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Sports Communication Awareness and Associated Factors Among Students at Selected Physical Education and Sport Institutions in Ho Chi Minh City, Vietnam

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ABSTRACT: Sport in Vietnam is increasingly consumed, promoted and governed through digital media, yet the sports communication awareness of students at the institutions that train future coaches, physical education teachers and sport managers has rarely been examined. This exploratory study describes the sports communication awareness (SCA) of students at selected physical education and sport institutions in Ho Chi Minh City and examines the factors associated with it. Drawing on strategic sport communication, media literacy and the theory of planned behavior, SCA is approached as comprising four components: communication knowledge, perceived importance, self-assessed digital communication skills, and ethical–professional awareness. A cross-sectional mixed-methods design combined a student survey, a lecturer and staff questionnaire, and in-depth interviews. The exploratory survey collected 190 student responses; after removing 37 straight-lining responses, 153 were analyzed, together with 20 lecturer and staff responses and five interviews. SCA was high (M = 4.13/5); self-assessed digital communication skills was the lowest component (M = 3.94), and exposure to communication content in the curriculum only just reached the high band (M = 3.68). In a regression on composite scores, communication self-efficacy ($\beta = 0.450$), social media use ($\beta = 0.266$) and curriculum exposure ($\beta = 0.224$) were positively associated with SCA ($R^2 = 0.50$), whereas institutional support had no unique association once the other factors were controlled; SCA was positively associated with the intention to engage in communication activities ($\beta = 0.488$). Students who had taken a communication-related course reported higher SCA ($p = 0.019$). Nineteen of 20 lecturers and staff considered communication competence necessary; the most frequently cited barriers were a lack of lecturers with relevant expertise (17/20) and a lack of equipment (13/20). The five interviewees considered that students lack guided practice, feedback and information-verification skills. Because of the cross-sectional design, the convenience sample and the low reliability of some scales, the results reflect associations only and do not permit causal conclusions; they provide a basis for refining the instrument and designing the main survey.

KEYWORDS: sports communication, communication awareness, media literacy, sport higher education, social media, Ho Chi Minh City, Uncanny Valley, Visual Artifacts, Digital Character Design, Post-Digital Aesthetics, Visual Storytelling, Human-AI Collaboration.

1. INTRODUCTION

Communication has become a core function of modern sport rather than an auxiliary activity. Clubs, federations, schools and athletes now build audiences, attract sponsors, recruit participants and manage their image through digital channels they own, alongside traditional media (Hutchins & Rowe, 2012; Pedersen et al., 2007). Social media in particular has shifted sports communication from a one-way, media-dependent model to an interactive one in which athletes, coaches and sport organizations communicate directly with fans and stakeholders (Filo et al., 2015; Pegoraro, 2010).

This shift places new demands on the workforce that sports training institutions produce. A physical education teacher running a school club, a youth team coach or a tournament organizer all need to plan content, run a fan page, work with journalists, handle negative feedback online and protect athletes' image. These are communication competencies, yet they are rarely taught formally in sport science curricula, which focus on physiology, pedagogy, coaching and management.

In Vietnam this gap is clearly visible. The Strategy for the Development of Physical Training and Sports of Vietnam to 2030, with a vision to 2045 (Decision No. 1189/QĐ-TTg, 2024), emphasizes the socialization of sport, the development of school sport and the professionalization of the sports sector, while the National Digital Transformation Program (Decision No. 749/QĐ-TTg, 2020) pushes all sectors, including education, to operate in a digital environment. Ho Chi Minh City, the country's largest city, hosts major sports training institutions such as the Ho Chi Minh City University of Physical Education and Sport and the University of Sport Ho Chi Minh City, as well as physical education departments in many

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multidisciplinary universities. Graduates of these institutions enter a labor market in which digital communication is part of everyday work. However, empirical evidence on these students' understanding and practice of sports communication remains very limited. Domestic studies on training human resources for sports journalism and communication have pointed to the need for curriculum reform (Ho & Luu, 2026), but, to the author's knowledge, few studies have measured the communication awareness of sport students and examined the factors associated with it.

Internationally, research on sport and social media has focused mainly on professional athletes, clubs and fans (Filo et al., 2015; Hambrick et al., 2010), and research on sports communication education has largely taken place in Western countries. The communication awareness of sport higher education students in Southeast Asia, where resources, media systems and curricula differ, has received little attention in the literature available to the author.

This study addresses that gap with three objectives: (1) to conceptualize and measure the sports communication awareness of students at sports training institutions in Ho Chi Minh City; (2) to identify the institutional and individual factors associated with this awareness; and (3) to propose evidence-based solutions for raising sports communication awareness. It answers three research questions:

RQ1. What is the current level of sports communication awareness among students at sports training institutions in Ho Chi Minh City, by component?

RQ2. How are curriculum exposure, institutional support, social media use and communication self-efficacy related to sports communication awareness?

RQ3. Is sports communication awareness associated with students' intention to engage in sports communication activities, and which solutions do lecturers and managers consider most effective?

2. LITERATURE REVIEW AND HYPOTHESES

2.1 Sports communication as a professional competence

Pedersen et al. (2007) define strategic sport communication as the process by which individuals and organizations in sport create, share and interpret messages with their publics, encompassing interpersonal, organizational and mass communication. Kassing et al. (2004) describe a "community of sport" in which communication takes place in enacting, organizing, reporting and consuming sport. Both models show that communication is not only the business of journalists or marketers: coaches, teachers, managers and athletes all take part in it. Billings et al. (2018) note that communication and sport has become an academic field in its own right, but its integration into the training of sport professionals remains uneven.

2.2 Social media and the new sports communication environment

Social media has changed who communicates in sport and how. Studies of athletes' use of Twitter show that they use the platform to interact, share information, promote themselves and engage fans without passing through media gatekeepers (Hambrick et al., 2010; Pegoraro, 2010). Sanderson (2011) points to the accompanying risks, such as reputational damage, sanctions from governing bodies and blurred boundaries between private and professional life. Reviewing research on sport and social media, Filo et al. (2015) identify strategic, operational and user-oriented research streams, but note that training and capacity building have received little attention. For sports training institutions, this means that graduates need both the skills to use digital communication effectively and the judgment to use it responsibly.

2.3 Media literacy and sports communication awareness

Media literacy theory regards the ability to access, analyze, evaluate and create media messages as a learnable competence (Hobbs, 2010; Potter, 2004). Potter (2004) treats media literacy as a cognitive structure built from the knowledge and skills people use to interpret and act in the media environment. On this basis, this study defines **sports communication awareness (SCA)** as students' understanding of the role, principles and ethics of communication in sport, the importance they attach to communication, and their own assessment of their ability to carry out specific digital communication tasks. Three concepts need to be distinguished: (1) awareness (understanding, perceived importance, ethical awareness); (2) self-assessed competence, that is, students' belief that they can perform a specific task such as writing a news report or filming and editing a video; and (3) self-efficacy (SEF), a general belief in one's ability to perform and learn in communication. Concept (2) is included in SCA as self-assessed skills; concept (3) is measured separately and treated as a personal factor associated with SCA. Because (2) and (3) overlap in content, Section 4.4 adds a sensitivity analysis that removes the skills component from SCA. Actual competence, assessed through tests or products, was not measured in this study. SCA has four components:

Communication knowledge (KNO): understanding of the concepts, channels, audiences and role of communication in sport.

Perceived importance (IMP): the degree to which students value communication for their future careers and for the development of sport.

Self-assessed digital communication skills (SKL): students' assessment of whether they can carry out specific tasks such as writing a news report or filming and editing a short sports video; this is self-assessed, not tested, competence.

Ethical–professional awareness (ETH): awareness of image protection, copyright, privacy, misinformation and professional responsibility when communicating about sport.

2.4 Factors associated with sports communication awareness

Curriculum exposure. Awareness and competence are built through systematic learning. Students who have taken courses, modules or assignments related to communication, journalism or marketing are expected to have greater knowledge and skills. Domestic analyses argue that sports communication training in Vietnam needs updated content and more practice-based methods to meet the demands of the digital era (Ho & Luu, 2026).

> ***H1:*** *Curriculum exposure is positively associated with sports communication awareness.*

Institutional support. The institutional environment shapes learning outside the classroom. Student communication clubs, official institutional media channels, events and guidance from staff and lecturers create opportunities for practice. When an institution models professional communication and enables students to take part, students tend to show higher awareness.

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> ***H2:*** *Institutional support for communication activities is positively associated with sports communication awareness.*

Social media use. Daily use of social media may familiarize students with platforms and content formats. However, frequent use does not automatically translate into critical or professional awareness (Hobbs, 2010). This relationship therefore needs to be tested rather than assumed.

> ***H3:*** *Social media use for sport content is positively associated with sports communication awareness.*

Communication self-efficacy. Belief in one's own capability (self-efficacy) influences learning and engagement (Bandura, 1977). Students who are confident in their ability to speak, write and create content are more likely to seek out and absorb communication knowledge. Unlike the self-assessed skills component of SCA, which asks about specific tasks, SEF measures students' general belief in their ability to perform in front of others and to learn new communication skills.

> ***H4:*** *Communication self-efficacy is positively associated with sports communication awareness.*

2.5 Awareness and behavioral intention

According to the theory of planned behavior, attitudes, subjective norms and perceived behavioral control shape intentions, and intention is the antecedent of behavior (Ajzen, 1991). Because SCA comprises understanding, perceived importance and self-assessed ability, it is expected to be positively associated with students' intention to engage in sports communication activities, such as running a club page, joining the institution's media team, or communicating professionally as a coach or teacher.

