Academic and Cocurricular Involvement: Their Relationship and the Best Combinations for Student Growth

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Academic and Cocurricular Involvement: Their Relationship and the Best Combinations for Student Growth

Ya-Rong Huang  Sheue-Mei Chang

This study poses two questions that grow out of the student involvement theory: First, what is the relationship between different forms of involvement? Second, what are the optimal amounts and combinations of different forms of involvement for students’ cognitive and affective growth? Involvement in academic work and involvement in student clubs and organizations are used to explore these two questions. The participants are 627 third-year college students in Taiwan. The results show that the correlation between academic and cocurricular involvement is positive and linear. Also, to maximize cognitive and affective growth, students should be involved in both academic and cocurricular activities as much as possible.

The concept of campus involvement is well-known to higher education researchers and practitioners. Astin’s (1984/1999) student involvement theory, Pace’s (1984) “quality of effort” concept, and many empirical studies of college outcomes (Astin, 1975, 1977, 1993; Hernandez, Hogan, Cynthia, & Lovell, 1999; Kuh et al., 1991; Moore, Lovell, McGann, & Wyrick, 1998; Pace, 1990; Pascarella & Terenzini, 1991; The Study Group on the Conditions of Excellence in American Higher Education, 1984) all suggest that the more involved that college students are in the academic and social aspects of campus life, the more they benefit in terms of learning and personal development. The concept of campus involvement may transcend the bounds of colors and cultures. Student involvement was found to positively affect the educational gains (MacKay & Kuh, 1994) and academic achievement and retention (Hoffman, 2002) of African American students. In Taiwan, Lin’s (1990) study of 499 college students at one university and Chang’s (1999) study of 2,836 students at 20 universities also support that students learn by becoming involved.

Although the concept of campus involvement provides a useful framework to analyze and interpret the relationship between college experiences and student outcomes, it also leads to more questions. This study is concerned with two questions that grow out of the student involvement theory. The first question regards the nature of the relationship among various forms of campus involvement: Does getting involved in one area increase or reduce the likelihood of getting involved in others? The second question regards the depth and breadth of campus involvement: What are the optimal amounts and combinations of different forms of involvement for students’ cognitive and affective growth? Is more involvement better, or are there upper “limits beyond which increasing involvement ceases to produce desirable results and can even become

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counterproductive” (Astin, 1984/1999, p. 528) as Astin warned us? Should students allocate their time and energy to a variety of involvements, or devote more time and energy to a single involvement? To explore the two questions, involvement in academic work and involvement in student clubs and organizations were studied.

These two forms of involvement were selected because they are major parts of many college students’ lives. Although most students are primarily involved in studying and classwork (Baird, 1990), involvement in student clubs and organizations is also common. An earlier survey (Kapp, 1979) indicated that about 80% of traditional-age undergraduate students participated in one or more out-of-class activities. A more recent study (German, 1995) showed that among 80 honors students at a large mid-western institution, 78.8% of participants reported a high level of cocurricular involvement. Another reason these two forms of involvement were selected is that there is potential tension and conflict between them. Involvement in academic work is strongly encouraged by parents and faculty, whereas not many people would emphasize a necessity to participate in cocurricular activities; furthermore, many faculty members pay little attention to cocurricular activities (Boyer, 1987; Kuh et al., 1991). There is a widely held assumption that involvement in student clubs and organizations may divert or distract students from serious studying (Black, 2002; MacKinnon-Slaney, 1993). Thus, in spite of the call for integration of academic and cocurricular life (Carnegie Foundation for the Advancement of Teaching, 1990) and mounting evidence indicating the contributions of cocurricular activities to student psychosocial development (Cooper, Healy, & Simpson, 1994; McCluskey-Titus, 2003; Pascarella & Terenzini, 1991) and cognitive development (Baxter Magolda, 1992; Terenzini, Pascarella, & Blimling, 1996), cocurricular involvement is often considered unnecessary or secondary to academic involvement.

