

## Comparison of Core Curriculum and Distribution Models of General Education: Student Evaluation of General Education Social Science Courses at the University of the Philippines Diliman

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### ABSTRACT

The general education program of the University of the Philippines Diliman has undergone numerous changes, focusing on whether students should follow a core curriculum or follow a distribution model within which they may choose their own courses. This study analyzed the influence of the current General Education (GE) Hybrid Program on the student evaluation of two core general education social science courses: Philosophy I and Kasaysayan I. Quantitative analysis of 520 sections' responses in the Student Evaluation of Teacher showed that general education courses were evaluated more favorably during the GE Hybrid Program (when these courses were required) than during the previous program (when these courses were optional). In particular, Philosophy I was evaluated more favorably during the GE Hybrid Program than during the previous program while Kasaysayan I showed no significant differences. These imply that requiring courses does not negatively affect student perceptions of the course. Moreover, changes made to the Philosophy I course in preparation for the GE Hybrid Program suggest other factors are at play in increasing favorable student perceptions of a general education course.

Keywords: general education, program evaluation, social science, college students

The general education program of the University of the Philippines Diliman has undergone numerous changes, with the first UP president Rafael Palma and subsequent presidents emphasizing the need for a liberal education for the Filipino (University of the Philippines, 2013). In his inaugural address (Fonacier, 1971), Palma described liberal education as serving the purpose of broadening, intensifying, and rounding out learnings and knowledge that solidify basic culture in higher studies and strengthen habits of mental discipline in order to respond to truth and reality with acumen and quickness of mind. Other presidents of the university have revised this definition of liberal education (Fonacier, 1971) but have always stayed true, with varying degrees of emphasis, to calls for broadening perspectives, exploring and strengthening values such as critical and creative thinking, and developing a sense of nationalism (University of the Philippines, 2013). It is, however, the operationalization and implementation of such a liberal education philosophy that has distinguished one UP general education program from the others.

There have been at least three revisions of the general education program in UP in the last three decades, namely, the 1986, 2003, and 2012 revisions (University of the Philippines, 2013). In the 1986 revision, simply known as the General Education (GE) program, the philosophy of broadening perspectives was implemented through the institution of interdisciplinary courses (e.g., Humanities; Natural Sciences; Social Sciences; Science, Technology & Society) as course units were cut from 63 to 42 (University of the Philippines General Education Task Force, 2015). In the 2002 revision, known as the Revitalized General Education Program (RGEP), the philosophy of broadening perspectives was implemented through a 'cafeteria' model where students, instead taking a prescribed set of courses, were allowed to choose from a wider range of courses within prescribed domains (e.g., Arts and Humanities; Social Sciences and Philosophy; and Mathematics, Sciences, and Technology). In the 2012 revision, known as the Hybrid General Education (Hybrid GE) Program, there was an emphasis on balancing different attributes of a liberal education as rearticulated by every UP administration since Palma. Examples are the reinstatement of Kasaysayan I (Philippine History) as a required course to fulfill the UP liberal education philosophy of developing a

sense of nationalism and the prescription of Philosophy I to fulfill the UP liberal education philosophy of developing critical thinking (UP GE Task Force, 2015).

As of this writing, the university is yet again undergoing the process of revising its general education program in part as an adaptation to the systemic changes currently happening at the primary and secondary education levels (University of the Philippines, 2013). The emphasis on liberal education for the Filipino, however, has been reaffirmed (UP GE Task Force, 2015) and thus it is in the operationalization and implementation yet again that the most significant changes will be seen.

With this in mind, it is vital that a systematic and theoretically informed assessment of the current model of general education, the Hybrid GE Program, be initiated in order to develop a strongly rooted rationale for any future revisions that substantially affect the education and formation of undergraduate students. More specifically, this study aimed to determine the impact of the implementation of changes in the general education program in UP on perceived student learnings of attributes emphasized by the UP liberal education philosophy. It is additionally hoped that both gains and limitations of the Hybrid GE program can help inform a stronger, improved general education model that will uphold the UP brand of liberal education.