> ***H5:*** *Sports communication awareness is positively associated with the intention to engage in sports communication activities.*

2.6 Research model

The hypothesized model comprises four factors associated with SCA and the association between SCA and behavioral intention (Figure 1). The arrows in the figure show the direction of relationships assumed by theory; with cross-sectional data, the study can examine only the strength of association and cannot test direction or causality.

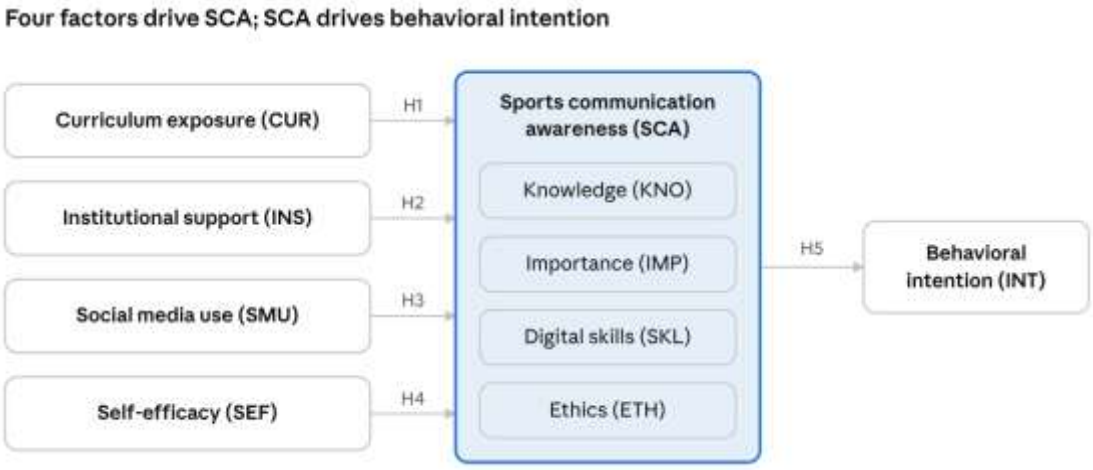


Figure 1. Research model.

SCA is specified as a higher-order construct measured through four first-order components.

3. METHODS

3.1 Research design

This article reports an exploratory study using an explanatory sequential mixed-methods design with cross-sectional data. The quantitative phase uses a survey to describe SCA and examine the hypothesized associations (RQ1, RQ2, H1–H5). The qualitative phase uses interviews with lecturers, managers and representatives of sport organizations and the media to explain the survey results and explore feasible solutions (RQ3). Because the design is cross-sectional, with no control group or intervention, the results indicate only the strength of associations between variables and do not permit conclusions about causality or direction.

3.2 Setting and participants

The study population consists of undergraduate students enrolled in sport-related programs at sports training institutions in Ho Chi Minh City, including physical education, sports coaching, sport management and sports communication/journalism (where offered). Participating institutions include the Ho Chi Minh City University of Physical Education and Sport, the University of Sport Ho Chi Minh City and several other universities offering sport programs (the preliminary round included students from Van Lang University, Ho Chi Minh City University of Education and Ton Duc Thang University).

Participants were selected by convenience sampling. This article reports the results of the exploratory survey (16–23 October 2026) with 153 valid student responses. This sample exceeds the minimum of 85 calculated with G*Power for a regression with four predictors ($f^2 = 0.15$; $\alpha = 0.05$; power = 0.80; Faul et al., 2009) and is sufficient for exploratory descriptive and correlational analyses, but it is not representative of the population because it is a convenience sample concentrated mainly in two universities. A main survey with a larger sample and a more balanced composition across institutions, programs and gender is planned; it is outside the scope of this article.

In the qualitative phase, five participants were purposively selected: a lecturer in charge of communication and a training manager from one institution, a research manager from a second institution, a sports federation leader and a sports journalist, so as to capture perspectives from both the institutions and the organizations that employ their graduates.

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3.3 Instruments

The student questionnaire (Appendix A) was designed in a short form that takes about 1–2 minutes to complete, to increase the response rate and reduce careless responding. It has two parts: (A) five demographic questions; and (B) 18 items on a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree), with two items per scale. Items were selected from an original item pool adapted from studies on media literacy, sports communication and planned behavior, giving priority to the items that most directly reflect each construct, and were adapted to the Vietnamese language and to sport students.

Table 1. Scales and main sources

Scale	Code	Items	Main sources
Communication knowledge	KNO	2	Pedersen et al. (2007); Potter (2004)
Perceived importance	IMP	2	Pedersen et al. (2007); Ajzen (1991)
Digital communication skills	SKL	2	Hobbs (2010); Filo et al. (2015)
Ethical–professional awareness	ETH	2	Hobbs (2010); Sanderson (2011)
Curriculum exposure	CUR	2	Developed by the author
Institutional support	INS	2	Developed by the author
Social media use	SMU	2	Hambrick et al. (2010); Pegoraro (2010)
Communication self-efficacy	SEF	2	Bandura (1977)
Behavioral intention	INT	2	Ajzen (1991)

3.4 Data collection

Data were collected through two online questionnaires on the same system from 16 to 23 October 2026 (preliminary round), with the permission of each institution. The student questionnaire (Appendix A) and the lecturer and manager questionnaire (Appendix B) were built on Google Apps Script. Participants responded on a phone or computer via a link or QR code, and responses were recorded automatically in Google Sheets. Students participated voluntarily and anonymously and confirmed their consent on the first screen; the system recorded completion time so that responses completed too quickly could be flagged. Where students could not easily respond online, they answered a paper version with the same content and a lecturer entered the answers verbatim into the system; in the preliminary round, eight responses from the University of Sport Ho Chi Minh City were entered in this way and the paper forms were kept as evidence. The remaining responses from this university were collected online after lecturers sent the survey link to multiple classes at once. The questionnaire for lecturers and managers consists of multiple-choice questions on current practice, student weaknesses, barriers, enabling conditions, the feasibility of nine solutions and three priority solutions. Those who agreed were invited to a 30–45-minute in-depth interview, in person or online, audio-recorded with consent and transcribed verbatim. When an interview was not recorded, the interviewer took handwritten notes, used an artificial intelligence (AI) tool to help organize the notes into question-by-question minutes, checked them against the original notes, and sent the minutes to the participant to read, correct and confirm before analysis. The original handwritten notes were kept as evidence.

Ethical considerations and data protection. The study has not been reviewed by an ethics committee; it is a low-risk opinion survey with no intervention and no collection of sensitive data. The survey was conducted with the permission of each participating institution. The consent procedure was as follows: (1) for students, the first screen of the questionnaire stated the purpose of the study, the completion time, that participation was voluntary and anonymous, and that they could stop at any time, and students had to select “I agree” to proceed to the questions; for paper forms, this information was printed at the top of the form; (2) for lecturers and staff, giving a name was optional, and only those who agreed to an interview left contact details; (3) for in-depth interviews, participants received an invitation letter and consent form (Appendix C), were informed of their right to decline to answer or to withdraw their data, and read, corrected and confirmed the minutes before analysis. Regarding data protection: the student questionnaire did not collect names, student ID numbers or email addresses, and each response carries only an automatic code (SV-0001…); lecturers' contact details were separated from their answers for analysis; interviewees and their organizations were coded (PV01–PV05; Institutions A and B, Sport organization C, Media outlet D), and the table linking codes to identities is stored separately and not shared. Online data are stored in the author's account with restricted access; paper forms and handwritten notes are stored separately; results are reported only in aggregate or by code.

3.5 Data analysis

Quantitative data from the exploratory round were processed in Python (pandas, SciPy and statsmodels) in the following steps:

1. **Data cleaning:** removing straight-lining responses (the same option for all 18 items) and checking completion time.
2. **Descriptive statistics (RQ1):** means and standard deviations for each scale; levels classified as low (1.00–2.33), medium (2.34–3.66) and high (3.67–5.00); group comparisons with the non-parametric Mann–Whitney and Kruskal–Wallis tests.
3. **Reliability:** the Spearman–Brown coefficient for the two-item scales (Eisinga et al., 2013), against a threshold of 0.70; Cronbach's alpha for SCA computed from its four components.
4. **Associations among constructs (RQ2, H1–H5):** Spearman correlations; OLS regression on standardized composite scores, with variance inflation factors (VIF) and Harman's single-factor test to examine common method bias; sensitivity analyses retaining straight-lining responses, keeping only self-completed responses, and removing the skills component from SCA.

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Regression coefficients are interpreted as the strength of association after controlling for the other variables, not as causal effects. A full assessment of the measurement model (loadings, composite reliability, AVE, and discriminant validity using the Fornell–Larcker criterion (Fornell & Larcker, 1981) and HTMT (Henseler et al., 2015)) and of the structural model with PLS-SEM (Hair et al., 2019) was not carried out in this article, because each scale has only two items and the sample is still small; this is a task for the main survey.

Qualitative data were analyzed through thematic analysis (familiarization, coding, theme development and review) using manual coding in a spreadsheet. An AI tool was used to suggest initial codes and theme groupings; the author checked each coded segment against the confirmed minutes and decided the final codebook. The qualitative findings were then integrated with the quantitative results in a joint display.

4. PRELIMINARY RESULTS

The results below come from the exploratory survey (n = 153) and are descriptive and correlational. The regression in Section 4.4 is used to examine the association of each factor with SCA while controlling for the others, not to draw conclusions about causal effects.