Consequently, the first research question of this study is to investigate the nature of the relationship between academic and cocurricular involvement. Two competing hypotheses are considered. The first hypothesis is that these two forms of involvement are negatively correlated. Students who expend a lot of time and energy on cocurricular activities do not have much time and energy left for academic work because their psychic and physical time and energy are finite; at the same time, students who are intensely involved with academic work cannot find time to participate in cocurricular activities. The hypothesized negative relationship between these two forms of involvement is empirically supported. Harnett (1965) found that too much involvement in out-of-class activities is sometimes associated with lower academic performance. Astin’s (1977) study of college students found that college students who devote much time and effort to academic pursuits tend to become isolated from their peers and therefore, show smaller-than-average changes in personalities and behaviors.

The other hypothesis is that these two forms of involvement are positively correlated. Student clubs and organizations may promote academic involvement by providing students with the opportunity to informally develop support groups, find study partners, and seek advice from other students. Cooper et al. (1994), for example, found that students who were members of student organizations scored higher on educational involvement and academic autonomy in the
Student Developmental Task and Life Style Inventory than students who were not involved both when they were freshmen and when they were juniors. In addition, several studies have consistently shown that involvement in out-of-class activities has a positive influence on college persistence (Astin, 1975, 1977; Pascarella, Terenzini, & Wolfe, 1986), bachelor’s degree attainment (Pascarella & Terenzini, 1991), educational aspirations (Kocher & Pascarella, 1988; Pascarella, 1985; Pascarella & Terenzini), and graduate school attendance (Pascarella & Terenzini; Stoecker, Pascarella, & Wolfe, 1988). If we consider academic involvement as a pre-requisite for educational attainment and aspiration, it is likely that cocurricular involvement is positively correlated with academic involvement.

If the two contradictory hypotheses both stand to reason, there is a possibility that the relationship between involvement in academic work and involvement in student clubs and organizations is curvilinear. Within one range they are positively correlated with each other but within another, they are negatively correlated. For example, excessive cocurricular involvement may be associated with reduced academic involvement but moderate cocurricular involvement may be associated with increased academic involvement. Whether their relationship is linear or curvilinear is an important issue for educational researchers when they enter these two forms of involvement into the multiple regression equations that predict student outcomes. If the relationships among the independent variables are curvilinear, then the problem of collinearity arises and the regression results would be unreliable. Therefore, it is imperative to examine the linearity as well as the direction and size of their relationship.

The second research question investigates the optimal amounts and combinations of academic and cocurricular involvement for college students. In terms of the amounts or levels of involvement, Astin’s student involvement theory suggested that the more involvement the better. Yet, Whitla (1981) reported that students who devote the majority of their time to out-of-class activities, or are not involved at all, benefit less than students who are involved at moderate levels. Unfortunately, the issue of too much student development has received little research attention (Hernandez et al., 1999). In terms of the combination patterns of academic and cocurricular involvement, the question remains whether it is most beneficial for students to strike a balance between academic work and cocurricular activities, or to be more committed to academic work. Astin (1984/1999) was aware of this issue when he introduced the involvement theory. He asked: “Does one form of involvement (e.g., in cocurricular activities) enhance or diminish the effects of another form (e.g., in academic work)? What are the ideal combinations of academic and social involvement that facilitate maximum learning and personal development?” (p. 528). The second research question of this study responds to his call for research in this direction. To sum up, the second research question deals with the depth and breadth of campus involvement. These are important issues for research and practice. When providing guidance to students about campus involvement, faculty advisors and student counselors tend to consult their own experiences. The results of the second question can be employed to support their judgments.

In summary, this study has two purposes. The first purpose is to examine the nature of the relationship between involvement in
academic work and involvement in student clubs and organizations. The second purpose is to search for the best combinations of these two forms of involvement for student growth. The setting for this study is Taiwan, where Astin’s student involvement theory is empirically supported (Chang, 1999; Lin, 1990). This study has theoretical contributions as well as practical implications. By highlighting and exploring two questions that remain ambiguous in the student involvement theory, this study fills a gap in the theory. Interested researchers may replicate this study in the United States to see if the findings hold true across the ocean. Practically, the findings of this study help determine if the concern that cocurricular involvement reduces academic involvement is warranted or not. Also, by investigating the optimal amounts and combinations of academic and cocurricular involvement, this study offers useful information to student counselors and faculty advisors, in particular to those who have contact with first-generation or second-generation Asian students.

