

Sigurado Ka Na Ba?

Exploring Career Uncertainty in Filipino College Students

HIYASMIN CARIÑO-MATTISON

The study attempted to identify factors affecting career uncertainty as perceived by college students in a university in the Philippines. One hundred thirteen students responded to a brief free-response questionnaire in which they were asked to describe experiences that have led to them being either certain or uncertain about their future careers, their feelings resulting from certainty or uncertainty, and either supportive actions towards certainty or coping mechanisms employed during uncertainty. The data were transcribed and coded into themes based on Social Cognitive Career Theory (SCCT). Follow-up interviews were conducted with volunteer participants to validate questionnaire data. Results suggest that career uncertainty may be influenced more by outcome expectations (such as expectation of finding a high-paying job) rather than self efficacy or other contextual supports and barriers (such as parental pressure). The data also suggest that information and guidance received prior to the collegiate years may be an influential factor in career uncertainty. Suggestions for career guidance for college students and future research into the utility of SCCT in the Filipino context are made.

"I'm really not sure yet about what I want to do in my career and it's really stressing me out! My parents want me to be a lawyer and my friends think I could be a good one. I think I'm capable but I'm not really sure about it. But then again, if not a lawyer, what?"

-graduating college student

Uncertainty is a given in today's fast moving world. People are uncertain about whether internet access is available in their places of work or school, or if traffic will allow them to get there on time. The worldwide economic crisis has prompted job uncertainty, and the recent Philippine natural disasters have brought about uncertainty about the safety of their homes and workplaces.

In psychology, uncertainty is recognized as a cognitive and, more recently, an emotional state which involves three constructs: probability or randomness, delay, and absence or lack of clarity of information (Smithson, 2008).

In the context of behavioral decision theory, uncertainty is often referred to as synonymous with probability (Smithson, 2008). Here, the chances of an event happening or not, as illustrated in a gambling situation, is closely tied with how people make decisions in the face of uncertainty. Research suggests that decisions under uncertainty often lead to the manipulation of the probabilities in gambles, rather than an avoidance of the situation. As such, when people bet on the lottery week after week, it is probably because they have cognitively manipulated the probability of winning. In this case then, uncertainty is not necessarily negative, if not precisely desirable.

Delay as a construct in uncertainty is closely associated with reinforcement theory in that a delay in reward or reinforcement leads to greater uncertainty. As Smithson (2008, p. 208) puts it, "immediacies are certainties and delays are uncertainties."

Absence or lack of clarity of information as related to uncertainty has been studied both as a component of cognitive style and also in the attempt to explain why people generally avoid situations in which

they lack relevant information. While there is much literature in both approaches, it seems clear that the presence of clear and relevant information is an important component in resolving or avoiding uncertainty (Smithson, 2008).

The ways in which people handle uncertainty and its components were described by Sorrentino (as cited by Sorrentino et al., 2004) when he put forward a theory of uncertainty orientation. This is a formal theory of self-regulation which asserts that people differ in important ways in terms of how they handle uncertainty. Sorrentino himself explains how people may differ in uncertainty orientation:

At opposite ends of a continuum are those considered uncertainty-oriented (UOs) or certainty-oriented (CO). For UO, the preferred method of handling uncertainty is to seek out information and engage in activity that will directly resolve the uncertainty. These are the "need to know" type of people who try to understand and discover aspects of the self and the environment about which they are uncertain. COs, on the other hand, develop a self-regulatory style that circumvents uncertainty. Given the choice, COs will undertake activities that maintain clarity; when confronted with uncertainty, they will rely on others or heuristic devices instead of on more direct methods of resolving uncertainty.

Sorrentino and colleagues (2004) later tested the theory within and across cultures and found that Japanese students were generally CO while Canadian students were typically UO. This is consistent with their earlier assertion that Eastern, collectivist cultures may be more CO-centric and Western individualistic culture more UO-centric. However, the study concluded that the important variable in these differences seems to be how the culture actually confronts uncertainty. That is, it may be the case that the norms and values of a culture steer individuals into being self-regulatory (CO) or not (UO) in the face of uncertainty.

Based on the research of the construct, common themes in uncertainty emerge. These are: (1) individuals differ in coping and decision making in the face of uncertainty, some people avoid while

other seek to resolve uncertainty; (2) personal factors such as culture may be influential in how people deal with uncertainty, and (3) relevant and/or clear information seems to be a crucial in evaluating an uncertainty situation.

Uncertainty in the Philippines

As might be expected in a developing country, uncertainty in the Philippine context is most commonly referred to in relation to the economic state of the country. For instance, an international survey (Philippine Daily Inquirer, 2008) found that 83% of Filipinos are saving more because of economic uncertainty. The Manila Standard Today (2006) also cited a survey in which Filipino businessmen reported being “stressed” because of uncertainty regarding job security.

A more systematic approach to studying the concept would be to look at the country’s scores on “uncertainty avoidance,” one of the four cultural dimensions identified by Geert Hofstede in his classic study. Uncertainty avoidance “deals with a society’s tolerance for uncertainty and ambiguity” (Workman, 2008, p. 1). Hofstede categorized the Philippines as a low uncertainty avoidance country, implying that Filipinos prefer few rules, and are tolerant of surprising and novel situations.

However, Acuña and Rodriguez (1995) found that Filipinos are stronger in uncertainty avoidance than Hofstede originally posited. Furthermore, they speculated that one of the factors that may be influential in this is educational background, such that individuals who have completed college and post-graduate studies may be less uncertainty tolerant.

The findings of these studies highlight the need for further empirical work in the area of how Filipinos react to and deal with uncertainty. The present study hopes to contribute to this by focusing on college students and how they manage uncertainty in career decisions.

Objectives of the Study

The purpose of this study was primarily to understand whether career uncertainty was experienced by Filipino college students, and to explore the sources and experiences leading to either career uncertainty or certainty. Coping strategies were also examined in anticipation of determining recommendations for career counseling interventions for students.

The Social Cognitive Career Theory (SCCT) was used as a framework in analyzing the data. This theory has been tested and widely used in foreign studies and the SCCT's comprehensiveness and clarity makes it open to further empirical verification. It provided this exploratory research the crucial foundation for further work in the area. Nevertheless, variables which may be more salient to the Filipino experience were given attention in the analysis and recommendations.