4.1 Sample characteristics

The preliminary survey collected 190 student responses. After removing 37 straight-lining responses (see below), the analytic sample comprised 153 students: 103 from the University of Sport Ho Chi Minh City, 47 from the Ho Chi Minh City University of Physical Education and Sport, and 3 from other universities offering sport programs in Ho Chi Minh City. Most responses from the University of Sport Ho Chi Minh City were collected on 23 October 2026, when lecturers sent the survey link to multiple classes at once; students completed the survey on their own devices. Of the 153 responses, 145 were completed online by the students themselves, with a median completion time of 122 seconds (31–756 seconds); 8 responses from the University of Sport Ho Chi Minh City were entered by a lecturer on a single device from students' paper answers (Section 3.4), so their entry times were short (29–37 seconds) and were not used as an indicator of response quality. Because of how the responses were collected, the sample is currently skewed toward male students (76.5%) and the sports coaching program (62.7%, almost entirely from the University of Sport Ho Chi Minh City).

Table 2. Characteristics of the student sample (n = 153)

Characteristic	Category	n	%
Gender	Male	117	76.5
	Female	35	22.9
	Other	1	0.7
Institution	HCMC University of Physical Education and Sport	47	30.7
	University of Sport HCMC	103	67.3
	Other universities	3	2.0
Program	Sports coaching	96	62.7
	Physical education	45	29.4
	Sport management	11	7.2
	Other (part-time)	1	0.7
Year of study	Year 1	27	17.6
	Year 2	62	40.5
	Year 3	15	9.8
	Year 4	49	32.0
Took a communication-related course	Yes	23	15.0
	No	130	85.0

Data quality checks found that 37 of 190 responses (19.5%) gave the same answer to all 18 items: 28 chose 5 throughout, 4 chose 4, 4 chose 3 and 1 chose 1; 17 of these were completed in under 60 seconds. The pattern appeared at both universities (20 of 123 responses from the University of Sport Ho Chi Minh City and 17 of 64 from the Ho Chi Minh City University of Physical Education and Sport). Because this proportion is large enough to bias the results, straight-lining responses were excluded from the main analysis. Response SV-0006 was edited in the spreadsheet after submission; its originally recorded values, according to the version history, were straight-lined, so it was also excluded. If all 190 responses were retained, the overall SCA score would rise from 4.13 to 4.21 and the correlation coefficients would be markedly inflated (Section 4.4), showing that “agree to get it over with” responding is a real risk when surveying sport students. Ten valid self-completed responses took under 60 seconds but showed differentiated answers and were retained.

The lecturer and manager questionnaire (n = 20) was completed by 13 lecturers, 3 staff in charge of communication, 1 training manager and 3 others (specialists, a librarian and administrative staff). By affiliation, 16 were from the Ho Chi Minh City University of Physical Education and Sport, 2 from the University of Sport Ho Chi Minh City, 1 from another university and 1 worked in communication at a digital content company.

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4.2 Level of sports communication awareness (RQ1)

Table 3. Mean scores by scale (n = 153)

Scale	Mean	SD	Level
Perceived importance (IMP)	4.39	0.64	High
Communication knowledge (KNO)	4.11	0.60	High
Ethical–professional awareness (ETH)	4.08	0.80	High
Digital communication skills (SKL)	3.94	0.78	High
Overall SCA	4.13	0.53	High
Social media use (SMU)	4.17	0.67	High
Institutional support (INS)	4.13	0.81	High
Communication self-efficacy (SEF)	3.99	0.80	High
Behavioral intention (INT)	3.98	0.79	High
Curriculum exposure (CUR)	3.68	0.95	High (borderline)

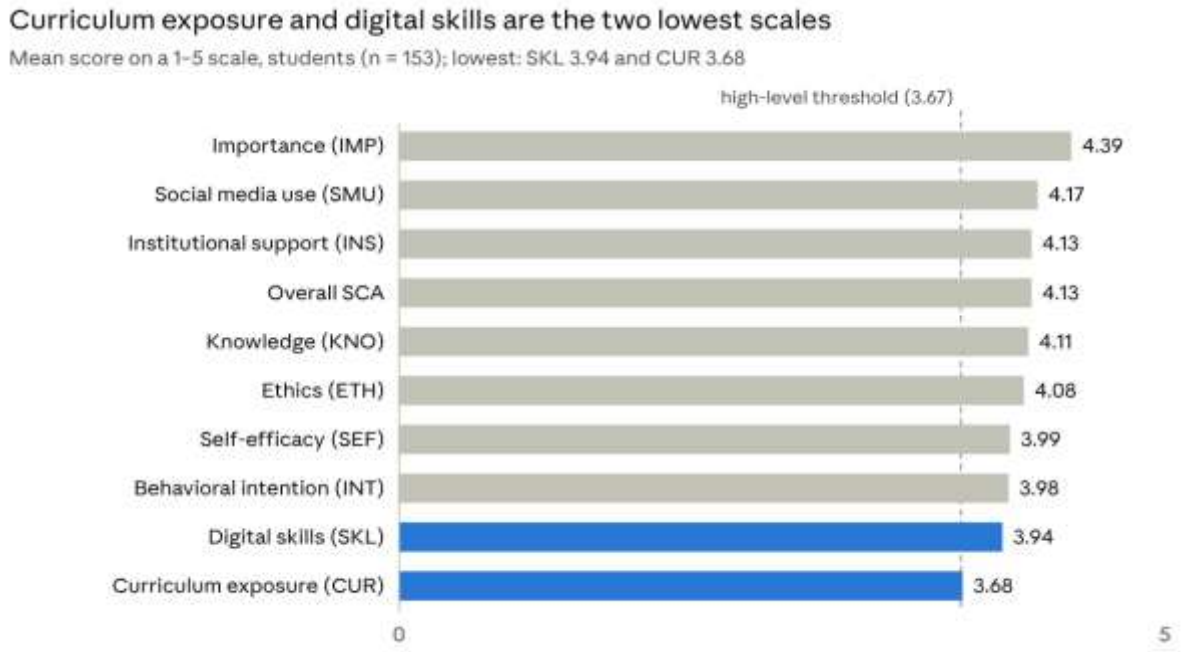


Figure 2. Mean scores by scale. Source: Valid student responses (n = 153), preliminary survey 16–23 October 2026.

Levels: low 1.00–2.33; medium 2.34–3.66; high 3.67–5.00.

Overall sports communication awareness was high (M = 4.13; Figure 2) but uneven across components. Perceived importance was highest (M = 4.39), followed by knowledge (M = 4.11) and ethics (M = 4.08), while digital communication skills (M = 3.94) was the lowest of the four components. Exposure to communication content in the curriculum (M = 3.68) was the lowest of the nine scales, only just above the high-level threshold (3.67), and had the greatest dispersion. The two lowest items both belonged to this scale: "I practice communication skills in class" (CUR2, M = 3.67) and "my program includes content on sports communication" (CUR1, M = 3.68), followed by "I intend to take part in sports communication activities at my institution" (INT1, M = 3.73) and "I know the copyright rules for using sports images and videos" (ETH1, M = 3.78). The highest items were "communication skills are important for my future career" (IMP1, M = 4.43), "I follow sport content on social media every day" (SMU1, M = 4.43) and "I verify information before sharing it" (ETH2, M = 4.38). Only 23 of 153 students (15.0%) had taken a communication-related course; this group had higher SCA than those who had not (4.34 vs 4.09; Mann–Whitney U = 1954.5, p = 0.019). The clearest differences were in curriculum exposure (4.30 vs 3.57; $p < 0.001$) and ethics (4.43 vs 4.02; p = 0.024); digital skills (4.17 vs 3.90; p = 0.062) and knowledge (4.30 vs 4.07; p = 0.086) were higher but not statistically significant (Figure 3).

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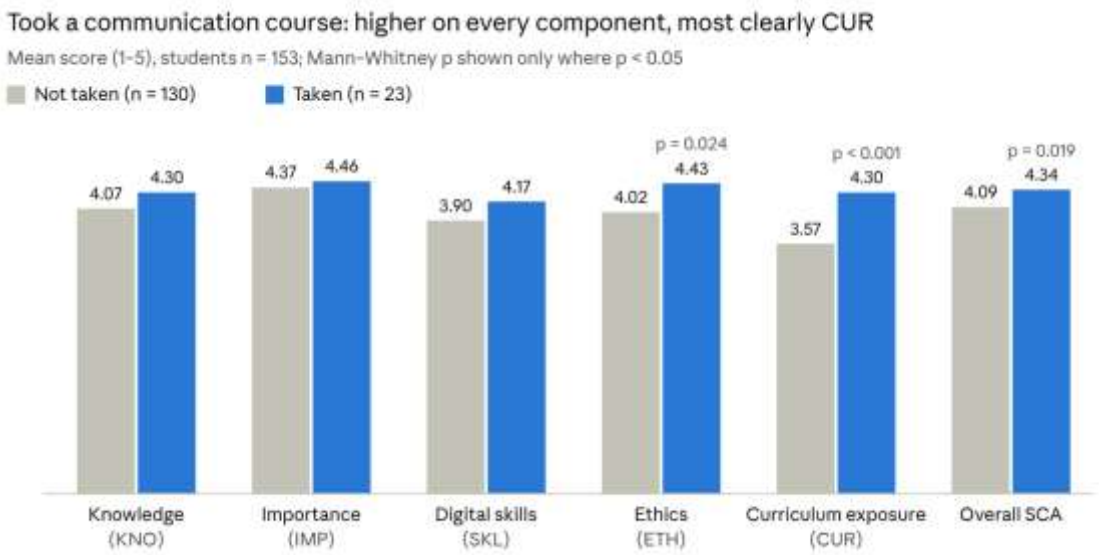


Figure 3. SCA components by whether students had taken a communication-related course. Source: Valid student responses (n = 153).