It is necessary to first understand basic theoretical frameworks for general education in order to assess UP's current general education model. Jones (1994, as cited in Bourke, Bray, & Horton, 2009) defines general education as "the collection of experiences crafted by the institution to provide students with a breadth of learning, (p. 219)". Brint et al., (2009) offer four models of general education: (1) core distribution areas, (2) traditional liberal arts, (3) culture and ethics, and (4) civil or utilitarian. Brint et al. consider the core distribution area model as the most prevalent, with prescribed general education domains typically reserved for the natural sciences, social sciences, and humanities. The traditional liberal arts model, on the other hand, tends to focus more on humanities subjects such as literature, arts, and foreign languages. The culture and ethics model, which gained ground in the last decade, shifts focus towards contemporary cultures and development of ethics. Lastly, the civil or utilitarian model of

general education emphasizes skills that are deemed useful in business and work. Brint et al., also found, in their analysis of undergraduate general education trends in the U.S. from 1975 to 2000, a moderate increase in the amount of required general education units as well as higher percentages of prescribed courses.

Other authors have further divided the core distribution area model of general education into two: the core curriculum model, which requires specific courses, and the distribution requirement model, which prescribes general education domains. Hollway (2005) describes the core curriculum model of general education as ensuring a common learning experience among students. He cites Kerr (1970, as cited in Hollway, 2005) who espouses that a general education core is a stance on what a university deems important, useful, and relevant to an educated society. Bourke, Bray, and Horton (2009), in their comparison of the core curriculum and distribution requirement model, state that a core curriculum encourages a more coherent and consistent learning experience as well as encourages the integration of disciplines. While the core curriculum model was the most frequent form prior to the 1960s, Bourke, Bray, and Horton, in comparing doctoral-granting institutions and liberal arts institutions, found that 65% and 80% of them, respectively, currently have adopted the distribution requirement model of general education. They posit that this shift in general education frameworks is partly due to a decrease in consensus on the core subjects to be prescribed. Their study, like Brint et al., documents an increase in volume of general education units required and furthermore an increase in more specific domain areas (e.g., foreign language domain, quantitative reasoning domain, etc.).

It is also important to differentiate between general education and liberal education in order to understand the ideological rationale with which one general education model is chosen over the other. Jaffee (2013), in his study of the development of general education in Hong Kong, saw a differentiation between liberal education and general education, with Hong Kong leaning more towards a general education that emphasizes breadth of knowledge and development of practical and applied skills. Liberal education, however, defined by Guerra (2013) as a more formative and holistic learning experience

with focus on fundamental human concerns, tends to adhere to a more philosophic and humanistic orientation.

Using these general education models as a way to understand UP's philosophy on liberal education as implemented in the RGEP and Hybrid GE Program, both programs seem to use a core distribution area model whose domains are in line with Guerra's definition of liberal education but with added emphasis on nationalism. What differentiates them, however, is that the RGEP adopted a distribution requirement model while the GE Hybrid Program is a combination of the core curriculum and the distribution requirement model. It is possible, therefore, to evaluate the current GE Hybrid Program through this lens: by assessing whether there were gains made by opting for a greater core curriculum approach to general education.

As part of the efforts of the College of Social Sciences and Philosophy General Education Committee, the objective of this preliminary study was to quantitatively compare the distribution requirement model – as represented by the RGEP – and the core curriculum model – as represented by the GE Hybrid Program – as they pertained to perceived learning gains of undergraduate students using the two core general education social science courses under the GE Hybrid Program: Philosophy I and Kasaysayan I.

By requiring certain courses as opposed to allowing students to choose from a prescribed range of courses, will students better meet the objectives and goals set forth by the UP philosophy of liberal education, as measured by the objectives of its GE courses? Will students be more motivated to learn when the courses are prescribed or chosen?

Studies on student motivation suggest that requiring courses of nonmajor students yields less self-efficacy and autonomy. Gasim, Stevens, and Zebidi (2012), for example, compared the motivations of political science major students and nonpolitical science major students in required political science courses to determine factors that increase motivation. They found that while there were no differences in autonomy levels and self-efficacy in general, political science majors had significantly higher perceived levels of autonomy and self-efficacy in learning political science.

