



Revue phénEPS / PHEnex Journal

Vol 14 no 2

Initial Development of the French-Canadian Coaching Life Skills in Sport Questionnaire (FC-CLSS-Q)

Stéphanie Turgeon

Université du Québec en Outaouais
Gatineau, Quebec
CANADA

Derrick Motz

University of Ottawa
Ottawa, Ontario
CANADA

Scott Rathwell

University of Lethbridge
Lethbridge, Alberta
CANADA

Martin Camiré

University of Ottawa
Ottawa, Ontario
CANADA

Author Biographies

Dr. Stéphanie Turgeon is an Associate Professor in the Département de psychoéducation et de psychologie at the Université du Québec en Outaouais in Québec, Canada. Dr. Turgeon's research focuses on the psychosocial development through physical activity and sport for individuals with and without disabilities.

Derrick Motz is a Ph.D. student at the School of Human Kinetics at the University of Ottawa, in Ontario, Canada. Derrick's research explores adult-oriented coaching practices relative to the context of Masters sport, the outcomes associated with said practices, and how athletic identities impact Masters athletes' overall sport experience. Derrick currently serves on the coaching committee for Canada Masters Athletics.

Dr. Scott Rathwell is an Associate Professor in the Department of Kinesiology & Physical Education at the University of Lethbridge in Alberta, Canada. Dr. Rathwell's research focuses on the psychosocial factors related to lifelong sport and the mechanisms through which Masters athletes maintain their elite performance.

Dr. Martin Camiré is a Full Professor in the School of Human Kinetics at the University of Ottawa. Prof. Camiré is interested in researching sport, youth development, coach training, and (post)qualitative inquiry.

Abstract

Having access to tools that measure the extent to which coaches teach life skills development and transfer to athletes can help coaches be more intentional in their approach. This study aimed to facilitate access by developing and evaluating the psychometric properties of a French-Canadian version of the Coaching Life Skills in Sport Questionnaire (FC-CLSS-Q). After professionally translating the CLSS-Q and obtaining evidence for the face and content validity of the scale, data from 167 Canadian Francophone coaches were used to test the factor structure with exploratory structural equation modeling and confirmatory factor analyses. Internal consistency reliability, construct, concurrent and criterion validity, and measurement invariance of the FC-CLSS-Q were also explored. A 28-item 5-factor questionnaire was determined and initial evidence for the validity and reliability of the FC-CLSS-Q was found. Replicating this study with a larger less homogeneous sample is necessary to better understand the psychometric properties of the FC-CLSS-Q.

Keywords: coaches; scale development; psychometric properties; French adaptation; coach practices

Résumé

L'accès à des outils pour mesurer le niveau d'enseignement du développement et du transfert des aptitudes à la vie quotidienne auprès des athlètes peut permettre aux entraîneurs d'être plus intentionnels dans leur approche. Cette étude visait à faciliter l'accès à un tel outil en développant et évaluant les propriétés psychométriques d'une version franco-canadienne du questionnaire sur l'enseignement des aptitudes à la vie quotidienne dans le sport (FC-CLSS-Q). Après avoir effectué une traduction professionnelle du CLSS-Q et obtenu des preuves de validité apparente et de contenu de l'échelle, les données provenant de 167 entraîneurs francophones du Canada ont été utilisées pour tester la structure factorielle à l'aide d'un modèle d'équation structurelle exploratoire et d'une analyse factorielle confirmatoire. La cohérence interne, la validité de construit, concomitante et de prédictive, ainsi que l'invariance de mesure du FC-CLSS-Q ont également été étudiées. Un questionnaire comprenant 28 items divisés en cinq facteurs a été développé et des données initiales de la validité et de la fiabilité du FC-CLSS-Q ont été obtenues. Il est nécessaire de reproduire cette étude avec un échantillon plus grand et moins homogène pour mieux cerner les propriétés psychométriques du FC-CLSS-Q.

Mots-clés: entraîneurs; développement d'échelle de mesure; propriétés psychométriques; adaptation française; pratiques des entraîneurs

Introduction

Sport is a popular social practice offering athletes opportunities to be physically active and learn life skills, which are defined as “internal personal assets, characteristics, and skills, such as goal setting, emotional control, self-esteem, and hard work ethic that can be facilitated or developed in sport and are transferred for use in non-sport settings” (Gould & Carson, 2008, p. 60). Learning how to apply life skills beyond sport can enhance self-esteem and self-confidence (Jacobs & Wright, 2018) and improve the management of everyday stressors experienced at school, in sport, and at work (Harmsel-Nieuwenhuis et al., 2022). Both youth (Camiré, 2015) and adult (Chinkov & Holt, 2016) sport environments have been positioned as offering opportunities for life skills development and transfer. For instance, Chinkov and Holt (2016) found that Canadians aged 19 to 54 implicitly learned life skills, such as respect for others and perseverance, during their Brazilian jiu-jitsu training. They also noted how it was critical for the head instructors to include life skills as part of their coaching philosophies. This finding is consistent with other research (Camiré et al., 2012), yet not all coaches include life skills in their philosophical approach to coaching. For this reason, the quality of programming offered by coaches can vary widely. Optimally, coaches should actively seek to teach both sport-specific skills and life skills regardless of their athletes’ age (Bean & Forneris, 2016). Therefore, a key programming variable of interest for teaching life skills is *intentionality*, or how coaches deliberately facilitate the life skills development and transfer of their athletes (Bean et al., 2018a; Walker et al., 2005). Turnnidge and colleagues (2014) situated intentionality along two main approaches. The implicit approach is deployed when coaches focus on sport-specific skills and do *not* intentionally teach life skills. Through this approach, it is unclear if athletes learn life skills as part of their sport participation. Conversely, the explicit approach is deployed when coaches *intentionally* teach life skills to their athletes and actively promote life skills transfer (Pierce et al., 2017).

While Turnnidge and colleagues’ work theoretically delineated implicit and explicit life skills approaches, Bean and colleagues (2018b) built upon this work to create a life skills continuum consisting of six levels: (a) structuring the sport context, (b) facilitating a positive climate, (c) discussing life skills, (d) practicing life skills, (e) discussing transfer, and (f) practicing transfer. As coaches move up the continuum from the first to the sixth level, life skills development and transfer become more purposeful, whereby level two builds upon level one and so on (e.g., facilitating a positive climate [level two] occurs when the sport context is structured appropriately [level one]). At levels four and six, coaches provide opportunities for athletes to put life skills into practice, which furthers life skill development beyond discussions. Conceptually, the six levels of the life skills continuum can be used by researchers to gauge how coaches teach life skills. Coaches can also use the continuum to frame their approaches to life skills development and transfer (i.e., Life Skills Self-Assessment Tool for Coaches; Kramers et al., 2022).

Camiré and colleagues (2021) developed the Coaching Life Skills in Sport Questionnaire (CLSS-Q), which is conceptually anchored in the Bean et al. (2018b) continuum. The CLSS-Q is the first tool to measure the extent to which coaches report teaching life skills through sport. The CLSS-Q is a 36-item five-factor scale that measures (a) Structuring and Facilitating a Positive Sport Climate; (b) Discussing Life Skills; (c) Practicing Life Skills; (d) Discussing Life Skills Transfer; and (e) Practicing Life Skills Transfer. Camiré and colleagues found strong evidence for the factorial validity and internal consistency reliability of the CLSS-Q. Moreover, the scale is invariant across gender, years of coaching experience, and coach education. The concurrent validity of the scale has been tested, and links with life skills development (Life Skills Scale for

Sport; Cronin & Allen, 2017) and program quality (Program Quality Assessment in Youth Sport; Bean et al., 2018a) were found.

Although the CLSS-Q was first developed in English, there has already been four cross-cultural adaptations of the scale performed (Arabi & Hamrah, 2023; Bae & Lim, 2022; Ciampolini et al., 2021; Spina, 2023). Ciampolini and colleagues (2021) conducted a two-phase study to test the internal consistency reliability and factorial validity of a Portuguese version of the CLSS-Q. In the first phase, the survey was translated and back translated to account for cultural adaptations and more colloquial language. In the second phase, exploratory (EFA) and confirmatory (CFA) factor analyses highlighted six problematic items (from the original CLSS-Q), and a 30-item five-factor Portuguese CLSS-Q (P-CLSS-Q) was established. Bae and Lim (2022) translated and validated the CLSS-Q in Korean (KCLSS-Q), resulting in a five-factor 26-item questionnaire. As an initial step, an expert panel was formed to assess the clarity of the scale and its content. Next, EFA and CFA were used to study the factor structure of the translated scale. Concurrent validity of the scale was tested with a measure of emotional intelligence. The CLSS-Q was translated and validated with a sample of 515 Italian-speaking coaches (Spina, 2023). However further details regarding the method or results are unavailable as the thesis is published with restricted access. Finally, Arabi and Hamrah (2023) published a Persian version of the CLSS-Q. The full article was published in Persian but was accompanied by an extended abstract in English. The Persian 36-item 5-factor structure tested with 370 sports coaches from Tehran using CFA suggested adequate fit. In addition, the authors stated, “Cronbach's alpha coefficient, composite reliability and average variance extracted in all cases were greater than 0.7 and 5” (p.89).

In 2021, nearly eight million Canadians had French as a first language (Statistics Canada, 2023). It is estimated that a large proportion of Canadians partake in Sport. In fact, approximately 75% of Canadian youth (SIRC, 2022) and 26% of individuals ages 15 and over (Statistics Canada, 2019) regularly participate in sport throughout the year. These proportions are similar for provinces that have French as an official language (Statistics Canada, 2019). Given that the original CLSS-Q developed by Camiré and colleagues (2021) was created in Canada and that no French adaptation are available, a French version is warranted – as French is also an official language of Canada. In fact, developing a French questionnaire would provide a much-needed tool to assess coaches' life skills practices. Therefore, the purpose of this study was to develop and complete an initial evaluation of the psychometric properties of a French-Canadian version of the CLSS-Q (i.e., FC-CLSS-Q).

Method

The project occurred over a period of two years and was guided by Sousa and Rojjanasrirat's (2011) 7-step procedure for translating, adapting, and validating a psychometric scale. In the present project, these steps are described in three phases. Specifically, the first phase consisted of the cross-cultural adaptation and translation of the CLSS-Q to French-Canadian, pilot testing, and assessment of initial psychometric properties (i.e., Steps 1 to 6). Step 7 proposed by Sousa and Rojjanasrirat (i.e., full psychometric assessment of the translated scale with the targeted population) comprised phases two and three. The second phase aimed to measure the psychometric validation of the FC-CLSS-Q (i.e., exploring and confirming the factor structure, assessing reliability and construct validity, and testing invariance). The third phase examined the criterion validity of the newly adapted French-Canadian questionnaire with related constructs (e.g., the coach-athlete relationship) as well as with the English CLSS-Q. Data were collected after ethics approval was granted.

