University club activities and freshman year TOEFL gains

Tim Stoeckel
Kansai Gaidai University

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This study investigates the association between participation in a variety of extracurricular activities in a Japanese university for foreign studies and TOEFL gains during the freshman year. Participants include 613 freshmen students (142 male, 471 female) during the 2001 and 2002 academic years. Of those, extracurricular non-participants performed significantly better than extracurricular participants on the post-freshman year TOEFL after adjusting for the pre-freshman year measure. Significant differences were also found when comparing extracurricular groups to one another and to the group of extracurricular non-participants. Finally, separate regression analyses indicate that for extracurricular participants, increased time in group and the presence of either a native English speaking faculty participant or a faculty figure of authority (e.g., athletic coach) are negatively related to TOEFL outcomes.

本研究は、日本の外国語大学における種々の課外活動への参加と在学１年間のTOEFLの点数との関係を検討する。調査対象者は２００１年～２００２年度１年次生６１３名 （男性１４２名、女性４７１名）である。入学前の点数を考慮したうえで入学後１年のTOEFLの点数をみると、課外活動に参加していない調査対象者のほうがかなり優位であることがわかった。また、課外活動に参加している対象者間にも、参加していない対象者と比べても、かなりの違いが見られた。そして、別の回帰分析からは、グループとしての課外活動の時間の増大、および、英語話者である教員の活動への参加もしくはコーチとしての教員の参加がTOEFLの成績向上には逆効果であることがわかる。

A great deal of research has investigated the impact of classroom practice on language learning. However, relatively little has been done to examine the effect of foreign language activities outside of the classroom (Masgoret, Bernaus, & Gardner, 2001), and peer socialization in the mother tongue remains largely unexplored.

The present study was inspired by observations I made while regularly participating in the activities of the volleyball club at a Japanese university for foreign studies. Extraordinary camaraderie and friendship

were evident among group members, involving both frequent social encounters and mutual support in foreign language study outside of designated activity times. These observations led me to speculate that extracurricular affiliation influenced second language (L2) study and learning among the members of this group.

Research in the field of student affairs has revealed an unequivocal relationship between out-of-class experiences and learning or cognitive development in higher education (Moore, Lovell, McGann & Wyrick, 1998; Terenzini, Pascarella, & Blimling, 1996; Terenzini, Springer, Pascarella & Nora, 1995). Experiences found to particularly impact overall learning and cognitive development are those involving student-faculty (Kuh & Hu, 2001) and student-peer interactions (Whitt, Edison, Pascarella, Nora, & Terenzini, 1999). While some research has shown such interaction is most productive when academically or intellectually related (Hayek & Kuh, 1999; Terenzini et al., 1996), at least one study (Whitt, et al., 1999) suggests that any such interaction can be beneficial. That none of this work has focused specifically on how such experience might impact second or foreign language learning reveals a gap in the literature of potential interest to student affairs and language teaching professionals alike.

In the field of applied linguistics, McGroarty (2001) has argued that social connections can impact L2 motivation among *any* kind of learner to the degree that valued others support efforts at L2 mastery. In collectivist societies like Japan, where conformity to majority influence is strong (Martin & Hewstone, 2003) and a sense of obligation to the in-group heightened (Oyserman, Sakamoto & Lauffer, 1998), the notion of significant L2 motivation springing from group membership is plausible.

In colleges and universities in Japan, extracurricular activities play a particularly important role in the daily lives of many students (McVeigh, 2002). From the perspective of language teachers in this context, it would therefore be valuable to discern whether extracurricular involvement is related to foreign language learning, and if so, whether factors such as faculty involvement in these activities mediate this relationship.

Research questions

The purpose of this study was to investigate the relationship between extracurricular participation and language learning, operationalized as first-year gains in the Test of English as a Foreign Language (TOEFL), in one Japanese university. The research questions were as follows:

1. How do extracurricular participants (as a whole) compare to non-participants in terms of first-year TOEFL gains?

2. How does each extracurricular group and the group of non-participants compare to one another on the same dependent measure?

3. What extracurricular group characteristics are associated with first-year TOEFL gains?

Gains in language proficiency might logically be linked to participation in several extracurricular groups in the research setting. Each of the foreign-language minors on campus, for instance, has its own corresponding club providing

members with out-of-class opportunities for language use. A guide club provides international visitors to the region with tours of Kyoto in English, and the ESS club debates, enacts dramas, and performs other activities in English. While membership in these groups might lead to gains in L2 proficiency, all of them had too few members for group comparison here. However, given the informal observations of the volleyball club described above, a more interesting and central focus of this study is whether affiliation with groups not making use of foreign language skills during their meetings is associated with language gains.