In a similar study but using a nonsocial science course, Shell and So (2013) compared computer science major students and noncomputer science major students in required computer science courses and identified five motivation profiles: a strategic profile, where students were highly motivated and adopted the most effective strategy to achieve their goals; a knowledge-building profile, where students were intrinsically motivated to learn and were high in self-regulated learning; a surface learning profile, where students were minimally engaged in learning; an apathetic profile, where students were disengaged from the learning process; and a learned helplessness profile, where students were highly motivated but have difficulty engaging in self-regulated learning. Computer science major students mostly had strategic and knowledge-building profiles while nonmajors mostly had surface learning, learned helplessness, or apathetic profiles.

If requiring courses decreases student motivation, what effect then does student motivation have on learning? Research has long supported the link between student motivation and learning, with Pintrich (2003) arguing that motivational factors socially mediate and support academic cognition. It is then hypothesized that requiring courses, which decreases student motivation, also decreases academic cognition, as measured by perceived learning gains. We should then expect to see that student evaluations of learnings gained by courses during the Hybrid GE Program, where courses like Kasaysayan I and Philosophy I were required, to be significantly lower than student evaluations during the RGEP, where courses were self-chosen.

## Method

### Sample

Philosophy I and Kasaysayan I were selected among other general education social science courses since they were the only social science courses newly required under the current GE Hybrid Program. All Philosophy I (n=136) and Kasaysayan I (n=384) course sections offered from 2010 to 2013 (n=520) were included in the study, representing 14,311 undergraduate students (See Table 1). Of these, 220 sections provided their evaluation between 2010 and 2011 (during the RGEP, when these courses were electives) while 300 sections provided their

evaluations between 2012 and 2013 (during the GE Hybrid Program, when these courses were required). It is of note that there was a substantial increase in section offerings in 2012 and 2013 due to the course being required of all students in the university. Most of the course sections were offered in the 1st Semester (49.23%) and 2nd Semester (42.88%) while the rest were offered in the Summer or Midyear term (7.89%, see Table 2).

Table 1  
Course Section Characteristics

Course	n	Average Respondents (SD)	Average Enlisted (SD)
Kasaysayan I	384 (73.84%)	27.75 (3.98)	30.01 (3.79)
Philosophy I	136 (26.16%)	26.87 (6.43)	31.82 (4.03)
Total	520		

Table 2  
Frequency Distribution of Course Sections

Characteristic		n	%
Year	2010	112	21.54
	2011	108	20.77
	2012	142	27.31
	2013	158	30.38
Semester	1st Semester	256	49.23
	2nd Semester	223	42.88
	Summer or Midyear	41	7.89
	GE Program	RGEP	220
	GE Hybrid	300	57.69

## Measures and Procedure

Student evaluations of the course were measured using aggregated scores from the 7-item Part 2: The Course of the Student Evaluation of Teacher (SET) measure. This part of the SET used a 4-point Likert scale, with 1 = strongly agree and 4 = strongly disagree. The SET, which was administered online, was anonymously completed by all students for each course at the end of the semester. Additional items in the SET used for analysis included “How much have you

learned from this course?”, “To what extent, would you say, have the objectives of this course been attained?”, and “How would you rate the overall pace of the course?” all of which used a 5-point Likert scale, with 1 = very much / too fast and 5 = nothing / too slow (See Table 3 for a list of all included items). The aggregated data from the SET were obtained with permission from the university and the courses’ respective departments.

## Data Analysis

Quantitative analysis was used to compare evaluations of courses offered during the RGEP and the GE Hybrid Program. In particular, comparative tests such as the independent sample t-test and the one-way between-subjects analysis of variance were used, including their effect sizes. The study employed the IBM SPSS v21 software for statistical analysis.

## Results

Using the total sample size, general education (GE) social science courses were evaluated by students more favorably under the GE Hybrid Program ( $M = 1.68$ ,  $SD = 2.49$ ) than under the RGEP ( $M = 1.72$ ,  $SD = .21$ ) with  $t(518) = 2.24$ ,  $p = .03$ . This had a small effect size, however, with  $d = .196$ .