Phase 1

Participants and Procedure

Translation and Cross-Cultural Adaptation

To translate and adapt the CLSS-Q to French-Canadian, the first author worked with the *Ordre des Traducteurs, Terminologues et Interprètes Agréés du Québec* [The Order of Translators, Terminologists, and certified interpreters of Quebec] (<https://ottiaq.org/>). Translators with experience in sport were prioritized. Two English to French translators and two French to English translators were hired. For Step 1, two professional translators independently forward translated the CLSS-Q from English (original language; see Appendix A) to French (targeted language). For Step 2, both French versions of the CLSS-Q were compared to identify/resolve discrepancies and create an initial version of the French-Canadian CLSS-Q (FC-CLSS-Q-V1). For Step 3, two other translators back-translated the FC-CLSS-Q-V1 to English. For Step 4, both versions obtained at Step 3 were compared to the original version of the CLSS-Q by a multidisciplinary committee, which included the research team, a Ph.D. student, and the translators that completed Steps 1-3. Modifications were made to the FC-CLSS-Q-V1 based on observed discrepancies, resulting in the second version of the French CLSS-Q (i.e., FC-CLSS-Q-V2).

Pilot Testing and Assessment of Initial Psychometric Properties of the Scale

Five experts (i.e., researchers in the field of coaching and life skills who are fluent in French) were sent an email invitation with a link to an online survey. Five experts completed the content validity procedure. Four of the experts were full-time professors at Canadian universities and the fifth expert was a Ph.D. student. The experts were instructed to use a 4-point relevance scale (1 = not relevant; 2 = somewhat relevant; 3 = relevant but needs minor alterations; 4 = very relevant) to assess the content validity for each item, subscale, and for the FC-CLSS-Q-V2 as a whole. Item-level content validity was achieved if the average ratio of experts rating the individual items as three or four was $\geq .78$ % (Polit & Beck, 2006). Subscales and overall scale content validity were deemed satisfactory if the mean ratio was three or four by $\geq .90$ (Polit & Beck, 2006).

Face validity was measured by French-speaking Canadian coaches. The coaches were recruited through research team networks. They were sent an email invitation with a link to an online survey. Six French-speaking Canadian coaches aged between 26 and 47 years of age ($M = 34.5$; $SD = 7.4$) completed the online survey. Four identified as a man, one as a woman, and the other preferred not to answer. Years of experience coaching ranged from one to 20 ($M = 11.3$; $SD = 6.5$). The majority worked as part-time coaches ($n = 5$) and coached in school settings ($n = 5$). One individual coached recreational sport, three coached developmental sport, one coached elite sport, and one reported coaching both developmental and elite sport.

Coaches were asked to complete a binary scale (*clear* or *unclear*) for each item, subscale (including the instructions), and for the entire scale. For each element rated as *unclear*, we asked coaches to recommend modifications to enhance clarity. Elements rated unclear by $\geq 20\%$ of the coaches were revised based on the comments provided (Topf, 1986).

Analyses

Responses for content and face validity were organized in a table and frequency statistics were completed for each item, subscale, and the full scale. Percentages of answers rated as three or four or as clear were calculated for content validity and face validity respectively. For elements that did not reach the established cutoff points, revisions were made by the above-mentioned multidisciplinary committee.

Results

All items were rated as three or four by $\geq .78\%$ of the experts. All subscales and the scale as a whole were rated as three or four by all five experts (i.e., 100%). Results of the content validity assessment are presented in a Table available as supplementary material.

Regarding face validity, 29 of the 36 items, all five subscales, and the scale as a whole met the cut-off (i.e., were considered unclear by $< 20\%$ of coaches). These items were left unchanged. Seven items were rated as unclear by $\geq 20\%$ of the coaches. Comments were considered and changes were made to all seven items by the multidisciplinary committee. Most changes pertained to the examples that were included in the items (i.e., making an example shorter) or to the choice of certain words in the item statement (e.g., *vie courante* changed to *vie quotidienne*). At this point, a third version of the FC-CLSS-Q (i.e., FC-CLSS-Q-V3) was developed. Results of the face validity assessment are presented in a Table available as supplementary material.

Phase 2

Participants and Procedure

Canadian coaches were recruited through social media sites (i.e., Facebook, X) and a partnership with the Coaching Association of Canada (CAC), who emailed coaches directly using their internal directory. Coaches received a brief study description and a link directing them to an online survey hosted on LimeSurvey. A total of 439 coaches responded to the survey. One-hundred and ninety-nine coaches were removed for not completing any of the items of the FC-CLSS-Q-V3 (100% incompleteness), while another 73 were removed for having large amounts of missing data within the CLSS-Q factors ($> 50\%$ of missing responses on one or several of the CLSS-Q factors).

The final sample included 167 self-identified Francophone sport coaches from Québec (92.2%, $n = 154$) and other Canadian provinces (6.8%, $n = 13$). Coaches were on average 45.08 years old ($SD = 12.63$) and identified as a man (70.1%, $n = 117$), woman (28.1%, $n = 47$), non-binary ($n = 2$) or preferred not to respond ($n = 1$). All coaches had coached in the past 12 months part-time (< 35 hours per week; 88.6%, $n = 148$) or full-time (> 35 hours per week; 19.0%, $n = 19$). Coaches had an average of 14.11 years of experience coaching ($SD = 10.57$) and represented 34 sports – including soccer (18.6%), volleyball (13.8%), ice hockey (10.2%), baseball (6.0%), skiing (5.4%), and swimming (4.8%). When asked “yes” or “no”, 107 coaches (64.1%) indicated “yes” to coaching all men teams, 58 (34.7%) all women teams, and 77 mixed men/women (46.1%). Further, coaches also indicated “yes” to coaching club (69.5%, $n = 116$), school-based (34.7%, $n = 58$), and community (21%, $n = 35$) sports, which ranged in competition level (indicated “yes”) from recreational (47.9%, $n = 87$), competitive (70.1%, $n = 117$), and elite (22.8%, $n = 38$). The average age of the athletes coached was 15.73 years ($SD = 7.95$). Finally, 164 coaches (98.2%), indicated “yes” to NCCP or other formal coach training.

Analyses

A missing value analysis indicated that only 0.85% of FC-CLSS-Q-V3 data were missing. According to Tabachnik and Fidell (2019), the effects of missing data are negligible when less than 5% of data are missing. We treated missing data using the model-based maximum likelihood multiple imputation procedure (Denis, 2019; Hair et al., 2019) in IBM® SPSS® version 25 software.

Exploratory Analyses

Using the Mplus[®] version 8.0 software, the factor structure of the original 5-factor, 36-item CLSS-Q (Camiré et al., 2021) was tested using exploratory structural equation modelling (ESEM) with a target rotation. ESEM combines elements of exploratory and confirmatory factor analyses, enabling factor loadings to freely load on the hypothesized and other factors (Marsh et al., 2014; Xiao et al., 2019). To assess model fit, we analyzed chi-square (χ^2 ; $p > .05$ indicates acceptable model fit) and its degrees of freedom (df); however, chi-square values are often significant. Hair and colleagues (2019) recommend using χ^2 along with at least one absolute and one incremental model fit index. Therefore, we used the following indices and cut offs (Hair et al., 2019): comparative fit index (CFI; $>.90$), Tucker Lewis index (TLI; $>.90$), standardized root mean residual (SRMR; $<.08$), root mean square error of approximation (RMSEA; $<.08$), and $\chi^2/df < 5$. In addition to model fit, we assessed the factor structure of ESEM analyses by ensuring that: (a) each item had a factor loading $\beta \geq .32$ on its hypothesized factor; (b) each item cross-loaded $\beta \leq .32$ on unintended factors; and (c) each factor had a minimum of four items to ensure sufficient data when running the factor analyses and to fully represent the complexity of the subconstruct being measured (Hair et al., 2019; Tabachnik & Fidell, 2019). Following an iterative process, we deleted one problematic item at a time and reassessed the factor structure of the CLSS-Q until no problems were found (Hair et al., 2019). This process consisted of: (a) removing the item with the highest cross-loading; (b) removing items which did not load onto any factor; and (c) removing items that loaded on unintended factors. Notably, during this process, we ensured no items were removed that compromised our criteria of four items per factor. If at any point an ESEM model did not converge, we returned to the previous model and started the process again (e.g., removing the item with second highest cross-loading rather than the highest).

Confirmatory Analyses

After the factor structure was confirmed with the ESEM, we used the Mplus[®] software to run a confirmatory factor analysis (CFA) as an additional test of the final factor structure. CFA models were estimated using the MLM maximum likelihood estimator which is robust to violations of multivariate normality (Kelloway, 2015). To assess model fit, the same criteria were used as those in the ESEM (Hair et al., 2019).

Reliability and Construct Validity

We examined internal reliability using McDonald's omega (ω ; Hayes & Coutts, 2020). We chose McDonald's omega over Cronbach's alpha because calculations for the latter assume normally distributed data, as well as equality of item-level variance and factor loadings. Omega is more robust than alpha when deviating from these strict assumptions (Sijtsma, 2009; Stensen & Lydersen, 2022). For McDonald's omega, values $\geq .70$ indicate acceptable reliability. Next, we examined convergent and discriminant validity using average variance extracted (AVE), maximum shared variance (MSV), and average shared variance (ASV; Hair et al., 2019). AVE is the item-level average of squared loadings for a particular subscale. When AVE is $\geq .50$ convergent reliability is achieved, meaning that on average, the subscale explains 50% or more of the variance in its items (Hair et al., 2019). MSV is the maximum variance explained in items from one factor by another unintended factor, while ASV is the average variance explained in items from a specific factor by all other unintended factors. Discriminant validity was achieved when $AVE > MSV$ and $AVE > ASV$ (Hair et al., 2019; 2022), meaning that the average variance explained by a specific subscale (AVE) should be greater than the variance shared between items in a specific subscale (MSV) and the shared variance of items in the measurement tool altogether (ASV).

