Orientations to Happiness and University Students’ Engagement during the COVID-19 Era: Evidence from Six American Countries

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Abstract

Positive personal characteristics such as happiness or wellbeing can motivate students to elevate their school performance in higher education. Orientation to happiness is a construct that combines three sources of happiness: pleasure, meaning, and engagement, all of which have been identified as a predictor of university student’s engagement. However, most research in this area has been conducted during ideal situations or face-to-face education, and no cross-country research has been published examining the relationship between these two concepts during the COVID-19 era, where online education was predominant. This study aimed to investigate the relation between orientation to happiness and student engagement after twelve months of distance education in a sample of 1723 students from six American countries, including the USA, Mexico, El Salvador, Colombia, Peru, and the Dominican Republic. Results indicate that university student’s engagement is influenced by the orientation to happiness. Further implications of these results are discussed.

Keywords: Orientation to happiness, pleasure, meaning, engagement, COVID-19
Orientaciones a la Felicidad y Compromiso Estudiantil Universitario en COVID-19: Evidencia de Seis Países Americanos

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Resumen
Los aspectos personales positivos pueden mejorar el desempeño de los estudiantes en actividades académicas. Las orientaciones a la felicidad es un constructo que combina tres vías a la felicidad: placer, significado y compromiso. Este factor se ha descrito como un predictor del compromiso estudiantil en universitarios. Sin embargo, la relación entre estos dos conceptos necesita ser estudiada en la era de COVID-19, donde predomina la educación a distancia. El objetivo del presente estudio fue establecer la relación directa entre las orientaciones a la felicidad y el compromiso de estudiantes después de 12 meses en educación a distancia, en una muestra conformada por alumnos de seis países americanos. El instrumento fue contestado por 1723 universitarios de EUA, México, El Salvador, Colombia, Perú y la República Dominicana. Los resultados indican que el compromiso de los estudiantes está influenciado por las orientaciones a la felicidad. Las posibles implicaciones de estos resultados se presentan.

Palabras clave: Orientaciones a la felicidad, placer, significado, compromiso, COVID-19
Student success tends to be a reflection of university students' engagement in their academic activities as measured, among other things, by their grades in the courses they take (Dogan, 2015; Jelas et al., 2016; Oriol-Granado et al., 2017). Student success is also influenced by their participation in co-curricular activities which help create stronger bonds to their academic interests. There is empirical evidence that school performance and engagement are influenced by positive personal aspects (Durón-Ramos et al., 2020) including well-being (Boulton et al., 2019), emotional intelligence (Libbrecht et al., 2014), and orientations to happiness (Sattar et al., 2017).

Previous studies have provided evidence that school performance is directly related to positive experiences (Boulton, 2019; Salanova, 2005). Durón-Ramos and colleagues (2020) found that orientation to happiness has a positive relationship to school performance; however, it is important to determine if this relationship is maintained during the online education students have received during the COVID-19 pandemic. This is important in light of research which suggests that when students have negative perceptions of online learning it diminishes their self-efficacy and motivation. Despite these preliminary results, little is known about students’ engagement when studying online.

Years of distance education and online learning have demonstrated that online teaching is a viable instructional medium for students under certain circumstances. Vonderwell and Zachariah (2005) found that technology and interface characteristics, content area experience, student roles and instructional tasks, and information overload influence students’ learning experiences in online learning. Additional research by Ozkan and Koseler (2009) found that system quality, service quality, content quality, learner’s perspective, instructor attitudes, and supportive issues also impact student’s learning in online environments. Finally, factors such as computer literacy and teaching methods, which also proven to have significant influence on e-learning (Mayerova & Rosicka, 2015).

In addition to the system characteristics necessary for successful online learning, students must also have specific characteristics that include time management, motivation, being able to communicate with others via electronic means, and those who enjoy learning via reading and writing.
(Kauffman, 2015). For these reasons, students tend to self-select for their preferred learning modality and many universities offer more than one instructional modality. To-date, there is continued debate about the pedagogical benefits of each type of instructional modality.

The COVID pandemic, which required the closing of universities, upended education and forced many institutions of higher learning to shift all their instruction to online courses in order to maintain access to the “classroom” virtually overnight. Most universities found themselves in unfamiliar territory and without an established plan or path to online learning, the transition to this modality was not without problems (Besser et al., 2020; Schneider & Council, 2021).