College students were chosen for this study because of their unique position as being just on the verge of work life, and yet having already been exposed to life transitions, important decisions, and coping mechanisms. It is also interesting to see whether the economic uncertainty that plagues their nation is influential in college students' decision making.

Career Uncertainty

Studies have shown that uncertainty can be experienced at any point in one's career and affects people's emotions, attitudes and behaviors (Trevor-Roberts, 2006).

For the most part, career uncertainty has been identified as a stressor. Constantine & Flores (2006) found that higher levels of psychological distress were associated with higher career uncertainty and greater perceived family conflict among Asian American students. The New York Times (1991) reported uncertainties about career as one of the factors leading to teens attempting suicide.

In the Philippines, it was previously mentioned that uncertainty about their jobs was a reportedly causing stress in Filipino businessmen (Manila Standard Today, 2006). Career uncertainty then seems to influence people's lives in a negative way. But what brings about this uncertainty? Is the distress over one's career choices brought about by intrinsic factors (such as self esteem) or is it something that can also be influenced by the wider environment?

So far, there seem to be at least two lines of work in career uncertainty: personal factors and external factors, which include the political and economic environment.

Personal Factors in Career Uncertainty

Nauta (2004) stated that the major influences on people's career choices most often cited in the literature are interests, self-efficacy expectations, and stable dispositional tendencies, such as personality traits (Lent, Brown & Hackett, 1994 as cited by Nauta, 2004).

For instance, Guay and colleagues (2003) proposed and initially validated a model of career indecision in which peer and parental styles predicted career indecision through the students' perceived self-efficacy and autonomy.

Saka, Gati and Kelly (2008) likewise proposed a model of emotional and personality-related aspects, that affected career decision making difficulties. These variables were anxiety, pessimistic views and self and identity. The authors related pessimistic views to the lack of personal control and self efficacy.

Additionally, age and developmental maturity are personal factors that have been studied separately. I have highlighted studies on young people here, as it is most relevant to the present study.

Borchert (2002) studied high school students, and concluded that making a choice of career is "an ever evolving process" (p. 75) requiring trial and error and experimentation, which would be supported by

more career-related information and counseling being made available as early as the elementary level. Schmidt (2001) found that career uncertainty was related somewhat to grade level and overall development of high school students. On the other hand, Sinz (2003) who studied college freshmen, found that many students at this level were still indecisive about their major.

External Factors in Career Uncertainty

Other lines of research in career uncertainty focus on wider environmental variables (such as economic necessity). Tien and colleagues (2005) cited economic instability, political and social pressures, and elements of the national educational system as factors for career uncertainty in Taiwanese college students. Baumgardner (1982) also cited downturns in the economy as a factor involved in career indecision and disillusionment in American college students.

In the Philippines, these very same factors may also be at play. Filipino youths are often encouraged to follow paths for economic purposes, such as medical routes (so that they could go abroad as nurses or medical technicians). There are even anecdotes of qualified medical doctors re-training as nurses just to be able to work abroad. It may then not be too far fetched to think that Filipino students choose their majors in part because of the "market value" of the field, rather than any real interest or capability in it.

Furthermore, the Filipino educational system as it stands includes six or sometimes seven years of elementary school and four years of high school after which the student normally chooses a major and goes to college. Compared to other educational systems, for instance that of the United States which includes 8th and 9th grades, Filipino students begin collegiate education at around 16-17 years old, at least a year earlier than their American counterparts. To compound the issue, many Filipino universities require students to have already chosen their major upon entering college, whereas other

countries often allow one to two years of “general education” before students are required to choose their field of study, which often leads to their future career path.

Filipino Youth and Uncertainty

At this point, it is useful to look at prior Philippines studies on adolescents, defined in one study as those with ages 15-24, and generally overlapping with the college years. Ogena (2001, as cited by Gastardo-Conaco, Jimenez, & Billedo, 2003) pointed out that the physical and psychological changes in adolescents, coupled by changes and adjustments typically encountered at this life stage can lead to “distressing feelings” such as uncertainty.

Gastardo-Conaco and colleagues (2003) conducted a comprehensive study which indirectly provides insight on career aspirations and certainty of Filipino adolescents. First, adolescents’ goals and aspirations center on finishing their education, helping their families and being gainfully employed. Getting a degree is considered very important in light of the competition for jobs and “for the improvement of one’s quality of life” (p. 15).

Ranked in order, adolescent aspirations are monetary remunerations, desire to help family members, self-actualization needs, influence of significant others and lastly, awareness of the needs of the community. A further corroboration of the high ranking of remuneration is the finding that Filipino youth (ages 18-30) are more likely to save money in the face of economic uncertainty than their older counterparts (PDI, 2008).

It was also found that parents exert the strongest influence on adolescents’ aspirations followed by teachers, friends and relatives. Factors positively relating to career aspirations in adolescents are mental ability and academic performance while self-concept is found to be correlated with educational aspiration but not with career aspiration (Gastardo-Conaco, Jimenez, & Billedo, 2003).

Based on this, it would not be unreasonable to extend some of these influential factors not just on adolescent aspirations in general but also to career decision making. As such, we would expect the desire for remunerations and helping family members to precede any self actualization needs in the process of career decision making. Parents should also have the strongest influence on career choice.

This is important in the context of career uncertainty because it provides what may be a point of conflict in the process of choosing a career. A career path with good money potential may not necessarily fulfill intrinsic desires or self actualization needs.

Given the potential complexity of career uncertainty, I sought to employ a structured framework in which to situate these various factors in a way that would allow for a more coherent analysis and a sound theoretical basis for conclusions and recommendations. As mentioned earlier, the Social Cognitive Career Theory (SCCT) was chosen for this purpose because of its comprehensiveness and clarity, as well as the considerable prior research testing the theory.

Social Cognitive Career Theory

Lent, Brown and Hackett proposed the Social Cognitive Career Theory (SCCT) which was developed as a framework for understanding career choice, interest and performance processes, and also in the attempt to unify the several career theories that were available at the time (Lent & Brown, 1996).

Based on Albert Bandura's social cognitive theory, SCCT identifies several variables that interact in the process of career choice and development. It emphasizes cognitive and experiential variables (self efficacy, outcome expectations, goal setting) in career decision making, but also acknowledges the interplay between these variables with other factors salient to the target individual (person and contextual factors).

In his original theory on human agency, Bandura (1989) defined self-efficacy as “people’s beliefs about their capabilities to exercise control over events that affect their lives” (p. 1175). As a variable, it has been studied both as part of SCCT and as a stand-alone construct affecting career development in individuals (Betz & Hackett, 2006).