Measurement Invariance

Measurement invariance tests were performed according to guidelines provided by Byrne (2012), Muthén and Muthén (2021), and Wang and Wang (2020). Invariance tests successively restrict CFA models to determine whether groups of participants interpret (configural invariance) responses in the same way, and whether item factor loadings (metric invariance), item intercepts (scalar invariance), and residual covariances (strict invariance) are equivalent across groups (Pacewicz et al., 2022). For this study, we intended to assess invariance based on age, gender, coach training, and coach experience variables; however, due to sample size limitations, only the variable of coach experience displayed acceptable groupings. Two groupings were formed based on coach experience – those who self-reported ten years or less of experience ($n = 81$) and those who reported more than 10 years of experience ($n = 86$). Previous studies have used similar groups when studying coaching experience, whereas coaches with 10 years or more of experience were considered as highly experienced coaches (i.e., Kramers et al., 2020; Santos et al. 2010).

Configural variance is achieved when: the chi-square test is non-significant ($p > .05$) or $CFI > .90$, $TLI > .90$, $RMSEA < .08$, $SRMR < .08$, $\chi^2/df \leq 5$. Once configural invariance is achieved, metric invariance can be tested. To test metric invariance, the metric model is compared to the scalar model using chi-square difference testing ($\Delta\chi^2$). Metric invariance is achieved when the metric and configural models do not significantly differ ($p < .05$). However, because chi-square is sensitive to sample and group sizes (Pacewicz et al., 2022), Chen (2007) suggested examining changes in incremental fit indices, such as the change in CFI (ΔCFI), TLI (ΔTLI), RMSEA ($\Delta RMSEA$), and SRMR ($\Delta SRMR$), between the metric and configural models. More specifically, if the ΔCFI and $\Delta TLI < .01$ and the $\Delta RMSEA$ is less than .015, or the $\Delta SRMR$ is less than .01, metric invariance is achieved. When metric invariance is achieved, scalar invariance can be tested by comparing the scalar model to the metric model using the same criteria. Likewise, once scalar variance is achieved, strict invariance can be tested by comparing the strict model to the scalar model with the same criteria.

Results

Exploratory Analyses

The initial 36-item five-factor ESEM indicated inadequate model fit ($\chi^2(460) = 991.00$, $p < .001$; $CFI = .875$, $TLI = .829$, $SRMR = .040$, $RMSEA = .083$, $\chi^2/df = 2.15$) and displayed nine problematic cross-loadings $\geq .32$. A total of eight items were removed: seven items for high cross-loading ($\beta \geq .32$) on unintended factors and one item for not loading on any factor ($\beta \geq .32$). After deletion, 28 items loaded on their intended factors (β range: .364 – 1.008). Notably, one factor loading was 1.008. Standardized β values above > 1.00 are plausible and acceptable in ESEM if there are no negative residual error variances (Jöreskog, 1999). All item residual variances in this model were $\geq .56$. The final 28-item five-factor ESEM model met four of the six model fit criteria ($\chi^2(248) = 469.79$, $p < .001$; $CFI = .932$, $TLI = .897$, $SRMR = .035$, $RMSEA = .073$, $\chi^2/df = 1.89$). Please see Supplementary file for the factor structure and item loading of each model tested. Table 1 displays the descriptive statistics and factor correlation matrix, while Table 2 shows the item factor loadings.

Confirmatory Analyses

When tested using a CFA, the 28-item five factor scale showed adequate model fit: $\chi^2(340) = 555.61$, $p < .001$; $CFI = .917$, $TLI = .907$, $SRMR = .064$, $RMSEA = .062$, $\chi^2/df = 1.63$. All items loaded above .32 on their respective factors (range .37 - .94), while between factor

correlations were all positive and significant (range $r = .35 - .83$; $p < .001$). See Table 1 for the CFA factor correlation matrix. See Appendix B for the final 28-item five-factor FC-CLSS-Q

Table 1

Descriptive Statistics and Factor Correlation Matrix for the French-Canadian Coaching Life Skills in Sport Questionnaire (FC-CLSS-Q)

Factor	F1	F2	F3	F4	F5
F1	-	.50*	.43*	.41*	.32*
F2	.68*	-	.46*	.62*	.45*
F3	.54*	.82*	-	.58*	.65*
F4	.50*	.83*	.83*	-	.65*
F5	.35*	.59*	.81*	.71*	-
<i>M</i>	5.63	5.23	4.49	4.81	4.11
<i>SD</i>	.38	.82	1.24	1.20	1.48
Skewness	-.67	-1.22	-.52	-1.02	-.24
Kurtosis	-.81	1.21	-.60	.37	-1.15

Note. Correlations above the diagonal represent the ESEM results. Correlations below the diagonal represent CFA results. F1 = Structuring and Facilitating a Positive Sport Climate; F2 = Discussing Life Skills; F3 = Practicing Life Skills; F4 = Discussing Life Skills Transfer; F5 = Practicing Life Skills Transfer; *M* = mean; *SD* = standard deviation; * $p \leq 0.01$.

Table 2

Factor Loadings by Model for the French-Canadian Coaching Life Skills in Sport Questionnaire (FC-CLSS-Q) Data

Item*	ESEM	CFA
F1		
3	.46	.44
5	.36	.37
6	.61	.49
7	.71	.60
8	.44	.37
9	.57	.53
10	.60	.58
13	.63	.73
15	.55	.64
16	.67	.77
17	.66	.67
F2		
1	.49	.82
3	.37	.64
4	.61	.81
5	.58	.80
1	.62	.87

Item*	ESEM	CFA
F3		
2	.78	.80
3	.58	.90
4	.41	.82
F4		
1	.68	.91
2	.89	.92
3	.77	.88
4	.55	.85
F5		
1	.62	.80
2	1.00	.94
3	1.01	.90
4	.69	.86
5	.42	.70
<i>M(SD)</i>	.62 (.16)	.73 (.17)

Note. *Item numbers are in reference to the 36-item 5-factor CLSS-Q (from Camiré et al., 2021; see Appendix A); F1 = Structuring and Facilitating a Positive Sport Climate; F2 = Discussing Life Skills; F3 = Practicing Life Skills; F4 = Discussing Life Skills Transfer; F5 = Practicing Life Skills Transfer; ESEM = exploratory structural equation modeling; CFA = confirmatory factor analysis *M* = mean; *SD* = standard deviation.

Reliability and Construct Validity

Evidence of internal consistency reliability was observed – all McDonald omega scores for factors were $\geq .70$ (range .84 - .94). For convergent validity, all AVEs were above .50, except for the first factor (i.e., Structuring and Facilitating a Positive Sport Climate; AVE = .33), indicating that the majority of variance ($> 50\%$) in items was explained by their respective factors. For discriminant validity, all five factors had AVEs higher than their ASVs, respectively (Hair et al., 2019). This indicated that intended factors explained greater variance in their items than the average variance explained by unintended factors. Three out of five factors (i.e., Practicing Life Skills, Discussing Life Skills Transfer, and Practicing Life Skills Transfer) displayed AVEs greater than their MSVs, indicating that the items variance was better explain by their respective factor than any other factor. Results suggest good convergent validity and partial divergent validity (see Table 3 for omega, composite reliability, AVE, ASV and MSV scores).

Measurement Invariance

The configural invariance model comparing coach experience had a significant chi-square value ($p < .001$), suggesting non-invariance (non-equivalence) between coach groupings. In addition, only one of five fit indices met the criteria of configural invariance, the CFI = .859, TLI = .843, RMSEA = .087, SRMR = .088, $\chi^2/df = 1.63$. This evidence further supports configural non-invariance. This suggests that “the pattern of loadings of items on the latent factors differs for the two [groups based on coaching experience]” (Putnick and Bornstein, 2016, p.4). Since configural invariance was not established, no further successive invariance tests were examined.

Table 3

Reliability and Validity (convergent and divergent) Scores for the French-Canadian Coaching Life Skills in Sport Questionnaire (FC-CLSS-Q) Subscales

French CLSS-Q Subscales	AVE	MSV	ASV	ω	CR
Structuring and Facilitating a Positive Sport Climate	.33	.46	.28	.84	.84
Discussing Life Skills	.59	.69	.54	.84	.85
Practicing Life Skills	.72	.68	.58	.91	.91
Discussing Life Skills Transfer	.79	.69	.53	.94	.94
Practicing Life Skills Transfer	.71	.65	.41	.93	.92

Note. AVE = average variance extracted; MSV = maximum shared variance; ASV = average shared squared variance; ω = McDonald's omega; CR = Composite reliability. Recommended values: AVE > .5; MSV < AVE; ASV < AVE.

Phase 3

The purpose of Phase 3 was to assess the concurrent and criterion-related validity (Drost, 2011) of the FC-CLSS-Q. Concurrent validity assesses the agreement between similar constructs (e.g., interpersonal behaviours, life skills, original English CLSS-Q) whereas criterion-related validity assesses the associations between constructs (e.g., FC-CLSS-Q) and outcome variables (e.g., coach-athlete relationship; Drost, 2011). We hypothesized that the FC-CLSS-Q would be significantly and positively related to all of the above exemplified constructs.

Participants

The same sample from Phase 2 ($n = 167$) was used; however, participants varied in their degree of completeness for the four measurement tools beyond the FC-CLSS-Q. Four data subsets were created based on completeness of coaches' interpersonal behaviors, coach-athlete relationship, and two life skills measures. This resulted in four distinct data subsets ($n = 147$, $n = 156$, $n = 148$, and $n = 84$, respectively). Participants were removed from these subsets and subsequent analyses if they had large amounts of missing data on the four additional measurement tools used (> 50% of responses missing for at least one of the measurement subscales). Notably, the fourth data subset ($n = 84$) only contained participants who self-reported as French-English bilingual.

Measures

Coaching Life Skills in Sport

The 28-item five-factor FC-CLSS-Q from Phase 2 was used. Coaches who self-reported as French-English bilingual also completed the English version of the Coaching Life Skills in Sport Questionnaire (CLSS-Q; Camiré et al., 2021). These are the same five factors represented by the FC-CLSS-Q. Coaches responded to statements on a six-point Likert scale ranging from "Strongly disagree" (1) to "Strongly agree" (6). The CLSS-Q had sufficient reliability, whereby all factors had McDonald's omega values $\geq .70$ ($\omega = .89 - .96$).