METHOD

Instruments

This study is a secondary analysis of a survey conducted by Chang (1999), who sought to understand how colleges and universities affect students in Taiwan. She used the “College Experiences Survey” (CES), which was compiled and modified from several established instruments, including the Questionnaire on Student and College Characteristic (Centra, 1970), the College Student Experience Questionnaire (Pace, 1986), and the Student Outcomes Questionnaire (Ewell, 1983). The CES elicited information about age, sex, place of residence, degree aspiration, college experiences, perceptions of the college environments, evaluation of student affairs service, and assessment of personal changes in cognitive and affective areas since entering college.

Five expert judges (college professors who are specialists in higher education and measurement) and 20 students examined the CES survey items and indicated whether the items measure predetermined objectives and content. In this way, the content validity was established. To estimate test reliability, a group of 44 students who took a general education class at one public university were administered the CES twice with an interval of 3 weeks. Two types of reliability were established based on these two survey results: stability over time (test-retest correlation coefficients range between .78 and .93) and internal consistency (Cronbach $\alpha$ range between .83 and .94).

Participants

The data for this study were drawn from a survey Chang (1999) conducted with college students in Taiwan. Chang used a multistage cluster sampling technique to collect data because it was more feasible to select groups of individuals than it was to select individuals from a defined population. Taking into account the control (public, private) and the size (large, medium, small) of the institutions, she divided all institutions of higher education into six (2 kinds of controls $\times$ 3 kinds of size) types and then selected 3 or 4 institutions from each type. A total of 20 institutions were selected. Then, she randomly selected one general education class at each of the 20 institutions and distributed surveys to all students who took that course. As a result, 3300 surveys were distributed to students and 2,867 surveys were returned (return rate = 86.9%). After
the invalid surveys were removed, 2,836 participants remained in the study.

Because the focus of the current study is on student involvement and development during college, several principles governed the selection of the participants for these analyses. First, third-year students were targeted for analysis. Dannefer (1984) suggested that adult development is not always sequential, unidirectional, and irreversible. Therefore, the upper-class years may be more appropriate than the lower-class years to assess student development because it may take a while for student growth to happen and stabilize. In the upper-class years, the third school year is selected because the fourth-year college students are least involved in cocurricular activities of all students in Taiwan (Shieh, Gong, & Huang, 1992). Second, students who studied at six small institutions (less than 5,000 students enrolled) were excluded because the strong sense of community at small institutions has been found to lead to a different pattern of campus involvement from those of larger institutions (Black, 2002). Third, to ensure that areas of study were not overrepresented by a few institutions due to the multistage cluster sampling method, areas of study that were represented by more than 10 institutions were targeted for analysis. Therefore, five areas of study were selected (fine arts, law, physical science, engineering, and business and management). In the end, a total of 627 third-year students from 14 institutions were included in this study. The ratio of men to women in this study (47.4% vs. 52.6%) is similar to the ratio in Chang’s (1999) study (44.3% vs. 55.7%), and is slightly differently from the ratio in the population of third-year college students in Taiwan (51.9% vs. 48.1%).

Variables

The primary constructs for the first research question were involvement in academic work and involvement in student clubs and organizations. A group of CES questions asked students to rate how often they took part in 13 academic and 13 social activities at school by assigning a score for each item using a 5-point scale ranging from 1 (not at all) to 5 (very often). To measure involvement in academic work, 8 items that reflected this construct were first selected from the group of 13 questions (above) and then factor analyzed using the principle components extraction method with varimax rotation. Based on resulting eigenvalues and scree plots, one factor that included all of the eight items was identified for study and termed academic involvement. However, one of the items (attending academic speech) was eliminated due to its comparatively lower communalities. Consequently, seven items were used to form the academic involvement factor. Table 1 shows the descriptive statistics and factor loadings of the seven items. The academic involvement factor was measured by the sum of seven items, including classroom learning (attending classes, taking detailed notes), studying (completing assigned reading before class, reviewing course content after class, doing additional reading on topics introduced in class), and library effort (retrieving papers and books from the library, collecting extensive data for term papers). This factor variable is normally distributed ($M = 21.58, SD = 3.75$).

