enjoy my daily life			
Q33	Having time for a cup of coffee			

Characteristics of Groups According to Perceptions of Happiness

Group 1: Happiness Through Everyday Relationships

Items with which participants strongly agreed in Group 1 were "Having a family" (Q4), "Having someone I can depend on" (Q31), and "Meeting compatible people" (Q2). In contrast, these participants strongly disagreed with the items "Exercising" (Q28), "Being responsible as a college student" (Q17), "Having good weather" (Q7), "Being a celebrity fan" (Q26), and "Learning something new" (Q3). Unlike those in the two other groups, participants in this group strongly agreed with "Being on my smartphone" (Q30), "Eating delicious food" (Q6), "Being able to spend money without worrying" (Q16), and "Having a family" (Q4), and strongly disagreed with "Setting goals" (Q10), "Exercising" (Q28), "Participating in new experiences" (Q24), "Being involved in self-development" (Q22), "Learning something new" (Q3), "Helping others" (Q25), "Achieving goals" (Q8), and "Being responsible as a college student" (Q17).

The participant in this group with the highest factor weight (P19) selected Q4 and Q31 as the items with which she most agreed, and Q17 and Q28 as the items with which she most disagreed. Her explanation for these choices was as follows:

> There seems to be nothing more important than the family. I have always thought that the people

who would be on my side for my life would be my family members. If I have even one person, whether a friend or a family member, whom I can rely on when I am in trouble, I think I can overcome the situation no matter how difficult a situation it is.

She also wrote the following:

I think I would not be happy if I stepped forward to take responsibility when I or my team member did something wrong. I originally did not like to step forward. I think I hardly felt happy while I was exercising. I think I did exercise out of obligation rather than voluntarily.

For the Group 1 participants, interpersonal relationships were the main component of their happiness. Specifically, they expressed heavy reliance on family. In addition, they experienced happiness in their daily lives, such as when using their smartphone or eating delicious food, but they did not believe that active participation, such as immersing themselves in activities or achieving goals, constituted happiness.

Group 2: Happiness Through Self-Motivated Experiences

Items with which there were strong agreement in Group 2 were "Having hobbies" (Q11), "Having freedom for myself" (Q27), and "Setting goals" (Q10). Items with which there were strong disagreement were "Being a celebrity fan" (Q26), "Being on my smartphone" (Q30), "Having time for a cup of coffee" (Q33), "Shopping" (Q19), and "Not facing bad situations" (Q12). Unlike those in the two other groups, participants in this group strongly agreed with "Having freedom for myself" (Q27), "Having hobbies" (Q11), "Watching movies" (Q5), "Exercising" (Q28), "Listening to music" (Q14), and "Having my own time" (Q1), and strongly disagreed with "Shopping" (Q19), "Being on my smartphone" (Q30), "Not facing bad situations" (Q12), and "Being able to spend money without worrying" (Q16).

The participant in this group with the highest factor weight (P13) selected Q24 and Q5 as the items with which he agreed the most, and Q19 and Q33 as the items with which he disagreed the most. His explanation for these choices was as follows:

I always like learning new things. When I was young, I could not learn a lot and had little experience, but now I am happy because I can learn and experience something new. In addition, I love movies very much, to the extent that I watch one movie per day. When I watch a movie, I am really happy when I find out the hidden intentions of the movie, regardless of its genre, and when I learn something new. In particular, when I watch a long-awaited movie in a movie theater, the feeling of happiness is indescribable. However, I don't think buying clothes or shopping for other goods is that necessary in life.

Participants in Group 2 perceived leisure activities, such as hobbies, as important in their life. In addition, they assigned meaning to achieving goals and making free choices. However, they did not believe that being able to spend money without worrying would contribute more to their happiness than would having time for personal activities.

Group 3: Happiness Through Setting and Achieving Life Goals

Items with which participants in Group 3 strongly agreed were "Setting goals" (Q10) and "Achieving goals" (Q8). Participants strongly disagreed with items "Being a celebrity fan" (Q26), "Being on my smartphone" (Q30), "Having time for a cup of coffee" (Q33), and "Shopping" (Q19). Unlike those in the other two groups, participants in this group strongly agreed with "Setting goals" (Q10) and "Not facing bad situations" (Q12), and they strongly disagreed with "Having my own time" (Q1), "Listening to music" (Q14), "Having hobbies" (Q11), "Having freedom for myself" (Q27), "Watching movies" (Q5), and "Raising pets" (Q15).

The participant in this group with the highest factor weight (P5), selected Q8 and Q31 as the items with

which she most agreed, and Q15 and Q26 as the items with which she most disagreed. Her explanation for these choices was as follows:

> When I set goals and achieve them, I feel that I am very great and feel good all day. This is because I become confident and happy. In addition, I am the sort of person who likes to share with others both the good and bad things that happen in my life. When I have someone I can rely on as such, I become mentally relaxed and confident, and able to quickly shake off the troubles and challenges again.