Interpersonal Behaviours

A French version of the Interpersonal Behaviors Questionnaire (IBQ; Rocchi et al., 2017a; 2017b) was used. The survey contained 24 items that measure six factors of coaches' interpersonal behaviours: autonomy-supportive, competence-supportive, relatedness-supportive, autonomy-thwarting, competence-thwarting, and relatedness-thwarting. Coaches responded to the stem "When I am with my athletes, I..." and indicated their agreement with each item using a seven-point Likert scale ranging from "do not agree at all" (1) to "completely agree" (7). The French version of the IBQ has been used in the past (Camiré et al. 2020; Turgeon et al. 2021), and all IBQ factors displayed sufficient reliability within our sample, with McDonald's omega values $\geq .70$ ($\omega = .70 - .90$)

Coach-Athlete Relationship

A French version of the Coach-Athlete Relationship Questionnaire (CART-Q; Jowett & Ntoumanis, 2004) was used. The CART-Q uses a seven-point Likert scale, ranging from "Strongly disagree" (1) to "Strongly agree" (7), to measure coaches' perceptions of the quality of their relationships with their athletes. For the purposes of this study, we treated the CART-Q as a unidimensional construct due to the small number of items designated for each factor. The French version of the CART-Q has been used in previous research (Camiré et al., 2020; Turgeon et al., 2021) and had a sufficient McDonald's omega value of .83 ($\geq .70$) in this study.

Life Skills

A French version of the 43-item Life Skills Scale for Sport (LSSS; Cronin & Allen, 2017) was used to measure how coaches perceived they were developing life skills through sport. Coaches responded to the stem "Rate how much your sport has taught you to perform the skills listed below" using a five-point Likert scale ranging from "not at all" (1) to "very much" (5). The LSSS measured coaches' perspectives on eight themes: teamwork (e.g., "accept suggestions for improvement from others"), goal setting (e.g., "set challenging goals"), time management (e.g., "control how I use my time"), emotional skills (e.g., "know how to deal with my emotions"), interpersonal communication (e.g., "speak clearly to others"), social skills (e.g., "interact in various social settings"), leadership (e.g., "know how to motivate others"), and problem solving and decision making (e.g., "think carefully about a problem"). The French version of the LSSS was used in previous research (Camiré et al., 2020; Turgeon et al., 2021) and showed sufficient reliability in our sample, whereby all factors had McDonald's omega values $\geq .70$ ($\omega = .84 - .94$).

Analyses

In each of the four data subsets, less than 5% of the responses were missing (.26%, .52%, .64%, .68%, respectively) and were deemed negligible (Tabachnik & Fidell, 2019). For each subset, respectively, data were treated using the same multiple imputations method as in Phase 2.

Using the four data subsets, criterion-related validity between the FC-CLSS-Q and the IBQ ($n = 147$), CART-Q ($n = 156$), LSSS ($n = 148$) and CLSS-Q ($n = 84$) were assessed through path analyses using scale scores (using average scores for each scale). Notably, path analyses assume perfect model fit (Kelloway, 2015). Analyses were conducted using Mplus[®] version 8.0 software with the MLM estimator (Kelloway, 2015).

Results

Table 4 displays all correlations between FC-CLSS-Q factors and subscales of concurrent criterion-related measurements.

Table 4

Cross-sectional Associations Between the FC-CLSS-Q and Criterion-related Measures

Scale	Subscale	FC-CLSS-Q				
		SFPSC	DLS	PLS	DLST	PLST
		β				
IBQ (<i>n</i> = 147)	Autonomy-Supportive	.05	.14	.09	.26	-.02
	Autonomy-Thwarting	-.23**	.04	.18	-.02	-.05
	Competence-Supportive	.38***	.18	.01	-.01	-.07
	Competence-Thwarting	-.05	.13	.16	-.24	.25**
	Relatedness-Supportive	.29***	.11	.15	-.20	.07
	Relatedness-Thwarting	-.16*	-.07	.10	.06	.23**
CART-Q (<i>n</i> = 156)	-	.39***	.01	.35**	-.05	-.04
LSSS (<i>n</i> = 148)	Teamwork	.26**	.17	.02	-.03	.19*
	Goal Setting	.18**	.18	.06	.10	.27**
	Social Skills	.06	-.02	.22	-.01	.36**
	Problem-Solving	.10	.004	.31*	.32*	.03
	Emotional Skills	.01	.13	.14	.39**	.05
	Leadership	.12	.08	.12	.15	.26**
	Time Management	.05	.12	.18	.22	.12
	Decision Making	.14	.03	.20	.15	.16
CLSS-Q (<i>n</i> = 84)	Structuring & Facilitating a Positive Sport Climate	.62***	.32**	-.02	-.10	.05
	Discussing Life Skills	.10	.37**	.04	.32*	.10
	Practicing Life Skills	-.07	.03	.51**	-.01	.39**
	Discussing Life Skills Transfer	-.11	.15	.17	.37**	.37***
	Practicing Life Skills Transfer	-.18***	.01	.21*	.17	.67***

Note. Each scale on the leftmost column is indicative of separate path analyses. FC-CLSS-Q = Coaching Life Skills in Sport Questionnaire French Version; IBQ – Interpersonal Behaviors Questionnaire; CART-Q = Coach-Athlete Relationship Questionnaire; LSSS = Life Skills for Sport Scale; CLSS-Q = Coaching Life Skills in Sport Questionnaire; SFPSC = Structuring and Facilitating a Positive Sport Climate; DLS = Discussing Life Skills; PLS = Practicing Life Skills; DLST = Discussing Life Skills Transfer; PLST = Practicing Life Skills Transfer; β = standardized beta coefficients. * $p \leq .05$, ** $p < .01$, *** $p < .001$.

Concurrent Validity

All FC-CLSS-Q factors were positively correlated with their English CLSS-Q counterpart. In addition, FC-CLSS-Q factors were also correlated with other CLSS-Q factors (Camiré et al., 2021). For instance, Practicing Life Skills Transfer from the FC-CLSS-Q was positively correlated with its English counterpart, as well as Practicing Life Skills and Discussing Life Skills Transfer (from the CLSS-Q).

Criterion Validity

Structuring and Facilitating a Positive Sport Climate from the FC-CLSS-Q was positively associated with the coach athlete relationship (CART-Q), Competence- and Relatedness-Support (IBQ) and Teamwork and Goal Setting (LSSS). Structuring and Facilitating a Positive Sport Climate was negatively associated with autonomy and relatedness thwarting (IBQ). Practicing Life Skills Transfer was positively correlated with social skills, goal setting, emotional skills, and teamwork (LSSS), and competence and relatedness thwarting (IBQ). Practicing Life Skills was positively correlated with the coach athlete relationship (CART-Q), as well as problem-solving (LSSS). Discussing Life Skills Transfer was positively correlated with emotional skills and problem-solving (LSSS).

Discussion

The purpose of this study was to develop and test the psychometric properties of a French-Canadian version of the CLSS-Q (FC-CLSS-Q). Through ESEM and CFA, we retained all five subscales from the original survey, but were required to delete eight items, resulting in a 28-item scale. Our results (i.e., reduced number of items while maintaining the 5-factor structure) are consistent with those of other translated and adapted versions of the CLSS-Q (Bae & Lim, 2022; Spina, 2023). We found sufficient evidence to support the internal consistency and factorial validity of the FC-CLSS-Q. As per results reported by Spina (2023) for the Italian version of the CLSS-Q, we also found evidence for the concurrent and criterion validity of the FC-CLSS-Q. Specifically, each of the FC-CLSS-Q factors were related to the same factors from the English CLSS-Q when using data from bilingual coaches. Moreover, relationships were found between FC-CLSS-Q factors and aspects relating to the coach-athlete relationship, basic psychological needs support and thwarting, and life skills development. It is worth noting that the positive relationship between Practicing Life Skills Transfer and competence and relatedness thwarting factors of the IBQ are counterintuitive. However, the correlations can be considered negligible given that $r < .30$ (Hinkle et al., 2003). Further research is needed to better understand the relationship between these variables and its potential effect on development and transfer of life skills. Overall, the results are encouraging and provide initial evidence for the FC-CLSS-Q as a measurement tool for assessing the extent to which coaches intentionally teach life skills and life skills transfer in French-speaking Canadian populations.

The development and initial validation of the first French-Canadian questionnaire to measure coaches' life skills teaching has both applied and empirical value. From an applied perspective, the development of a French adaptation of the CLSS-Q further broadens coaches' access to tools that can support them in evaluating their coaching behaviors. Specifically, English, Portuguese-, Korean-, Italian-, Persian-, and now French-speaking coaches, have open access to a measure that allows them to easily self-assess how the extent to which they teach life skills development and transfer to their athletes. In addition, the FC-CLSS-Q is a short, 28-item measure,

thus making it realistic and easy for coaches to use in applied settings. Thus, the FC-CLSS-Q can serve as a self-evaluation tool that shows initial proof of validity and reliability for French-speaking coaches to assess and consider how their programming supports life skills development (Kramers et al., 2022). It can also help coaches become more intentional in teaching life skills as it provides clear guidelines supported by explicit examples to support coaches in their life skills efforts (Camiré et al., 2021) and potentially serve to measure changes in their practices (e.g., complete the survey at the beginning or at the end of a sport season).

From an empirical standpoint, the FC-CLSS-Q allows researchers to measure French-speaking Canadian coaches' perceptions of life skills teaching and transfer alongside existing scales (Cronin & Allen, 2017; Weiss et al., 2014). Access to psychometrically tested measures of coaching behaviors is essential for researchers to gather data, assess needs, and potentially develop tools and interventions to help support French-speaking Canadian coaches teach life skills to their athletes. However, prior to this study, researchers interested in collecting data from French-speaking populations had limited access to life skills measures – given that most were created and published in English (Strachan et al., 2021). Given that nearly eight million Canadians identify French as their first language (Statistics Canada, 2023), the current study offers a starting point for learning about a significant but underserved Canadian population.

The development of a first French life skills coaching measure may also benefit other French-speaking populations (e.g., France, Switzerland, Belgium). However, researchers in these contexts should test the psychometric properties of the FC-CLSS-Q to ensure the reliability and validity of the tool within their specific cultural and environmental contexts.

Strengths and Limitations

A rigorous methodology was utilized to complete both the translation and the initial assessments of the FC-CLSS-Q. Specifically, both researchers and coaches were involved in the translation and adaptation of the scale. Additionally, testing the convergent validity with the original CLSS-Q, using a bilingual sample, increases our confidence that the integrity of the life skills measure was maintained through the translation, adaptation, and initial assessment of the factor structure.