There were also significant but small differences when it came to academic year with  $F(3, 516) = 2.81$ ,  $p = .04$ ,  $\eta^2 = .02$ . Post-hoc tests revealed that 2010 evaluations ( $M = 1.75$ ,  $SD = .24$ ) were significantly poorer than 2012 ( $M = 1.69$ ,  $SD = .24$ ) and 2013 ( $M = 1.67$ ,  $SD = .26$ ). Evaluations of Summer or Midyear courses were significantly more favorable ( $M = 1.46$ ,  $SD = .23$ ) than 1st Semester ( $M = 1.73$ ,  $SD = .24$ ) and 2nd Semester ( $M = 1.69$ ,  $SD = .19$ ), with  $F(2, 517) = 26.59$ ,  $p < .001$ ,  $\eta^2 = .09$ .

Comparisons for each SET item also yielded small effect sizes. Items that were rated significantly higher during the GE Hybrid Program included the sense of responsibility, conscientiousness, creative thinking, critical thinking, and overall learning, with  $p$  ranging from  $>.001$  to  $.05$ . The overall pace of the course also differed significantly, with courses under the GE Hybrid Program ( $M = 2.95$ ,



SD = .29) taught significantly faster than the courses taught during the RGEP (M = 3.02, SD = .33) with  $t(518) = 2.61$ ,  $p = .01$ ,  $d = .23$ . Table 3 shows the comparison of all items.

Table 3  
Comparative Analysis of SET Part 2 Items for Both Courses

Items	Mean RGEP (SD)	Mean Hybrid (SD)	<i>t</i>	<i>p</i>	Cohen's d	Effect Size
This course stimulates me to study beyond the lessons assigned.	1.75 (.20)	1.73 (.24)	.98	.33	.09	small
This course has developed in me a greater sense of responsibility.	1.66 (.20)	1.62 (.20)	1.98	.05*	.18	small
I have worked more conscientiously in this course than in most other courses.	1.93 (.25)	1.88 (.26)	2.43	.02*	.22	small
Even if this course were not required, it would still be worthwhile taking it.	1.71 (.26)	1.67 (.31)	1.54	.12	.14	small
I am fully satisfied with the way this course was handled/conducted.	1.76 (.31)	1.73 (.38)	1.25	.21	.11	small
This course stimulates me to think creatively.	1.67 (.21)	1.61 (.27)	2.76	.01**	.24	small
This course develops critical thinking.	1.56 (.19)	1.49 (.26)	3.51	.001**	.31	small
How would you rate the overall pace?	3.02 (.33)	2.95 (.29)	2.61	.01**	.23	small
How much have you learned from this course?	1.70 (.34)	1.62 (.38)	2.36	.02*	.21	small
To what extent, would you say, have the objectives of this course been attained?	1.76 (.33)	1.71 (.38)	1.75	.08	.15	small

\* $p < .05$ . \*\* $p < .01$ .

Looking at the courses separately, no significant differences were found for Kasaysayan I in either total or item scores. For Philosophy I, however, courses during the GE Hybrid Program (M = 1.59, SD = .26) were evaluated more favorably than courses during the RGEP (M = 1.76, SD = .33), with  $t(134) = 2.554$ ,  $p = .02$ . Cohen's d of .572 indicated a moderate effect. Comparisons for each SET item for

Philosophy I yielded moderate effects in favor of the GE Hybrid Program for developing a greater sense of responsibility, working more conscientiously, thinking creatively, thinking critically, learning from the course, and objectives being met, with  $p$  of .01 and below. Other items, such as being stimulated to study, the course being worth taking, and satisfaction with the course yielded small effects in favor of the GE Hybrid Program, with  $p$  ranging from .02 to .05. Table 4 shows the comparison of all items for Philosophy I.

Table 4  
Comparative Analysis of SET Part 2 Items for Philosophy I

Items	Mean RGEP (SD)	Mean Hybrid (SD)	$t$	$p$	Cohen's d	Effect Size
This course stimulates me to study beyond the lessons assigned.	1.82 (.30)	1.69 (.26)	2.30	.02*	.46	small
This course has developed in me a greater sense of responsibility.	1.77 (.30)	1.59 (.23)	3.57	>.01**	.68	moderate
I have worked more conscientiously in this course than in most other courses.	2.00 (.35)	1.81 (.31)	2.74	.01**	.55	moderate
Even if this course were not required, it would still be worthwhile taking it.	1.72 (.37)	1.56 (.30)	2.06	.05*	.46	small
I am fully satisfied with the way this course was handled/ conducted.	1.88 (.51)	1.67 (.36)	2.08	.05*	.48	small
This course stimulates me to think creatively.	1.66 (.33)	1.47 (.26)	2.75	.01**	.61	moderate
This course develops critical thinking.	1.45 (.26)	1.31 (.20)	2.69	.01*	.61	moderate
How would you rate the overall pace?	3.09 (.30)	2.90 (.28)	3.31	>.01**	.68	moderate
How much have you learned from this course?	1.93 (.56)	1.55 (.36)	3.43	>.01**	.80	moderate
To what extent, would you say, have the objectives of this course been attained?	1.96 (.54)	1.65 (.36)	2.93	.01**	.68	moderate