Methodology

Design

For analyses involving group comparisons, an unbalanced between-subjects design was used. In addition, regression analyses were conducted to explore whether certain group characteristics (e.g., group size, gender composition, and presence of native English speakers) were predictors of the dependent variable.

Setting and participants

In the research setting, all students study English and most minor in another foreign language. As such, a sizeable minority of faculty members are native speakers of the languages offered on campus (English, Chinese, French, and German) and most Japanese faculty members are bi- or multilingual. Regarding extracurricular involvement, students who are so inclined join a group that typically practices and performs a single activity (e.g., tea ceremony, music, volleyball, judo) and meets on a regular basis year round. As in many institutions of higher education in Japan, it is not uncommon for students to join a single group early on and to maintain this affiliation throughout their university careers.

Participants for the present study were 613 freshman students (142 male, 471 female) in the research setting in 2001 or 2002. All participants had pre- and post-freshman year TOEFL data as well as a consistent pattern of extracurricular participation through the sophomore year. They ranged in age from 18 to 21 at the time of entry into university, were native speakers of Japanese, and were enrolled in a series of four required English courses during the freshman year.

Data

A database obtained from the university provided student age, gender, and pre- and post-freshman year TOEFL scores from paper-based institutional versions of the test. The university also provided a weekly schedule of facility use by each extracurricular group and semesterly records of student enrollment in such groups. An interview with a representative of each student group provided information on the regular presence of native English speakers, faculty participants, or faculty figures of authority (e.g., athletic coaches) in group activities and was a secondary source to confirm the frequency and duration of group meetings.

Results

Table 1 provides descriptive information for extracurricular

groups in 2001 and 2002. Information under the subheading *First-Year Students* pertains only to group participants who were freshmen in 2001 and 2002. Columns under the subheading *Overall Group Characteristics* show information pertaining to all group members during the same timeframe; parenthetical entries show values for 2002 when they differed from 2001.

To assess the relationship between extracurricular participation and post-freshman year TOEFL scores, three analyses were performed. First, analysis of covariance (ANCOVA) indicated extracurricular group participants as a whole differed from non-participants in post-freshman year TOEFL score after adjusting for the covariate, pre-freshman TOEFL score (F [1, 610] = 7.21; p = .007). Extracurricular non-participants (adjusted M = 454.42, n = 466) performed significantly better than participants (adjusted M = 447.12, n = 147). The strength of association between extracurricular participation and the dependent measure was not strong, with partial η^2 = .012. Indeed, the covariate, pre-freshman year TOEFL score (F [1, 610] = 418.77; p < .001; partial η^2 = .407), accounted for most of the explained variance in the dependent measure. These results are presented in Table 2.

For the same dependent variable (post-freshman year TOEFL score) and covariate (pre-freshman year TOEFL score), a second ANCOVA was performed to compare the individual extracurricular groups to one another and to the group of students with no extracurricular participation. Groups with fewer than five freshmen members during the period under investigation were removed to satisfy criteria for minimum cell size in ANCOVA (Hatch & Lazaraton, 1991).

After adjusting for the covariate, the main effect of extracurricular group remained significant (F [10, 576] = 2.46, p = .007), indicating group differences on the post-freshman year TOEFL after adjusting for the pre-freshman year score (Table 3). Partial η^2 = .041, representing a medium effect. To assess pairwise differences, Fisher's LSD was performed. The results, summarized in Table 4, indicate that at the .01 level of significance three groups (basketball circle, dance club, and extracurricular non-participants) performed better than the women's basketball club, and one group (extracurricular non-participants) performed better than the tennis circle. Differences significant at the .05 level are also noted in the table.