In addition, the research team used ESEM and CFA to determine and evaluate the factor structure of the FC-CLSS-Q and its initial psychometric properties. The use of CFA alone has been criticized for evaluating complex survey data as it is considered too restrictive, results in poor item-level factor structures and produces multicollinearity among factors (Mars et al., 2014). Using ESEM is a way to overcome many of the issues with CFA by allowing cross-loadings to be freely estimated, while still providing parameter estimates, goodness-of-fit statistics, and standard errors. However, ESEM has its own limitation: it is less parsimonious than CFA and specific models that can be fit in CFA/SEM are less developed in ESEM modelling and programming (e.g., partial factor loading invariance, higher-order factors, and some specific invariance constraints). Thus, experts not only accept conducting both ESEM and CFA, but recommend combining CFA and ESEM approaches and comparing the results of the two to assess the factor structure of a scale (Marsh et al., 2014). The use of a combination of CFA and ESEM (Marsh et al., 2014) is a valid approach to studying the psychometric properties of the FC-CLSS-Q and should be considered when replicating this study.

Regarding limitations, the sample size for the current study was small; with a ratio of just under five participants per item for the first step of the assessment of the factor structure with the original 36-item 5-factor structure ($167/36 = 4.64$ participants per item) and of about six ($167/28$

= 5.96 participants per item) for the final solution ESEM and CFA. Although guidelines within the literature vary greatly regarding sample size requirements for scale validation, it is generally accepted that a larger sample is ideal during the initial steps of scale validation (see Anthoine et al. [2014], Tsang et al., [2017] or Wolf et al., [2013] for further discussion on sample size requirements for scale validation, SEM, and CFA analyses). In addition, results from a power calculation using a sample size calculator for structural equation models suggest a minimum sample of 150 participants (<https://www.danielsoper.com/statcalc/calculator.aspx?id=89>) is required to test a factor structure that includes five latent variables and 28 observed variables with a power of .80, an effect size of .30, and a p -value of .05. Regardless of the approach used (i.e., participants/item ratio or power calculation), our sample is on the lower bound of the acceptable size for the analyses conducted. Bootstrapping ($n = 1\ 000$) was used when running the analyses to increase the robustness of our results.

The use of a homogenous sample to run our analyses is another limitation. First, the presence of unbalanced groups when running the invariance analyses for coach training, gender, and coach experience must be considered when interpreting the results. Second, nearly all coaches in our sample lived in Québec; thus, limiting the generalisation of our findings across the French-speaking Canadian population. For instance, there are large francophone populations in New Brunswick and Ontario, and it is possible that unique cultural components exist in these provinces that could alter the interpretation of FC-CLSS-Q items. Taken together, the limitations regarding the sample used in our study warrant replication of the analyses with a larger (e.g., at least 250-300 participants) and less homogeneous group (e.g., gender, coaching experience) of French-speaking coaches to further validate the 26-item 5-factor structure of the FC-CLSS-Q.

The high percentage of participants (27%) who consented to the study but closed the online survey prior to responding to any of the questions is another limitation. As no demographic data were available for this group, assessing if these participants differed from the participants who dropped out further in the survey or who completed the study was not feasible. Thus, those who completed the survey may have differed from those who did not complete the survey (e.g., participants who completed the survey may be those more invested in life skills development).

Next, convergent and discriminant validity of the scale was only partially supported by our data. Of all the subscales, the most issues were found for the Structuring and Facilitating a Positive Sport Climate factor. Specifically, the AVE was below .5 and was lower than the MSV (i.e., explained variance by the discussing life skills factor). Notably, the same issues regarding the AVE and MSV for the Structuring and Facilitating a Positive Sport Climate factor were found for the English version of the CLSS-Q (Camiré et al., 2021). The Discussing Life Skills factor also had issues with discriminant validity, with an AVE score that was lower than its MSV. Specifically, the variance of items in the Discussing Life Skills factor were slightly better explained by the Discussing Life Skills Transfer factor. This finding can be explained by the fact that the CLSS-Q measures the same construct on a continuum (Bean et al., 2018b), and that it is likely difficult for coaches to discuss life skill transfer without first discussing life skills. Given these findings, researchers should be cautious when using the FC-CLSS-Q as independent variables within a causal model, as there may be issues with multicollinearity when factors lack sufficient discriminant validity. These issues are less relevant if the scale is used for dependent variables in causal models. With this said, it is important to note the discriminant validity of the FC-CLSS-Q was superior to what was found for the English version published by Camiré and colleagues (2021).

Finally, this questionnaire only assesses coaches' perception of their behaviors regarding the teaching of life skills. Although the FC-CLSS-Q can serve in both practical and research settings, self-reported measures are susceptible to response bias (e.g., social desirability; Rosenman et al., 2011). As such, efforts to create athlete-reported versions of such life skills measures that could be used in parallel to the coach-reported questionnaires should be put forward to better support coaching practices.

Acknowledgements:

This research was supported by a Social Sciences and Humanities Research Council (SSHRC; 430-2022-00382) Insight Development Grant awarded to Stéphanie Turgeon, Scott Rathwell, and Martin Camiré.

References

- Anthoine, E., Moret, L., Regnault, A., Sébille, V., & Hardouin, J. B. (2014). Sample size used to validate a scale: A review of publications on newly-developed patient reported outcomes measures. *Health and Quality of Life Outcomes*, *12*(1), 1-10.
<https://doi.org/10.1186/s12955-014-0176-2>
- Arabi, M., & Hamrah, L. (2023). Psychometric properties of the Persian version of the Coaching Life Skills Questionnaire in Sport. *Sport Psychology Studies*, *12*(45), 87-106.
<https://doi.org/10.22089/SPSYJ.2023.13114.2325>
- Bae J., & Lim, T. (2022). The validation of Korean Coaching Life Skills in Sport Questionnaire (KCLSS-Q). *Ch'eyuk kwahak yŏn'gu*, *33*(3), 382–395.
<https://doi.org/10.24985/kjss.2022.33.3.382>
- Bean, C., & Forneris, T. (2016). Examining the importance of intentionally structuring the youth sport context to facilitate psychosocial development. *Journal of Applied Sport Psychology*, *28*(4), 410–425. <https://doi.org/10.1080/10413200.2016.1164764>
- Bean, C., Kramers, S., Camiré, M., Fraser-Thomas, J., & Forneris, T. (2018a). Development of an observational measure assessing program quality processes in youth sport. *Cogent Social Sciences*, *4*(1), 1467304. <https://doi.org/10.1080/23311886.2018.1467304>
- Bean, C., Kramers, S., Forneris, T., & Camiré, M. (2018b). The implicit/explicit continuum of life skills development and transfer. *Quest (National Association for Kinesiology in Higher Education)*, *70*(4), 456–470. <https://doi.org/10.1080/00336297.2018.1451348>
- Byrne, B. (2012). *Structural equation modeling with Mplus: Basic concepts, applications, and programming*. Routledge. <https://doi.org/10.4324/9780203807644>
- Camiré, M. (2015). Being a teacher-coach in Ontario high schools: Challenges and recommendations. *PHEnex Journal*, *7*(1), 1–15.
- Camire, M., Kendellen, K., Rathwell, S., & Turgeon, S. (2020). Evaluating the Coaching for Life Skills online training program: A randomised controlled trial. *Psychology of Sport and Exercise*, *48*, 101649. <https://doi.org/10.1016/j.psychsport.2020.101649>
- Camiré, M., Trudel, P., & Forneris, T. (2012). Coaching and transferring life skills: Philosophies and strategies used by model high school coaches. *The Sport Psychologist*, *26*, 243–260.
- Camiré, M., Turgeon, S., Kramers, S., Rathwell, S., Bean, C., Sabourin, C., & Pierce, S. (2021). Development and initial validation of the Coaching Life skills in Sport Questionnaire. *Psychology of Sport and Exercise*, *53*, 101845.
<https://doi.org/10.1016/j.psychsport.2020.101845>
- Chen, F. F. (2007). Sensitivity of goodness of fit indexes to lack of measurement invariance. *Structural Equation Modeling*, *14*(3), 464–504.
<https://doi.org/10.1080/10705510701301834>
- Chinkov, A. E. & Holt, N. L. (2016). Implicit transfer of life skills through participation in Brazilian jiu-jitsu. *Journal of Applied Sport Psychology*, *28*(2), pp. 139-153.
<https://doi.org/10.1080/10413200.2015.1086447>
- Ciampolini, V., Santos, F., Quinaud, R. T., Camiré, M., Migliano, M. de O., do Nascimento, J. V., & Milistetd, M. (2021). Cross-cultural adaptation and psychometric properties of the Portuguese Coaching Life Skills in Sport Questionnaire. *SAGE Open*, *11*(2), 1–10.
<https://doi.org/10.1177/21582440211024224>

- Cronin, L. D., & Allen, J. (2017). Development and initial validation of the life skills scale for sport. *Psychology of Sport and Exercise*, 28, 105–119.
<https://doi.org/10.1016/j.psychsport.2016.11.001>
- Denis, D. J. (2019). *SPSS data analysis for univariate, bivariate, and multivariate statistics*. Wiley.
- Drost, E. A. (2011). Validity and reliability in social science research. *Education, Research and Perspectives*, 38(1), 105–123.
- Gould, D. R., & Carson, S. (2008). Personal development through sport. In O. Bar-Or & H. Hebestreit (Eds.), *The encyclopedia of sports medicine - The child and adolescent athlete* (pp. 287–301). Blackwell Science.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). *Multivariate data analysis* (8th ed.). Cengage.
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2022). *A primer on partial least squares structural equation modeling (PLS-SEM)* (3rd ed.). SAGE.
- Harmsel-Nieuwenhuis, L. T., Alarlan, G., van Hilvoorde, I., Koelen, M., Super, S., & Verkooijen, K. (2022). Life skills development and transfer amongst socially vulnerable adults through sports: A systematic review. *International Review of Sport and Exercise Psychology*, 1–41. <https://doi.org/10.1080/1750984X.2022.2135125>
- Hayes, A. F., & Coutts, J. J. (2020). Use omega rather than Cronbach's alpha for estimating reliability. But... *Communication Methods and Measures*, 14(1), 1–24.
<https://doi.org/10.1080/19312458.2020.1718629>
- Hinkle, D. E., Wiersma, W., & Jurs, S. G. (2003). *Applied statistics for the behavioral sciences* (5th ed). Houghton Mifflin.
- Holt, N. (2016). *Positive youth development through sport* (2nd ed.). Routledge.
- Jacobs, J. M., & Wright, P. M. (2018). Transfer of life skills in sport-based youth development programs: A conceptual framework bridging learning to application. *Quest (National Association for Kinesiology in Higher Education)*, 70(1), 81–99.
<https://doi.org/10.1080/00336297.2017.1348304>
- Jöreskog, K. G. (1999). How large can a standardized coefficient be? Retrieved from
<https://www.statmodel.com/download/Joreskog.pdf>
- Jowett, S., & Ntoumanis, N. (2004). The Coach-Athlete Relationship Questionnaire (CART-Q): development and initial validation. *Scandinavian Journal of Medicine & Science in Sports*, 14(4), 245–257. <https://doi.org/10.1111/j.1600-0838.2003.00338.x>
- Kelloway, E. K. (2015). *Using Mplus for structural equation modelling: A researcher's guide*. SAGE.
- Kramers, S., Camiré, M., Ciampolini, V., & Milistetd, M. (2022). Development of a life skills self-assessment tool for coaches. *Journal of Sport Psychology in Action*, 13(1), 54–64.
<https://doi.org/10.1080/21520704.2021.1888832>
- Kramers, S., Turgeon, S., Bean, C., Sabourin, C., & Camiré, M. (2020). Examining the roles of coaching experience and coach training on coaches' perceived life skills teaching. *International Journal of Sports Science & Coaching*, 15(4), 576–583. <https://doi.org/10.1177/1747954120922367>
- Marsh, H. W., Morin, A. J., Parker, P. D., & Kaur, G. (2014). Exploratory structural equation modeling: An integration of the best features of exploratory and confirmatory factor analysis. *Annual Review of Clinical Psychology*, 10(1), 85–110.
<https://doi.org/10.1146/annurev-clinpsy-032813-153700>

