

## Examining social identity components of Japanese student-athletes

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### Abstract:

Maintaining an appropriate balance between athletics and academic is integral for the success of student-athletes. The purpose of this study was to examine social identity components in Japanese collegiate student-athletes by investigating the relationship between academic-athletic identification and student-athletes' identity. Participants were 467 Japanese elite collegiate student-athletes (287 males, 180 females; M age = 19.57, SD = 1.11). The Japanese version of the Academic Athletic Identity Scale (AAIS-J) was adopted to assess the components of student-athletes' identity. The Baller Identity Measurement Scale for student-athletes (BIMS) was translated into Japanese using the back-translation method to assess student-athletes' identity. The results of this study indicated that athletic identity strongly affected the formation of student-athletes' identity; however, academic identity did not affect the formation of student-athletes' identity. In conclusion, student-athletes have a strong awareness of their athletic activities but a lower consciousness of their academic work. Assuming that the students' main responsibility is academics, it is important to reconsider the current way of collegiate sports in Japan.

**Key Words:** - athletic identification; academic identification; collegiate sports; Asian student-athletes

### Introduction

There are as many as 174 952 college student-athletes in Japan (Yahiro & Hagiwara, 2019), and in 2019, the Japan Association for University Athletics and Sports (UNIVAS)—the national organization governing intercollegiate sports—was established. UNIVAS intends to promote students-athletes who have a balanced engagement in academic and athletic activities. Since elite student-athletes are needed to maintain a high level of competitiveness and academic achievement (van Rens et al., 2019), research to understand the balance between academics and athletics among the highly skilled student-athletes in Japan is important for student-athletes to be successful. However, little research on the balance between academics and athletics in student-athletes has been conducted in Japan. In addition, no research has been conducted to examine the actual situation, and identify the components of academics and athletics of elite student-athletes who receive scholarships from universities. Thus, we focused on the identity components of student-athletes in order to understand the current situation of Japanese elite student-athletes.

According to social psychology, social identification is the process of incorporating important individual characteristics into oneself, which then lays the foundation for establishing the social identity of the individual (Kodama & Tokaji, 2010). In addition, the pioneer of identity studies, Erikson (1968), mentioned that the relationship between social identification and social identity is important during adolescence when identification moves from parents to peers and a more stable individual identity is formed. Social identification is an internal component of individual self-concept that is formed throughout social life, and it is important for the socialization and the development of the individual and their social identity (Wollheim, 1974; Mead, 1934). In addition, social identity is defined as that part of individual self-concept which derives from individual knowledge of a social situation, along with the value and emotional significance attached to that social membership (Tajfel, 1979). Based on these theories, social identification is presumed to be a component or a prerequisite for the establishment of social identity among individuals. The time spent being a collegiate student-athlete involves leaving one's parents behind and facing situations alone, while also establishing connections with new friends, coaches, and teachers. Meanwhile, communication with one's parents and other close friends also continues. Moreover, considering the social identity component of student-athletes, individuals who become college students and athletes at the same time have become aware of their individual identification both academic and athletic in the social relationship in university life, and might have formed their social identity as a "student-athletes."

Incidentally, athletic identity is often used to verify the social identity of student-athletes. Athletic identity encompasses the psychological, emotional, and behavioral elements of athletes' self-identities

(Hagiwara, 2020), and it has been defined as “the degree to which an individual identifies with the athletic role” (Brewer et al., 1993). Brewer et al. (1993) originally developed the Athletic Identity Measurement Scale (AIMS) to assess athletes’ identity in Western countries, and several studies have conducted a cross-cultural psychometric evaluation of AIMS (Visek et al., 2008; Proios, 2012; Tunckol, 2015; Silva et al., 2016). In Japan, Hagiwara and Isogai (2013) developed the Japanese version of the AIMS and demonstrated the degree of athletic identity in Japanese student-athletes. Thus, AIMS has been used most frequently for measuring athletic identity worldwide (Visek et al., 2008). In addition, several studies on the relationships between AIMS and related factors have been conducted in Western and Asian cultures (Hagiwara & Isogai, 2013). For example, AIMS has been linked with retirement (Lally, 2007; Lavalley et al., 1997), career immaturity (Miller & Kerr, 2003), sports performance (Tasiemski et al., 2013; Hagiwara et al., 2014), intention for sports persistence (Horton & Mack, 2000; Hagiwara & Isogai, 2013), and participation level in sports (Lamont-Mills, 2006). Thus, athletic identity is an important element to better understand athletes from psychological and emotional perspectives.