By institution, SCA scores of students at the Ho Chi Minh City University of Physical Education and Sport (4.22) and the University of Sport Ho Chi Minh City (4.09) did not differ significantly (Mann–Whitney U = 2754.5, p = 0.175). Of the four components, only knowledge differed (4.36 vs 3.99; p < 0.001); ethics (4.20 vs 4.02), digital skills (3.88 vs 3.96) and curriculum exposure (3.71 vs 3.66) were similar. The large difference between the two universities observed in an earlier update, when only 12 students from the University of Sport Ho Chi Minh City had responded, disappeared once that university's sample grew to 103, suggesting that the earlier result reflected the small sample. The two groups still differ in composition: 95 of 103 students from the University of Sport Ho Chi Minh City are in sports coaching and only 9 of 103 had taken a communication course, whereas 37 of 47 students from the Ho Chi Minh City University of Physical Education and Sport are in physical education and 13 of 47 had taken such a course. SCA did not differ significantly by program (sport management 4.32; sports coaching 4.12; physical education 4.11; Kruskal–Wallis p = 0.476) or by year of study (4.03–4.23; p = 0.256). Male students reported higher SCA than female students (4.18 vs 3.99; Mann–Whitney p = 0.016), but because gender is closely tied to program and institution in this sample, the difference needs to be re-examined with a more balanced sample. The group of three students from other universities is too small for comparison.

4.3 Preliminary reliability of the scales

Table 4. Preliminary reliability of the two-item scales

Scale	Inter-item correlation (r)	Spearman–Brown coefficient
SEF	0.61	0.76
CUR	0.60	0.75
INS	0.56	0.72
IMP	0.51	0.68
ETH	0.46	0.63
SKL	0.46	0.63
INT	0.38	0.55
KNO	0.25	0.40
SMU	0.25	0.40

Against the 0.70 threshold, only three scales reached acceptable reliability: SEF (0.76), CUR (0.75) and INS (0.72). IMP (0.68), ETH and SKL (0.63) fell below the threshold. Three scales, INT (0.55), KNO (0.40) and SMU (0.40), had low reliability: the two items of each scale were only weakly correlated (r = 0.25–0.38) and measure two different facets (SMU1 on following content and SMU2 on creating content; KNO1 on the role of communication and KNO2 on identifying target audiences; INT1 on taking part in activities at the institution and INT2 on using communication in one's career). Cronbach's alpha for SCA computed from its four components was 0.73. It therefore cannot be concluded that the scales are reliable: scores and coefficients involving KNO, SMU and INT (and SCA, which includes KNO) should be regarded as provisional. Low reliability also attenuates the correlation and regression coefficients in Section 4.4. These scales need to be reworded, supplemented with additional items and re-validated before the main survey (Eisinga et al., 2013).

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4.4 Associations among constructs (RQ2, exploratory)

Table 5. Spearman correlations among constructs (n = 153)

Relationship	Hypothesis	Spearman ρ	p	Direction
SEF – SCA	H4	0.51	< 0.001	Positive, moderate
SMU – SCA	H3	0.49	< 0.001	Positive, moderate
CUR – SCA	H1	0.43	< 0.001	Positive, moderate
SCA – INT	H5	0.41	< 0.001	Positive, moderate
INS – SCA	H2	0.29	< 0.001	Positive, weak

These are bivariate correlations (n = 153) that do not control for other factors. All five relationships were positive and statistically significant; the strongest were SEF – SCA and SMU – SCA, and the weakest was INS – SCA. Two sensitivity analyses show the effect of data cleaning (Figure 4). When all 190 responses were retained, every coefficient rose sharply (SEF – SCA ρ = 0.68; SMU – SCA ρ = 0.66; CUR – SCA ρ = 0.63; SCA – INT ρ = 0.63; INS – SCA ρ = 0.52), because straight-lining responses create spurious correlation. When only the 145 valid self-completed responses were kept (excluding the 8 entered by a lecturer), the results were almost unchanged: SEF – SCA ρ = 0.53; SMU – SCA ρ = 0.51; CUR – SCA ρ = 0.46; SCA – INT ρ = 0.42; INS – SCA ρ = 0.30 (all p < 0.001). By institution, all five relationships were significant at the University of Sport Ho Chi Minh City (n = 103; ρ = 0.36–0.54); at the Ho Chi Minh City University of Physical Education and Sport (n = 47), CUR – SCA (0.48) and SEF – SCA (0.47) were significant, SMU – SCA (0.28; p = 0.054) and SCA – INT (0.25; p = 0.084) were borderline, and INS – SCA was not significant (0.11; p = 0.454).

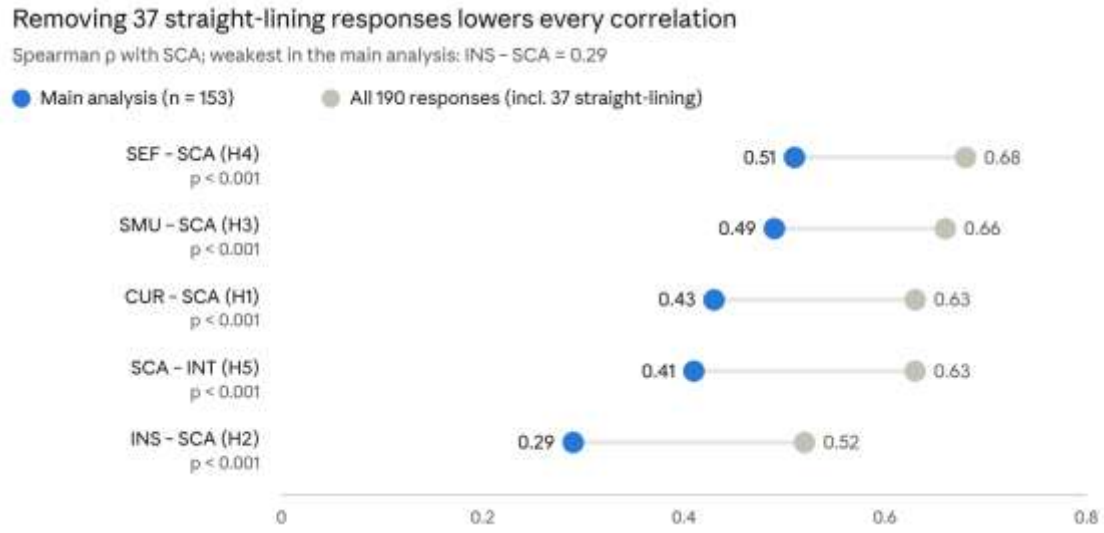


Figure 4. Spearman correlations with SCA: main analysis and with straight-lining responses retained. Source: Student responses (n = 153 and n = 190).

To examine H1–H5 in a preliminary way, the composite scale scores were standardized and entered into two OLS regression models: SCA on the four factors (CUR, INS, SMU, SEF), and INT on SCA (Table 6).

Table 6. Preliminary regression results for H1–H5 (standardized coefficients)

Relationship	Hypothesis	Standardized β	p	Result
CUR – SCA	H1	0.224	0.002	Positive association, consistent with hypothesis
INS – SCA	H2	−0.086	0.225	No unique association
SMU – SCA	H3	0.266	< 0.001	Positive association, consistent with hypothesis
SEF – SCA	H4	0.450	< 0.001	Positive association, consistent with hypothesis
SCA – INT	H5	0.488	< 0.001	Positive association, consistent with hypothesis

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The four factors together explained 50.1% of the variance in SCA ($R^2 = 0.501$); SEF had the largest coefficient, followed by SMU and CUR. INS had no unique association once the other three factors were controlled, even though its bivariate correlation with SCA was significant ($\rho = 0.29$): the variance INS shares with SCA overlaps with the variance that CUR, SMU and SEF share with SCA. SCA explained 23.9% of the variance in behavioral intention ($R^2 = 0.239$). The exploratory data are thus consistent with H1, H3, H4 and H5 in the sense of positive associations, and not consistent with H2. Because the data are cross-sectional, these coefficients do not indicate direction: for example, students with higher awareness may, as a result, also be more confident or use social media more.

Because the self-assessed skills component (SKL) and SEF overlap in content ($\rho = 0.50$), a sensitivity analysis was run with SCA comprising only KNO, IMP and ETH. The results were similar: SEF ($\beta = 0.418$; $p < 0.001$), SMU ($\beta = 0.230$; $p = 0.004$) and CUR ($\beta = 0.166$; $p = 0.034$) were positively associated, INS had no unique association ($\beta = -0.031$; $p = 0.690$), $R^2 = 0.41$; the association with INT was $\beta = 0.461$. The association between SEF and SCA is therefore not due solely to overlap with the skills component, although conceptual proximity cannot be ruled out entirely. VIF values of 1.36 to 1.52 indicate no serious multicollinearity; in Harman's single-factor test, the first factor explained 33.6% of the variance (below 50%). This is a regression on composite scores that does not correct for measurement error, and the low reliability of KNO, SMU and INT makes the related coefficients less precise.

4.5 Views of lecturers and managers (RQ3)

Nineteen of 20 respondents considered communication competence necessary or very necessary for sport graduates (11 chose very necessary). Eleven of 20 reported that their unit's curriculum had no communication content (6) or only scattered integration (5); 5 reported a compulsory course, 3 an elective course and 1 a course with regular practical activities.

