

The Sport Commitment Model

Scanlan, Carpenter, Schmidt, Simons & Keeler (1993a)



School of Exercise Science (NSW)
Advanced Psychology - HMSC335

Troy Movsessian
--- Week 12 ---

The Sport Commitment Model: An Introduction

The Sports Commitment Model was designed to examine the reasoning for individuals to continue their participation within certain sports. This model breaks down commitment in sport to five key factors. These factors include level of enjoyment, involvement alternative, personal investment, social constraints and involvement opportunities; all of which exhibit an effect on the individuals commitment to a specific activity.

This model was developed upon a solid base of research regarding commitment, however Scanlan et. al. (1993a) took this research a step further from general commitment, relationship commitment and work commitment to the less explored area of sports commitment. Past commitment research cited by Scanlan et. al. (1993) from Kelley (1983) states that commitment can be separated into three major "causal conditions". The first being the attractiveness of the relationship. The Sport Commitment Model represents this causal condition of commitment as 'Sport Enjoyment'. The second causal condition is the degree to which alternatives to the current situation are viewed as less or more attractive. This condition is represented as 'Involvement Alternatives' in The Sport Commitment Model. The final causal condition cited from Kelley's (1983) work are those forces which restrain or act as barriers to termination. This causal condition is represented as 'Personal Investments', 'Social Constraints' and 'Involvement Opportunities' in The Sport Commitment Model.

The Sport Commitment Model: Variables

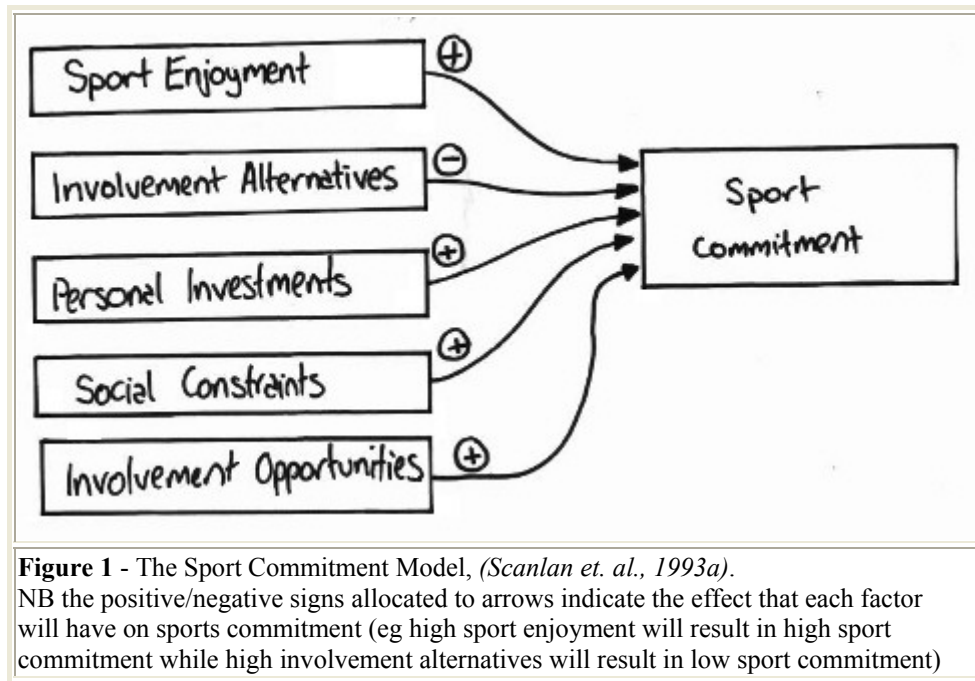
Model Title: The Sport Commitment Model

Principle Author: Tara Scanlan

Source: Journal of Sport & Exercise Psychology | Volume 15(1) | Page 1-15.