However, while AIMS (Brewer et al., 1993) measures the degree of social identity as an athlete, it does not measure the degree of identity as a student-athlete. Further, as mentioned above, student athletes belong to academic institutions, and it can be said that it is not enough to measure the degree of only the social identity of an athlete to understand collegiate student-athletes. Recently, a new scale for measuring athlete identity has been developed specifically for collegiate student-athletes. Harrison et al. (2010) have structured a new measurement scale called the Baller Identity Measurement Scale (BIMS), which has been adapted from AIMS. Like AIMS, several studies have been conducted in a cross-cultural psychometric evaluation of BIMS to assess the degree of student-athlete’s identity (Lupo et al., 2017; Hagiwara et al., 2019; Quinaud et al., 2019). Following that, Hagiwara et al. (2019) developed the Japanese version of BIMS for collegiate student-athletes.

They adopted the original English version of the BIMS (Harrison, 2010) to the Japanese context using the back-translation method. This Japanese version of BIMS was developed with reference to the procedure followed by Lupo (2017), which developed the Italian version of BIMS. Thus, prior to the translation procedures, to ascertain that student-athlete identity was the main focus of the Japanese version of the scale, the terms “baller/ballers” (items 1, 2, 3, 5, 7), “ballin” (items 4, 9), “play ball” (items 6, 10), and “I don’t ball out” (item 8) were rephrased into “student-athlete/s,” “being a student-athlete,” “I’m/to be a student-athlete,” and “I’m not a student-athlete,” respectively. In their study, Hagiwara et al. (2019) compared the degree of collegiate student-athletes’ identity between national and district levels. Results indicated that collegiate student-athletes competing at the national level had a higher degree of student-athlete identity than those at the district level. The degree of student-athlete identity has been confirmed in this particular study; however, the components that form student-athlete identity have not been established yet.

In Japan, recent studies on social identity have demonstrated that adolescents have multiple identifications, depending on their relationships or situations in social memberships, which influence their self-establishment (Kitani & Okamoto, 2018). Based on this notion, student-athletes may establish their identification in social activities including academic and athletic situations. Moreover, a study on the social identity of student-athletes, conducted in the United States, indicated that the identity of student-athletes was composed of multiple components (Lally, 2007). Furthermore, academics and athletics have been shown to predominantly compose the student-athlete’s personal identity (Marx et al., 2008). Accordingly, student-athletes’ identity has been defined as “the unique identity of the college sports athletes, formed from the identification of both academic and athlete activities” (Hagiwara et al., 2020).

Yukhymenko-Lescroart (2014) developed the Academic Athletic Identity Scale (AAIS) to measure two aspects of American student-athletes’ identification—the academic factor and the athletic factor—belonging to Division I of the National Collegiate Athletic Association (NCAA). Results indicated that high-level athletic involvement resulted in stronger athletic identification and lower academic identification across various sports and levels. Additionally, Hagiwara et al. (2020) developed the Japanese version of the AAIS (AAIS-J), which measures two aspects of student-athletes’ identification. AAIS-J found a positive correlation between academic identification, athletic identification, and athletic identity (AIMS). These measurement scales place emphasis on two factors of student-athletes’ identification in two social dimensions: sports team and academic institution (Yukhymenko-Lescroart, 2014).

According to a previous study, social identification is related with the foundation for establishing the social identity of an individual (Kodama & Kokaji, 2010). Thus, academic and athletic identification is presumed to be a prerequisite for establishing the identity of student-athletes. However, few studies have shown the extent to which the two aspects of academic and athletic identification are related to the formation of student-athlete identities (Yukhymenko-Lescroart, 2014; Sturm et al., 2011). In addition, research that addresses academic and athletic identification as a precondition for establishing the Japanese student-athletes’ identities has not been conducted. Furthermore, with the establishing of UNIVAS in Japan, it is crucial to understand the balance between academics and athletics among collegiate students-athletes. Therefore, the purpose of this study was to examine social identity components among Japanese student-athletes by investigating the relationship between academic-athletic identification and student-athletes’ identity. We hypothesized that both academic and athletic identification would be particularly important for student-athletes who received scholarships from universities.