- Muthén, L. K., & Muthén, B. O. (2021). *Mplus user's guide* (8th ed.). Muthén & Muthén.
- Pacewicz, C. E., Hill, C. R., Lee, S., Myers, N. D., Prilleltensky, I., McMahon, A., Pfeiffer, K. A., & Brincks, A. M. (2022). Testing measurement invariance in physical education and exercise science: A tutorial using the well-being self-efficacy scale. *Measurement in Physical Education and Exercise Science*, 26(2), 165–177.
<https://doi.org/10.1080/1091367X.2021.1964508>
- Pierce, S., Gould, D., & Camiré, M. (2017). Definition and model of life skills transfer. *International Review of Sport and Exercise Psychology*, 10(1), 186–211.
<https://doi.org/10.1080/1750984X.2016.1199727>
- Polit, D. F., & Beck, C. T. (2006). The content validity index: Are you sure you know what's being reported? Critique and recommendations. *Research in Nursing & Health*, 29(5), 489–497. <https://doi.org/10.1002/nur.20147>
- Putnick, D. L., & Bornstein, M. H. (2016). Measurement invariance conventions and reporting: The state of the art and future directions for psychological research. *Developmental Review*, 41, 71–90. <https://doi.org/10.1016/j.dr.2016.06.004>
- Rocchi, M., Pelletier, L., & Desmarais, P. (2017a). The validity of the Interpersonal Behaviors Questionnaire (IBQ) in sport. *Measurement in Physical Education and Exercise Science*, 21(1), 15–25. <https://doi.org/10.1080/1091367X.2016.1242488>
- Rocchi, M., Pelletier, L., Cheung, S., Baxter, D., & Beaudry, S. (2017b). Assessing need-supportive and need-thwarting interpersonal behaviours: The Interpersonal Behaviours Questionnaire (IBQ). *Personality and Individual Differences*, 104, 423–433.
<https://doi.org/10.1016/j.paid.2016.08.034>
- Rosenman, R., Tennekoon, V., & Hill, L. G. (2011). Measuring bias in self-reported data. *International Journal of Behavioural & Healthcare Research*, 2(4), 320–332.
<https://doi.org/10.1504/IJBHR.2011.043414>
- Santos, S., Mesquita, I., Graça, A., & Rosado, A. (2010). Coaches' perceptions of competence and acknowledgement of training needs related to professional competences. *Journal of Sports Science & Medicine*, 9(1), 62–70.
- Sousa, V. D., & Rojjanasrirat, W. (2011). Translation, adaptation and validation of instruments or scales for use in cross-cultural health care research: A clear and user-friendly guideline. *Journal of Evaluation in Clinical Practice*, 17(2), 268–274.
<https://doi.org/10.1111/j.1365-2753.2010.01434.x>
- Spina, G. (2023). *The role of coaches in fostering life skills development and transfer in adolescent athletes. A contribution to the Italian validation of the Coaching Life Skills in Sport Questionnaire (CLSS-Q)*. [Master's thesis, Università Degli Studi di Padova]. Thesis and Dissertation Padua Archive. <https://hdl.handle.net/20.500.12608/55886>
- Sport Information Resource Centre (SIRC) (2022). *Toward the next-generation Canadian Sport Policy (2023-2033)*. Retrieved from https://sirc.ca/wp-content/uploads/2022/03/CSP-3.0-Concept-Paper_Mar22.pdf
- Statistics Canada. (2019). *Regular participation in sports by sex and other demographic characteristics*. Retrieved May 16, 2024, from <https://www150.statcan.gc.ca/t1/tb11/en/tv.action?pid=1310060201>
- Statistics Canada. (2023). *While English and French are still the main languages spoken in Canada, the country's linguistic diversity continues to grow*. Retrieved December 11, 2023, from <https://www150.statcan.gc.ca/n1/daily-quotidien/220817/dq220817a-eng.htm>

- Stensen, K., & Lydersen, S. (2022). Internal consistency: From alpha to omega? *Tidsskrift for Den Norske Lægeforening*, *142*(12). <https://doi.org/10.4045/tidsskr.22.0112>
- Sijtsma, K. (2009). On the use, the misuse, and the very limited usefulness of Cronbach's alpha. *Psychometrika*, *74*(1), 107–120. <https://doi.org/10.1007/s11336-008-9101-0>
- Strachan, L., Santos, F., & MacDonald, D. J. (2021). Insights into creating and implementing Project SCORE!: Lessons learned and future Pathways. *Journal of Sport Psychology in Action*, *12*(2), 114–126. <https://doi.org/10.1080/21520704.2020.1798574>
- Tabachnik, B. G. & Fidell, L. S. (2019). *Using multivariate statistics* (7th ed.). Pearson.
- Topf, M. (1986). Three estimates of interrater reliability for nominal data. *Nursing Research*, *35*(4), 253–255. <https://doi.org/10.1097/00006199-198607000-00020>
- Turgeon, S., Camiré, M., & Rathwell, S. (2021). Follow-up evaluation of the Coaching for Life Skills online training program. *International Journal of Sports Science & Coaching*, *16*(1), 173-180. <https://doi.org/10.1177/1747954120964075>
- Turnnidge, J., Côté, J., & Hancock, D. J. (2014). Positive youth development from sport to life: Explicit or implicit transfer? *Quest*, *66*(2), 203–217. <https://doi.org/10.1080/00336297.2013.867275>
- Tsang, S., Royse, C. F., & Terkawi, A. S. (2017). Guidelines for developing, translating, and validating a questionnaire in perioperative and pain medicine. *Saudi Journal of Anaesthesia*, *11*(Suppl 1), S80–S89. https://doi.org/10.4103/sja.SJA_203_17
- Walker, J., Marczak, M., Blyth, D., & Borden, L. (2005). Designing youth development programs: Toward a theory of developmental intentionality. In J. L. Mahoney, R. W. Larson, & J. S. Eccles (Eds.), *Organized activities as contexts of development: Extracurricular activities, after-school and community program* (pp. 399–418). Lawrence Erlbaum.
- Wang, J., & Wang, X. (2020). *Structural equation modeling: Applications using Mplus* (2nd ed.). Wiley.
- Weiss, M. R., Bolter, N. D., & Kipp, L. E. (2014). Assessing impact of physical activity-based youth development programs: Validation of the Life Skills Transfer Survey (LSTS). *Research Quarterly for Exercise & Sport*, *85*(3), 263–278. <https://doi.org/10.1080/02701367.2014.931558>
- Wolf, E. J., Harrington, K. M., Clark, S. L., & Miller, M. W. (2013). Sample size requirements for structural equation models: An evaluation of power, bias, and solution propriety. *Educational and Psychological Measurement*, *73*(6), 913-934. <https://doi.org/10.1177/0013164413495237>
- Xiao, Y., Liu, H., & Hau, K.-T. (2019). A comparison of CFA, ESEM, and BSEM in test structure analysis. *Structural Equation Modeling*, *26*(5), 665–677. <https://doi.org/10.1080/10705511.2018.1562928>

Appendix A

Coaching Life Skills in Sport Questionnaire – (CLSS-Q) (Camiré et al, 2020) 36-item, 5-factor English Version

Reasons for item deletion for French Version: ¹cross-loading onto a different factor; ²not loading on any one factor; ³loading entirely on a different factor than intended.

Structuring and Facilitating a Positive Sport Climate/*Structurer et faciliter un climat sportif positif*

	Item Description (English)	Item Description (French)
1.	Provide a safe environment.¹ (Example: I verify that the practice space is free from risk).	Mets en place un environnement sécuritaire qui minimise les risques. (Exemple : Je vérifie que l'espace de jeu est exempt d'éléments dangereux.)
2.	Provide appropriate supervision.¹ (Example: I actively oversee activities. I ensure athletes are not left unattended).	Offre une supervision adéquate. (Exemple : Je supervise activement les activités. Je m'assure que les athlètes ne sont jamais laissés sans surveillance.)
3.	Make the activities fun. (Example: I use humor to create an enjoyable climate).	Rends les activités amusantes. (Exemple : J'utilise l'humour pour créer un climat agréable.)
4.	Foster an inclusive environment.² (Example: I reprimand intimidation and bullying).	Favorise un environnement inclusif qui minimise le jugement. (Exemple : Je condamne le harcèlement, l'intimidation et le racisme.)
5.	Effectively mediate interpersonal conflicts when they occur. (Example: I intervene during encounters between athletes).	Interviens lorsque des conflits interpersonnels se produisent. (Exemple : J'interviens lorsque les athlètes ont une attitude de confrontation).
6.	Set realistic expectations for athletes on and off the playing field. (Example: I promote challenging but achievable goals).	Établis des attentes réalistes envers les athlètes sur et en dehors du terrain. (Exemple : Je favorise des objectifs ambitieux, mais atteignables.)
7.	Focus on athletes progressing in a developmentally appropriate manner. (Example: I modify activities based on athletes' skill level, if needed).	M'assure que la progression des athlètes soit adaptée à leur développement. (Exemple : Au besoin, je modifie les activités en fonction du niveau d'habileté des athlètes.)
8.	Model appropriate behaviour on and off the playing field. (Example: I show respect to athletes, parents, and officials).	Adopte un comportement approprié sur et en dehors du terrain. (Exemple : Je fais preuve de respect envers les athlètes, les parents et les arbitres.)
9.	Act in a caring manner. (Example: I behave in ways that are kind and welcoming).	Me montre attentionné envers les athlètes. (Exemple : Je me comporte de manière aimable et accueillante.)