Table 7. Current communication training according to lecturers and managers (n = 20)

Item	Most frequently chosen options (respondents / 20)
Current forms of student practice	Communication club (14); covering tournaments and events (8); course assignments and producing content for the institution's channels (5 each); 5 chose “none”
Students' weakest areas	Basic knowledge of sports communication (14); filming and video editing (9); running social media (7); writing news and articles (6); public speaking (5)
Main barriers	Lack of lecturers with communication expertise (17); lack of equipment and practice rooms (13); lack of funding (5); students not interested (5); no incentive mechanism (4)
Enabling conditions	Official institutional media channels (16); student communication club (14); experienced lecturers (7); leadership support (6)
Three priority solutions	Integration into specialized courses (10); compulsory course and lecturer training (9 each); using the institution's channels as a practice platform (7)

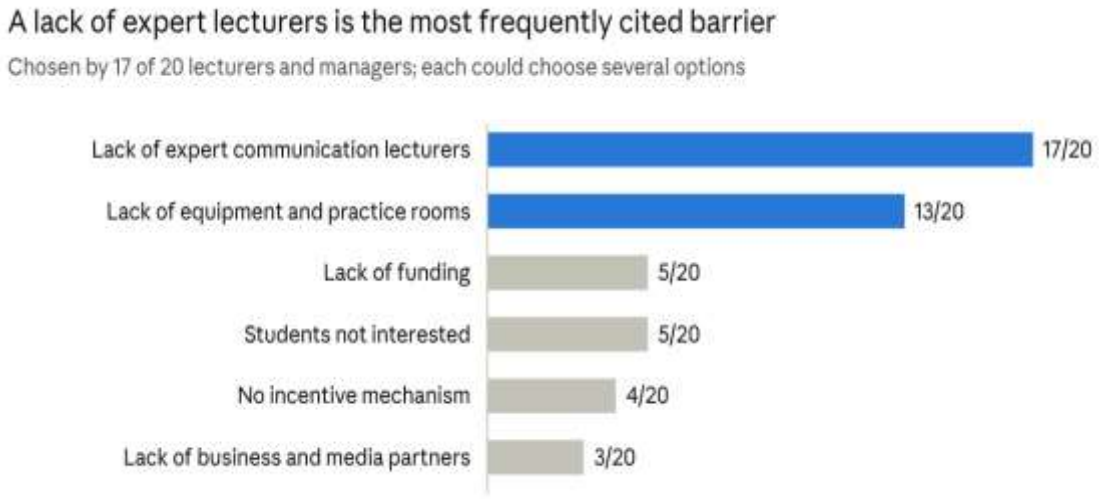


Figure 5. Barriers to communication training according to lecturers and managers. Source: Item B5, n = 20.

Table 8. Feasibility of the nine solutions rated by lecturers and managers (n = 20)

Solution	Mean feasibility (1–5)	SD
S6. Lecturer training in sports communication and AI	4.50	0.51
S7. Internships and real projects with external partners	4.30	0.66
S5. Support for student communication clubs	4.20	0.62
S2. Embedding communication tasks in courses	4.15	0.81

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Solution	Mean feasibility (1–5)	SD
S3. Content on ethics, copyright and crisis handling	4.15	0.75
S4. Official channels as practice platforms	4.15	0.75
S8. Annual communication contests and exhibitions	4.10	0.55
S1. Compulsory 2-credit course	3.75	1.02
S9. Including communication competence in learning outcomes	3.70	1.08

Solutions that build on existing resources or external partners (lecturer training, internships with partners, club support) were rated more feasible than those requiring changes to the formal curriculum (a compulsory course, learning outcomes). Five respondents gave the same or nearly the same rating to all nine solutions, so the ranking of solutions with close scores is not yet stable. Six respondents agreed to take part in an in-depth interview. In the open comments, one respondent suggested surveying only lecturers at institutions that offer specialized sport programs, and another suggested AI training for the institution's staff.

Comparing priority (the number choosing each solution in item D1) with feasibility (Part C) places the nine solutions in four groups (Figure 6). The high-priority threshold is being chosen by at least 7 of 20 respondents (about one third of the sample); the high-feasibility threshold is a mean of 4.11 or above (the overall mean of the nine solutions).

Table 9. Grouping of solutions by priority and feasibility

Group	Solutions (respondents prioritizing / 20; feasibility)	Implication
High priority – high feasibility	S2. Integration into specialized courses (10; 4.15); S6. Lecturer training (9; 4.50); S4. Institutional channels as practice platforms (7; 4.15)	Implement first, in the next academic year
High priority – low feasibility	S1. Compulsory 2-credit course (9; 3.75)	Needed but difficult; include in the curriculum revision roadmap and prepare lecturers and equipment first
Low priority – high feasibility	S7. Internships with external partners (3; 4.30); S5. Support for communication clubs (6; 4.20); S3. Ethics, copyright and crisis content (6; 4.15)	Under-used resources; can be implemented early alongside the first group
Low priority – low feasibility	S8. Annual contests and exhibitions (3; 4.10); S9. Including communication competence in learning outcomes (2; 3.70)	Consider later or link to the curriculum review cycle

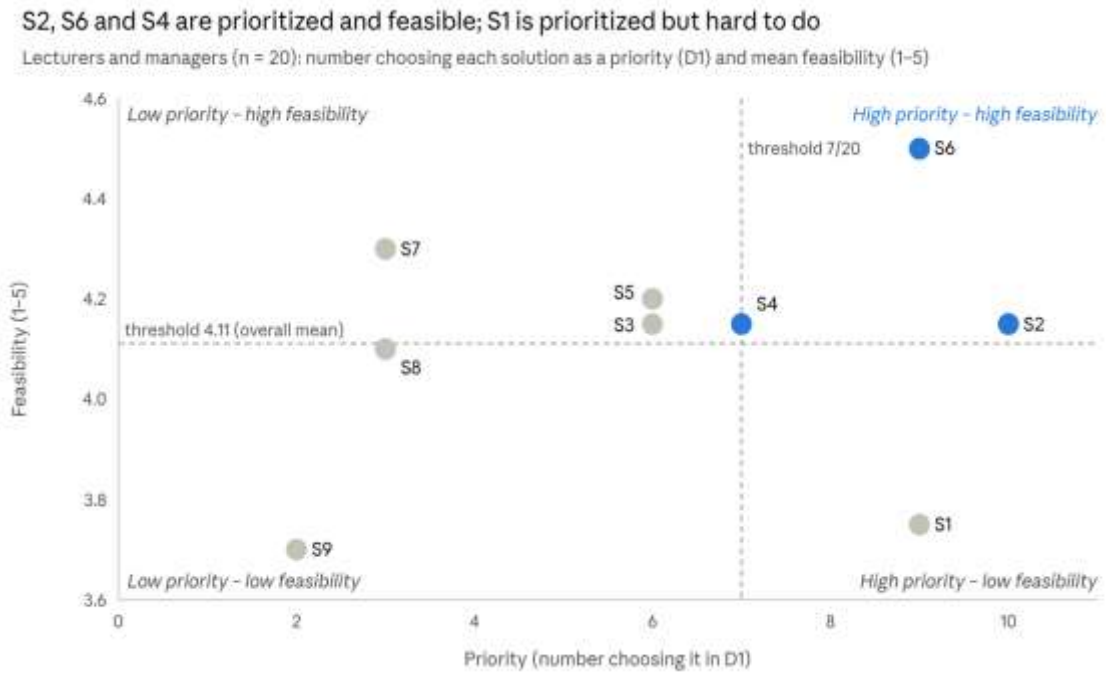


Figure 6. Priority × feasibility matrix of the nine solutions. Source: Item D1 and Part C, lecturers and managers (n = 20).

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The first group consists of solutions that rely on the institution's existing resources (lecturers, media channels) and can be implemented immediately within the current curriculum framework. The compulsory course was frequently prioritized (9/20) but rated difficult to implement, consistent with the two most frequently cited barriers, the lack of expert lecturers and of equipment (Figure 5). The opposite case is internships with external partners: rated second most feasible (4.30) but prioritized by only 3 of 20 respondents. S2, S3, S4 and S8 lie close to the feasibility threshold and S3 and S5 close to the priority threshold, so the grouping needs to be re-checked with the main sample.

4.6 In-depth interview findings

In-depth interviews were conducted with five participants: training, research and communication staff from two institutions, a sports federation leader and a sports journalist. Participants were coded PV01–PV05, and identifying information was separated from the minutes. PV01–PV03 were interviewed in person and PV04 and PV05 by telephone. The interviews were not audio-recorded; the interviewer took handwritten notes and completed the minutes on the same day with the help of an AI tool (Section 3.4), so participants' views are reported as paraphrases rather than verbatim quotations. The minutes were sent back to participants for confirmation, and all five confirmed them.

Table 10. In-depth interview participants

Code	Role	Organization	Format	Date	Duration (min)
PV01	Lecturer in charge of communication	Institution A	In person, handwritten notes	19/10/2026	45
PV02	Training manager	Institution A	In person, handwritten notes	19/10/2026	40
PV03	Sports federation leader	Sport organization C	In person, handwritten notes	19/10/2026	45
PV04	Research manager	Institution B	Telephone, handwritten notes	18/10/2026	30
PV05	Sports journalist	Media outlet D	Telephone, handwritten notes	18/10/2026	20

Thematic analysis identified five main themes. The five participants spoke from five different perspectives (communication practice, training management, research management, sport organization and journalism) but converged on most themes.