**Material & methods**

*Participants*

In this study, we conducted a survey of five universities. Both universities have top-level collegiate athletic clubs in Japan and provide scholarships for student-athletes. Participants were 467 Japanese collegiate student-athletes (287 males, 180 females; M age = 19.57, SD = 1.11). Their sporting activities included track and field (164), soccer (55), baseball (50), swimming (47), judo (47), basketball (31), volleyball (27), gymnastics (14), tennis (13), lacrosse (11), and table tennis (8). They belonged to the collegiate athletic team and had participated in national collegiate championships. The national-level participants were those who had participated in national collegiate championships while attending university. In addition, they received scholarships from universities to enable them to balance between their academic and athletic activities. Previous studies (Harrison et al., 2010; Harrison et al., 2014) employed varsity sports athletes who received scholarships from universities; thus, participants included in this study were also scholarship athletes in order to obtain a similar situation in Japan.

*Procedure*

The study was approved by the institutional review board of the corresponding author’s research institute. All participants were informed of the instructions and the purpose of this study during sports science classes, and their participation was voluntary. We contacted the club manager of each university in advance and conducted a survey on only those student-athletes who had received scholarships from their university. A total of 467 copies of the questionnaire were distributed and collected. The recovery rate was 100%.

*Instruments*

The Japanese version of the BIMS (BIMS-J) (Hagiwara et al., 2019) was used to measure the degree of student-athletes’ identity. This questionnaire consisted of 10 statements (e.g., “I consider myself a student-athlete”; “Other people see me mainly as a student-athlete”) that were rated on a 7-point Likert scale with response options ranging from 1 (strongly disagree) to 7 (strongly agree). The factorial structure of the BIMS-J was assessed by confirmatory factorial analysis (CFA) in IBM SPSS Statistics, AMOS 25.0. The goodness-of-fit values were deemed indicators of a good model fit (> 0.90 for GFI, AGFI, and CFI, with RMSEA < 0.08) (Oshio, 2008). In the BIMS-J, the CFA results indicated an adequate model fit, GFI = 0.98, AGFI = 0.95, CFI = 0.99, RMSEA = 0.05. , The internal reliability alpha coefficients for BIMS-J were 0.93, demonstrating sufficient alphas (> 0.70) (Cronbach, 1951). The Japanese version of the AAIS-J (Hagiwara et al., 2020), originally developed by Yukhymenko-Lescroart (2014), was used to measure two aspects of student-athletes’ identification. This questionnaire consisted of 11 items to measure two factors: academic and athletic identification. The academic identification factor includes five statements (e.g., “Being a capable student.”) and the athletic identification factor includes six statements (e.g., “Being a good athlete.”). The statements were rated on a 6-point Likert scale along a diagram of concentric circles representing values between 1 (not central to my sense of self) and 6 (very central to my sense of self). “Following each item, the participants were asked, “How central is this attribute to your sense of who you are?”” CFA supported the factorial structure of the AAIS-J and indicated a good model fit in the current sample, GFI = 0.97, AGFI = 0.94, CFI = 0.98, and RMSEA = 0.05. The internal reliability alpha coefficients for academic factors and athletic factors were 0.85 and 0.91, respectively.

*Data analysis*

Descriptive statistics were calculated for each measure. Pearson’s correlation coefficients were used to examine the relationships among the degree of student-athletes’ identity and the two aspects of student-athletes’ identification. Multiple regression analysis was performed to examine the causal relationships of both academic and athletic identification for predicting student-athletes’ identity. All data were analyzed using IBM SPSS Statistics 25.0.

**Results**

*Descriptive statistics*

The results of descriptive statistics of the 10 items of the BIMS-J are shown in Table 1 while Table 2 provides the descriptive statistics of the 11 items of the AAIS-J.