Purpose: This model aims to 'Examine the motivation underlying persistence in organised sports.' (Scanlan et. al., 1993a)

Description:



<i>Model Components</i>	<i>Component Description</i>
1. Sport Commitment:	<p>Defined as '<i>a psychological construct representing the desire and resolve to continue sport participation</i>' (Scanlan et. al., 1993a).</p> <p>It is important to realise that the psychological state of <i>Sport Commitment</i> is being investigated also, and not just assumed based on the factors which influence it. Scanlan et. al. (1993a) states that the behaviour exhibited by an athlete is influenced by both psychological states and other forces. Thus through this model it is possible to determine a value for sports commitment and then measure the relationship between the determinants of <i>Sport Commitment</i> and <i>Sport Commitment</i> itself and quantify the relationship between these variables and the psychological state of <i>Sport Commitment</i>.</p>
2. Sport Enjoyment:	<p>Defined as '<i>a positive affective response to the sport experience that reflects generalised feelings such as pleasure, liking, and fun</i>' (Scanlan et. al., 1993a).</p> <p>The <i>Sport Enjoyment</i> component of this model is designed to take into account the degree of enjoyment that the participant</p>

experiences as a result of their participation within the sport. The positive sign associated with this component of the model indicates that as the level of *Sport Enjoyment* increases, *Sport Commitment* will increase.

Defined as '*the attractiveness of the most preferred alternative(s) to continued participation in the current endeavour*' (Scanlan et. al., 1993a).

3. *Involvement Alternatives:*

The *Involvement Alternatives* component of this model addresses the idea that *Sport Commitment* will be affected by alternatives to the sport that the participant is currently involved in. The negative sign associated with this component of the model indicates that as the number and attractiveness of *Involvement Alternatives* increase, *Sport Commitment* will decrease.

It is important to note that some athletes may be able to participate in multiple activities without sacrificing participation and as a result, alternatives may have a lesser weighting on *Sport Commitment*.

Some problems were determined in quantifying this component in non-elite youth athletes due to the difficulty subjects had in comprehending the idea of mutually exclusive involvement alternatives.

Defined as '*personal resources that are put into the activity which cannot be recovered if participation is discontinued*' (Scanlan et. al., 1993a).

4. *Personal Investments:*

The *Personal Investment* component of this model considers the fact that *Sport Commitment* will be influenced by participant awareness of what has been invested in their sport (eg time, money, experience, etc) over the time of participation and the loss should participation be discontinued. Basically as the participant invests more into a sport, they are less likely to discontinue participation. The positive sign associated with this component of the model indicates that as the level of *Personal Investment* increases, *Sport Commitment* will increase.

Ultimately, as the investments made cannot be retrieved upon termination of involvement, psychological attachment increases and resources allocated to the sport will increase.

There was also some trouble statistically with this component of the model in non-elite youth sport as a result of the variation in the level of personal investment from a financial perspective and from a time and effort perspective.

5. *Social Constraints:*

Defined as '*social expectations or norms which create feelings of obligation to remain in the activity*' (Scanlan et. al., 1993a).

The *Social Constraints* component of this model recognises that participants may experience pressure to remain within an activity as a result of social pressure to participate. For example this pressure may come from parents, team-mates, coaches,

schools, individuals who are represented by the athletes participation within the sport (eg fans, sponsors), etc. The positive sign associated with this component of the model indicates that as *Social Constraints* increase, *Sport Commitment* increases.

In short, athletes will tend to remain within a sport to avoid the negative sanctions that they believe important others may apply should participation be discontinued.

6. Involvement Opportunities:

Defined as '*valued opportunities that are present only through continued involvement*' (Scanlan et. al., 1993a).

The *Involvement Opportunities* construct of this model considers that *Sport Commitment* will be influenced by the opportunities that the participant can receive as a result of participation within the activity. The positive sign associated with this component of the model indicates that as the number and significance of *Involvement Opportunities* increases, *Sport Commitment* will increase.

Involvement Opportunities can be actual and quantitative, for example opportunities to master a task, or be with sport friends; but also can be psychological, for example the belief that failure to continue participation within a specific sport would result in a decrease in physical fitness. It is important to note that this construct is based upon anticipation of events, and not necessarily events that will actually occur.

Construction:

The initial construction of the tool to quantify sport commitment involved establishing questions within each subscale of the Sport Commitment Model. These questions were based upon the established definitions for each of these subscales, reviews of social and organisational psychology commitment literature and youth-sport literature. With three sport psychologists and a social psychologist, questions were created with consideration of content, format, wording and responses. Evaluation of each question was reviewed by the panel of four psychologists based upon face validity, clarity of sentence structure and word usage relative to proposed sample groups.