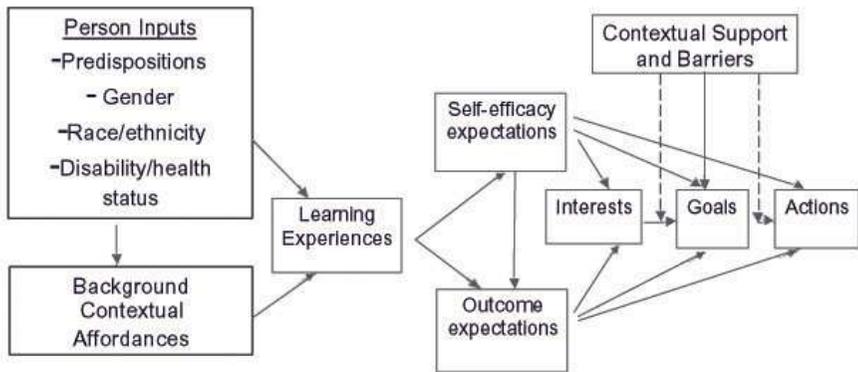
Outcome expectations refer to beliefs about the consequences or the outcomes of performing particular behaviors (Lent, Brown, & Hackett, 1996). Bandura believed that both self efficacy and outcome expectations would be influential in goal setting and decision making, but viewed self efficacy as the stronger determinant of behavior.

In creating the framework for SCCT, Lent, Brown, and Hackett (1996) recognized contextual support and barriers as factors further affecting career interests, goals and actions even if one’s self efficacy and outcome expectations have already initially determined these interests and goals. Contextual support and barriers are “proximal influences that come into play during the active phase of decision making” (p. 314). These are often cognitively assessed by individuals as a supportive environment. The recognition of these supports and barriers is a way of stating that decisions “are not made in a vacuum” (Luzzo & Albert 1999, p. 431).

Lent (2007) presented the interplay of SCCT’s significant variables in figure 1. The figure shows that the individual’s person inputs and background contributed learning experiences, which then form self efficacy and outcome expectations. These then lead to career interests from which goals develop, and eventually actions are done, leading directly to the chosen career paths.

It is noteworthy that contextual support and barriers may still affect decisions at any of these points. That is, contextual support and barriers are still influential when the individual is expressing interest or forming goals or performing actions towards the chosen career.

Figure 1: SCCT's complete interest and choice model with person and contextual factors



This is true even with prior self efficacy and outcome expectations having already been experienced.

In this study, I focused on these three variables: self-efficacy expectations, outcome expectations and contextual support and barriers because they are the factors most proximal to the actual point of decision-making, and therefore, indecisiveness or uncertainty.

Empirical Evidence for Social Cognitive Career Theory

Since its conception, SCCT has been tested in several empirical settings and applications. Initially, many of these studies centered on the application of SCCT in improving the relevance and appropriateness of career interventions.

For instance, Chartland (1996) used SCCT in developing career counseling interventions for at-risk populations who do not have access to career information, specifically female offenders. Chronister and Mcwhirter (2003) did the same for battered women. O'Brien (1996) likewise applied SCCT as a basis for career counselor training.

On the other hand, Smith (2002) was more interested in establishing the applicability of the model itself in predicting career interest in the information technology (IT) domain. She later also studied whether SCCT variables (self-efficacy beliefs, outcome expectations, and information technology interests) could be predictive of academic performance in IT (2002). In both studies, she found support for SCCT variables in predicting career choice and performance in this domain.

More recent research is similar to Smith's work in that it is geared more towards finding empirical evidence for SCCT variables and their predictive ability in career decision-making.

Ali and Saunders (2006) found support for SCCT variables in predicting college expectations of rural Appalachian youth. Ali & Mcwhirter (2006) later expanded on this study by focusing post secondary expectations and eventual career pathways of the same minority youth group. The first study found that self efficacy and parental support (as a contextual support), predicted Appalachian youths' expectations to attend college. On the other hand, the second study specifically found that self-efficacy beliefs, college outcome expectations, and the likelihood of encountering barriers to postsecondary education contribute to exploring career pathways.

Quimby, Wolfson, and Seyala (2007) used SCCT in the context of minority high school students with interests in environmental science. They found that the social cognitive variables of investigative self-efficacy, outcome expectations, and perceived barriers and support, when coupled with environmental concerns, contributed significant variance to the prediction of interest in environmental science in African-American high school students.

Byars-Winston and Fouad (2008) specifically examined parental involvement and perceived career barriers in the context of the SCCT framework in math and science goals of college students. They found

that parental involvement influenced career decisions both directly and indirectly with its relationship to outcome expectations.

Applications of SCCT to Career Uncertainty

Creed, Patton, and Prideaux (2006) found that changes in self-efficacy over time had no effect on career indecision over time. The authors, however, acknowledge that other factors in SCCT, such as outcome expectations, may account for at least part of remaining variance.

With regard to contextual factors, in their study of factors influencing international students' career choice, Singaravelu, White, and Bringaze (2005) found that parental pressure may affect career interest and choice. However, the authors did not specifically link this back to their sample's career uncertainty but looked at this variable in terms of how it differs in prevalence among international student groups.

This review of literature has led to several expectations on the outset of this study. My initial assumption was that Filipino college students will exhibit career uncertainty in the first place, as the students of the Philippines seem to face the same career dilemmas and choices as other cultures, even if the educational systems differ. Furthermore, family influence, mental ability and academic performance may be important factors in this indecision, with parental influence being the strongest influence, as cited in the study by Gastardo-Conaco and her colleagues (2003). The economic instability, based on surveys and news items at this time, may also be influential.

As the presence of information seems to be crucial in decisions with uncertainty, coping mechanisms may center on seeking out relevant and clear information regarding careers. These expectations are consistent with SCCT in that family influence is seen in both personal variables affecting interests early on, and later in contextual support and barriers. Mental ability and academic performance are

both person inputs, but may affect self efficacy expectations. Economic instability is also a contextual barrier.

METHOD

A free response questionnaire and follow-up interviews were used for this study.