Similar procedures were used to specify a factor of involvement in student clubs and organizations. Nine items that reflected this construct were selected from the total group of 13 questions and then factor analyzed using the principle components extraction
method with varimax rotation. Based on eigenvalues and scree plots, one factor that included all of the nine items was identified and termed **cocurricular involvement**. To make the cocurricular involvement factor comparable to the academic involvement factor in the numbers of items used, two items (participating in campus voting and reading campus newsletter) that had the lowest communalities were eliminated. The remaining seven items were used to form the cocurricular involvement factor. The descriptive statistics and factor loadings of the seven items are provided in Table 1. The cocurricular involvement factor was measured by the sum of seven items, including participation in activities (participating in campus-wide activities, participating in departmental activities, joining group tournaments that were held by one’s department, participating in student clubs activities) and being an active participant within one’s department or club (serving on a committee of the club, assisting departmental affairs, designing activities for a club or one’s department). This factor variable is normally distributed ($M = 19.58, SD = 5.37$).

The second research question refers to
cognitive and affective growth of students, which is measured by students’ self-reported gains in cognitive and affective areas in this study. In the CES, students were asked to rate their improvement on 11 cognitive and 11 emotional and interpersonal areas since they entered college according to a 5-point scale ranging from 1 (very little) to 5 (very much). Among these 22 self-reported gains, two variables pertaining to cognitive growth (cognitive skills, communication skills), and two variables pertaining to affective growth (self-confidence, interpersonal skills) were constructed. Cognitive skills, communication skills, self-confidence, and interpersonal skills are all important to future career development. The descriptive statistics of the four variables and items that comprise them are given in Table 2.

The cognitive skills variable was measured by the sum of three items: problem-solving skills, analytical skills, and ability to learn new things. The communication skills variable was measured by the sum of verbal skills and writing skills. Self-confidence was measured by the sum of self-confidence and self-reliance. The interpersonal skills variable was measured by the sum of three items: being able to respect and tolerate others, being able to develop intimacy with others, and being able to work in a team. These four variables are correlated with each other in a positive and significant way (see Table 3). This phenomenon cor-

TABLE 2.
Items Measuring Four Student Growth Variables (N = 627)

<table>
<thead>
<tr>
<th>Item Questions</th>
<th>M</th>
<th>SD</th>
<th>Factor Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Cognitive Skills Variable</td>
<td>10.59</td>
<td>2.11</td>
<td></td>
</tr>
<tr>
<td>problem-solving skills</td>
<td>3.47</td>
<td>0.79</td>
<td>.81</td>
</tr>
<tr>
<td>analytical skills</td>
<td>3.50</td>
<td>0.88</td>
<td>.82</td>
</tr>
<tr>
<td>ability to learn new things</td>
<td>3.65</td>
<td>0.81</td>
<td>.85</td>
</tr>
<tr>
<td>2. Communication Skills Variable</td>
<td>6.35</td>
<td>1.48</td>
<td></td>
</tr>
<tr>
<td>verbal skills</td>
<td>3.36</td>
<td>0.85</td>
<td>.84</td>
</tr>
<tr>
<td>writing skills</td>
<td>2.99</td>
<td>0.92</td>
<td>.84</td>
</tr>
<tr>
<td>3. Self-Confidence Variable</td>
<td>7.23</td>
<td>1.52</td>
<td></td>
</tr>
<tr>
<td>self-confidence</td>
<td>3.48</td>
<td>0.91</td>
<td>.89</td>
</tr>
<tr>
<td>self-reliance</td>
<td>3.74</td>
<td>0.81</td>
<td>.89</td>
</tr>
<tr>
<td>4. Interpersonal Skills Variable</td>
<td>10.61</td>
<td>2.05</td>
<td></td>
</tr>
<tr>
<td>being able to respect and tolerate others</td>
<td>3.70</td>
<td>0.78</td>
<td>.75</td>
</tr>
<tr>
<td>being able to develop intimacy with others</td>
<td>3.47</td>
<td>0.87</td>
<td>.82</td>
</tr>
<tr>
<td>being able to work in a team</td>
<td>3.44</td>
<td>0.96</td>
<td>.78</td>
</tr>
</tbody>
</table>
responds to Pace’s (1987) “good things go together” (p. 1) finding—that is, those who benefit most intellectually also seem to benefit more in the affective domain.