Following this first round evaluation of each question, the next step was to have the questions evaluated independently by four elementary and two junior high school teachers as well as some athletes from the 5th-7th grade. Also included within this review was consideration of socioeconomic variation within the age categories. This stage resulted in further modifications and omissions of questions contained within the tool. One recommendation from the teachers was to structure the questions dichotomously, which the authors indicate they adopted whenever it simplified the question (eg '*do you enjoy doing this activity?*' rather than '*how much do you enjoy doing this activity?*')

After this refinement process, 25 items were deemed appropriate initially. Throughout the 3 samples different arrangements of the questions resulted in 20-27 questions for completion from 3 samples to determine the statistical importance of specific questions to determining an overall view of sport commitment. Each item is reworded to ensure activity/sport specificity based upon the sample. The tool is contained in Appendix A. The items for the first sample were divided into the following categories: Sport Commitment (Commit 1-6), Sport Enjoyment (Enjoy 1-4), Involvement Alternatives (Altern 1-2), Personal Investments (Invest 1-3), Social Constraints (SocCon 1-7), Involvement Opportunities (InvOpps 1-3).

Reliability:

A 5-point Likert scale was used for all of the questions. Means, standard deviations and skewness were calculated for each item. Within the first sample, standard deviation ranged from 0.77 to 1.36 (ie 15.4% - 27.2% standard deviation in the response out of five for each item). Mean scores for the commitment and enjoyment scales were quite high and Scanlan et. al. (1993b) claim that this along with low standard deviations means response variability may be reduced; however the authors claim this is not a measurement problem, rather a 'likely reflection of the nature of reality in this context' (that is the athletes are committed to and enjoy their sport). Skewness within the initial sample ranged from -1.32 to 1.72. Scanlan et. al. (1993b) claim that skewness was within tolerance levels for assumptions of normality (± 2.00).

The first phase, an initial test of the measures was undertaken using Sample 1 (Scanlan, et. al., 1993b). The items selected for this round of testing are indicated in Appendix A. Using Cronbach's alpha measure of reliability, Scanlan et. al. (1993b) set a criterion level for scale definition at $\alpha=0.75$. Internal consistency was sufficient for scale definition with the exception of the personal investment items which scored $\alpha=0.36$. Other results suggesting high internal consistency included sport commitment ($\alpha=0.88$), sport enjoyment ($\alpha=0.90$), involvement alternatives ($\alpha=0.91$), social constraints ($\alpha=0.87$) and involvement opportunities ($\alpha=0.83$). The reason for the low score in the personal investment item was the question pertaining to financial expenditure (Invest 3). This was because the sample population was relatively young, and despite scoring highly on the investment of time ($M=3.92$) and effort ($M=4.03$) questions, it would be assumed that financial expenditure ($M=2.33$) would not be covered by the young athletes. With omission of 'Invest 3' the alpha coefficient was improved to a level that was acceptable ($\alpha=0.77$). Thus with this modification, identification of internally consistent scales was achieved for each of the Sport Commitment Model constructs.

Next, it was necessary to determine if individual measures were uniquely related to single constructs despite intercorrelations. Using a factor analysis on the initial data, the results suggested that sport commitment is the dependent measure in the model and all other components are predictors. Ultimately following a separate orthogonal factor analysis and a subsequent factor analysis, the results suggest for the most part that the items can be separated into distinct factors. Between the sport enjoyment factor and both the involvement opportunities factor (.48) and the personal investments factor (.27), moderate relationships

were found. A moderate relationship was also found between involvement opportunities and personal investments (.35). All other pairs were also measured but only low interfactor correlations were found.