**Table 1.** Descriptive statistics for BIMS-J

#Item		Mean	SD	Range
#1	I consider myself a student-athlete.	4.97	1.67	1-7
#2	I have many goals related to being a student-athlete.	4.84	1.62	1-7
#3	Most of my friends are student-athletes.	5.57	1.40	1-7
#4	Being a student-athlete is the most important part of my life.	4.66	1.64	1-7
#5	I spend more time thinking about being a student-athlete than anything else.	4.38	1.66	1-7
#6	When I’m a student-athlete, I feel good about myself.	4.61	1.61	1-7
#7	Other people see me mainly as a student-athlete.	4.61	1.59	1-7
#8	I feel bad about myself when I do poorly when I’m not a student-athlete.	4.66	1.61	1-7
#9	Being a student-athlete is the only important thing in my life.	3.84	1.72	1-7
#10	I would be very depressed if I were injured and could not be a student-athlete.	4.84	1.76	1-7
Total score		47.08	12.87	10-70

**Table 2.** Descriptive statistics for the AAIS-J

#Item/Subscale		Mean	SD	Range
<b>Academic factor</b>				
#1	Being a capable student	4.36	1.14	1-6
#2	Being satisfied with my academic work	4.35	1.17	1-6
#3	Doing well in school	4.85	1.04	1-6
#4	Getting good grades	4.75	1.09	1-6
#5	Having high GPA	4.42	1.21	1-6
Total score		22.85	4.93	5-30
<b>Athletic factor</b>				
#6	Being a capable athlete	4.36	1.21	1-6
#7	Being a good athlete	4.67	1.15	1-6
#8	Being athletic	4.41	1.24	1-6
#9	Being proud to be an athlete	4.62	1.20	1-6
#10	Being satisfied with my athletic achievements	4.36	1.22	1-6
#11	Doing well during sport competitions	4.72	1.22	1-6
Total score		27.15	6.01	6-36

**Relationships among degree of student-athletes' identity and two components of student-athletes' identification**

The correlational analyses indicated that there were significant positive correlations among student-athletes' identity and both the component of student-athletes' identification: academic identification and athletic identification (Table 3).

**Table 3.** Results of correlation coefficients between student-athlete' identity and two aspects in student-athletes' identification

	<b>Student-athletes' identity Participants (n = 467)</b>
Academic Identification	0.25**
Athletic Identification	0.57**

\*\*  $p < 0.01$

**The causal relationships of both academic and athletic identification in predicting student-athletes' identity**

Multiple regression analysis indicated that the athletic identification factor had a significant positive effect on student-athletes' identity ( $\beta = 0.60, p < 0.001$ ). On the other hand, there was no significant causal relationship between academic identification factor and student-athletes' identity ( $\beta = -0.06, p = n.s.$ ) (Table 4).

**Table 4.** Results of multiple regression analysis in predicting student-athletes' identity

	<b>Participants (n = 467)</b>	
	<b><math>\beta</math></b>	<b><math>R^2</math></b>
Academic Identification	-0.06	0.32***
Athletic Identification	0.60	

Dependent variable: student-athletes' identity

\*\*\*  $p < 0.001$

**Discussion**

The purpose of this study was to examine identity components in Japanese collegiate student-athletes by investigating the relationship between student-athletes' identity and their identification.

There was a significant positive correlation between student-athletes' identity and academic identification; however, the relationship was small when the effect size was taken into consideration (Mizumoto & Takeuchi, 2008). In other words, identification as a "student" might be a very small component of student-athletes' identity among the Japanese athletes in our study. However, the result indicated a significant positive correlation between student-athlete identity and athlete identification, and the relationship was large ( $r > .50$ ) (Mizumoto & Takeuchi, 2008). Furthermore, athletic identification had a significant positive effect on student-athletes' identity. The identity composition of Japanese collegiate student-athletes was strongly related and influenced by their self-identification as athletes; academic components did not have much influence on their identity. The results of this study also seem to reflect the relationship between social identification and social identity in the context of Japanese collegiate sports. Erikson (1968) argued that social identification is influenced by close relationships, and a more stable social identity is formed in adolescence. The collegiate student athletes face changes as a student-athlete in terms of leaving behind their high-school sports friends and facing situations alone, while also connecting with new teammates who have competed at the national level, famous coaches, and university professors. Therefore, the social identification recognized by a student-athlete is focused not only on athletic activity, but also on being a college student and an elite athlete representing their university. This study

clarified whether these two identifications contribute to the formation of the student-athletes' individual identities as student-athletes, and demonstrate the actual situation of student-athletes in Japan.