Finally, extracurricular non-participants were removed and stepwise multiple regression analysis with backward deletion was conducted to explore the relationship between the dependent variable (post-freshman year TOEFL score) and the following group characteristics:

1. gender composition
2. time in group
3. presence of
   - native English-speaking faculty participants (no native English-speaking students were present in any group)
   - other faculty participants
   - faculty authority figures
4. group size
5. pre-freshman year TOEFL

Table 1. Descriptive information for extracurricular groups

		First-Year Students				Overall Group Characteristics					
Extracurricular group		**n**	**Pre TOEFL M**	**Post TOEFL M**		**Size**	**Gender**	**Hours per week**	**Faculty Authority Figures**	**Native English Speaking Faculty Participants**	**Other Faculty Participants**
Aerobics Club		7	422	457		m	f	7.5	0	0	0
Badminton Club		4	421	433		m	mix	5.0	0	0	0
Basketball Circle		14	424	461		l	mix	5.0	0	0 (1)	1
Cheerleader Club		3	456	470		s	f	5.5	0	0	0
Cooking Circle		1	437	393		m	mix	2.0	0	0	0
Dance Club		13	417	456		l	mix	9.0	0	0	0
Drama Club		1	457	507		s	f	2.0	0	0	0
ESS Club		1	473	467		s	mix	7.5	0	1	1
French Research Club		1	413	480		s	mix	3.5	0	0	0
Tea Ceremony Club		3	421	479		m	mix (f)	10.0	0	0	0
International Friendship Club		1	477	477		s	f	2.0	0	0	0
Kendo Club		1	460	480		s	mix (m)	7.0	0	0	0
Music Clubs		12	433	448		l	mix	15.0	0	0	0
Ping Pong Club		3	422	438		m	mix	7.5	0	0	1
Shorinji Kenpo Club		2	412	429		s	f (mix)	9.0	0	0	0
Soccer Circle		6	400	428		m	mix	5.5	0	0	0
Soft Baseball Club		4	402	458		m	mix	5.0	0	0	0
Soft Tennis		6	418	436		m	mix	7.5	1	0	0
Tennis Circle		22	420	435		l	mix	10.0	1	0	0
Track and Field Circle		7	416	430		s	mix	15.0	0	0	0
Volleyball Club		27	423	449		l	mix	5.0	0	0 (1)	0
Women's Basketball Club		8	365	391		m	f	18.5	2 (1)	0	0

Notes: (1) The breakdown for group size is as follows: small = 1-16 members; medium = 17-41 members; and large = 42 or more members. (2) All faculty figures of authority were Japanese. (3) The Cooking Circle did not exist in 2001, so all values pertain to 2002 only.

Table 2. ANCOVA of post-freshman year TOEFL and extracurricular participation

Source	*df*	*F*	Sig.	Partial η^2
Covariate Pre-Freshman Year TOEFL	1	418.77	<.001	.407
Main Effects Extracurricular Participation	1	7.21	.007	.012
Error	610			

Table 3. ANCOVA of post-freshman year TOEFL and extracurricular group

Source	*df*	*F*	Sig.	Partial η^2
Covariate Pre-Freshman Year TOEFL	1	382.01	.000	.399
Main Effects Extracurricular Participation	10	2.46	.007	.041
Error	576			

Table 4. Group differences on estimated post-freshman year TOEFL

		95% Confidence Interval			*p* values < .05				
Group	**Estimated Mean**	**Lower Bound**	**Upper Bound**		**Basketball Circle**	**Dance Club**	**Aerobics Club**	**Non-participants**	**Volleyball Club**
Basketball Circle	460.27	445.38	475.17						
Dance	459.79	444.33	475.25						
Aerobics	457.87	436.80	478.94						
Non-participants	454.28	451.70	456.87						
Volleyball	449.26	438.53	459.99						
Soccer	441.85	419.05	464.65						
Music	441.83	425.73	457.94						
Soft Tennis	439.37	416.61	462.13						
Tennis Circle	436.96	425.08	448.85		.017	.022		.005	
Track and Field	434.38	413.31	455.45		.049				
Women's Basketball	425.30	405.29	445.32		.006	.007	.028	.005	.039

Note: Covariate appearing in the model is evaluated at the following value: Pre freshman year TOEFL = 422.96.

After backward regression and subsequent model diagnostics, three statistically insignificant variables and two outlying observations were removed from the model. The final model, summarized in Table 5, significantly predicted post-freshman year TOEFL score, F (4, 140) = 27.70, p < .001. R^2 for the model was .44 and adjusted R^2 was .43. Pre-freshman year TOEFL score (t = 8.49, p < .001), time in group (t = -2.97, p = .004), native English speaking faculty participant (t = -2.13, p = .035), and faculty authority figure (t = -2.45, p = .016) all significantly predicted post-freshman year TOEFL score. Of note, the presence of both English speaking faculty participants and faculty authority figures were found to be negatively associated with TOEFL outcomes.