Participants

Participants for the questionnaire were 113 college students (34 men, 79 women) drawn from Psychology 101 (General Psychology) classes in a university in Quezon City, Philippines. Mean age of the participants was 19.38 years. Seventeen participants indicated they were graduating that semester; of these, six were in their fifth year at the university (but not in five year courses). Six (6) participants indicated they were freshmen, 47 were sophomores and 43 were juniors. Participants varied in their majors; there were participants from Linguistics, Art Studies, Economics, Psychology, Business Administration, Math, Biology, Speech Communication, Engineering, Mass Communication, Philosophy, Political Science, Sociology, and Computer Science. The sample was purposive mainly for ease of administration, as this category of students is typically made available for research purposes. However, within the sample, there is some variability covering age, year level, and course major.

Participants for the follow-up interviews were taken from the same sample as the free response questionnaire. There were six participants, all of whom were women. Mean age of the participants was 19.69 years. Two of these had recently graduated from the university (they had been seniors when the questionnaire was given out); the four others were juniors. Three of these were Business Administration majors (two of which were graduates), one was a Psychology major and two others were Economics majors.

Procedure

For the free response questionnaire, the researcher coordinated with the different instructors of Psychology 101 during that semester. The questionnaire was administered in the classes of those who indicated they were willing to accommodate the researcher in either the first or last fifteen minutes of class. Two of these classes were those of the researcher herself. Instruments were administered to students in four classes by the author using a standardized administration procedure. Students were also told they would get 30-minute credit in required research participation hours for responding to the questionnaire. Six students declined to participate because they already had the required number of hours.

Following the questionnaire results, the researcher sought to clarify some responses by conducting follow-up interviews. The researcher sent out a blanket email to previous respondents to the questionnaire, asking if they would be willing to participate in a follow-up interview. Six (6) respondents, 5.3% of the original sample, agreed to the interview. The researcher met with four interviewees on an individual basis in quiet places where there were no expected interruptions; the researcher's office, a secluded corner of a coffee shop, and a training room in the respondent's workplace. All interviews were uninterrupted and generally lasted about forty-five (45) minutes. The language used was mostly English, but some interviewees switched to Tagalog at certain points of the interview.

Free-Response Questionnaire

Participant information. In the beginning of the questionnaire, respondents indicated their age, sex, year level and whether they were expecting to graduate in the current semester.

Free response questions. Participants were first asked if they were uncertain or certain of their future career. Those that were certain were led to the questions at the back of the questionnaire. Both groups

were then asked how they felt about their uncertainty/certainty and what experiences they had that had led to either certainty or uncertainty. An additional question for the uncertain group was “What have you done to cope with these uncertainties?” after which they were asked whether or not their actions had helped. The certain group was given the additional question “What have you done to help you come to a decision about your future career?”

Process. The researcher then analyzed the results and coded responses according to the Social Cognitive Career Theory variables of self efficacy expectations, outcome expectations, and contextual supports and barriers. As mentioned previously, these factors are closest to the point of the individual’s decision making, and therefore would theoretically be the factors that directly contribute to career uncertainty. By way of clarifying the coding process, I have provided a table below showing the SCCT variables, guide statements, and sample responses.

Table 1: Coding Guide and Sample Responses

SCCT Variable	Experience	Expressed in Questionnaire As...	Sample Response (Uncertain/Certain)
Self Efficacy	Can I do this?	Success or failure in current course, feeling either competent or nervous and unprepared	"I don't think I am right for this course because I failed my majors"/"I'm good at project stuff and academics in my course"
Outcome Expectations	If I do this, what will happen?	Expectation that they will be happy or unhappy; that they will get a job that will be sufficient for their needs	"I don't think I will get a good job since my course isn't one of the popular ones"/ "I will be okay with my prospects after graduation"
Contextual Supports and Barriers	How will the environment treat me if I try this?	Global and Philippine economic crises makes them think job may/not be available; influence of family and friends	"The economic crisis has made me think that there might be better options for financial security"/"I come from a family of doctors and I can't imagine being anything else"

In coding responses related to the economic crises, I scrutinized the words used and related these to the rest of the respondent’s answers to the questionnaire to determine whether this was an outcome expectation (that is, there is the expectation that they won’t get a job) or a contextual barrier (the financial crises is reason in itself). The differentiation was sometimes tricky, but not impossible to discern.

Generally, if a respondent stated, without any accompanying reason, "I think it will be hard to get a good job," this was coded as an outcome expectation. However, if a respondent mentioned the economic crises explicitly (as was often the case), I would then relate his/her response to his other answers to get a better picture of the reasoning behind the uncertainty. It would normally become clearer through the questionnaire that the individual had been relatively comfortable with his choice until the financial crisis made his re-think his options (i.e. "crises has made me about my ability to get a job" or "economic crisis has made me think I need to change courses").

All other responses were relatively straightforward to code under the three SCCT variables. An independent researcher with knowledge of Social Cognitive Career Theory later randomly reviewed a number of questionnaire responses and validated the researcher's coding method.

Moreover, the follow-up interviews also helped to verify whether the researcher's understanding of particular responses were accurate. An interview participant was one of those who stated the economic instability of the country as a factor in her career uncertainty. Without prompting, she reiterated that had it not been for the need to contribute to her family expenses because of the loss of her mother's job, she would be certain about her career choice at this point.

Interviews

The follow-up interviews were conducted individually, and all participants volunteered their time for the interview. Because the interview was voluntary, the participants could be assumed to be those who showed interest in the study and career uncertainty itself. Indeed, one interviewee stated that "I really want to understand career uncertainty and I think this will help."

As a follow-up from the questionnaire, the interview was designed to probe perceived gaps in the data following the questionnaire analysis.

All participants were asked first if they were certain or uncertain about their careers and whether this differed from their earlier response to the questionnaire. All six of the participants were uncertain about their careers, both at the point of the questionnaire and follow-up interviews. This was true despite two participants having already graduated when the interviews were conducted.

Questions then followed as to what experiences they feel could make them more certain about their careers, and how these actions may help. Crucially, their responses were not limited to their own experiences (as it was in the questionnaire) but also others’ experiences, in which they may have vicariously learned from. Other questions attempted to understand the role of the college experience and parental influence in career uncertainty.

The two students who had graduated were also probed as to whether they felt graduation had contributed or detracted from being career certainty, and then asked why they felt this was so. The participants were also asked if there was a positive side to career uncertainty and to explain what this was, if anything.

The interview guide questions are provided as Appendix B.

RESULTS

The frequency of responses for the questions relating to career uncertainty/certainty and what experiences led to this state is shown in Table 2 below.

