

# THE EFFECT OF INTRAMURAL SPORTS PARTICIPATION ON SENSE OF BELONGING AMONG UNIVERSITY STUDENTS AT GUANGDONG UNIVERSITY OF TECHNOLOGY IN GUANGZHOU

**Yang Wang, Nuttavut Phonsri**

*Master of Business Administration , Sport Management, College of Innovation Management,  
Suan Sunandha Rajabhat University, Bangkok, Thailand. E-Mail : s6347811004@ssru.ac.th  
Nuttavut Phonsri*

*Sport Management, College of Innovation Management, Suan Sunandha Rajabhat University,  
Bangkok, Thailand. E-Mail : nuttavat.ph@ssru.ac.th*

## Abstract

The objective of this research is to study the differences process in demographic and intramural sports participation affecting sense of belonging among students at Guangdong University of Technology in Guangzhou. The sample was gathered from students at Guangdong University of Technology in Guangzhou of 221 respondents via a multi-stage sampling technique. A questionnaire was the tool. Statistical treatment was T-Test Anova.

It was found that most of the sample were female, 118. People were second-year students. Lived on campus. within the province where the study was conducted. Lastly, the number of sports that the participants engaged in and participated in one type of sport. The Duration in participants were Daylight and Frequency were 3-5 time/week. The results of the hypothesis testing found that Differences in demographic, including gender, class standing, housing, hometown and number of sports have different effects on sense of belonging among students at Guangdong University of Technology in Guangzhou. It was not significantly different at the 0.05 level and Differences in intramural sports participation, including duration and frequency have different effects on feelings of belonging among students at Guangdong University of Technology in Guangzhou. It was not significantly different at the 0.05 level.

**Keywords** Intramural sport, Sports participation, Sense of belonging

## Introduction

The provides an overview of the research study and its significance, as well as a brief introduction to the background of the research problem, the research objectives, and the structure of the thesis. The importance of the research topic is presented, highlighting the current gaps in knowledge, the need for further investigation, and the potential practical implications. The research questions that guide the study are identified and explained, as well as the specific objectives that aim to address these questions.

Williams and Ferrari (2015) conducted research on first generation students and compared the feeling of belonging experienced by first generation students born in the United States to that of students who were not members of the first generation. Even though students experienced less support from the institution, there was no significant difference between their feeling of belonging and that of students who were not from the first generation. These academics advocate for the conduct of a study to investigate the relationship between the amount of time spent participating in a certain club and feelings of belonging (Williams & Ferrari, 2015). The purpose of the study conducted by Elkins et al. (2011) was to acquire a deeper comprehension of how participation in

campus recreation led to a feeling of belonging on campus among university students by examining their perceptions of their sense of belonging. They discovered that increased levels of participation in leisure activities on one campus led to students' reported feeling of belonging to the community. In a similar vein, Phipps et al. (2015) investigated how a participant's experience of belonging in intramural sports connected with their level of retention at a big public university. According to research conducted by Phipps et al. (2015), students who engaged in intramural sports for a longer period of time exhibited a better feeling of belonging. In addition, Miller (2011) conducted research on the influence of recreational facilities on social belonging and found that regular facility usage contributed to social belonging in the institution as well as the facility.

From the importance argue that a university focused on the liberal arts offers greater advantages than other types of institutions. According to Astin (1999a), the level of student satisfaction at liberal arts schools is greater than that of students at other types of institutions, and liberal arts students have the perception that their school is focused on their needs. This results in a higher level of satisfaction with the general education curriculum, the instructors, and the quality of the instruction. When students are actively engaged in the learning process, when they come up with their own questions, and when they come up with their own solutions, they can learn more (Astin, 1993; Kuh, 2008; Roche, 2013). In addition, students who graduate from liberal arts colleges have a greater likelihood of being successful in graduate school than those who graduate from other kinds of schools (Astin, 1999a). Although Warner and Dixon (2013) looked at varsity and club sports, the influence of intramural sports on the feeling of belonging that students have was not thoroughly researched until the work that Phipps et al. (2015) did using the SCI-2 (Chavis et al., 2008). In addition, Elkins, Forrester, and Noel-Elkins (2011) used Cheng's (2004) campus community scale in their research on reported feeling of belonging within the context of intramural sports.