Following modifications, a second phase was undertaken, involving replication and extension of the tool. This was undertaken with the second sample population and these individuals received those items marked in Appendix A under the Sample 2 column. Mean scores and standard deviations suggested that there was sufficient variation between subjects to ensure that item modifications were not required. Again a Cronbach alpha measure of reliability was used to check the proposed scales for internal consistency. Reliable scales were determined for sport commitment ($\alpha=0.89$), sport enjoyment ($\alpha=0.95$), social constraints ($\alpha=0.88$) and involvement opportunities ($\alpha=0.80$). Involvement alternatives failed to meet initial criterion, with an alpha score of .63, however this is still within the minimal standard of .60 (Nunally, 1978; as cited by Scanlan et. al., 1993b). Weak internal consistency was demonstrated by the personal investments scale ($\alpha=0.50$). As with this scale in phase 1, removal of the financial expense question (Invest 3) increased internal consistency ($\alpha=0.66$). From these results, phase 2 of evaluation found four reliable scales and two scales which were marginally acceptable. Following data processing in a similar fashion as to that undergone in phase 1; and for many of the factor pairs, significant low to moderate interfactor correlations were found. Relations between the sport enjoyment factor and the involvement opportunities factor (.56) and the personal investments factor (.36) were greater (.08 and .09 higher than first phase relations), while the relationship between involvement opportunities and personal investments was lower (a .12 decrease to .23). Moderate level relationships not found in the first phase that were exhibited in phase 2 were determined between the social constraints and involvement alternatives factors (.01 in phase 1; .29 in phase 2) while a moderate negative relationship was found between the sport enjoyment and involvement alternative factors (-0.04 in phase 1; -0.23 in phase 2). Scanlan et. al. (1993b) claim that findings of phase 2 'very closely replicate the findings of phase 1'. The Invest3 item (financial expenditure) question was not prominent for either of the sample populations, however the other two items within the personal investment section held together 'reasonably well' according to Scanlan et. al. (1993b). This item (Invest 3) was not omitted. This would seem logical as it is quite clear this question will be beneficial in determining personal investments with more mature samples. The final task to be undertaken in phase 2 was to reduce the length of the survey. It was found removal of 2 items from the sport commitment scale to make it 4 items long caused the alpha to drop by only .04 (.89 to .85); while the social constraints scale was reduced from seven to four with a decrease in alpha of .07 (.88 to .81). Small losses such as these while retaining an acceptable alpha level suggests that in subsequent measurement tests, the reduced scales could be successfully used.

The final stage of producing the initial model was phase 3. Phase 3 involved large scale data collection from a sample that was more representative of the sport playing population than the previous two times the model was applied. Skew was at an acceptable level (ie within ± 2.00) for all items except one (InvOpps2, skew=2.24). Standard deviations

suggested a somewhat limited variability in responses, however Scanlan et. al. (1993b) indicate that because the standard deviation was not less than 0.80 it is at an acceptable level. Third round results indicate that there is a normal multivariate distribution of items and thus there was no need to exclude any items. Once again there were high levels of variation between mean response for Invest3 and the mean responses to Invest1 & Invest2; and once again this can be accounted to the age of the sample. It is an important consideration therefore when applying this model to a young population that Scanlan et. al. (1993b) determined Invest3 "failed to be an indicator of personal investment". As a result of this problem and the omission of this question, only two items were left in this category, and considering that ideally three items are required to identify a latent factor (Newcomb, 1990; as cited in Scanlan et. al. 1993b), it was necessary to drop the personal investment construct from the measurement model.

In Phase 3 further analyses found that two items were deemed complex, that is exhibiting an effect on multiple constructs. These were SocCon1 ("I feel I have to play in the program so I can be with my friends") and InvOpps1 ("Would you miss being a player if you left the program?"). SocCon1 was deemed to have a weak negative link with sport enjoyment (-0.138), that is feeling compelled to participate in the program to maintain friendship slightly decreased sport enjoyment; and a moderate link with social constraints (.596), that is feeling compelled to participate in the program to maintain friendship made the athlete feel compelled to continue participation. InvOpps1 had a moderate link with sport commitment (.337), that is predicted emotions based on hypothesised cessation of participation produced a feeling of commitment toward sport; while a moderate link was also found with involvement opportunities (.369), that is athletes who felt they would miss their activity after cessation also felt that their participation in sport provided them with opportunities associated with their involvement. In addition to these complex items, simple items were also measured between items and their constructs as well as between constructs. These data is contained in Figure 2.