10.	Communicate effectively. (Example: I maintain open lines of communication with athletes, parents, and officials).	Communique efficacement. (Exemple : Je maintiens une communication ouverte avec les athlètes, les parents et les arbitres.)
11.	Use athletes' mistakes on and off the field as teaching opportunities.¹ (Example: I address notions of respect after I catch an athlete talking back to an official).	Transforme les erreurs des athlètes sur et en dehors du terrain en occasions d'apprentissage. (Exemple : J'aborde les notions de respect après avoir observé un athlète argumenter avec un arbitre.)
12.	Build positive coach-athlete relationships.¹ (Example: I check in with athletes on an individual level).	Tisse des relations positives avec les athlètes. (Exemple : Je m'intéresse à chaque athlète sur une base individuelle.)
13.	Foster the creation of positive relationships between athletes. (Example: I give athletes opportunities to get to know each other; I work to eliminate the formation of cliques).	Favorise la création de relations positives entre les athlètes. (Exemple : Je donne aux athlètes des occasions de mieux se connaître ; je veille à éliminer la formation de « cliques ».)
14.	Consider the perspectives of others.³ (Example: I acknowledge the opinions of athletes, parents, and officials).	Tiens compte du point de vue des autres. (Exemple : Je tiens compte de l'opinion des athlètes, des parents et des arbitres.)
15.	Provide athletes with a rationale for the decisions I make. (Example: I explain the logic behind why I emphasize the learning of certain skills during practice).	Explique aux athlètes le raisonnement qui motive mes décisions. (Exemple : J'explique la logique qui me pousse à mettre l'accent sur l'apprentissage de certaines habiletés pendant l'entraînement.)
16.	Provide constructive feedback. (Example: I offer guidance when athletes struggle to execute a sport skill).	Donne une rétroaction constructive. (Exemple : J'offre des conseils lorsque les athlètes ont du mal à exécuter une habileté sportive.)
17.	Promote a sense of belonging. (Example: I foster athletes' attachment to the team, school, and/or community).	Favorise le sentiment d'appartenance. (Exemple : Je favorise l'attachement des athlètes à l'équipe, à l'école et/ou à la communauté.)

Discussing Life Skills/*Discuter des habiletés de vie*

1.	Discuss with athletes the importance of life skills. (Example: I explain how communication optimizes cooperation on the playing field).	Discute avec les athlètes de l'importance des habiletés de vie. (Exemple : J'explique comment la communication optimise la coopération sur le terrain.)
----	---	---

2.	Describe to athletes what life skills are. ¹ (Example: I explain what the different facets of leadership include).	Explique aux athlètes ce que sont les habiletés de vie. (Exemple : J'explique quelles sont les différentes facettes du leadership.)
3.	Include life skills messages when I teach sport skills. (Example: I tell athletes how they need to have good work ethic to properly execute a difficult skill).	Inclus des messages sur les habiletés de vie lorsque j'enseigne des habiletés sportives. (Exemple : Je dis aux athlètes qu'ils doivent avoir une bonne éthique de travail pour exécuter correctement un geste technique difficile.)
4.	Provide examples of how to use life skills in sport. (Example: I offer athletes tips on how they can manage their emotions during critical situations).	Fournis des exemples sur la façon d'utiliser les habiletés de vie dans le sport. (Exemple : J'offre aux athlètes des conseils sur la manière de gérer leurs émotions dans les moments critiques.)
5.	Offer encouragement to motivate athletes to use life skills in sport. (Example: I incite athletes to use conflict resolution skills when a disagreement occurs with a teammate; I encourage athletes to be honest with officials).	Encourage les athlètes à utiliser les habiletés de vie dans le sport. (Exemple : J'incite les athlètes à utiliser des techniques de résolution de conflits lorsqu'un désaccord survient avec un coéquipier ; j'encourage les athlètes à être honnêtes avec les arbitres.)

Practicing Life Skills/*Mettre en Pratique des habiletés de vie*

1.	Incorporate life skills into my coaching plan. (Example: I dedicate specific time to practice conflict resolution).	Incorpore des habiletés de vie dans mes plans d'entraînement. (Exemple : Je consacre un moment spécifique à la pratique de la résolution de conflits.)
2.	Create opportunities for athletes to use life skills in sport. (Example: I give athletes responsibilities for planning practice activities. I have athletes lead the pre-game pep talk).	Crée des occasions afin que les athlètes puissent utiliser les habiletés de vie dans le sport. (Exemple : Je demande aux athlètes de livrer le discours d'encouragement avant une partie afin de pratiquer leurs compétences en leadership.)
3.	Provide athletes with support for using life skills in sport. (Example: I expose athletes to negotiation principles they can use during conflict resolution).	Soutiens les athlètes en les aidant à utiliser les habiletés de vie dans le sport. (Exemple : Je présente aux athlètes les principes de négociation qu'ils peuvent utiliser lors de la résolution de conflits.)

4.	<p>Afford athletes opportunities to reflect on their use of life skills in sport. (Example: I ask questions to athletes for them to describe their life skill application experiences in sport).</p>	<p>Donne aux athlètes l’occasion de réfléchir à leur façon d’utiliser les habiletés de vie dans le sport. (Exemple : Je pose des questions aux athlètes pour qu’ils décrivent leurs expériences de mise en pratique des habiletés de vie dans le sport.)</p>
----	---	---

Discussing Life Skills Transfer/*Discuter du transfert des habiletés de vie*

1.	<p>Emphasize to athletes the importance of transferring life skills from sport to life outside of sport. (Example: I explain how life skills such as leadership should not solely be used in sport but in all life domains).</p>	<p>Rappelle aux athlètes l’importance de transférer les habiletés de vie du sport à la vie quotidienne. (Exemple : J’explique comment les habiletés de vie telles que le leadership ne devraient pas être uniquement utilisées dans le sport, mais dans toutes les sphères de la vie.)</p>
2.	<p>Describe to athletes the contexts outside of sport in which they can transfer their life skills. (Example: I discuss how the life skills developed in sport can be used at home, at school, at work, and in the community).</p>	<p>Présente aux athlètes les différents contextes en dehors du sport dans lesquels ils peuvent transférer leurs habiletés de vie. (Exemple : Je discute de la façon dont les habiletés de vie développées dans le sport peuvent être utilisées à la maison, à l’école, au travail et dans la communauté.)</p>
3.	<p>Illustrate to athletes how they can benefit from transferring life skills from sport to life outside of sport. (Example: I describe how focusing skills can be used during matches, but that they are also valuable during school exams).</p>	<p>Montre aux athlètes comment ils peuvent tirer profit du transfert des habiletés de vie du sport à la vie quotidienne. (Exemple : J’explique comment les habiletés à se concentrer peuvent être utilisées pendant les parties, mais également durant les examens à l’école.)</p>
4.	<p>Clarify that life skills transfer from sport to life outside of sport can sometimes be difficult. (Example: I help athletes understand how multiple attempts may be required before a skill learned in sport in successfully transferred and applied outside of sport).</p>	<p>Précise que le transfert des habiletés de vie du sport à la vie quotidienne peut parfois être difficile. (Exemple : J’aide les athlètes à comprendre que plusieurs tentatives peuvent être nécessaires avant qu’une habileté acquise dans le sport soit transférée avec succès dans la vie quotidienne.)</p>
5.	<p>Explain to athletes the timing component of life skills transfer from sport to life outside of sport.¹ (Example: I tell athletes that life skills can be transferred immediately or in later stages of life, depending on the opportunities afforded to them).</p>	<p>Explique aux athlètes l’aspect temporel du transfert des habiletés de vie du sport à la vie quotidienne. (Exemple : Je dis aux athlètes que les habiletés de vie peuvent être transférées immédiatement ou à des stades ultérieurs de la vie, selon les occasions qui se présentent à eux.)</p>

Practicing Life Skills Transfer/Mettre en pratique le transfert des habiletés de vie

1.	<p>Engage with people outside of sport (ex: teachers, parents) to create opportunities for life skills transfer for athletes. (Example: I work with teachers for them to give athletes opportunities to use in the classroom the life skills they practice in sport).</p>	<p>Collabore avec des personnes en dehors du sport (ex. : enseignants, parents) pour créer des occasions pour les athlètes de transférer des habiletés de vie. (Exemple : Je travaille avec les enseignants afin qu'ils puissent donner aux athlètes des occasions d'utiliser en classe les habiletés de vie qu'ils pratiquent dans le sport.)</p>
2.	<p>Afford athletes opportunities to transfer life skills from sport to life outside of sport. (Example: I take athletes to a soup kitchen for them to volunteer by helping prepare meals for the less fortunate).</p>	<p>Offre aux athlètes des occasions de transférer les habiletés de vie du sport à la vie quotidienne. (Exemple : J'emmène les athlètes à une soupe populaire pour qu'ils fassent du bénévolat en aidant à préparer des repas pour les plus démunis.)</p>
3.	<p>Support athletes in transferring life skills from sport to life outside of sport. (Example: I connect athletes to local sport organizations looking for volunteer leaders to act as mentors).</p>	<p>Soutiens les athlètes dans leurs efforts de transfert des habiletés de vie du sport à la vie quotidienne. (Exemple : Je mets les athlètes en contact avec des organisations sportives locales qui recherchent des mentors bénévoles.)</p>
4.	<p>Offer feedback when I notice athletes missing opportunities to transfer life skills from sport to life outside of sport. (Example: I advise athletes who are good leaders in sport to take advantage of leadership roles in group projects at school).</p>	<p>Offre une rétroaction lorsque je remarque que les athlètes manquent des occasions de transférer des habiletés de vie du sport à la vie quotidienne. (Exemple : Je conseille aux athlètes qui sont des bons leaders dans le sport de profiter des rôles de leadership dans les projets de groupe à l'école.)</p>
5.	<p>Praise athletes following their successful transfer of life skills from sport to life outside of sport. (Example: I congratulate athletes when they tell me they used the emotional regulation skills they learn in sport to respond calmly after receiving criticism from a teacher on an assignment).</p>	<p>Félicite les athlètes lorsqu'ils réussissent à transférer des habiletés de vie du sport à la vie quotidienne. (Exemple : Je félicite les athlètes lorsqu'ils me disent qu'ils ont utilisé les habiletés de contrôle des émotions acquises dans le sport pour réagir calmement à des commentaires négatifs émis par un·e enseignant·e. sur un devoir)</p>

Appendix B

Version canadienne-française du Questionnaire sur les habiletés de vie dans le sport (FC-CLSS-Q)

Les énoncés suivants se portent sur la façon dont **vous, en tant qu'entraîneur·e de sport**, favorisez un climat sportif positif pour vos athlètes. En tant qu'**entraîneur·e de sport**, veuillez indiquer dans quelle mesure vous êtes d'accord avec les énoncés suivants, en utilisant les échelles qui vous sont fournies.