**Analytical Method**

To examine the nature of the relationship between academic and cocurricular involvement factors, a scatter plot was produced. Next, a linear fit and a quadratic fit according to the least squares criterion were superimposed on the data. If the quadratic fit is a better fit to the data than the linear fit, this means that the correlation is curvilinear. If not, the correlation is linear. The Pearson product-moment correlation coefficient between academic and cocurricular involvement factors was also computed.

With respect to the second research question, nine (3 × 3) involvement patterns were constructed by first classifying each of the academic and cocurricular involvement factors into three levels (low, middle, and high) using percentile ranks 33 and 66 as the two cutoff points, and then matching every level of academic involvement factor with every level of cocurricular involvement factor. The mean scores of the nine involvement patterns on the four student growth variables were then compared to conclude which combinations were associated with great cognitive and affective growth. Analyses of variance were used to test if the differences among the means were statistically significant.

**RESULTS**

Analysis guided by the first research question examined the direction, size, and linearity of the relationship between academic and cocurricular involvement factors. The simple correlation coefficient ($r = .13$, $p < .001$) and the scatter plot of the two involvement factors along with linear and quadratic fits superimposed on the data (see Figure 1) indicate that the correlation is positive but weak. The small size of the correlation coefficient appears to be due to the wide variations of involvement patterns among students. In the scatter plot, the points spread widely around the line of least squares. Some students in this dataset scored both high or both low on these two involvement factors whereas others showed a stronger preference for one particular form of involvement over the other.

In addition, the curve of the quadratic

<table>
<thead>
<tr>
<th>TABLE 3. Intercorrelations Among Four Cognitive and Affective Growth Variables ($N = 627$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
</tr>
<tr>
<td>Cognitive Skills</td>
</tr>
<tr>
<td>Communication Skills</td>
</tr>
<tr>
<td>Self-confidence</td>
</tr>
<tr>
<td>Interpersonal Skills</td>
</tr>
</tbody>
</table>

***$p < .001$.
line is rather flat, making the line approximate the linearity. Also, the quadratic equation does not possess an explanatory power higher than that of the linear equation ($R^2 = 0.0333$ for linear fit, $R^2 = 0.0334$ for quadratic fit). All together, the results suggest that the relationship between academic and cocurricular involvement is linear.

In analysis guided by the second research question, the mean scores of the nine involvement patterns on the four student growth variables were computed (see Table 4). The differences among the nine patterns of involvement were statistically significant for cognitive skills ($F = 12.49, p < .001$), communication skills ($F = 6.99, p < .001$), self-confidence ($F = 8.61, p < .001$) and interpersonal skills ($F = 12.38, p < .001$) according to the analyses of variance. The nine patterns are represented by two letters: the first letter indicates level of academic involvement and the second letter indicates level of cocurricular involvement. Levels range from low (L) to middle (M) to high (H).

With respect to cognitive skills, the HH pattern scored the highest, followed by the HM, MH and then HL patterns. Students representing the three patterns characterized by a low academic involvement level all had low scores. The fact that patterns characterized by a high academic involvement level tend to have higher scores and patterns characterized by a low academic involvement level tend to have lower scores suggests that student growth in cognitive skills is disproportionately associated with academic involvement.

Cocurricular involvement was associated with growth in cognitive skills as well. Within each level of academic involvement, students in patterns characterized by higher cocurricular involvement levels scored higher on the cognitive skills variable. The association of cocurricular involvement to cognitive skills development may even complement academic involvement in some cases. Specifically, the LH pattern scored higher than the ML pattern; the MH pattern scored higher than the HL pattern.