Table 2: Frequency of Responses (N=113)

Experiences Cited As Leading to Career Uncertainty or Certainty (as coded by researcher)				
	Contextual Supports and Barriers	Outcome Expectations	Self Efficacy	Totals (%)
Uncertain	20	31	21	72 (63.72)
Certain	4	27	10	41 (36.28)
Totals (%)	24 (21.23)	58 (51.33)	31 (27.43)	113 (100)

The table shows that 63.72% of respondents were uncertain about their career, while the remaining 36.28% reported that they were certain. In both cases, the highest frequency of responses was in outcome expectations (51.33%), next was self efficacy (27.43%) then contextual supports and barriers (21.23%).

A two-way chi-square test was used on the data to determine whether there were any significant differences in the frequencies for the SCCT variables of uncertain students to the frequencies of certain students. The test revealed $\chi^2 = 6.68$ which is significant at $p = .05$. This indicates that there is a difference in frequency of responses between the uncertain and certain groups.

In the attempt to further validate the result of the significance test, the data was tested to indicate whether there is a relationship between the admission of career uncertainty and the reporting of SCCT variables by the participants.

The test showed Cramer's $V = .25$, indicating a weak relationship between the career uncertainty and self efficacy and outcome expectations, and contextual supports and barriers.

With the seeming contradictory results, the data was put through a further test in the attempt to examine if variance could be reduced if one of the variables was treated as dependent on the other by using the lambda (λ) test.

When the SCCT variables were treated as the dependent variable (that is, the presence of these factors depend on an individual having career uncertainty or certainty), the obtained λ coefficient was 0. This indicates that with this data, we are not able to reduce variance by treating the SCCT factors as the dependent variable. A cursory look at the data reveals that the computation seems sound because λ uses the largest cell frequencies within each category. In this case, these frequencies are all in the uncertain category.

However, when the situation is reversed and career uncertainty/certainty was treated as dependent on the existence of self efficacy and outcome expectations, and contextual supports and barriers, the result was a β coefficient of .25. This indicates that 25% of the error in prediction can be removed by treating career uncertainty/certainty as dependent on the presence of SCCT variables.

Discussion of data coded under SCCT

The data indicate that a significant percentage of the respondents feel uncertain about their careers. The experiences leading to this uncertainty are spread across the three SCCT variables used in this study, as are the experiences of those who reported they were certain about their future careers. In both cases, the largest percentages were the responses that were coded outcome expectations.

As mentioned in the review of literature, outcome expectations refer to an individual's beliefs of the outcomes of their behavior. In this study, it is most often related to whether respondents feel they will get a good job and whether they will be happy and enjoy their careers if they follow through with the path they are currently on. A large frequency of responses in this category may mean that being certain about one's career is most often influenced by the perception that you will be fulfilled either economically, emotionally or both. As such, an uncertain student may be so because his/her chosen course does not seem to lead to good job prospects. Whether or not he/she likes the course or is good at the work, or whether his or her friends and family are supportive, may be perceived as less significant. If this is the case, then it is important to have access to accurate and timely information about one's career prospects.

Experiences involving self-efficacy were the next most frequent response in both the uncertain and certain group. Contextual supports and barriers are mentioned least frequently in both groups. This may indicate that after outcome expectations, students' attribute their certainty or uncertainty to the perception of their capability to perform in their courses.

The results of the tests of significance and correlation indicate that there is a significant difference in career-related experiences, as categorized under SCCT, between those reporting career uncertainty and those stating they were certain about their careers.

In essence, this indicates that someone who feels uncertain about his/her future career has had different experiences (and consequently different reasons or drivers) to someone who reports certainty in the same domain.

Furthermore, in terms of the SCCT framework, this may indicate that those who are uncertain about their career have had experiences that have negatively affected their beliefs in their capabilities (self efficacy), and the results of their work (outcome expectations). The influence of parents, peers and economic information (contextual supports and barriers) is also negative here in the sense that it leaves them uncomfortable with the status quo.

On the other hand, if we use the same line of reasoning, those who are certain about their future careers, have had positive experiences related to their self efficacy, outcome expectations and contextual supports and barriers.

However, it was also found that the correlation between the two factors is weak. That is, there seems to be a weak relationship between reporting career uncertainty and the presence of SCCT variables. As such, this may mean that the feeling of uncertainty (or certainty, as the case may be) is not closely related to the experience of, for instance, failing courses or not getting any support from parents.

Because of the seeming contradiction between the two tests, the lambda test was employed both ways, in the hope of revealing a potential avenue for reducing error in the results. It was found that if the feeling of career uncertainty or certainty was treated as dependent on the experiences related to self-efficacy, outcome expectations and contextual supports and barriers, 25% of the error can be reduced.

This seems to indicate that feeling uncertain or certain about one's career may indeed be at least partially dependent on the experiences that affect your belief in capabilities, belief in the results of work and the extent of support the environment provides.

While the results seem initially confusing, the conduct of past SCCT studies show some support for the analysis. SCCT has largely been studied as a framework for career development and counseling as a more holistic concept (Lent, Brown & Hackett 1996). When it has been related to career uncertainty or indecision, it is normally broken down into its several variables, such as self efficacy, and then later related to the wider theory. In this study, I chose to let participants define the influencing variables of career uncertainty by setting out a free-response questionnaire. In doing so, the data at this stage are more difficult to delineate.

The follow-up interviews, however, did help in shedding some light on these results. In the interviews, participants were asked specifically what they thought might help in reducing career uncertainty. Crucially, the responses were not limited to their own experience but also what they may have seen in other people.

Four of the six participants felt that the ability to make money was very important in being certain about their career. One of these, for instance, said that if only there were only more money in human resources, she would be more aggressive in trying to get a job in the field, regardless of whether she felt she was capable in it. The perception of whether high paying jobs are available is clearly an outcome expectation.

The two other interview participants felt that they needed to improve their skills or competencies to be more certain about their future jobs. This response relates to self efficacy. Furthermore, both had experiences in which they observed other people become successful in a career path by participating more in extra curricular activities or finding a reputable internship company.

The interview data, therefore, supports the lambda test results, as it suggests that self-efficacy and outcome expectations precede career uncertainty.

In any case, these initial findings have at the very least revealed that career uncertainty is felt by college students and self efficacy expectations, outcome expectations and contextual supports may be important in making them more certain of their career development.