Theme 1. Communication competence is the ability to convey professional expertise and should be defined by the learning outcomes of each occupational group. All five participants considered that teachers, coaches and managers all need this competence, but at different levels: teachers and coaches need to explain their expertise well, produce learning materials and communicate with learners; managers and organizers need to plan, coordinate and provide information, including to the media; and those in charge of communication need deeper content-production skills (PV01–PV05). PV05 made clear that not every student needs a journalist's skills, but people with sport expertise have an advantage if they can tell a story clearly and understand what information readers need. PV01 emphasized the ability to turn expertise into information that others can understand and use; PV04 extended this to communicating scientific evidence and stating its scope correctly, for example making clear which population a training method is intended for and what its limitations are. PV02 framed the issue at the program level: it is necessary to define what graduates must be able to do and to what standard, and hoped the research would clarify the minimum competence level for each occupational group. PV03 and PV05 both used tournaments as an example: announcing the time and venue is not enough; content producers also need to explain the format in an accessible way, select newsworthy points and check athletes' names, teams and results before publishing, because these details directly affect participants and the organization's credibility.

Theme 2. Having activities or content in the syllabus does not mean every student develops the competence. PV01 distinguished the institution's communication activities from skills training for students: opportunities tend to go to a small group who can already film, write or design. PV04 observed something similar about student research: it could be a site for practice (turning a project into a short article, infographic or explainer video) but attracts only some students. PV05 noted that clubs are very useful, but if students only work by habit they may repeat mistakes; they need feedback on choosing topics, asking questions, checking information and revising their work. PV03 likewise considered that tournaments and clubs become learning activities only when the institution provides background knowledge and assigns someone to supervise. At the program level, PV02 considered that some content already exists but is not labeled as communication (presentations, developing learning materials, organizing events), yet being in the syllabus is not enough if students do not produce work themselves and are not assessed against clear criteria; PV02, PV04 and PV05 all suggested examining students' actual products, and PV05 further suggested checking whether students can explain how they made them. Regarding the high scores for institutional support, PV01 and PV02 suggested that these may reflect encouragement and support for participation, which differs from support for reaching a competence standard; PV04 added access to materials, experts and professional feedback; and PV05 suggested examining which types of support actually changed the quality of students' work.

Theme 3. From using social media to producing accurate, evidence-based and responsible content. According to PV01, the difficulty starts with not knowing who the content is for and what viewers should understand; familiarity with social media formats is not enough, because content production also requires finding and verifying information, scriptwriting, editing, and correct technique and sport terminology. PV05 made a similar point from a journalistic perspective: students who use social media a lot may spot trends quickly, but producing content requires initiative, discipline and responsibility; behind the visible difficulties with writing and filming lie the skills of observing, finding topics and asking questions, because without good information even proficient use of tools rarely produces valuable content. PV04 focused on the ability to judge the reliability of information: distinguishing research findings, expert opinion, personal experience and advertising, while retaining the important conditions and limits of the original information. PV03 stressed accuracy and coordination (asking the right person, confirming content, meeting deadlines) and

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understanding the specifics of each sport, because in martial arts, for example, a short clip can be misleading when taken out of context. PV02 noted that students' self-assessments only show where they lack confidence; they need to be compared with actual products to distinguish types of difficulty (expression, structure, technical accuracy, selection of information; scripting, filming, editing). On ethics, PV01, PV03 and PV05 all raised situations involving athletes in sensitive circumstances (injury, defeat, losing composure); PV05 proposed an exercise in writing a headline for an athlete's post-defeat statement that faithfully reflects what the athlete said without sensationalizing or stirring controversy. PV04 extended ethics to citation, data use and protecting the confidentiality of research participants. PV01, PV02 and PV05 proposed including accuracy, sources and the use of images in assessment criteria.

Theme 4. Barriers need to be specified: supervisors, opportunities to revise work and coordination mechanisms matter as much as equipment. PV01 and PV05 both considered equipment to be only part of the problem, noting that phones already meet many basic needs; more important is that students know how to record clear audio, capture enough footage and structure a story, and have someone to review and give feedback so they can revise their work. PV02 listed barriers at the training level, including curriculum time, staffing, funding and coordination mechanisms, and suggested specifying what "the lack of lecturers" means (a lack of people to teach content-production techniques, a lack of people who understand sports communication, or a lack of supervision time) and taking stock of equipment before proposing investment. PV04 considered that having expert resources (specialists, research findings, laboratories) does not mean having the capacity to turn them into content for the public; coordination mechanisms between subject experts and communicators are needed, with time to check content and funding for specific tasks. PV03 and PV05, from the federation and the media outlet, were both willing to help (access to tournaments, feedback on products, sharing workflows, hosting interns), but both made it conditional on having a person in charge and clear tasks so that students know what they are to do and whom to ask.

Theme 5. Pilot practice linked to real activities, with dual feedback, before introducing a compulsory course. All five participants proposed starting with a pilot based on a common model: a real task, products submitted on time, a person who checks the subject content and a person who gives feedback on communication. Three (PV01, PV03, PV05) proposed choosing a tournament; PV05 specified a practice team covering a tournament, with each student having a clear task and attending a debrief afterward, and with lecturers and practitioners jointly giving feedback on both content and presentation; PV03 added a division of roles: the institution is responsible for learning objectives, and the sport organization provides a contact person for guidance and confirms technical information. PV04 proposed having students turn research findings into popular content, with subject lecturers checking accuracy and a communication supervisor commenting on presentation. PV02 proposed reviewing learning outcomes and existing courses and then developing a pilot module within a suitable course. PV05 emphasized that a career talk can spark interest, but skills need to be built through repeated practice and revision. Regarding a compulsory course, PV02 and PV04 considered it necessary to coordinate with the training office, define measurable learning outcomes and pilot assessment criteria; PV02 added conditions concerning demonstrated need, staffing, contact hours and the approval process; and PV05 recommended allocating enough time for practice, with criteria that value accuracy, sources, structure and the ability to take feedback rather than view counts. This directly explains why the compulsory course was prioritized but rated difficult to implement in Section 4.5.

Table 11. Joint display of quantitative and interview findings

Quantitative finding	Interview finding	Convergence
Digital skills and curriculum exposure are students' two weakest areas	Lack of practice with feedback and revision; lack of skills in identifying audiences, finding topics, asking questions, scripting and editing (PV01, PV02, PV04, PV05)	Confirms; adds causes
Students use social media heavily but rate themselves low on filming, editing and writing	Familiarity with formats and trends does not mean knowing how to produce content; understanding each sport, preserving context and being evidence-based are also needed (PV01, PV03, PV04, PV05)	Confirms; expands
Institutional support is rated highly, correlates weakly with SCA ($\rho = 0.29$) and has no unique association in the regression	"Support" reflects encouragement and support for participation, which differs from support for reaching a competence standard; professional feedback and effects on product quality should be considered (PV01, PV02, PV04, PV05)	Explains; suggests splitting the INS scale
The two ETH items are only moderately correlated (copyright and information verification)	Communication ethics has many facets: the image and statements of the people featured, sources, information reliability, data confidentiality (PV01, PV03, PV04, PV05)	Explains; suggests expanding the ETH scale
Lack of expert lecturers and equipment are the main barriers	Supervisors, opportunities to revise work and coordination mechanisms matter as much as equipment; phones suffice for basic assignments (PV01–PV05)	Expands
Compulsory course: high priority, low feasibility	Requires learning outcomes, staff, practice time, assessment criteria and an approval process; pilot first (PV01–PV05)	Explains
Internships with external partners are rarely prioritized (3/20) despite high feasibility	The federation and the media outlet are willing to cooperate if roles are clearly assigned (PV03, PV05)	Divergent
SCA components are measured by self-assessment	Should be compared with products and students' ability to explain how they made them (PV02, PV04, PV05)	Expands; reinforces a stated limitation

Two of the five participants are from Institution A, and PV01 works in the same unit as the interviewer; all main themes were confirmed by at least one participant from outside Institution A.

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5. DISCUSSION

The following discussion is based on preliminary findings from 153 students, 20 lecturers and staff, and five interviewees. Given the exploratory design, the findings require confirmation in a larger study.

5.1. The gap between perceived importance and self-assessed skills

Students reported high perceived importance of sports communication (M = 4.39), but lower self-assessed digital skills (M = 3.94) and curriculum exposure (M = 3.68). Only 15% had taken a communication-related course. Although students frequently consumed sports content on social media, their self-assessed production skills and copyright knowledge were comparatively weaker. Lecturers and staff similarly identified limited communication knowledge (14/20) and video production skills (9/20). These findings support the distinction between media exposure and media literacy (Hobbs, 2010; Potter, 2004). However, because actual communication competence was not assessed and the ethics scale showed limited reliability, these differences should be interpreted as preliminary patterns in self-reported perceptions rather than demonstrated competence gaps.

5.2. Factors associated with awareness

Communication self-efficacy ($\beta = 0.450$), social media use ($\beta = 0.266$), and curriculum exposure ($\beta = 0.224$) were positively associated with sports communication awareness (SCA), jointly explaining approximately 50% of its variance ($R^2 = 0.501$). These associations are consistent with self-efficacy theory (Bandura, 1977) and the proposed hypotheses H1, H3, and H4. The association with self-efficacy remained after excluding self-assessed skills from SCA, although conceptual overlap remains possible. Students who had completed communication-related courses also reported higher SCA ($p = 0.019$), suggesting the potential relevance of curriculum exposure (Ho & Luu, 2026). Nevertheless, the cross-sectional design and low reliability of the social media use scale (0.40) prevent causal interpretation.