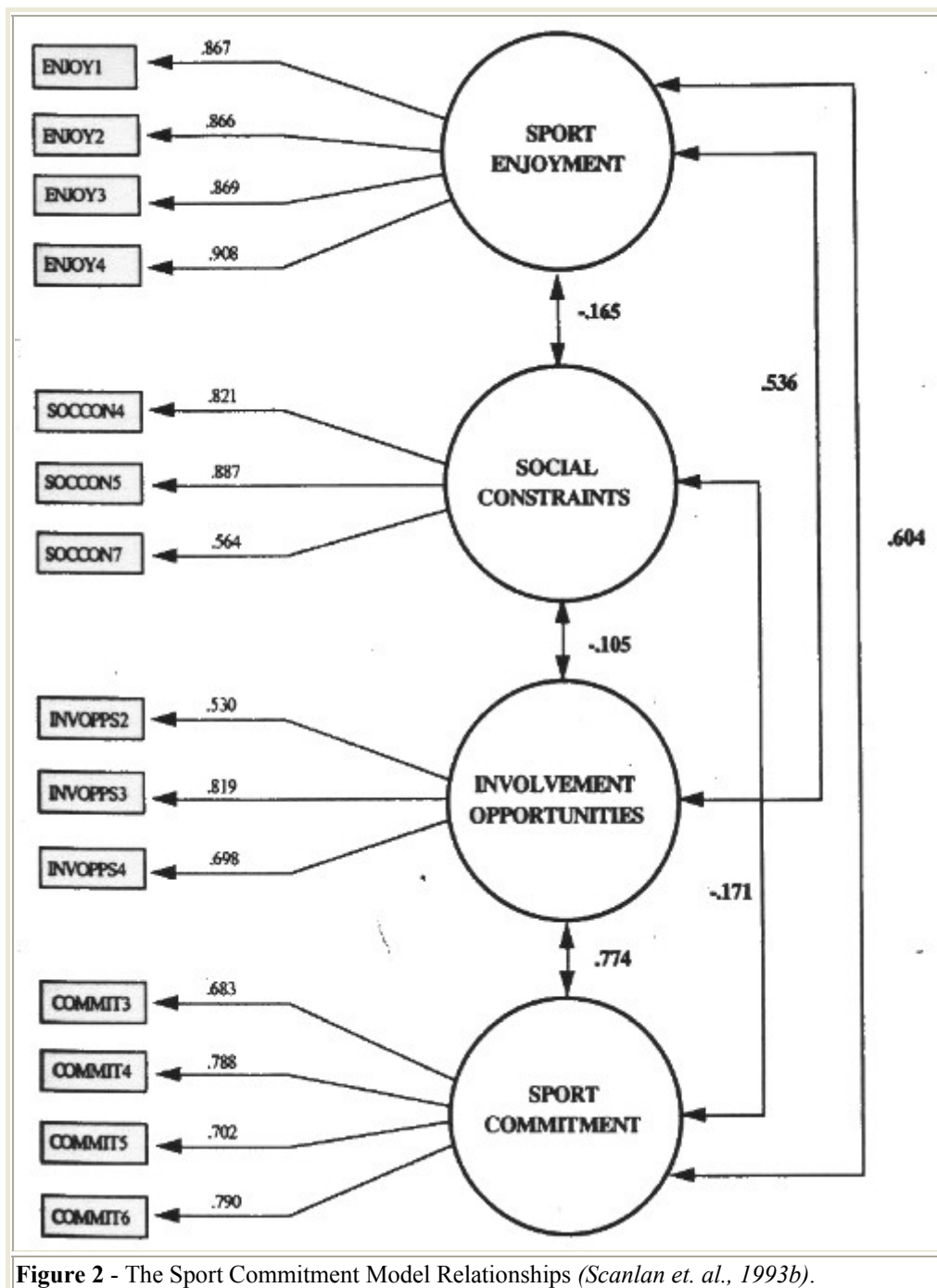


Figure 2 - The Sport Commitment Model Relationships (Scanlan et. al., 1993b).

Validity:

The validity of the model would appear to be more than sufficient for the application of this model to young athletes. The three samples measured by Scanlan et. al. (1993b) cover both genders, an age range of 9-19 years, multiple ethnicities and athletes participating in multiple sports. The heterogeneous nature of the first and third study as well as the overall diversity in sample groups from the three samples supports the use of the Sport Commitment Model when making generalisations in a wide variety of youth sport environments.

The involvement alternatives and personal investment constructs were not defined statistically. According to Scanlan et. al. (1993b), there appeared to be difficulty in getting young athletes to comprehend a mutually exclusive involvement alternative (that is understanding the involvement alternatives construct as intended, in that the involvement alternative was to supplement the current athletic activity and not complement it.). The researchers are still unsure as to whether this problem was a result of the measure or due to the applicability of the construct to youth sport. It is hypothesised that the problem was not due to the explanation of how to pick an involvement alternative, rather the problems could have been due to the youth sport samples that were reviewed. Athletes only had moderate time commitments relative to elite-sport programs. In addition to this, the fact that young athletes are not as occupied with work commitments or close relationships where the 'competition' between involvement alternatives for priority in the individuals life is more exaggerated. Scanlan et. al. (1993b) thus state that for the 'typical nonelite youth-sport athlete', the conflict that exists between other desired activities 'may not be a significant issue'.