Ces énoncés incluent un exemple ou plus, à des fins de clarté. Les exemples illustrent certaines façons, mais pas les seules, par lesquelles un·e entraîneur·e peut faire preuve du comportement ciblé.

Sous-échelle 1 : Structurer et faciliter un climat sportif positif

		Tout à fait d'accord		Pas du tout d'accord		
1.	Rends les activités amusantes. (Exemple : J'utilise l'humour pour créer un climat agréable.)	1	2	3	4	5
2.	Interviens lorsque des conflits interpersonnels se produisent. (Exemple : J'interviens lorsque les athlètes ont une attitude de confrontation).	1	2	3	4	5
3.	Établis des attentes réalistes envers les athlètes sur et en dehors du terrain. (Exemple : Je favorise des objectifs ambitieux, mais atteignables.)	1	2	3	4	5
4.	M'assure que la progression des athlètes soit adaptée à leur développement. (Exemple : Au besoin, je modifie les activités en fonction du niveau d'habileté des athlètes.)	1	2	3	4	5
5.	Adopte un comportement approprié sur et en dehors du terrain. (Exemple : Je fais preuve de respect envers les athlètes, les parents et les arbitres.)	1	2	3	4	5
6.	Me montre attentionné envers les athlètes. (Exemple : Je me comporte de manière aimable et accueillante.)	1	2	3	4	5
7.	Communique efficacement. (Exemple : Je maintiens une communication ouverte avec les athlètes, les parents et les arbitres.)	1	2	3	4	5
8.	Favorise la création de relations positives entre les athlètes. (Exemple : Je donne aux athlètes des occasions de mieux se connaître ; je veille à éliminer la formation de « cliques ».)	1	2	3	4	5

9.	Explique aux athlètes le raisonnement qui motive mes décisions. (Exemple : J'explique la logique qui me pousse à mettre l'accent sur l'apprentissage de certaines habiletés pendant l'entraînement.)	1	2	3	4	5
10.	Donne une rétroaction constructive. (Exemple : J'offre des conseils lorsque les athlètes ont du mal à exécuter une habileté sportive.)	1	2	3	4	5
11.	Favorise le sentiment d'appartenance. (Exemple : Je favorise l'attachement des athlètes à l'équipe, à l'école et/ou à la communauté.)	1	2	3	4	5

Sous-échelles 2 et 3 : Discuter et mettre en pratique des habiletés de vie.

Les habiletés de vie englobent les capacités psychosociales permettant aux individus de faire face efficacement aux contraintes et aux difficultés de la vie quotidienne. Les capacités à diriger, à travailler en équipe, à se fixer des objectifs et à gérer ses émotions sont des exemples d'habiletés de vie.

Le développement d'habiletés de vie est caractérisé par le processus selon lequel les athlètes apprennent et/ou raffinent puis internalisent les habiletés de vie.

Les énoncés suivants se concentrent sur la façon dont **vous, en tant qu'entraîneur·e de sport**, structurez votre environnement sportif afin de discuter et pratiquer les habiletés de vie et le processus de développement de celles-ci. En tant qu'entraîneur·e de sport, veuillez indiquer dans quelle mesure vous êtes d'accord avec les énoncés suivants, en utilisant les échelles qui vous sont fournies.

Ces énoncés incluent un exemple ou plus, à des fins de clarté. Les exemples illustrent certaines manières, mais pas les seules, par lesquelles un·e entraîneur·e peut faire preuve de comportement ciblé.

Sous-échelle 2 : Discuter des habiletés de vie

		Tout à fait d'accord			Pas du tout d'accord	
12.	Discute avec les athlètes de l'importance des habiletés de vie. (Exemple : J'explique comment la communication optimise la coopération sur le terrain.)	1	2	3	4	5
13.	Inclus des messages sur les habiletés de vie lorsque j'enseigne des habiletés sportives. (Exemple : Je dis aux athlètes qu'ils doivent avoir une bonne éthique de travail pour exécuter correctement un geste technique difficile.)	1	2	3	4	5
14.	Fournis des exemples sur la façon d'utiliser les habiletés de vie dans le sport. (Exemple : J'offre aux athlètes des conseils sur la manière de gérer leurs émotions dans les moments critiques.)	1	2	3	4	5

15.	Encourage les athlètes à utiliser les habiletés de vie dans le sport. (Exemple : J'incite les athlètes à utiliser des techniques de résolution de conflits lorsqu'un désaccord survient avec un coéquipier ; j'encourage les athlètes à être honnêtes avec les arbitres.)	1	2	3	4	5
-----	---	---	---	---	---	---

Sous-échelle 3 : *Mettre en Pratique des habiletés de vie*

		Tout à fait d'accord			Pas du tout d'accord	
16.	Incorpore des habiletés de vie dans mes plans d'entraînement. (Exemple : Je consacre un moment spécifique à la pratique de la résolution de conflits.)	1	2	3	4	5
17.	Crée des occasions afin que les athlètes puissent utiliser les habiletés de vie dans le sport. (Exemple : Je demande aux athlètes de livrer le discours d'encouragement avant une partie afin de pratiquer leurs compétences en leadership.)	1	2	3	4	5
18.	Soutiens les athlètes en les aidant à utiliser les habiletés de vie dans le sport. (Exemple : Je présente aux athlètes les principes de négociation qu'ils peuvent utiliser lors de la résolution de conflits.)	1	2	3	4	5
19.	Donne aux athlètes l'occasion de réfléchir à leur façon d'utiliser les habiletés de vie dans le sport. (Exemple : Je pose des questions aux athlètes pour qu'ils décrivent leurs expériences de mise en pratique des habiletés de vie dans le sport.)	1	2	3	4	5

Sous-échelles 4-5 : Discuter et mettre en pratique le transfert des habiletés de vie

Le transfert des habiletés de vie fait référence aux athlètes qui utilisent les habiletés de vie qu'ils·elles ont acquis·es et/ou raffinées dans le sport dans une ou plusieurs sphères de la vie autres que le sport. Des exemples de sphères dans lesquels ces habiletés peuvent être transférées sont l'école, la maison, le travail et la communauté.

Les énoncés suivants se concentrent sur la façon dont **vous, en tant qu'entraîneur·e de sport**, structurez votre environnement sportif de sorte à discuter des habiletés de vie et d'en faire le transfert vers d'autres sphères de la vie. **En tant qu'entraîneur·e de sport**, veuillez indiquer dans quelle mesure vous êtes d'accord avec les énoncés suivants, en utilisant les échelles qui vous sont fournies.

Ces énoncés incluent un exemple ou plus, à des fins de clarté. Les exemples illustrent certaines manières, mais pas les seules, par lesquelles un·e entraîneur·e peut faire preuve du comportement du comportement ciblé.

Sous-échelle 4 : Discuter du transfert des habiletés de vie

		Tout à fait d'accord			Pas du tout d'accord	
20.	Rappelle aux athlètes l'importance de transférer les habiletés de vie du sport à la vie quotidienne. (Exemple : J'explique comment les habiletés de vie telles que le leadership ne devraient pas être uniquement utilisées dans le sport, mais dans toutes les sphères de la vie.)	1	2	3	4	5
21.	Présente aux athlètes les différents contextes en dehors du sport dans lesquels ils peuvent transférer leurs habiletés de vie. (Exemple : Je discute de la façon dont les habiletés de vie développées dans le sport peuvent être utilisées à la maison, à l'école, au travail et dans la communauté.)	1	2	3	4	5
22.	Montre aux athlètes comment ils peuvent tirer profit du transfert des habiletés de vie du sport à la vie quotidienne. (Exemple : J'explique comment les habiletés à se concentrer peuvent être utilisées pendant les parties, mais également durant les examens à l'école.)	1	2	3	4	5
23.	Précise que le transfert des habiletés de vie du sport à la vie quotidienne peut parfois être difficile. (Exemple : J'aide les athlètes à comprendre que plusieurs tentatives peuvent être nécessaires avant qu'une habileté acquise dans le sport soit transférée avec succès dans la vie quotidienne.)	1	2	3	4	5

Sous-échelle 5 : Mettre en pratique le transfert des habiletés de vie

		Tout à fait d'accord			Pas du tout d'accord	
24.	Collabore avec des personnes en dehors du sport (ex. : enseignants, parents) pour créer des occasions pour les athlètes de transférer des habiletés de vie. (Exemple : Je travaille avec les enseignants afin qu'ils puissent donner aux athlètes des occasions d'utiliser en classe les habiletés de vie qu'ils pratiquent dans le sport.)	1	2	3	4	5
25.	Offre aux athlètes des occasions de transférer les habiletés de vie du sport à la vie quotidienne. (Exemple : J'emmène les athlètes à une soupe populaire pour qu'ils fassent du bénévolat en aidant à préparer des repas pour les plus démunis.)	1	2	3	4	5
26.	Soutiens les athlètes dans leurs efforts de transfert des habiletés de vie du sport à la vie quotidienne. (Exemple : Je mets les athlètes en contact avec des organisations sportives locales qui recherchent des mentors bénévoles.)	1	2	3	4	5

27.	<p>Offre une rétroaction lorsque je remarque que les athlètes manquent des occasions de transférer des habiletés de vie du sport à la vie quotidienne. (Exemple : Je conseille aux athlètes qui sont des bons leaders dans le sport de profiter des rôles de leadership dans les projets de groupe à l'école.)</p>	1	2	3	4	5
28.	<p>Félicite les athlètes lorsqu'ils réussissent à transférer des habiletés de vie du sport à la vie quotidienne. (Exemple : Je félicite les athlètes lorsqu'ils me disent qu'ils ont utilisé les habiletés de contrôle des émotions acquises dans le sport pour réagir calmement à des commentaires négatifs émis par un·e enseignant·e. sur un devoir)</p>	1	2	3	4	5