She also wrote, "Since I have never really liked celebrities passionately, I don't really sympathize with them. Personally, I am happier to take care of the people I know than to pour that passion on people I don't know."

Participants in Group 3 valued the process of setting and achieving goals. Even in the case of personal experiences (e.g., hobbies) they lacked interest in things that did not give them a sense of accomplishment.

Consensus items refer to those with which all groups agreed. There were eight consensus items in this study (see Table 5).

Table 5. *Consensus Items and Their Standardized Scores*

No.	Statement	Standardized score
2.	Meeting compatible people	1.16
7.	Having good weather	−1.06
9.	Having good friendships	0.37
13.	Being able to make decisions independently	0.03
18.	Dating	−0.38
20.	Not having to worry about what others think of me	0.17
21.	Being engaged in daily conversation	−0.32
26	Being a celebrity fan	−1.75

Discussion

From our examination of South Korean college freshmen students' perceptions of happiness during the COVID-19 pandemic, three distinct perceptions of happiness emerged. Relationships were vital for Group 1's happiness. Previous results have shown that social support in relationships affects college students' life satisfaction, which supports the characteristics of Group 1 (Jang, 2020; Tarrahi & Nasirian, 2017; Zhou & Lin, 2016). In addition, according to Demir and Davidson (2013), friendship is a powerful predictor of happiness. As such, the psychological experiences associated with interpersonal relationships were particularly meaningful to Group 1. Collective relationships are highly valued in Asian cultures, which strongly influences individual happiness (Haas et al., 2021; Lu & Gilmour, 2004). Perceptions of happiness as identified in Group 1 reflect these characteristics of Asian cultures. Because of COVID-19 social distancing measures, incoming college students spent their first year disconnected from their peers and campus life. Therefore, participants subscribing to the Group 1 view of happiness may have been experiencing difficulty in achieving happiness through human relationships. Opportunities, even via virtual methods, must be provided for them to form relationships and adapt well to college life (Copeland et al., 2021).

Participants in Group 2 regarded freely chosen activities and hobbies as important for their happiness. As Liu and Da (2020) have shown that leisure time is related to happiness, this supports these participants' characteristics. The importance of participation in physical activity or work to achieve happiness has also been demonstrated (Nawijn & Veenhoven, 2013; Schiffer & Roberts, 2018). However, according to Wei et al. (2015), passive (vs. active) leisure activities contribute more to happiness. Thus, although leisure activities

may influence happiness, there is no scholarly consensus on the type of activity. This suggests that researchers, rather than determining the elements of happiness based on the type of leisure activities, should focus on what motivates college students to take part in these activities, which can influence their positive development (Larson, 2000).

During the COVID-19 pandemic, college students experienced few face-to-face leisure activities and were limited to activities such as relaxation and video games (Kang et al., 2020; Park et al., 2020). However, owing to technology advances, the scope of virtual activities has expanded. Ettekal and Agans (2020) suggested innovative ways for college students to enjoy leisure using technology. For example, virtual meetings can be used more innovatively, such as through parallel play, where students engage in similar activities in different places, for example, baking or making art together. Creative ways to meet others during social distancing are also being found.

Participants in Group 3 regarded setting and achieving goals as essential to their happiness. According to Flynn and MacLeod (2015), academic success is related to college students' happiness, which is consistent with the characteristics of Group 3. Uchida et al. (2004) found in the U.S. cultural context that happiness tends to be defined in terms of personal achievement, whereas in the East Asian cultural context, personal relationships are more important. Thus, there are crucial differences in factors affecting happiness between Eastern and Western cultures (Lu & Gilmour, 2004). However, similar to Group 3, some contemporary South Korean college students view individual achievement as important and believe that goal achievement is a meaningful component of happiness. This result indicates a change in Korean culture and thought (Rowley, 2013).

Further, when participants examined consensus items, each group considered meeting compatible people an important factor in happiness, and disagreed that being a celebrity fan is important for happiness. Thus, Korean college freshmen regarded interpersonal relationships as important, and did not experience happiness if they were not in a direct relationship. Happiness is an area that can be improved with educational programs. According to Smith et al. (2021), attendance at classes in positive psychology tends to improve students' happiness. Therefore, a variety of happiness-themed programs should be offered at colleges to help incoming students adapt to college life. The developers of these programs must understand subjective characteristics that contribute to the improvement of happiness experience.

Because this study was conducted with South Koreans entering college in 2020, the elements contributing to participants' happiness may have been subject to social and cultural influences such as the COVID-19 pandemic and Asian cultural values (Kang et al., 2020; Lu & Gilmour, 2004). Therefore, studies on happiness in more generalizable environments are required.

The subjective perceived happiness of South Korean college freshmen differed from person to person. Interpersonal relationships, leisure activities, and goals had a major influence on participants' achievement of happiness. Our findings contribute to the literature because we have offered suggestions for improving college students' happiness in general, and presented basic data to develop programs to help freshmen adapt to college life during the unprecedented COVID-19 pandemic.

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