The problems associated with the personal investments construct was a different one; in that the problem was not in difficulty placing oneself within in a given situation, rather in the narrowness of the construct. The personal investment construct reviewed time, effort and money; and while the first two are very applicable, financial investment may only be relevant to certain samples. These three items appear to be sound individually, and it is recommended that they remain to assist in individual measurement of these variables, the ability to generalise sport commitment based on the personal investments construct appears to be difficult due to the intra-construct variability.

Availability:



Author: Tara Scanlan
Title: Professor & Director of the International Center for Talent Development (UCLA)
Email: scanlan@psych.ucla.edu
Phone: 310-825-4210
Fax: 310-206-5895
URL: <http://www.psych.ucla.edu/Faculty/Scanlan/>

Mail: Tara Scanlan
UCLA Psych-Social
Box 951563, 3586FH
Los Angeles, CA 90095-1563

Reference List:

1. Carpenter, P. J., Scanlan, T. K., Simons, J. P., & Lobel, M. (1993). A Test of the Sport Commitment Model Using Structural Equation Modeling. *Journal of Sport & Exercise Psychology*, 15(2), 119-133.
 2. Helsen, W. F., Starkes, J. L., & Hodges, N. J. (1998). Team Sports and the Theory of Deliberate Practice. *Journal of Sport & Exercise Psychology*, 20(1), 12-34.
 3. Scanlan, T. K., Carpenter, P. J., Schmidt, G. W., Simons, J. P., & Keeler, B. (1993a). An Introduction to the Sport Commitment Model. *Journal of Sport & Exercise Psychology*, 15(1), 1-15.
 4. Scanlan, T. K., Simons, J. P., Carpenter, P. J., Schmidt, G. W., & Keeler, B. (1993b). The Sport Commitment Model: Development for the Youth-Sport Domain. *Journal of Sport & Exercise Psychology*, 15(1), 16-38.
 5. Schmidt, G. W., & Stein, G. W. (1991). Sport Commitment: A Model Integrating Enjoyment, Dropout, and Burnout. *Journal of Sport & Exercise Psychology*, 13(3), 254-265.
-

Appendix A | The Sport Commitment Model Questionnaire

Item	Sample 1	Sample 2	Sample 3
<i>Sport commitment</i>			
Commit 1: How proud are you to tell other people that you play in (program)?	yes	yes	no
Commit 2: Do you want to keep playing in (program)?	yes	yes	no
Commit 3: How dedicated are you to playing in (program)?	yes	yes	yes
Commit 4: What would you be willing to do to keep playing in (program)?	yes	yes	yes
Commit 5: How hard would it be for you to quit (program)?	yes	yes	yes
Commit 6: How determined are you to keep playing in (program)?	yes	yes	yes
<i>Sport enjoyment</i>			
Enjoy 1: Do you <i>enjoy</i> playing in (program) this season?	yes	yes	yes
Enjoy 2: Are you <i>happy</i> playing in (program) this season?	yes	yes	yes
Enjoy 3: Do you have <i>fun</i> playing in (program) this season?	yes	yes	yes
Enjoy 4: Do you <i>like</i> playing in (program) this season?	yes	yes	yes
<i>Involvement alternatives</i>			
Altern 1: How interesting do you think this activity would be?	yes	yes	no
Altern 2: How much fun do you think this activity would be?	yes	no	no
Altern 3: How much would you like to do this activity, <i>instead of</i> playing (program)?	no	yes	yes
Altern 4: How difficult was it to choose playing in (program) over this activity?	no	yes	no
<i>Personal investments</i>			
Invest 1: How much of your <i>time</i> have you put into playing in (program) this season?	yes	yes	yes
Invest 2: How much <i>effort</i> have you put into playing in (program) this season?	yes	yes	yes
Invest 3: How much of your own money have you put into playing in (program) this season for things like entrance fees or equipment?	yes	yes	yes
<i>Social constraints</i>			
SocCon 1: I feel I have to play in (program) so that I can be with my friends.	yes	yes	yes
SocCon 2: I feel I have to play (program) to please my friends.	yes	yes	no
SocCon 3: I feel I have to stay in (program) because my parents have done so much.	yes	yes	no
SocCon 4: I feel I have to play in (program) to please my mom.	yes	yes	yes
SocCon 5: I feel I have to play in (program) to please my dad.	yes	yes	yes
SocCon 6: I feel I have to play in (program) to please my head coach.	yes	yes	no
SocCon 7: I feel I have to stay in this program so that people won't think I'm a quitter.	yes	yes	yes
<i>Involvement opportunities</i>			
InvOpps 1: Would you miss being a (sport) player if you left (program)?	yes	yes	yes
InvOpps 2: Would you miss your head coach if you left (program)?	yes	yes	yes
InvOpps 3: Would you miss the good times you have had playing (sport) this season if you left (program)?	yes	yes	yes
InvOpps 4: Would you miss your friends in (program) if you left the program?	yes	yes	yes