In a meta-analysis of the transition from face-to-face to online learning in medical schools in Brazil, Camargo et al. (2020) found that transitioning to remote teaching was feasible, but required a team of dedicated individuals as well as collaboration and communication between students and faculty members. Mheidly et al. (2020) found that increased screen time can lead to stress and burnout among students. In a study of 1255 students in 11 high, middle, and low-income countries, Abbasi et al. (2020) found that less than 50% of students preferred online to traditional learning. Finally, Aguilera-Hermida (2020) found that students presented less motivation, self-efficacy, and cognitive engagement as a result of the “jump into online systems” (p.7) caused by the COVID-19 pandemic.

Orientations to happiness and university student’s engagement

There are three orientations to happiness: pleasure, meaning, and engagement; together, they form a construct that has been described as the propensity of the persons in including happiness in their life from the three sources (Peterson et al., 2005). Those who pursue the three orientations experience more life satisfaction and greater well-being (Beri, 2021; Yang et al., 2016).

In this construct, pleasure maximizes gratifications and prolongs the positive feeling (O’Keefe, 2017); it is sensory and immediate and can be determined by enjoying a class in an academic context. Meaning is derived from using personal strengths and abilities for the greater good (Park et al., 2009); in the educational area, it can be experienced by obtaining a degree in a field of interest to the student. Finally, engagement orientation is the
happiness that comes when committing and getting involved in activities (Park et al., 2009); in an academic context, it could be obtained through activity in class or during homework.

Student engagement (SE) is defined by Fredericks et al. (2004) as the tendency or propensity that students have to perform their school-related activities. SE has a direct impact on student’s success (Gutierrez et al., 2017; Jelas et al., 2016), and have been proved to be a preventing factor of dropout (Lovelace et al., 2017). SE contributes not only to higher grade, but also contributes to higher graduation rates.

The literature suggests there are three components that form student engagement (Reschly & Christenson, 2012). The first component known as behavioral engagement, is the active dimension, where students perform actions in their educational institution, such as participating in class (Lawson & Lawson, 2013). The second component is the affective engagement, which has been described as the emotions provided by academic context (Maroco et al., 2016). Finally, cognitive engagement, is the relevance that students perceive about their school-related activities (Fredricks, 2011).

**The present study**

This study was conducted after 12 months of distance education during the COVID pandemic. This specific period was chosen for two primary reasons. First, it was imperative that the instruments were answered when students had adapted to the distance education, to avoid bias in the responses due to expectations or the adaptation process. Second, the inclusion of six different countries provided the opportunity to gain a broader understanding of this phenomenon.

Three hypothesis guided the current study. It was hypothesized that orientation to happiness and university student engagement were significantly different according to the country of residence (Hypothesis 1, H1). Previous studies have shown that these two constructs are influenced by the context in which people live (Kavetsos et al., 2014; Lam et al., 2012) although no studies have explored them during a time of social isolation.

The second hypothesis suggests that three orientations to happiness (pleasure, meaning, and engagement) present a positive correlation with the
three dimensions of student’s engagement (Hypothesis 2, H2) in line with investigation indicating that positive emotions influence the engagement students present (Pekrun & Linnenbrink-Garcia, 2012). The third hypothesis predicted that orientation to happiness would directly and positively affect university student’s engagement (Hypothesis 3, H3), given that this relationship has been established in traditional or classroom education (Durón-Ramos & García-Marquez, 2018).

Methods

Participants

Data were collected from 1,723 university students in six Latin American countries. Most of the participants were female (72%), while 27% were male, and 1% preferred not to indicate gender. The students participated voluntarily from six countries: USA (8%), Mexico (11%), El Salvador (21%), Colombia (21%), Peru (24%), and the Dominican Republic (15%). Age ranged from 18 to 60 years old ($M = 22.34$, $SD = 4.98$). The students were from different semesters, including the first (1), and last (9), with a mean of 5.76 ($SD = 2.69$). Most participants were studying on human sciences area (83%), the rest specified Mathematics (7%) or other (9%).