Table 5. Final regression model for group characteristics and TOEFL outcomes

Variable	B	SE B	β	p
(Constant)	276.36	29.08		<.001
Pre-freshman year TOEFL	.51	.06	.55	<.001
Time in group	-27.55	9.29	-.22	.004
English speaking faculty participant	-15.96	7.51	-.15	.035
Faculty authority figure	-14.41	5.89	-.17	.016
Adjusted R2	.43			

Discussion

In the initial analysis, extracurricular participants as a whole had significantly smaller TOEFL gains than non-participants. Though these findings are consistent with McVeigh's (2002) discussion of how student activities in Japan often occupy a far more important role in the lives of university students than academics, they were somewhat contrary to my own expectation. On the other hand, from the outset I thought that the potential influence of student activities on language gains would differ from group to group depending upon the interpersonal dynamics and culture of the group. Indeed, group comparisons provided some evidence of this.

The sole intercollegiate athletic group, the women's basketball club, accounted for most of the significant findings – it was outperformed by non-participants, as well as several extracurricular groups. This is not surprising in light of the fact that members of this group spend more time in group activity (18.5 hours per week) than do members of other groups, and commitment to presence and participation in *all* group activities is probably greater as well. Though it is unfortunate the two other intercollegiate athletic teams on campus had no members qualifying for participation in this study (due to lack of TOEFL data), that fact in itself (in a setting where the pre- and post-freshman year TOEFL is generally required), along with the findings here, would seem to suggest language study is not a high priority for members of these groups.

Beyond intercollegiate athletics, the general trend of group comparisons was a lack of significant differences, including a non-descript performance on the part of the group that initially inspired this study, the volleyball club. There are patterns of statistical differences for both the tennis and basketball circles – the leisurely, mixed gender alternatives to the corresponding all-female intercollegiate teams

– but these are less pronounced than that of the women's basketball club, and given the liberal nature of the post hoc test employed, there is reason to speculate that they are the result of chance.

As for the results of regression analyses, the single most important group characteristic impacting TOEFL outcomes was time in group, with increased activity time being associated with poorer TOEFL gains. Though these findings might seem to be intuitive, Terenzini et al. (1995), found time spent in student clubs and organizations (in a North American context) was unrelated to academic gains during the freshman year. Perhaps involvement in student clubs in the Japanese context comprises a greater degree of socialization (and therefore time commitment) beyond scheduled activity time.

Another finding of regression analysis was the negative relation between the presence of a faculty authority figure and TOEFL outcomes. This is partially explained by the influence of the women's basketball club; the interpretation might be that it is not the faculty authority figure influencing TOEFL outcomes, but rather the broader cluster of influences associated with intercollegiate athletics as discussed above. This interpretation is incomplete, however, because it accounts for neither the soft tennis group nor the tennis circle, both of which had a faculty authority figure present, neither of which are intercollegiate athletic groups, and neither of which performed well on the estimated post-freshman year TOEFL.

The negative relation between the presence of native English speaking faculty participants and TOEFL outcomes was unexpected. The faculty members in question were present in group activities as fellow participants. Personal experience would suggest that teacher presence in group created opportunities for student-teacher interaction of a more casual and personal nature than those typically found in the classroom, which in turn would have been a potential source of L2 motivation and learning for students in these groups. Instead, both the basketball circle and volleyball club, the two groups accounting for the majority of variance in this measure, posted better estimated post-freshman year TOEFL means in 2001 when no native English speaking faculty participant was in group, than in 2002 when such participant was present.

Conclusion

The present study raises several questions worthy of further research. An investigation of extracurricular groups with faculty participants would be useful to further explore the role of faculty presence and its role in student outcomes in the context of Japanese higher education. In particular, those groups with foreign faculty participants might be a rich source of information pertaining to related L2 learning and motivation. Similarly, the intensive in-group socialization that appears to occur entirely outside of official group meetings, and its relation to L2 study and motivation should be investigated. This is particularly true for groups whose activities pertain to language study or the majority of whose members study a foreign language.

A better understanding of how official time in group mediates academic outcomes in the broader Japanese context would also be of value to student affairs officials and policymakers; except perhaps in the case of intercollegiate

athletics, university administrators could presumably moderate group scheduling by limiting access to campus facilities or with other policy changes. Finally, future research should account for variables left unexplored in the present study. These include socioeconomic status and academic preparation prior to college studies, both of which have been shown to correlate with college outcomes (Kuh et al., 2001), as well as dependent measures such as L2 motivation, language gains beyond the freshman year, and subsequent participation in language related activities, like study abroad.

Tim Stoeckel teaches at Kansai Gaidai University.

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