Finally, it is interesting to note at this stage that all six (6) freshmen participants felt certain about their careers but only three (3) of the seventeen graduating that semester reported the same. It raises the question as to whether the uncertainty is something that is developed through the years of college, rather than the more common assumption that it is the younger students who, having had less exposure to fields of study, may feel less certain about their career.

The follow up interviews again help in understanding this issue. The four undergraduate participants felt that the college experience adds to career uncertainty in that it presents several more options and choices to the individual that were not considered before. Two of the respondents felt that their degree courses were not what they expected and this is now causing their uncertainty. Two other respondents said that seeing college friends try out different options make them want to reconsider their own choices. Finally, one respondent also said that while she was "happy" in her degree course, she was now exposed to other careers that someone with her degree could go into and this made her rethink her original career plan.

The two recent graduates concurred with the undergraduate respondents. They both said that experiences in college made them more aware of other interesting fields and choices. In fact, one of them ended up in the job she is in because she heard about it in a college job fair.

Moreover, while both respondents felt that their current jobs were merely stepping stones to what they would eventually take up as a

career, they also acknowledge that their next job would have to be closer to what they really want. As one respondent put it "I am aware that this first job is the one for the money, the second will be the one for the future. So I really need to decide what I want to do now."

If it is indeed during the college experience that career uncertainty arises, colleges and universities may have to make available and perhaps improve career development programs for their respective students.

It is important to note that these findings are not what were initially expected based on the Philippine studies surveyed. In particular, parental pressure does not seem to be a very strong factor at this stage. However, we do encounter this factor again when discussing coping mechanisms.

The next section attempts to build on these findings and identify potential recommendations from the study. I will do this by looking at the experiences that have helped the certain group be comfortable about their careers and conversely, examining the experiences that have hindered the uncertain group from feeling confident about their future careers.

Experiences Involved in Certainty

Feeling associated with certainty. By and large, the feelings associated with certainty were positive. The most prevalent answer to the question regarding feelings about certainty was "secure and confident" and "happy" which together accounted for nearly 60% of responses. Less common responses were "excited" (9%) and "determined" (7%). One respondent said they were "enlightened" while another stated they were "less worried."

Despite their certainty, two respondents reported having negative feelings. One respondent said she was "apprehensive" and another said he was "disappointed but sure." In both cases, this was because their family had influenced them to follow a career path that neither was entirely

happy about. Thus, while they were certain about their career path, their choice having being forced by familial pressure led to the negative feelings. Furthermore, neither case reported a lack of confidence in their abilities or the career path itself so it does seem it was the family pressure that made them certain about their career, but also sadly unsatisfied.

Experiences associated with certainty. Table 3 below shows the frequencies of factors or experiences that students have reported helped them to make a decision about the career in which they now feel certain they will follow.

Table 3: Experiences that have helped in career decision making in students who are experiencing career certainty (N = 41)

Experiences	Frequency	Percentage %
Love for academic subjects (related to career choice)	17	41%
Work or internship experience (in the field of choice)	11	27%
Seeking career advice (both formal and informal)	5	12%
Inspired by personal experiences	4	10%
Family influence or history	4	10%
Total	41	100%

Here, it is interesting to note that “love for academic subjects” and “work or internship experience in the field” account for 68% of the reasons given. These two reasons, after all, are directly concerned with the formal education the student receives. However, it also presupposes that the student would have already chosen a suitable major to begin with. These responses seem to put much of the burden of having career certainty on making an informed and sound decision on a course prior to entering college.

Given this, it is perhaps appropriate that the next most frequently reported experience is “seeking career advice.” Two of the five respondents who reported this experience specified that they received the advice from a counselor at school; two others said they received advice from friends who had already graduated from their course, and one did not specify the source. While the frequency is low, it is still noteworthy that there are indeed students who make seemingly sound

decisions about their career after receiving real-world advice from other people.

Four respondents stated their certainty was due to having a personal experience that either changed their outlook on their futures or validated a prior choice. An example of this is a student who suffered a long illness and then decided to become a doctor following her recovery.

Lastly, four respondents mentioned family influence or history leading to their career certainty. It is notable that two of these four actually feel quite negative about following their family’s wishes; nevertheless, their minds were made up that they will indeed pursue that path. This finding is consistent with parents being a strong influencer in Filipino adolescents, although we would have expected this to figure higher in the order.

Coping with Uncertainty

Feelings associated with uncertainty. In the uncertainty group, 68 (94.44%) of respondents reported a negative feeling. These feelings are depressed, confused, upset, lost, nervous, scared, unstable and uncomfortable. Interestingly, four respondents (5.56%) reported feeling “challenged” or “/more determined” because of the uncertainty in their future careers. This is probed further in separate discussion after the results are presented.

Table 4 below shows the frequency of coping methods employed by the respondents stating they were uncertain about their future careers.

Table 4: Coping actions of students who are experiencing career uncertainty

Coping Actions	Frequency
Seeking more information about future job	17
Studying more	15
Being more active in extracurricular activities	15
Thinking about it/ introspection	14
Seeking work experience	9
Doing nothing	8
Talking to parents	4
Praying	3

*Note: Some respondents cited two or more ways of coping with uncertainty.

Seven respondents stated their coping strategy did not help at all; four (4) respondents said it helped “a little” and 51 simply stated that it did help. Nine (9) respondents declined to answer as to whether their coping strategy helped them. Additionally, all interview participants reported they were uncertain about their careers. As such, the coping mechanisms they employ, and have seen others employ, can supplement the questionnaire results.

The coping mechanisms mentioned by interview participants are extra-curricular activities, finding a reputable internship company, getting more information about careers and jobs from other people, and browsing job advertisements. Each of these is discussed along with a related or corresponding factor as identified in the questionnaire response table.

The table shows that the “seeking of information about the future job” is the most frequently used coping mechanism for those who are feeling uncertain about their future careers. When respondents indicated the sources of this information, it was most often friends or family who were already doing the job they were interested in (but not entirely decided upon). None of the respondents in the uncertain group mentioned seeking advice from a professional, such as a guidance counselor or career coach.

Three interview respondents also mentioned “getting more information about careers and jobs from other people.” These “other people” however extended to people they “hardly knew” but felt could provide information. To illustrate this, two respondents had approached a teacher in the university who they knew had experience in the field they were considering. In both cases, the teacher had not been one of their own, but they knew of her by reputation.