This study is connected to students' sense of belonging in a university can be influenced by several factors such as the quality of teaching, campus culture, social support, and extracurricular activities. Guangdong University of Technology is a comprehensive university that offers programs in various fields such as engineering, business, arts, and sports. It has a large and diverse student population, including both domestic and international students. Guangdong University of Technology is also known for its research focus and collaborations with industry partners. In terms of campus culture, Guangdong University of Technology organizes various student activities, events, and clubs to encourage social interaction and engagement among students. It also provides student support services such as counseling, career guidance, and academic advising. Overall, students' sense of belonging at Guangdong University of Technology can vary depending on their personal experiences and expectations. However, the university seems to have several initiatives in place to promote a positive campus culture and support students' academic and personal growth.

### **Objective**

To study differences in intramural sports participation affecting sense of belonging among students at Guangdong University of Technology in Guangzhou.

### **Research Hypotheses**

H1: Differences in intramural sports participation, including duration and frequency have different effects on sense of belonging among students at Guangdong University of Technology in Guangzhou.

## **Scope of this research**

The scope of a study refers to the extent of the research that will be conducted, including the boundaries of the topic, the variables that will be examined, the population or sample that will be studied, and the time frame in which the study will be conducted.

## **Literature Review**

### **Influence factors of sports participation at University in China**

Sports participation among students in China has undergone significant changes in recent years. The Chinese government has made efforts to promote sports participation among students by investing in sports facilities, organizing sports events, and promoting physical education in schools. As a result, sports participation among students has increased significantly in China. According to the National Health Commission of China (2020), the number of students participating in sports activities has increased from 27.1% in 2010 to 46.6% in 2019.

Factors that Influence Sports Participation among Students in China Several factors influence sports participation among students in China. These include gender, age, socioeconomic status, family support, school environment, and cultural factors.

### **Sense of belonging Theory**

Boyer (1990) asserts that the university is a community with a purpose, in which the academic life serves as the center, and in which the staff and students collaborate to improve the quality of education. Next, the university is a just community, which implies that every person is treated with respect, and that equal opportunities are made available to each student (Boyer, 1990). Thirdly, the university is an open community, which means that people are free to voice their thoughts to others around them in a manner that is courteous (Boyer, 1990). Boyer (1990) makes the fourth argument that the university is a disciplined community in which people are expected to fulfill their responsibilities for the benefit of the whole. Fifth, Boyer (1990) asserts that the university ought to be a caring community. This means that it ought to be a place that is attentive to the well-being of each member, and it ought to routinely include members fulfilling the needs of others.

Finally, the university need to foster an atmosphere of festivity across its student body, professors, and alumni by highlighting the institution's history and customs. a sense of belonging is most often associated with a physical place; nevertheless, it is also capable of materializing inside a relational characteristic independent of this location's actual setting (Phipps, 2012; Warner & Dixon, 2013). Participants in a community, regardless of the context, look for ways to belong, to exert influence, feel integrated and to e their needs met, as well as to fee sense of shared emotional connection (McMillan & Chavis, 1986). According to O'Keefe (2013), students who have positive experiences with the interactions they have with both professionals and their peers are more likely to continue their education and graduate. According to O'Keefe (2013), a sense of belonging on campus is often achieved via extracurricular activities, interactions with peers, and relationships with teachers that exist outside of the classroom.

## Methodology

This research operation is action research. The researcher designs the research process into order to cover the research objectives. The relationship between the explanatory variables, i.e., length of participation in intramural sport, frequency of participation in intramural sport, gender, class standing, housing option, and hometown and the predicted variable, i.e., sense of belonging, among students on selected universities. This chapter aims to provide details of the methodology used in the research study. This included the methodology's design, participants, and location, besides its equipment and procedures.

## Result

The research on represents a critical component of the research project, as it presents the findings of the empirical research conducted to answer the research questions posed in the previous chapter. This chapter focuses on analyzing the data collected through surveys and interpreting the results in the context of the research questions and objectives. The data collected provides an insight into the research problem and helps to answer the research questions.

### Descriptive of the participants

Table 1 displays the demographic characteristics of the 221 participants involved in this study. The participants' gender, class standing, housing situation, hometown, and types of sports engaged in are outlined in the table.

**Table 1 Demographics of Participants**

**(N = 221)**

Characteristic	<i>n</i>	%
Gender		
Male	103	46.6
Female	118	53.4
Class standing		
First-year	39	17.6
Sophomore	40	18.1
Junior	54	24.4
Senior	49	22.2
Graduate student	39	17.6
Housing		
On-campus	117	52.9
Off-campus	104	47.1
Hometown		
Within province	115	52.0
Outside province	106	48.0
Number of sports		
1	59	26.7
2	58	26.2
3	58	26.2
4 or more	46	20.8

Hypothesis 1 Differences in Class of student has different effects on sense of belonging among students at Guangdong University of Technology in Guangzhou.