Instruments

Orientations to Happiness. The scale of Peterson et al. (2005) was used in its adapted form for the Mexican population (Durón-Ramos et al. 2016). It employed a Likert-type response scale of 5 points (1 = Completely opposite to me - 5 = Very similar to me). The instrument evaluates the three orientations to happiness: pleasure (e.g. I love to do things that excite my senses, $\alpha = .77$), meaning (e.g. My life has a lasting meaning, $\alpha = .77$), and engagement (e.g. I am always very absorbed in what I do, $\alpha = .62$) with four items each. The validity of this measurement was established with confirmatory factor analysis (CFA), goodness of fit: $X^2 = 267.77$ (df = 50, $p = 0.001$); standardized root-mean-square residual (SRMR) = 0.034; adjusted
goodness-of-fit index (AGFI) = 0.96; comparative fit index (CFI) = 0.96; root mean square error of approximation (RMSEA) = 0.05, 90% (IC = 0.044 - 0.056). Cronbach’s alpha for global scale was .84, indicating a good internal consistency.

**Student’s engagement.** The University Student’s Engagement Inventory was used (Maroco et al., 2016); this instrument has been previously implemented in Latin America populations (Durón-Ramos et al., 2020). Participants responded to the questions using a Likert-type scale of 5 points (1 = Never - 5 = Always). The instrument evaluates student’s engagement through three dimensions: behavioural (e.g. When I have doubts I ask questions and participate in debates on virtual classes, α = .75), emotional (e.g. I am interested in the school work I perform virtually, α = .72), and cognitive (e.g. When I read a book, I question myself to make sure I understand the subject I’m reading about, α = .75) with four items each. CFA confirmed the validity of this measurement with acceptable goodness of fit: $X^2 = 351.99$ (df = 50, p = 0.001); SRMR = 0.039; AGFI = 0.97; CFI = 0.96; RMSEA = 0.06, 90% (IC = 0.053 - 0.065).

**Procedure**

The study protocol was approved by the Institutional Review Board (IRB) at a university in the USA. Their approval letter along with applications were submitted to IRB committees in each of the participating institutions and subsequently all the ethics committees from the institutions participating in the study issued a document with their approval.

Data were collected using the Qualtrics platform from study participants in the six countries: USA, Mexico, El Salvador, Colombia, Peru, and the Dominican Republic. All participants provided informed consent before answering questions for the study. Data collection took place during a six week period.

**Data analysis.** Validity of each measure was obtained through a Confirmatory Factor Analysis; the reliability measure used was Cronbach’s alpha. For the comparison of means between countries (H1), ANOVA test was performed; subsequently, a bivariate correlation matrix was calculated using Pearson coefficient (H2); finally, for establishing the direct relation
between orientation to happiness and student’s engagement (H3) a structural equation model (SEM) was elaborated. Data was analyzed with SPSS and AMOS.

Results

Table 1 exhibits descriptive statistics from orientation to happiness, student engagement and their components. The means of every orientation and the global scale maintained a medium-high level ($M = 3.09 - 3.92; SD = .49 - .81$), however, differences were observed by country. Students in the Dominican Republic reported higher levels of orientation to happiness in all three domains and the global measure ($M = 3.62 - 3.92; SD = .50 - .73$) while students from USA reported the lower mean on the global scale of orientation to happiness ($M = 3.35; SD = .49$), pleasure ($M = 3.34; SD = .66$), and engagement ($M = 3.09; SD = .60$).

Descriptive statistics of student’s engagement presented a larger range of means ($M = 2.81 - 4.28; SD = .54 - .87$), two countries exhibited high values of central tendency, El Salvador obtained higher mean on the global scale ($M = 4.05; SD = .60$), and in emotional engagement ($M = 3.98; SD = .75$) while the Dominican Republic exhibited higher level of behavioural engagement ($M = 4.28; SD = .57$), and cognitive engagement ($M = 4.13; SD = .65$). Results from ANOVA tests indicated that means among the six countries are statistically different ($p < .005$).
Table 1.
*Descriptive statistics and ANOVA results*