Institutional support was positively correlated with SCA ($\rho = 0.29$, $p < 0.001$) but was not independently associated with it in the adjusted model ($\beta = -0.086$, $p = 0.225$). This may reflect overlapping influences or insufficiently specific measurement of institutional support. Although students rated institutional support highly, lecturers identified shortages of communication specialists (17/20) and equipment (13/20). Overall SCA did not differ significantly between the two main institutions ($p = 0.175$), although communication knowledge differed. Differences in institutional, program, and gender composition limit subgroup comparisons, emphasizing the need for more balanced sampling and refined measurement.

5.3. The association between awareness and intention

SCA was positively associated with students' intention to participate in sports communication activities ($\beta = 0.488$, $p < 0.001$), consistent with H5 and the theory of planned behavior (Ajzen, 1991). However, SCA explained only 23.9% of the variance in intention, and the intention scale had low reliability (0.55). Moreover, intention to participate in institutional communication activities was relatively low (M = 3.73). These findings suggest that recognizing the importance of communication does not necessarily translate into willingness to participate. Longitudinal research and improved measurement are needed to clarify this relationship.

5.4. How the interviews explain the survey results

Interviews with five participants suggested that limited practical competence may reflect insufficient supervised practice, feedback, and opportunities to develop content-planning and information-verification skills, rather than equipment shortages alone. Participants also distinguished general institutional encouragement from specialized guidance and emphasized the need to assess ethical judgment, copyright, privacy, and information reliability more comprehensively (Hobbs, 2010; Potter, 2004).

The interviews further highlighted implementation challenges. Although a compulsory communication course was considered desirable, limited specialist staffing and practical resources constrained its feasibility. Participants favored piloting supervised communication activities linked to sporting events and institutional media channels before formal curriculum integration. Notably, external partnerships were rarely prioritized by surveyed lecturers and managers (3/20), despite interest expressed by sport federation and media representatives. These qualitative findings offer possible explanations rather than generalizable conclusions.

5.5. Theoretical contributions

This exploratory study makes three preliminary contributions. First, it proposes a four-component framework of SCA encompassing communication knowledge, perceived importance, self-assessed digital skills, and ethical–professional awareness. However, the measurement model requires further validation, particularly because several scales demonstrated inadequate reliability. Second, it extends sports communication research beyond professional athletes and organizations to students preparing for careers in sport (Filo et al., 2015). Third, it provides initial evidence from Vietnam, contributing to the limited literature on sports communication education in this context (Billings et al., 2018). Future research should refine the instrument, validate its structure, and examine these relationships using

6. CONCLUSION

The exploratory survey of 153 valid student responses (out of 190 collected), mainly from the University of Sport Ho Chi Minh City and the Ho Chi Minh City University of Physical Education and Sport, together with 20 lecturers and staff and five interviewees, shows that students value the role of sports communication highly but rate their digital communication skills lower, and that exposure to communication content in the curriculum only just reaches the high band. Communication self-efficacy, social media use and curriculum exposure are positively associated with communication awareness; institutional support has no unique association once these factors are taken into account; and awareness is positively associated with the intention to engage in communication activities. Because the design is cross-sectional and non-experimental, these associations do not permit causal conclusions. Lecturers and staff identify the lack of expert lecturers and equipment as the main barriers and rate lecturer training as the most feasible solution. The five interviewees considered that students lack guided practice with feedback and the ability to verify information, and proposed piloting practice linked to tournaments or research findings before introducing a compulsory course; these are the views of a small group and need verification. The next steps are to revise and re-validate the low-reliability scales, conduct a main survey with a larger and more balanced sample, fully test the measurement model, and evaluate the effectiveness of the solutions through intervention studies.

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Limitations and future research

The study has several limitations. The current results are based on a preliminary sample of 153 valid student responses from two universities, skewed toward male students (77%) and the sports coaching program (63%, almost entirely from one university), including 8 responses entered by a lecturer from paper forms, and 20 lecturers and staff; the hypotheses have been examined only in a preliminary way, using regression on composite scores. About one fifth of student responses (37/190) were straight-lined and had to be removed; the main survey should add attention-check items and some reverse-worded items to reduce "agree to get it over with" responding. The thematic analysis was carried out by a single coder, with an AI tool suggesting initial codes; future studies should involve an independent second coder and report inter-coder reliability. Three scales (KNO, SMU and INT) have low reliability, and the self-assessed skills component of SCA overlaps in content with communication self-efficacy (SEF), so the related coefficients should be interpreted with caution. The cross-sectional design does not permit inferences about causality or direction; longitudinal or experimental studies, such as a pre–post evaluation of an integrated communication module, would provide stronger evidence. Convenience sampling within a single city limits generalizability; future research should extend to sports training institutions in Hanoi, Da Nang and other regions, and could compare Vietnam with other Southeast Asian countries or China. Each scale has only two items in order to keep completion time to about 1–2 minutes, which limits content coverage; future studies could use the full version of the scales. Self-assessed skills may exceed actual competence, so future research could add assessments based on students' communication products. Finally, the rapid spread of generative AI in content production suggests a fifth component, AI competence in sports communication, to be tested in future versions of the SCA framework.

DECLARATION ON THE USE OF ARTIFICIAL INTELLIGENCE

During this research, the author used Claude Opus 5.5 (Anthropic) to assist with: (1) organizing handwritten interview notes into minutes; (2) suggesting initial codes and themes in the qualitative analysis; (3) descriptive statistics and correlation analysis; and (4) language editing of the manuscript. All minutes were confirmed by the participants, and all results and content were checked by the author against the original data. AI tools were not used to generate survey data or interview content, and did not change the number of responses or the survey results. The author takes full responsibility for the content of this article.

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Appendix A. Student Questionnaire

Dear students, to assess awareness of sports communication and propose solutions for improving training quality, we kindly ask you to spend about 1–2 minutes answering this questionnaire. The questionnaire is completely anonymous and the information will be used for research purposes only.

Part A. General information

1. Gender: Male / Female / Other
2. Institution: [list] / Other
3. Program: Physical education / Sports coaching / Sport management / Sports communication and journalism / Other
4. Year of study: Year 1 / Year 2 / Year 3 / Year 4
5. Have you ever taken a course on communication, journalism or marketing? Yes / No

Part B. Scales

Please indicate how much you agree with each statement: 1 = Strongly disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5 = Strongly agree.

Code	Statement	1	2	3	4	5
KNO1	I understand the role of communication in the development of sport.					
KNO2	I know how to identify the target audience for a sport message.					
IMP1	Communication skills are important for my future career.					
IMP2	Coaches and physical education teachers also need communication competence.					
SKL1	I can write a news item or a short post about a sports event.					
SKL2	I can film and edit a short sports video for social media.					
ETH1	I know the copyright rules for using sports images and videos.					
ETH2	I verify information before sharing sports news.					
CUR1	My program includes content on sports communication.					
CUR2	I practice communication skills in class.					
INS1	My institution gives students opportunities to take part in communication activities.					
INS2	I receive guidance from lecturers when doing communication work.					
SMU1	I follow sport content on social media every day.					
SMU2	I create and post sport-related content myself.					
SEF1	I feel confident speaking in front of a camera or an audience.					
SEF2	I believe I can learn new communication skills.					
INT1	I intend to take part in sports communication activities at my institution.					
INT2	I intend to use communication in my future career.					

Note: the questionnaire was administered in Vietnamese; the statements above are English translations.

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Appendix B. Lecturer and Manager Questionnaire

This questionnaire is for lecturers, training managers, staff in charge of communication and advisers of student clubs. Respondents are not required to give their names; opinions are quoted anonymously.

Part A. Respondent information

1. **G1.** Main role: Lecturer / Training manager / Staff in charge of communication / Student club adviser / Other
2. **G2.** Affiliation: [list of institutions] / Other

Part B. Current practice in your unit

Items 1–2: choose one option. Items 3 and 6: choose all that apply. Items 4–5: choose up to three options. Option numbers match the column codes in the data (e.g. B4_2 = "Writing news and articles").

1. **B1.** How necessary is communication competence for sport graduates? Not necessary / Slightly necessary / Necessary / Very necessary
2. **B2.** To what extent is communication content currently included in your unit's curriculum? No such content / Scattered across some courses / A separate elective course / A compulsory course / A course plus regular practical activities
3. **B3.** Through which activities do students in your unit practice communication?
    a. Course assignments
    b. Communication club
    c. Producing content for the institution's official channels
    d. Covering tournaments and sports events
    e. Internships at media outlets, clubs or companies
    f. None
    g. Other: ……
4. **B4.** In which areas are students weakest? (up to 3)
    a. Basic knowledge of sports communication
    b. Writing news and articles
    c. Filming and video editing
    d. Running social media and measuring performance
    e. Public speaking and working with the media
    f. Ethics, copyright and image rights
    g. Handling crises and negative comments
    h. Using AI tools
    i. Other: ……
5. **B5.** What are the main barriers to communication training in your unit? (up to 3)
    a. The curriculum is already overloaded
    b. Lack of lecturers with communication expertise
    c. Lack of equipment and practice rooms
    d. Lack of funding
    e. No incentive mechanisms or policies
    f. Lack of external partners
    g. Students are not interested
    h. Leadership does not prioritize it
    i. Other: ……
6. **B6.** What enabling conditions does your unit have?
    a. Official institutional media channels
    b. Student communication club
    c. Lecturers with communication experience
    d. Relationships with clubs, federations and the media
    e. Leadership support
    f. No clear enabling conditions
    g. Other: ……

Part C. Feasibility of the solutions

Scale: 1 = Not feasible; 2 = Slightly feasible; 3 = Uncertain; 4 = Feasible; 5 = Highly feasible.