![FIGURE 1. A Scatter Plot of Academic and Cocurricular Involvement Factors](image-url)
With respect to the communication skills variable, the top two scoring patterns were the HH and HM patterns (see Table 4). They were followed by three patterns that were close in mean scores: the ML, HL and MH patterns. Students in the three patterns characterized by a low academic involvement level all had low scores. The results indicate that greater gains in communication skills are mainly associated with higher academic involvement levels. Within each level of academic involvement, the mean scores tend to increase as the levels of cocurricular involvement increase.

With respect to the self-confidence variable, the highest-ranking pattern was the HH pattern (see Table 4). The second and the third highest scores were obtained respectively by the MH and the HM patterns. These two patterns were the same in terms of total levels of involvement but different in the emphases given to academic and cocurricular activities. The fourth highest score was obtained by the LH pattern. The results indicate that greater gains in self-confidence are associated with higher cocurricular involvement levels. In addition, within each level of cocurricular involvement, an increase in the level of academic involvement was associated with an increase in the mean scores of self-confidence variable.

To give a better picture of the associations between student involvement and the two variables pertaining to affective growth, the nine involvement patterns were re-arranged according to their cocurricular involvement levels (from low to high). The self-confidence and interpersonal skills mean scores are shown graphically in Figure 2. As

<table>
<thead>
<tr>
<th>Involvement Patterns (Academic, Cocurricular)</th>
<th>N</th>
<th>Cognitive Skills</th>
<th>Communication Skills</th>
<th>Self-Confidence Skills</th>
<th>Interpersonal Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>(L, L&lt;sup&gt;b&lt;/sup&gt;)</td>
<td>105</td>
<td>9.74 (8)</td>
<td>5.69 (9)</td>
<td>6.66 (9)</td>
<td>9.55 (9)</td>
</tr>
<tr>
<td>(L, M)</td>
<td>70</td>
<td>9.59 (9)</td>
<td>5.90 (8)</td>
<td>6.76 (7)</td>
<td>10.51 (6)</td>
</tr>
<tr>
<td>(L, H)</td>
<td>53</td>
<td>10.38 (6)</td>
<td>6.41 (6)</td>
<td>7.42 (4)</td>
<td>11.21 (3)</td>
</tr>
<tr>
<td>(M, L)</td>
<td>66</td>
<td>10.24 (7)</td>
<td>6.46 (3)</td>
<td>6.76 (7)</td>
<td>9.85 (8)</td>
</tr>
<tr>
<td>(M, M)</td>
<td>88</td>
<td>10.65 (5)</td>
<td>6.41 (6)</td>
<td>7.28 (5)</td>
<td>10.74 (4)</td>
</tr>
<tr>
<td>(M, H)</td>
<td>58</td>
<td>11.07 (3)</td>
<td>6.45 (4)</td>
<td>7.88 (2)</td>
<td>11.55 (2)</td>
</tr>
<tr>
<td>(H, L)</td>
<td>49</td>
<td>10.73 (4)</td>
<td>6.45 (4)</td>
<td>7.18 (6)</td>
<td>10.18 (7)</td>
</tr>
<tr>
<td>(H, M)</td>
<td>56</td>
<td>11.46 (2)</td>
<td>6.79 (2)</td>
<td>7.61 (3)</td>
<td>10.68 (5)</td>
</tr>
<tr>
<td>(H, H)</td>
<td>65</td>
<td>12.22 (1)</td>
<td>7.15 (1)</td>
<td>8.08 (1)</td>
<td>12.00 (1)</td>
</tr>
</tbody>
</table>

<sup>a</sup> Numbers in the round brackets indicate the ranking order of the mean scores from the highest (1) to the lowest (9) for each variable.

<sup>b</sup> The three letters in the first column (L, M, and H) refer to low, middle, and high levels of involvement.
can be seen, the three sections of the line representing low, middle, and high levels of cocurricular involvement all go upward as the academic involvement levels increase. Also, these three sections of line escalate from left to right, representing higher mean scores as involvement increases.

With respect to the interpersonal skills variable, the three patterns characterized by a high cocurricular involvement level were associated with the top three highest scores (see Table 4). The three patterns characterized by a middle cocurricular involvement level occupy the next three positions. The results show that greater gains in interpersonal skills were associated with higher levels of cocurricular involvement. In Figure 2, the uprising line representing interpersonal skills variable indicates the notable association of cocurricular involvement with interpersonal skills development. Within the high and low levels of cocurricular involvement, an increase in the level of academic involvement was related to an increase in the interpersonal skills mean scores.