<table>
<thead>
<tr>
<th></th>
<th>USA</th>
<th>Mex</th>
<th>ES</th>
<th>Col</th>
<th>Peru</th>
<th>DR</th>
<th>ANOVA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M (SD)</td>
<td>M (SD)</td>
<td>M (SD)</td>
<td>M (SD)</td>
<td>M (SD)</td>
<td>M (SD)</td>
<td></td>
</tr>
<tr>
<td>OH</td>
<td>3.35</td>
<td>3.60</td>
<td>3.56</td>
<td>3.59</td>
<td>3.61</td>
<td>3.75</td>
<td>7.64</td>
</tr>
<tr>
<td></td>
<td>(.49)</td>
<td>(.58)</td>
<td>(.68)</td>
<td>(.55)</td>
<td>(.56)</td>
<td>(.50)</td>
<td></td>
</tr>
<tr>
<td>Pleasure</td>
<td>3.34</td>
<td>3.61</td>
<td>3.48</td>
<td>3.46</td>
<td>3.50</td>
<td>3.62</td>
<td>3.15</td>
</tr>
<tr>
<td></td>
<td>(.66)</td>
<td>(.70)</td>
<td>(.81)</td>
<td>(.73)</td>
<td>(.72)</td>
<td>(.73)</td>
<td></td>
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<tr>
<td>Meaning</td>
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<td>3.57</td>
<td>3.65</td>
<td>3.68</td>
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<td>3.92</td>
<td>6.59</td>
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<td>(.73)</td>
<td>(.77)</td>
<td>(.63)</td>
<td>(.66)</td>
<td>(.59)</td>
<td></td>
</tr>
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<td>Engagement</td>
<td>3.09</td>
<td>3.61</td>
<td>3.53</td>
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<td>3.62</td>
<td>3.70</td>
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<td>(.72)</td>
<td>(.59)</td>
<td>(.60)</td>
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</tr>
<tr>
<td>SE</td>
<td>3.39</td>
<td>3.69</td>
<td>4.05</td>
<td>3.72</td>
<td>3.83</td>
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<td>24.83</td>
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<tr>
<td></td>
<td>(.60)</td>
<td>(.67)</td>
<td>(.60)</td>
<td>(.65)</td>
<td>(.66)</td>
<td>(.54)</td>
<td></td>
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<tr>
<td>Behavioural</td>
<td>3.82</td>
<td>3.84</td>
<td>4.16</td>
<td>3.81</td>
<td>3.84</td>
<td>4.28</td>
<td>21.36</td>
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<tr>
<td></td>
<td>(.67)</td>
<td>(.76)</td>
<td>(.63)</td>
<td>(.74)</td>
<td>(.73)</td>
<td>(.57)</td>
<td></td>
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<tr>
<td>Emotional</td>
<td>2.81</td>
<td>3.35</td>
<td>3.98</td>
<td>3.50</td>
<td>3.70</td>
<td>3.57</td>
<td>42.34</td>
</tr>
<tr>
<td></td>
<td>(.79)</td>
<td>(.87)</td>
<td>(.75)</td>
<td>(.80)</td>
<td>(.74)</td>
<td>(.83)</td>
<td></td>
</tr>
<tr>
<td>Cognitive</td>
<td>3.55</td>
<td>3.87</td>
<td>3.99</td>
<td>3.86</td>
<td>3.96</td>
<td>4.13</td>
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<td></td>
<td>(.78)</td>
<td>(.73)</td>
<td>(.75)</td>
<td>(.74)</td>
<td>(.73)</td>
<td>(.65)</td>
<td></td>
</tr>
</tbody>
</table>

OH, Orientations to happiness; SE Students engagement; Mex, Mexico; ES, El Salvador; Col, Colombia; DR, Dominican Republic.

A correlation matrix is presented in Table 2. All associations calculated in this study were positive and significant, with values between .51 and .64 for dimensions and the components of the same factor (orientation to happiness...
and student’s engagement). It is relevant to indicate that pleasure happiness presented the lowest correlation with the three components of student engagement (.14 - .23), while the meaning orientation obtained the highest values (.32 - .39). Another interesting fact is that cognitive engagement exhibited the highest correlation coefficient with all three orientations to happiness (.23 – .39).