Figure A - The Sport Commitment Model Questionnaire
Development of the Tool (Omissions & Additions) (Scanlan *et. al.*, 1993b).

Appendix B | The Sport Commitment Model Questionnaire - Results

Item	Sample 1			Sample 2			Sample 3		
	M	SD	Skew	M	SD	Skew	M	SD	Skew
Commit 1	3.70	1.08	-0.49	4.01	1.04	-0.82	—	—	—
Commit 2	4.25	0.87	-1.32	4.24	1.09	-1.42	—	—	—
Commit 3	3.85	0.91	-0.50	4.14	1.00	-1.27	4.27	0.82	-1.17
Commit 4	3.60	0.98	-0.56	3.86	1.21	-0.65	4.11	1.11	-1.24
Commit 5	3.65	0.98	-0.54	3.85	1.33	-0.98	3.94	1.02	-0.76
Commit 6	3.70	1.01	-0.65	4.00	1.13	-1.02	4.18	0.91	-1.09
Enjoy 1	4.19	0.77	-0.71	4.21	1.06	-1.42	4.47	0.84	-1.76
Enjoy 2	4.17	0.80	-0.75	4.20	1.08	-1.38	4.42	0.89	-1.71
Enjoy 3	4.10	0.84	-0.93	4.36	0.94	-1.37	4.46	0.85	-1.74
Enjoy 4	4.22	0.78	-0.87	4.22	1.06	-1.38	4.50	0.81	-1.77
Altern 1	4.11	0.97	-1.32	4.11	1.19	-1.45	—	—	—
Altern 2	4.12	1.04	-1.32	—	—	—	—	—	—
Altern 3	—	—	—	2.97	1.36	0.01	2.67	1.31	0.26
Altern 4	—	—	—	2.23	1.42	0.73	—	—	—
Invest 1	3.92	1.03	-0.61	4.19	0.83	-0.98	4.14	0.84	-1.06
Invest 2	4.03	0.84	-0.50	4.34	0.80	-1.25	3.95	0.99	-0.83
Invest 3	2.33	1.27	0.47	2.30	1.49	0.70	2.49	1.33	0.40
SocCon 1	2.13	1.09	0.51	2.12	1.39	2.02	1.76	1.04	1.47
SocCon 2	1.45	0.83	1.72	1.53	1.10	0.58	—	—	—
SocCon 3	1.74	1.03	1.41	2.38	1.50	0.95	—	—	—
SocCon 4	1.72	1.10	1.46	2.08	1.41	0.95	1.45	1.41	-0.29
SocCon 5	1.82	1.19	1.35	2.23	1.47	0.79	1.61	0.96	-1.48
SocCon 6	2.08	1.18	0.82	2.11	1.37	0.90	—	—	—
SocCon 7	1.76	1.09	1.37	2.29	1.54	0.68	1.67	1.15	-1.02
InvOpps 1	3.86	1.24	-0.93	4.21	1.19	-1.49	4.31	1.18	1.38
InvOpps 2	3.21	1.14	-0.17	3.49	1.46	-0.51	3.23	1.00	2.24
InvOpps 3	3.70	1.17	-0.67	4.23	1.12	-1.41	4.34	1.14	1.81
InvOpps 4	3.48	1.36	-0.40	3.96	1.28	-1.04	4.03	1.18	1.63

Note. Sample 1: 77 swimmers and 63 badminton players (Phase 1). Sample 2: 178 Little League baseball/softball players (Phase 2). Sample 3: 553 football players, 616 soccer players, and 173 volleyball players (Phase 3). All items measured on 5-point Likert scales with 1 = low, 5 = high ratings.

Figure B - The Sport Commitment Model - Results of Baseline data collection
Mean, Standard Deviation & Skew, (Scanlan *et. al.*, 1993b).