SUMMARY AND DISCUSSIONS
This study explored two questions arising from the student involvement theory and used academic and cocurricular involvement variables to investigate the questions. A total of 627 third-year students at 14 universities in Taiwan were drawn from a larger database to be participants of this study. The research questions and the findings are summarized and discussed as follows.

The first research question concerned the nature of the relationship between academic and cocurricular involvement. First, the direction of the relationship between academic and cocurricular involvement was positive. In other words, an increase in cocurricular involvement is not accompanied

![Figure 2. Mean Scores of Nine Involvement Patterns on Self-Confidence and Interpersonal Skills Variables](image-url)
by a decrease in academic involvement. This result contradicts the widely held assumption that cocurricular involvement diverts or distracts students from their academic studies (Black, 2002; MacKinnon-Slaney, 1993). As shown in the scatter plot, great variance in the levels of academic involvement characterized students who were highly involved in cocurricular experiences. Previous research showed that academic involvement is affected by several individual and contextual factors, including time and priority management skills (Marcy, 1986), working (Aittola, 1995; Batlis, 1978; Floerchinger, 1988), different approaches to learning (Willis, 1993), course characteristics (Thomas & Rohwer, 1986), and quality of teaching (Powell, 1979; Willis). Students, faculty advisors and student affairs professionals should be aware of the contradictory findings and avoid making cocurricular involvement a convenient scapegoat for these individual and contextual factors.

In addition, the nature of the relationship between academic and cocurricular involvement in this study was linear. This reduces the likelihood that excessive cocurricular involvement is negatively associated with academic involvement whereas moderate cocurricular involvement is positively associated with academic involvement. The results of this study also relieve educational researchers from the collinearity problem that may occur when two forms of involvement were used as predictors in the multiple regression equations.

Furthermore, the size of the positive correlation between these two forms of involvement was not large. Previous research (Astin, 1975, 1977; Pascarella et al., 1986) found that cocurricular involvement contributed to college persistence. Yet, this study found that cocurricular involvement is not strongly correlated with academic involvement. These results seem to suggest that persistence in college and involvement in academic work may invoke different factors. To persist in college, students need to comply with all basic requirements and pass all exams. Friends in student clubs and organizations that can encourage and help students satisfy these requirements. Yet, cocurricular involvement is not necessarily associated with engaged learning (as reflected in the individual item measure of academic involvement in this study). This association may well depend on the nature of the clubs and organizations students join as well as the peers with whom they associate.

The second research question regarded the optimal amounts and combinations of academic and cocurricular involvement for cognitive and affective growth. A comparison of the means of nine involvement patterns reveal that gains in cognitive skills and communication skills are associated with both academic and cocurricular involvement, and gains in self-confidence and interpersonal skills are associated primarily with cocurricular involvement and secondarily with academic involvement. The results highlight that cocurricular involvement is associated not only with affective growth in students but also with cognitive growth. One qualitative study reveals the mechanism of how cocurricular involvement can promote cognitive development. Baxter Magolda (1992) interviewed 50 men and 51 women with similar academic ability about their cocurricular experiences each Fall from 1986 to 1989. She reported that cocurricular activities offered substantial challenges of encountering diversity of perspectives that were less prevalent in the academic area, coupled with substantial support to students. No matter at what stage of cognitive develop-
Academic and Cocurricular Involvement

ment students are (absolute knowers, transitional knowers, or independent knowers), cocurricular activities promote their intellectual development. MacKinnon-Slaney (1993) also noted that cocurricular learning is self-directed, problem centered, and collaborative. It requires the ability to reflect on experiences, to learn from others, and to learn continuously to adjust to change. She also emphasized that the learning that is already practiced in the cocurriculum is the learning that is being advocated by corporate America for the 21st century. Given that cocurricular involvement is associated with cognitive development, it is highly recommended that student affairs practitioners continue to reconceptualize their efforts to enhance cocurricular life through promoting intellectual development by forging meaningful collaborative efforts with faculty (Baxter Magolda). Knowles’ (1984) learning contract can also be adopted as a framework for designing cocurricular activities as learning experiences (MacKinnon-Slaney).