It was also clarified in the course of the interviews that “finding a reputable internship company” and “browsing job advertisements” were actually variants of seeking more information about their future jobs. These actions were typically done as a form of researching job

prospects and even checking salary levels. As such, it is important to note that clarification of information is not necessarily confined to asking other people, as could easily have been assumed based on the questionnaire data alone.

Returning to the table, the next most frequently mentioned coping mechanism is “studying more.” Several respondents indicated that this meant studying harder in the course they were currently in so that they could either shift to another course, or increase their prospects of getting a good job by graduating with honors or getting high grades.

Perhaps surprisingly, “being more active in extracurricular activities” was mentioned by fifteen respondents. Although it is difficult to discern all the respondents’ motivations, one respondent did explain that her extracurricular activities consisted of joining an organization that was in the college where the course that she really wanted to be in was situated, but for which she could not meet the grade requirement. This provides an insight into the possibility that students may use extracurricular activities to compensate for perceived deficiencies of their current course, or simply as a way of getting more information about a field they are interested in. This explanation was validated by one of the interview participants, who said that her extracurricular work with an organization that had alumni in desirable companies was providing networking opportunities “with the right people” which she felt her degree program did not provide.

The more passive “thinking about it/introspection” follows with fourteen (14) respondents admitting that this is their only course of action so far. Of these, four (4) stated that this method did not help at all; three (3) said that it helped a little and the rest simply said it did help. The frequent answer to how this helps is that it “clarifies their thoughts” which in turn helps them plan for the future. However, those that say it does not help at all admit that simply thinking about their career uncertainty is “a form of procrastination.”

Still, some thinking is better than none at all, which eight respondents admitted to doing. Of these, seven (7) did not answer when asked if the strategy helped them but one did admit that it did not but added, "I don't really know what I want to do, so I do nothing."

Four (4) students said they spoke to their parents. Once again, we would have expected this to be more frequently mentioned in the questionnaire. The discussion of the seeming lack of parental influence on career uncertainty is included in the next section. Finally, three (3) said they prayed to cope with career uncertainty. All of these said that these coping mechanisms helped.

DISCUSSION

The results of the study appear somewhat varied which, to a certain extent, may be expected due to the open ended nature of the research instrument. Nevertheless, I believe some important themes and insights can be collected from the data and analysis.

Career uncertainty is experienced by many college students across all years. Based on this initial study, it seems that career uncertainty is indeed felt by a considerable number of college students. As the sample did not concentrate on one college year, it may be tentatively put at this point that this uncertainty may be prevalent over all the years of college. This is consistent with the notion that career development is a process that lasts over the life span and transitions (for instance from school-to-work or from high school to college) are especially crucial stages in the process (Lent, Hackett, & Brown, 1999).

On this point, note that all the freshmen in the study claimed they were certain about their careers but fourteen of the seventeen graduating students in the sample said they were not. These categories are the students closest to transition points in the career development process – freshmen because they have just moved from high school to college and graduating students are in the school-to-work phase.

If we consider that freshmen are farthest from the career decision point and graduating or recently graduated students are closest, it seems “delay” as regards uncertainty seems not to be in effect here. In this case, the immediacy of the situation seems to have compounded the uncertainty.

The interviews on the two students who had graduated but still felt career uncertainty can shed some light on this finding. Both graduates felt that leaving the university had made them more aware of the several different possibilities open to them and instead of clarifying their thoughts, being in the job market made them more confused. This was especially so for one respondent, who had started to feel confident about a career path, but could not secure a position in the field, thus sending her into greater insecurity. She stated that had she known what the requirements of the positions were, she could have taken more relevant electives in college. Based on this, it seems that it is the lack of relevant information that is at the root of uncertainty for graduating students. While it is ill-advised to draw any conclusions from a small sample of these categories of students, it does raise a compelling line of future research in the area of career development.

There may be fundamental differences in the experiences of those college students who are certain about their careers versus those that are still uncertain at college level. The data analysis on this point is somewhat mixed in its support of this thesis. The chi-square test was significant, indicating the differences between the two groups, but the Cramer’s V test of correlation was not.

However, a further lambda test and some of the interview results did seem to indicate that if feelings regarding one’s future career (certainty or uncertainty) is treated as dependent on the presence of SCCT variables (self efficacy, outcome expectations and contextual supports & barriers), then some of the error in prediction is reduced. The same can not be said if the dependent and independent variables are reversed; that is, if SCCT variables were dependent on a person’s feelings towards their

future career. This tends to be supported by the very nature of the model in that the process of setting career goals and performing actions towards these goals is preceded by self efficacy and outcome expectations, and mediated by contextual supports and barriers (Lent, 2007).

The quality of the career decision made prior to entering college may be a crucial factor in whether a student is certain about their career during college. Based on the actions performed by the certain group, it seems that making an informed and sound career decision prior to college is fundamental in developing or maintaining career certainty. The actions they cited to have helped in career certainty point to those done in the academic setting, which can only be accomplished if one has already chosen a degree major that seems compatible with your needs and desires. Thus, these actions actually serve to reinforce the decision already made, which highlights the need to make a good decision prior to this point. Furthermore, these reinforcing activities in themselves, particularly when they contribute to greater knowledge about the career option (such as during internship) may also be important in maintaining career certainty.

To add weight to this argument, when we look at the coping actions of the uncertainty group, the actions that are most common are those that provide further information for other careers, help in shifting out to another degree major, or attempt to compensate for the perceived deficiency of their current course. This implies that these uncertain students are regretting their decision of degree major, or for various reasons could not enter the degree program of choice. There were cases of uncertain students who resorted to "thinking" and "doing nothing." These actions do not seem to be those of young people wishing to make the best of a bad decision, but rather those that are hoping perhaps to reverse the effects of it.

It is interesting to look at these data in relation to the findings of Orndorff and Herr (1996). These researchers sought to compare the career development actions of college students in the United States who had declared their majors and those who were undeclared. This

study found that declared students were both more certain about their careers and engaged more in purposive activities clarifying their values, interests and abilities and engaging in career planning. However, both groups had low levels of activity in relation to seeking occupation related information.

Against the findings of the current study, it can be surmised that students who are certain seem happy to engage in further career-related activities whereas uncertain students, who arguably have more need to be active in this regard, are less inclined to do so. This goes back to my original point – since college students do not consistently engage in useful career development activities, the decision towards a career choice or indeed the competencies needed to explore careers should probably be cultivated prior to college.