\*  $p < .05$ . \*\*  $p < .01$ .

## Discussion

Student ratings for general education social science courses were significantly higher during the GE Hybrid Program when these courses were required than during the RGEP when these courses were optional. This finding, at the very least, indicated that requiring courses does not negatively affect student perceptions of social science courses. One particular strength of this study is the use of the entire population of Philosophy I and Kasaysayan I sections for the last four years, making the results generalizable to these two courses.

This is encouraging in light of existing literature on student motivation suggesting that requiring courses of nonmajor students yields less self-efficacy and autonomy in domain-specific courses (Gasim, Stevens, & Zebidi, 2012; Shell & So, 2013). Gasim, Stevens, and Zebidi (2012) offer a solution to this disparity and see that increased participation and debate, as well as application of concepts to practical life, are especially effective in increasing motivations of students to required nonmajor courses. The emphasis of the UP general education courses on the broadening of perspectives vs. in-depth, specialized knowledge in disciplines may account for this moderation that negated the effects of choice and motivation on learning.

While Shell and So (2013) saw takers of required nonmajor courses in computer science display surface learning, learned helplessness, and apathetic motivation profiles, one can argue that these may pertain more towards technical skill courses such as computer science and may be less salient for social science courses, which tend to be broader in scope and application. This also invokes Gasim, Stevens, and Zebidi's aforementioned recommendations on moderating choice effects on motivation.

In fact, epistemological differences were found between students from different disciplines. Marra and Palmer (2008) argue for a focus on epistemology and compared epistemological stances between science and engineering students and liberal arts students. They found that epistemological stance was related to the overall academic performance of students, with more complex epistemological beliefs associated with higher academic achievement. They also saw the existence of domain-

specific epistemological stances, with science and engineering students exhibiting more complex science epistemology and more simple social science epistemology and liberal arts students exhibiting the opposite. Marra and Palmer recommend the role of general education interdisciplinary courses in developing complex epistemological stances beyond the domains. UP's general education programs, from the 1960s to the present, have emphasized interdisciplinary (and in the next iteration, transdisciplinary) approaches in order to achieve the UP brand of liberal education. This interdisciplinary approach then, if Marra and Palmer are to be followed, serves the purpose of developing more nuanced and complex epistemologies. Interdisciplinarity may then be another way to operationalize and implement the UP liberal education philosophy of broadening perspectives, something that both RGEP and Hybrid GE Programs have included. This direction clearly distinguishes it from a distribution model where the range of courses are wider but with less epistemological complexity in the courses themselves.

The results, moreover, suggest that, contrary to the initial hypothesis, student perception of the courses increases in favorability when these courses are required – albeit with a small effect size. This may be partially explained by Baldwin and James (2000) who conducted a survey of Australian undergraduate applicants and academic institutions in order to assess the free market approach to higher education courses and institutions. They questioned the assumption of students as informed consumers and found that student applicants had limited knowledge and understanding of the higher education system to make fully informed choices about courses and institutions. When given a wide range of choices, students were not able to incorporate all relevant information in their decision-making, resulting in incompatibility and disappointment with their course and institution preferences. In some way, having universities make an explicit stand through a core curriculum general education program about what they believe to be relevant and useful skill sets and concepts for all – regardless of chosen disciplines – might just be the support and guidance students need to maximize their learning potential and development.