Regarding the question of optimal amounts of involvement, more campus involvement is better. With respect to the four student growth variables, the highest scores were achieved by the HH involvement pattern. The upper limit that Astin (1984/1999) suspected, beyond which increasing involvement ceases to produce desirable results, was not found in this study. The result also contradicts Whitla’s (1981) finding that students reap more benefits from a moderate level of cocurricular involvement than from high or low levels of cocurricular involvement.

By contrast, the HL pattern, endorsed and encouraged by some faculty and parents, does not result in higher scores than the MH or HM pattern on cognitive skills and communication skills variables, not to mention that it yields low scores on self-confidence and interpersonal skills growth variables. The results reinforce that the “all study and no play” pattern is by no means a better option than the well-rounded pattern for college students. When faculty advisers and student counselors provide guidance to students, they should encourage students to get involved in both academic and cocurricular activities as much as possible to maximize their cognitive and affective growth.

To encourage cocurricular involvement, institutions can use symbols and ceremonies to acknowledge and reward achievements of individuals and groups in out-of-class involvement (Kuh et al., 1991). Student affairs practitioners can also encourage cocurricular involvement by informing students and faculty of the positive learning outcomes of cocurricular involvement. In addition, periodical assessments of student involvement that examine the types and levels of involvement could be implemented, and obstacles inherent in out-of-class environments for particular groups of students should be identified and removed (MacKay & Kuh, 1994).

Limitations

This study has two limitations. First, being a secondary analysis, this study is limited in its scope of investigation. Other forms of involvement that potentially might relate to academic involvement and a number of other plausible student outcomes worthy of study are not addressed.

Second, the results of this study can be generalized only to college students who have characteristics similar to those of the participants, such as year in school. Data from third-year college students were chosen for analysis because the third school year
was considered the best time to observe a student’s involvement and development. The findings may differ if data from college students other than third-year students are analyzed because the amounts and patterns of campus involvement may differ by school year. Demographically, the students in the overall sample became more and more involved in academic work as they progressed through college with the exception of sophomore year (For school years 1, 2, 3, and 4, means of academic involvement factor were 21.45, 20.98, 21.58, and 21.99 respectively). Additionally, involvement in clubs and organizations increased in the lower-class years but decreased in the upper-class years (For school years 1, 2, 3, and 4, means of cocurricular involvement factor were 19.49, 20.19, 19.58, and 19.44 respectively). The relationships between academic and cocurricular involvement within the entire sample changed accordingly: The correlation coefficients for school years 1, 2, 3, and 4 were 0.18, 0.13, 0.19, and 0.25 respectively. Although the nature of the relationship does not vary greatly, cautions should be taken in generalizing the findings of the current study to students in other school years.

Another characteristic that must be noted is the culture or nationality factor. The setting for this study was Taiwan. College students in Taiwan usually pay attention to their academic work because academic performance and obtaining a degree are highly emphasized by their parents and the whole society. Many students voluntarily stay away from cocurricular activities in the fear that cocurricular involvement may take a toll on their academic performance (Shieh et al., 1992). However, many students greatly anticipate participation in student clubs and organizations during college because high school cocurricular involvement is discouraged due to the importance of scholastic aptitude tests that influence university acceptance. Therefore, many Taiwanese students can be ambivalent toward cocurricular involvement.

Comparatively speaking, internal guilt and external pressure about getting involved in student clubs and organizations may not be as high for college students in the United States. When students leave a university and enter the job market, cocurricular involvement during college is often considered a testimony of one’s interpersonal skills and leadership ability, and increases one’s marketability as much, if not more, than grade point average in many fields in the United States (Dunkel, Bray, & Wofford, 1989). Additionally, cocurricular involvement in high school can influence acceptance to college. Although it is plausible that the results of this study will hold true in the United States where the tension between academic and cocurricular involvement is lower as compared to Taiwan, it is not at all clear that the results from this study are applicable to students in the United States.

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