Furthermore, if we take into account the negative feelings associated with uncertainty and the stress that may be experienced because of it, it seems that career development support prior to the college level may be needed as a matter of course for all young people. It may be important not just from a practical and economic point of view, but also for their psychological state.

Career development support and systems play an important role in providing current and useful information for those in the midst of a career decision. Based on the preceding discussion point, it is reasonable that viewing career development as a lifelong process is crucial in being able to develop responsive career development systems aimed at decision making prior to or during the college years.

In the SCCT-coded responses with regard to experiences leading to uncertainty or certainty, outcome expectations were most frequently indicated. This points to the need to have information readily available to students about their future options, job market, and economic situation. This is especially important in light of the Philippine economic situation, where remuneration is deemed very important. These would help clarify the perceived outcomes of their career choice.

This is consistent with Brown and Lent (1996), who specifically related social cognitive career theory to a career choice counseling approach. Brown pointed out that the widest array of occupational choices should be made available to the client (in this case, students), but also advocated that information regarding the economic and psychological implications of various options should also be offered to help them clarify self efficacy and outcome expectations.

Gushue and Whitson (2006) found that information and support from parents and teachers prior to making a decision helped American high school students overcome perceived obstacles to making a career decision. On the other hand, Lee & Johnston (2001) recommend a more holistic approach to career development interventions. They put forth that an uncertain economic environment, potential diversity issues and other life stressors makes a psycho-social approach to career counseling interventions more appropriate. In this way, not only is the person's environment and expectations taken into account, but competencies for making prudent career decisions can also be developed.

Parental pressure may not be a strong factor in career uncertainty at the college level. The low frequency of responses with regard to seeking parental advice may mean that at college level, at least, the influence of parents may be diminishing. This should not be underestimated, however, because parents may have already influenced decisions prior to college and may in fact be contributing to uncertainty by initially limiting the options of the student.

Indeed, this supposition was supported in part by the interview respondents, all six of whom felt that their parents heavily influenced their degree course choice, either by choosing the degree course themselves or favoring a particular option. (Two respondents even admitted that their parents filled out their college application form.) Four respondents said that they went to their parents for advice less in college, and now rely more heavily on friends or teachers, while the

other two said that their parents are still helpful in providing career advice. The typical explanation for the weakening of parental pressure was that the students seem to have simply become more involved in college life, and either spent less time at home generally, or simply felt that there were other, more significant people in their lives who could advise them on their careers.

In summary, it seems that career uncertainty is very much an issue that college students face in their university lives. To avoid this potentially stressful situation, career development interventions supplementing parental advice should be introduced at the high school and even elementary level to help the youth make a sound decision regarding their future career prior to entering college. These interventions should, at the very least, provide information to clarify outcome expectations of career options. Ideally, they should also equip young people with competencies to enhance their self efficacy expectations, minimize barriers to success, and make sound decisions regarding their future career.

Positive feelings about uncertainty

As presented earlier, four questionnaire respondents reported being “challenged” and “more determined” because of career uncertainty. These responses do not seem to fit the mould of the findings thus far. However, if we go back to gambling behavior and role of uncertainty in this, perhaps uncertainty may sometimes compel people to take the riskier road.

The follow-up interviews tried to understand the positive feelings associated with uncertainty by specifically asking respondents whether there was a positive side to career uncertainty. All interview respondents said that the feeling of career uncertainty could indeed be positive, although two interviewees stated they would not have thought so offhand had the question not been asked.

The interview respondents were unanimous in saying that being uncertain about one’s career allowed time to explore the many different

options, and may motivate people to be more active in securing their future. One respondent said that being uncertain was at least better than being “forced” into a decision by parental pressure. None of the respondents felt that uncertainty made them take “riskier” decisions. Instead, the interviewees agreed that uncertainty pushed them to various actions that make them feel more secure about the future.

These preliminary findings on “positive uncertainty” could be an interesting avenue for future research perhaps in the area of gambling and even saving for the future. In the context of careers, this could point to the need for more interventions directly challenging and motivating students to assess choices and make decisions.

Recommendations for future research

The present study is exploratory in nature, and the objectives were in understanding whether career uncertainty existed in college students and what coping mechanisms were being used to this end. Social Cognitive Career Theory, which has been empirically verified by studies in other countries, was used as a framework, both for providing structure to the open ended responses, and as a basis for analysis and building recommendations for career development interventions. The follow-up interviews helped somewhat in probing some issues that the free-response questionnaire did not adequately answer.

Nevertheless, the study was limited in that it did not purposely correlate individual SCCT variables with career-related behaviors and feelings. For instance, given that outcome expectations has the highest response frequency in this study, research specifically probing the various manifestations of this factor (such as salary and job availability perceptions) could validate and expound on the findings here.

This study was further limited in the use of a purposive sample, which was done for essentially practical reasons. The sample has been useful as a starting point for further research on this area. Furthermore, the distinctiveness of the university in which the sample was taken from

could be used as an angle for some interesting takes on career uncertainty. Does being a large co-ed university with a reputation for cultivating critical thinking make a difference in the findings? How would the findings differ if the sample had been in a private all-girls college?

It is hoped that more structured research into SCCT applications for the Filipino setting will follow. Specifically, it would be useful to understand whether outcome expectations are indeed the most salient variable in career uncertainty. Parental pressure, which did not seem to be a crucial factor in this study, may be found in future studies to be more influential, particularly if taken in the context of how this factor contributes to self efficacy and outcome expectations.

It would also be beneficial to understand better and validate the initial findings here as to whether years in college and/or other transition states affect career decision making. For instance, does being a graduating student make you more indecisive because you are nervous about the coming change in your life? Is the immediacy of the decision really influential? Or are graduating students less concerned because they have been more deeply ingrained into the university culture, and career goals are less salient?

Given the emphasis on career development interventions here, it would also be useful to have longitudinal studies of students who have been recipients of career counseling or other interventions and see whether these activities help them in future career decisions outside of the academic setting. Moreover, the type of intervention may also be salient. Are the effective interventions those that provided relevant information in a field of interest or those that exposed even more options to the student?

Lastly, at the beginning of this paper, I reflected on the differences of the Filipino education system to those of other countries, and surmised that this may be disadvantageous to Filipino youth. A closer look at this system and the effects of this on career decision making could have wide reaching implications in the areas of school guidance programs, teacher responsibilities and even ultimately the educational system itself.

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