The Japanese collegiate sports system is currently far behind in comparison with the United States and European countries. Nagakura (2016) mentioned that the academic support system in Japan for student-athletes is not sufficient. There are only a few universities that have the Athletic Department supervising their activities; the academic counseling and career development systems are also inadequate. Therefore, the small relationship between student-athletes' identity and academic identification can be seen as a flaw in the Japanese university system. In the future, academic identification may become a more significant component of Japanese student-athletes' identity by enhancing the educational support system available in collegiate sports by the UNIVAS.

Snyder (1985) proposed a typology suggesting that there are four main types of student-athletes: 1) scholar-athletes (those who commit to both academic and athletic roles), 2) pure scholars, 3) pure athletes, and 4) student-athletes (those who have no commitment to either role). These perspectives imply that student-athletes may adopt multiple identifications simultaneously. Tsukahara et al. (2019) showed that most Japanese student-athletes have a high awareness of their athletic activities and a low awareness of their academic work. This tendency is also seen in American collegiate student-athletes (Sturm et al., 2011). Among student-athletes belonging to the NCAA Division I school in the United States, Sturm et al. (2011) found that their identities were composed mainly of athlete identities, and their academic identities acted as a sub-component. Additionally, student-athletes at the varsity level (NCAA Division I school in the United States) had a slightly weaker academic identification and a much stronger athletic identification. These findings suggest that while athletic identification of highly skilled student-athletes is likely to be high, student athletes also identify with their academic commitments and roles. Particularly in Japan, there is a special admission method called the sports recommendation entrance examination system, which refers to those systems that evaluate only sports performance and do not consider academic performance, and several private universities have been reported to provide credits to student-athletes who receive scholarships, without their attending academic classes. Therefore, further researches will help the student-athletes become aware of their original role as student-athletes in order to reconsider what it is like to be a student-athlete in Japan. The value of collegiate sports lies in the balance between academics and athletics, and if the student-athletes lack either aspect, collegiate sports would lose its value and would not be sustainable sports content.

The limitations of this study should be noted. First, one's identity fluctuates depending on the social situation. Competitive periods in sports may require an emphasis on athletic activities, while mid-term or final examination periods will require a predominant focus on academics. Therefore, when the participants completed the questionnaire survey might have influenced our results. Ideally, future studies should look at athletic and academic identifications from a longitudinal perspective to better understand how different situations influence both: an individual's athletic as well as academic identity. Second, student-athletes from different universities should be recruited. For instance, the NCAA has specific rules and regulations (e.g., restrictions on practice times and schedules on Division I, II, and III, respectively) to allow universities to ensure a balance between student-athletes' academic performance and athletic activity more effectively. However, universities in Japan do not have such rules and regulations, and students from different universities can influence athletic and academic identity. Examining how different university systems interact with athletic and academic identity, as well as how these identities are formed, will be worthwhile in future studies. Finally, several studies indicate that the identification of student-athletes may be influenced by sex differences, as female athletes tend to have higher academic identification than males (Sturm et al., 2011), while males tend to have higher athletic identification than females (Brewer et al., 1993). Since this study targeted only student-athletes who received scholarships, the number of male athletes was higher than that of female athletes. This study did not compare sex differences because it would have been necessary to equalize the number of participants to assess this difference; however, in future studies we will endeavor to include student-athletes who have not received scholarships, such that a study on the influence of sex differences in determining components of student-athletes' identity can be conducted.

In conclusion, the results of this study indicate that the identity composition of Japanese collegiate student-athletes is strongly related to and influenced by their social identification as athletes; academic components have little impact on their social identity.

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