In addition, students might not always be able to articulate their true learning preferences. Pintrich (2003), in his overview of current research on student motivation, saw that students do not necessarily explicitly know what they want or what motivates them. This does not mean, however, that student motivations do not matter. On the contrary, their implicit motivations – motivations that are unconscious and outside of awareness – influence their academic behaviors and performance. He suggests that looking into implicit cognition and motivation may help educators increase student motivation and learning. These require looking into alternative and implicit ways of assessing student motivation and student perceptions of learning.

Critical thinking is a core value of the UP general education program (University of the Philippines, 2013). Comparison of the general education models on the critical thinking item indicates that the GE Hybrid Program had a significantly higher rating than the RGEP, with a small effect size in general and a moderate effect size for Philosophy I in particular. This implies that requiring courses does not negatively affect the perceived development of the critical thinking skills of students. Since Philosophy I deals explicitly with critical thinking skills, it is of no surprise that it was rated relatively high. What may be of greater interest is that scores were significantly higher when the course was required. In fact, when focusing only on Philosophy I data, all items had significant differences with more than half exhibiting moderate effect sizes. Informal interviews with the faculty of the Department of Philosophy revealed that they had made concrete preparations for the GE Hybrid Program, including a significant increase in section offerings which necessitated hiring new faculty and training specifically in the teaching of the course. While this is outside the scope of the study, this indicates a very important area for future research: the role of faculty and course delivery on enhancing the efficacy of particular general education models.

The limitations of the study include the inability to separate effects of time from the effects of the general education model itself. Since only one general education model was implemented at a time, it was not feasible to implement both general education programs for the same student cohort. Additionally, SET results are aggregated in

order to protect the anonymity of students and therefore individual student differences could not be obtained. It would also be more ideal to control for teacher variability in order to parse out teaching styles and methods.

An important limitation to the study is the use of the Student Evaluation of Teacher (SET) measure, a self-report measure administered without context to the specific course. Eubanks (2008) discourages the use of external assessments and instead advocates the use of “authentic” assessment: measures that are context-driven, holistic in nature, understandable, and those that lend themselves organically to intervention and feedback. He provides as example the use of portfolios, regular observation by teachers, and in-class assessments. He justifies the use of these seemingly subjective measures as more parallel to real-life career experiences such as job interviews and performance evaluations. Williams, Oliver, Allin, Winn, and Booher (2003) also recommend the use of context-driven measures to assess critical thinking in order to provide a more “authentic” and valid assessment. They used a psychological critical thinking measure that was able to predict course majors (psychology majors vs. nonpsychology majors) and course performance. They were also able to show that psychology courses, for example, are able to increase contextualized critical thinking.

There is a great need to develop more appropriate assessment tools in order to establish a systematic assessment of general education programs and to provide important feedback for educators and education policy makers. Hanson and Mohn (2011) looked at trends in general education assessment for the last 10 years and saw that general education assessment had increasingly been utilized more for external comparisons between academic institutions or for reporting requirements to accrediting agencies and had decreasingly been used for internal improvements to general education.

There is some utility, however, to self-report measures. Kiger (1996) studied the use of self-assessment of general education with college graduates and saw that graduates perceived a significant improvement in understanding the importance of education, critical thinking, and professional development while they perceived less

improvement in their reading and writing skills. Kiger saw the ability to engage in self-reflection and ability to evaluate their own competency as some of the benefits of self-assessment measures of general education. Assessment, in this case, can become immediately useful to students and may help develop the very same critical skills espoused by a liberal general education. He, however, admits that reliance on subjective self-reports limits the validity of self-assessment.

This preliminary comparison of the RGEP and the GE Hybrid Program, using core general education social science course student evaluations, affirms the move toward a more core curriculum model to general education. Moreover, it affirms the ongoing relevance and appreciation of the UP brand of liberal education, with its focus on critical thinking and nationalism among students as represented by courses like Philosophy I and Kasaysayan I, respectively. The limitations of the study greatly underscore the need for more valid and reliable measures that evaluate the various programs and interventions of academic institutions so that we do not have to rely solely on the SET as a measure of program performance. More controlled studies are needed in order to better ascertain the factors that contribute to a more effective general education program. A review of the literature also shows that, for an accurate program assessment to occur, the general education delivery model must be systematically and theoretically derived from the stated values and educational philosophy of the academic institution. The results of this study are small in scope but provide hope for the university's direction toward a truly liberal general education that produces contextual and critical social thinkers.

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