Table 2.
Correlation matrix

<table>
<thead>
<tr>
<th>Orientation to happiness</th>
<th>Student’s engagement</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>P</td>
</tr>
<tr>
<td>P: Pleasure</td>
<td></td>
</tr>
<tr>
<td>M: Meaning</td>
<td>.54**</td>
</tr>
<tr>
<td>E: Engagement</td>
<td>.54**</td>
</tr>
<tr>
<td>BE: Behavioural</td>
<td>.16**</td>
</tr>
<tr>
<td>engagement</td>
<td></td>
</tr>
<tr>
<td>EE: Emotional engagement</td>
<td>.14**</td>
</tr>
<tr>
<td>CE: Cognitive engagement</td>
<td>.23**</td>
</tr>
</tbody>
</table>

** p < .001

The structural equation model calculated (Figure 1) exhibited good fit indices \[ X^2 = 603.50 \text{ (df = 194, p = 0.001); SRMR = 0.041; goodness of fit index (GFI) = .96; AGFI = 0.95; CFI = 0.95; RMSEA = 0.04, 90\% CI (0.038 - 0.045)]\] indicating that the data collected supports the theoretical model presented. The orientation to happiness (formed by: pleasure, meaning, and engagement) presents a direct significant relation (.61) with university student engagement (formed by: behavioural, emotional, and cognitive). The structural equation model explains 37\% of the variance of student’s engagement.
Discussion

According to the United Nations Educational, Scientific and Cultural Organization (UNESCO, 2021) almost 50% of students around the world are still dealing with closed schools almost 18 months after the onset of the global COVID-19 pandemic. The shift in education from face-to-face instruction to online education means some pupils are still participating in distance education and not always on a voluntary basis. While some researchers have focused their investigations on the negative aspects that emerge from this situation (Al-Maroof et al., 2021; Göksu et al., 2021), the present study
focused on one positive personal aspect that could enhance university student´s engagement.

Happiness has also been studied in the context of student success in institutions of higher education (Elwick & Cannizzaro, 2017; Michalos, 2017). This variable is related to positive experiences, which translate into good school performance (Boulton, 2016; Durón-Ramos et al., 2018).

Results from this study demonstrated statistical differences on both factors analyzed among the six American countries participating in the study (H1). These results are in line with cross-cultural studies of happiness (Hornsey et al., 2018) and student engagement (Lam et al., 2015). The culture is a key factor that is related with orientations to happiness and university student´s engagement.

The correlations obtained indicate that orientations to happiness and university student´s engagement are two personal factors closely related (H2). The findings held true across all six countries in the study. These results are consistent with previous findings that link positive emotions and the engagement on school activities (Datu et al., 2017; Heffner & Antaramian, 2015).

The SEM proved a direct relation between orientations to happiness and student´s engagement (H3), in fact, the model explains 37% of the engagement that university students are having on online education after one year of online learning. This relation has been observed in a previous study during face-to-face education (Durón-Ramos & García-Vázquez, 2018).

There are two limitations present in this study. First, data were collected through a self-report, where social desirability could affect some of the answers; however, results are in line with previous studies on the three hypothesis (Durón-Ramos et al., 2018; Kavetsos et al., 2014). Second, the study´s cross-sectional design, where only one measure was obtained; however, we believe that this investigation could serve as a starting point for longitudinal investigations. Limitations aside, this study provides broad evidence from six American countries.

The importance of this investigation relies on the fact that it provides empirical evidence of the importance that happiness on students can provide for the academic-professional engagement in different cultural contexts. This implies that intervention or promotion of happiness among university students
can be helpful not just for the pupils individually but could also benefit institutions of higher education (Zhong et al., 2021).

Findings from this study suggest that orientation to happiness is just one of the many positive aspects that are influencing student engagement during online higher education; other factors could be wellbeing, self-efficacy or positive emotions (Kahu et al., 2020). Two main recommendations are essential: first, it is suggested that future studies explore differences by student’s field of study. Secondly, it is recommended that future studies include more variables that allow enhancing the understanding of this phenomenon; for example, the technological tool used in class, student perception of online education, and instructor experience with online education. Meyer (2014) presents a review of previous research and concludes that online videos, the use of Moodle, or including activities in social networks (such as Facebook) could increase student engagement.

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