This hypothesis will use statistics to test for differences (F-test) in the case of comparing five groups to study whether the differences in Class of student. Does it affect on sense of belonging among university students?

**Table 2: Table showing the relationship between class standing of student variables and sense of belonging among university students. Statistical test for differences (F-test)**

Class	sense of belonging		f	Sig.
	$\bar{x}$	S.D.		
First-year	4.09	0.28	5.284	.000
Sophomore	4.52	0.48		
Junior	4.43	0.32		
Senior	4.32	0.24		
Graduate student	4.40	0.14		
Total	4.42	0.34		

\* Statistical significance 0.05

From Table 2, results of data analysis comparing differences in sense of belonging. Considering the personal factors of class standing of student. Factors that affect the sense of belonging, which many respondents overall are at a high level. ( $\bar{x}$  = 4.42) with respondents having an education level is Sophomore at the most level ( $\bar{x}$  = 4.52) followed by Junior is at level ( $\bar{x}$  = 4.43). Graduate student is at level ( $\bar{x}$  = 4.40) Senior is at ( $\bar{x}$  = 4.32). and First-year are at level ( $\bar{x}$  = 4.09), respectively.

From hypothesis testing using F-test (One Way Analysis of Variance) statistics, comparing differences between means by independent variables. There were more than 2 groups of answers, class standing of student. It was found that the calculated statistical value (F) was equal to 5.284. The value (Sig.) was equal to .000, which is less than the statistical significance level at the 0.05 level, therefore rejected. The main hypothesis (H<sub>0</sub>) accepts the set secondary hypothesis (H<sub>1</sub>), showing that personal factors include different class standing of student. There are a few factors that effect on sense of belonging among university students.

Table 3 : Table showing the relationship between Housing variables and sense of belonging among university students. Statistical test for differences (t-test).

Housing	sense of belonging		t	Sig.
	$\bar{x}$	S.D.		
On-campus	4.23	0.30	1.153	.000
Off-campus	4.15	0.24		
Total	4.19	0.27		

\* Statistical significance 0.05

From Table 4.5, results of data analysis comparing differences in sense of belonging.

Considering the personal factors of housing. Factors that affect the sense of belonging, which most respondents overall are at a high level. ( $\bar{x} = 4.19$ ) with respondents having gender is On-campus at the most level ( $\bar{x} = 4.23$ ) and Off-campus are at level ( $\bar{x} = 4.15$ ), respectively.

From hypothesis testing using t-Test statistics. Results of data analysis comparing differences in sense of belonging. Categorized according to Housing, it was found that sense of belonging was not significantly different at the 0.05 level.

## Discussion

Differences in intramural sports participation, including duration and frequency have different effects on feelings of belonging among students at Guangdong University of Technology in Guangzhou.

Hypothesis 1 Differences in duration in intramural sports participation has different effects on feelings of belonging among students at Guangdong University of Technology in Guangzhou.

From hypothesis testing using t-Test statistics. Results of data analysis comparing differences in sense of belonging. Categorized according to duration in intramural sports participation. it was found that sense of belonging was not significantly different at the 0.05 level.

Differences in frequency in intramural sports participation has different effects on feelings of belonging among students at Guangdong University of Technology in Guangzhou.

From hypothesis testing using F-test (One Way Analysis of Variance) statistics, comparing differences between means by independent variables. There were more than 2 groups of answers, frequency in intramural sports participation. It was found that the calculated statistical value (F) was equal to 4.959. The value (Sig.) was equal to .001, which is less than the statistical significance level at the 0.05 level, therefore rejected. The main hypothesis ( $H_0$ ) accepts the set secondary hypothesis ( $H_1$ ), showing that factors include different frequency in intramural sports participation. There are a few factors that effect on sense of belonging among university students.

## Conclusion

In conclusion, the findings of this study provide support for the idea that intramural sports participation is associated with a greater sense of belonging in university students, even when controlling for potential confounding factors.

These findings have important implications for university administrators, student organizations, and other stakeholders who seek to promote a sense of community and belonging among their student populations. this study provides valuable insights into the role that intramural sports participation can play in promoting a sense of belonging in university students and highlights the importance of continued research and investment in this area.