Code	Solution	1	2	3	4	5
S1	Introduce a compulsory 2-credit course on sports communication and digital media in all sport programs.					
S2	Embed communication tasks in existing specialized courses (match reports, instructional videos, event communication plans).					
S3	Add content on ethics, copyright, athletes' image rights and online crisis handling.					

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Code	Solution	1	2	3	4	5
S4	Use the institution's official fan page, TikTok and Zalo Official Account as supervised practice platforms for students.					
S5	Support student communication clubs with faculty advisers, equipment and recognition mechanisms.					
S6	Train lecturers in sports communication and AI-assisted content creation tools.					
S7	Partner with clubs, federations, media outlets and sponsors to offer internships and real projects.					
S8	Organize annual sports communication contests and exhibitions.					
S9	Include communication competence in the learning outcomes of sport programs.					

Part D. Priorities and in-depth interview

1. **D1.** If only three solutions could be implemented, which would you prioritize? (up to 3; numbers match S1–S9 in Part C)
    a. Compulsory sports communication course
    b. Embedding communication tasks in specialized courses
    c. Ethics, copyright and crisis-handling content
    d. Official channels as practice platforms
    e. Support for student communication clubs
    f. Lecturer training in communication and AI
    g. Internships and real projects with external partners
    h. Annual communication contests and exhibitions
    i. Including communication competence in learning outcomes
2. **D2.** Other comments (optional): ……
3. **G6.** Would you be willing to take part in a 30–45-minute in-depth interview? Yes / No
4. **G7.** If yes: your name and phone number or email. This information is used only to schedule the interview and is separated from your answers during analysis.

Suggested in-depth interview questions

For respondents who answered yes to G6, to clarify their questionnaire answers.

1. How do you see the role of communication in the careers of sport graduates?
2. How is communication content currently included in the curriculum or activities of your faculty or institution?
3. What gaps do students have in communication knowledge, skills and ethics?
4. Which resources, policies or partnerships support or constrain communication training?
5. Why did you choose the priority solutions in item D1?

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Corresponding Author: Nguyen Quang Sang

Appendix C. Interview Invitation and Consent Form

Invitation

Dear [Name],

Thank you for completing the questionnaire on raising sports communication awareness among students and for agreeing to take part in an in-depth interview. The interview aims to clarify your answers to the questionnaire, particularly regarding barriers and priority solutions in your unit.

- Duration: about 30–45 minutes.
- Format: in person at [location] or online via [Zalo / Google Meet / Zoom].
- Proposed times: [date and time – 2 to 3 options]. Please choose a suitable slot or propose another time.
- With your consent, the interview will be audio-recorded for transcription and analysis only.

Sincerely,

Ho Buu Chanh, PhD – Department of Science, Technology and International Cooperation, Ho Chi Minh City University of Physical Education and Sport

Email: chanhbh@upes.edu.vn

Interview consent form

Study title: Raising sports communication awareness in sports training institutions in Ho Chi Minh City. Principal investigator: Ho Buu Chanh, PhD, Ho Chi Minh City University of Physical Education and Sport.

I confirm that:

1. The purpose of the study and the content and duration of the interview have been explained to me.
2. My participation is entirely voluntary; I may decline to answer any question and stop the interview at any time without giving a reason.
3. My information will be kept confidential. My name and organization will not appear in the article; I will be identified by a code (PV01, PV02…). Quotations will be attributed only to this code.
4. Audio recordings and transcripts will be accessible only to the research team, stored securely and destroyed [ ] years after the end of the study.
5. I may ask to review the transcript or withdraw my data before [ ].

Consent to audio recording: ☐ Yes ☐ No

Consent to anonymous quotation in the article: ☐ Yes ☐ No

Participant's name: …… Signature: …… Date: ……

Interviewer: …… Signature: …… Date: ……

For online interviews, the interviewer reads the above statements at the start of the session and records the participant's verbal consent in place of a signature.

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Appendix D. In-depth Interview Procedure and Protocol

D.1 Procedure

Step	Tasks	Timing	Output
1. Select participants	Take the list of respondents who answered "Yes" to G6; invite others to cover all groups (lecturers, training managers, communication staff, sports communication practitioners) from at least two institutions	2 weeks before	List of [15–20] people, coded PV01…
2. Invite and schedule	Send the invitation (Appendix C) with 2–3 time slots; confirm in-person or online format	1 week before	Interview schedule in the log (D.4)
3. Prepare	Review the person's questionnaire (Appendix B) if available; print the consent form and note sheet (D.2); charge the phone and test recording	1 day before	Note sheet with background information filled in
4. Interview	Read the introduction, obtain signed or recorded consent, ask questions following D.2, take brief notes	Interview, 30–45 minutes	Audio file, consent form, notes
5. Post-interview notes	Complete the "After the interview" section of D.2 while memory is fresh	Same day	Completed note sheet
6. Transcribe	Transcribe verbatim following D.3; replace names with codes	Within 3 days	Transcript PV0x.docx
7. Code	Thematic coding; two coders independently code at least 20% of transcripts and compare	After 3–5 transcripts	Codebook, agreement rate
8. Integrate into the article	Complete Section 4.6, the joint display and the Discussion	When enough interviews are done or saturation is reached	Completed Section 4.6

Stop inviting new participants when 2–3 consecutive interviews yield no new ideas (information saturation).

D.2 Interview note sheet

Session information

Participant code	PV…	Date	…/…/2026
Role	☐ Lecturer ☐ Training manager ☐ Communication staff ☐ Other: …	Organization	…
Format	☐ In person ☐ Online	Start – end time	… – …
Consent to recording	☐ Yes ☐ No	Questionnaire code (if any)	GV-…

Introduction (about 3 minutes, read nearly verbatim)

> *Thank you for your time. This conversation will take about 30–45 minutes and aims to better understand how you see communication training for sport students. There are no right or wrong answers; I would like to hear about your practical experience in your unit. Your name and organization will not appear in the article. You may skip any question you do not wish to answer or stop at any time. May I record the conversation so that I can transcribe it accurately? [Start recording and state the PV code and date; for online interviews, ask the participant to restate their consent.]*

Main questions and probes

Main question (time)	Probes linked to the survey results	Quick notes
Q1. How do you see the role of communication in the careers of sport graduates? (5 min)	Could you describe a specific situation in which a graduate needed this skill? Does the level needed differ for physical education teachers, coaches and managers?	
Q2. How is communication content currently included in the curriculum or activities of your faculty or institution? (7 min)	The survey shows that students rarely practice communication in class; is this true in your unit? Do students learn mainly through clubs or through courses?	
Q3. What gaps do students have in communication knowledge, skills and ethics? (7 min)	Students rate themselves lowest on filming, video editing and writing; do you see the same? Students use social media heavily, so why has this not turned into content-production skills? Have you encountered situations involving copyright or athletes' image?	

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Main question (time)	Probes linked to the survey results	Quick notes
Q4. Which resources, policies or partnerships support or constrain communication training? (8 min)	A lack of expert lecturers and equipment were the two most frequently chosen barriers; what exactly is lacking? Students rate institutional support very highly; what do you think students mean by "support"?	
Q5. Why did you choose the priority solutions in item D1? (8 min)	A compulsory course was prioritized by many but rated difficult to implement; what conditions are needed? If you were to start next semester, what should be done first, and by whom?	
Q6. Is there anything else you would like to share that I have not asked about? (3 min)		

General probes for going deeper: "Could you give a specific example?"; "Why do you think so?"; "How does that affect students?". Avoid leading questions such as "Would you agree that …?".

Closing

> *Thank you. I will send you the transcript if you would like to review it. If I need to clarify any point, may I contact you briefly? Could you suggest anyone else I should invite? [Stop recording.]*

After the interview (complete on the same day)

Item	Notes
Participant's three main points	1. … 2. … 3. …
New points or points contradicting the survey results	…
Quotable statements (note the minute in the file)	…
Context affecting the answers (interruptions, others present…)	…
Adjustments to questions for the next session	…
People recommended	…

D.3 Transcription conventions

1. Name files by code: PV01_2026-10-25.m4a, PV01_transcript.docx. Do not use real names in file names.
2. Mark speaker turns: **HB:** for the interviewer and **PV01:** for the participant; one paragraph per turn.
3. Transcribe verbatim, keeping the speaker's wording; remove repeated filler words if they carry no meaning.
4. Replace names of people, organizations, clubs and partners with [another lecturer], [University X], [Partner A].
5. Mark inaudible passages as [inaudible, 12:35]; insert a time stamp every 5 minutes, e.g. [05:00].
6. Store audio files, transcripts and consent forms in three separate password-protected folders; only de-identified transcripts are used for analysis.

D.4 Interview log

Code	Role	Organization	Date	Format	Consent	Recording	Transcript	Coding
PV01	Lecturer in charge of communication	Institution A	19/10/2026	In person, 45 min	☑	No, handwritten	☑ Minutes	☑ Preliminary
PV02	Training manager	Institution A	19/10/2026	In person, 40 min	☑	No, handwritten	☑ Minutes	☑ Preliminary
PV03	Sports federation leader	Sport organization C	19/10/2026	In person, 45 min	☑	No, handwritten	☑ Minutes	☑ Preliminary
PV04	Research manager	Institution B	18/10/2026	Telephone, 30 min	☑	No, handwritten	☑ Minutes	☑ Preliminary
PV05	Sports journalist	Media outlet D	18/10/2026	Telephone, 20 min	☑	No, handwritten	☑ Minutes	☑ Preliminary

The key linking PV codes to real names is stored separately, is not included in this log and is not shared.

Thank you to all lecturers and students who took part in this study!

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