## Reference

- A History of Intercollegiate Athletics and the NCAA. (2015). *ASHE Higher Education Report*, 41(5), 1–24.
- Abfalter, d., Zaglia, M. E., & Mueller, J. (2012). Sense of virtual community: A follow up on its measurement. *Computers in Human Behavior*, 28(2), 400–404. <https://doi.org/10.1016/j.chb.2011.10.010>
- Achen, R. M. (2015). Using Facebook and twitter to encourage physical activity: Are college students connecting with campus recreation on social media. A pilot study. *Recreational Sports Journal*, 39(2), 132–143.
- Alfano, H. J., & Eduljee, N. B., (2013). Differences in work, levels of involvement, and academic performance between residential and commuter students. *College Student Journal*, 47(2), 334–342.
- Bachrach, K. M., & Zautra, A. J. (1985). Coping with a community stressor: the threat of a hazardous is te facility. *Journal of Health and Social Behavior*, 26(2), 127–141.
- Baghurst, T., Tapps, T., & Judy, A. (2014). A comparison of sport commitment in female-only versus co-recreational intramural basketball leagues. *Recreational Sports Journal*, 38(2), 143–152.
- Bai, B., Wang, Y., Lü, F., & Ma, J. (2021). The effect of extracurricular sports activities on Chinese college students' physical fitness, academic performance and mental health. *BMC public health*, 21(1), 1-9. <https://doi.org/10.1186/s12889-021-10206-5>
- Ball, J. A. (2012). The gender gap in undergraduate business programs in the united states. *Journal of Education for Business*, 87(5), 260.
- Chavis, D. M., & Lee, K. (N.D.). The sense of belonging (SCI) index revised: The reliability and the validity of the SCI-2 (PowerPoint Slides). Retrieved from <http://www.senseofcommunity.com/show-files.php?category=11>
- Chen, B. H., & Chiou, H. (2014). Learning style, sense of belonging and learning effectiveness in hybrid learning environment. *Interactive Learning Environments*, 22(4), 485–496. <https://doi.org/10.1080/10494820.2012.680971>
- Duggan, M., & Smith, A. (2014). Pew Research Center: Social media update 2013. Retrieved from <http://pewinternet.org/Reports/2013/Social-Media-Update.aspx>
- Eder, D., & Fingerson, L. (2001). The social organization of girls' sports participation. *Sociology of Sport Journal*, 18(4), 371-392. <https://doi.org/10.1123/ssj.18.4.371>
- Elkins, D. J., Forrester, S. A., & Noël-Elkins, A. V. (2011). The contribution of campus recreational sports participation to perceived sense of campus community. *Recreational Sports Journal*, 35(1), 24–34. <https://doi.org/10.1123/rsj.35.1.24>
- Hamilton, L. D., van Anders, S. M., Cox, D. N., & Watson, N. V. (2009). The effect of competition on salivary testosterone in elite female athletes. *International Journal of Sports Physiology & Performance*, 4(4), 538–542. <https://doi.org/10.1123/ijsp.4.4.538>
- Hanson, J. R., & Kraus, R. G. (2017). Intramural sports participation and sense of community among university students. *Journal of Outdoor Recreation, Education, and Leadership*, 9(1), 62.–76. <https://doi.org/10.18666/JOREL-2017-V9-I1-7377>
- Pearson, R. W. (2010). *Statistical persuasion: How to collect, analyze, and present data accurately, honestly, and persuasively*. SAGE.

- Peterson, N. A., Speer, P. W., & Hughey, J. (2006). Measuring sense of belonging: A methodological interpretation of the factor structure debate. *Journal of Community Psychology*, 34(4), 453–469. <https://doi.org/10.1002/jcop.20099>
- Williams, S. M., & Ferrari, J. R. (2015). Identification among first-generation citizen students and first-generation college students: An exploration of school sense of belonging. *Journal of Community Psychology*, 43, 377–387. <https://doi.org/10.1002/jcop.21685>
- Wintrol, K. (2014). The intrinsic value of the : Cicero's example. *Journal of The National Collegiate Honors Council*, 15(1), 129–134. <https://doi.org/10.1215/15282618-2418856>
- Yang, X., Zhang, Y., & Yang, Y. (2020). The influence of physical exercise on academic performance in college students: A meta-analysis. *PloS one*, 15(4), e0231428. <https://doi.org/10.1371/journal.pone.0231428>