# Research methodology in the domain of sport management: preliminary results of the current state

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#### Introduction

Several studies have assessed the body of knowledge of sport management (Barber, Parkhouse & Tedrick, 2001; Chelladurai, 1992; Danylchuk & Judd, 1996; Olafson, 1990; Olafson 1995; Paton, 1987; Parks, 1992; Pitts, 2001). As Earle F. Zeigler noted in 1987 'we must keep in mind that a recognized profession needs an organized body of knowledge based on research'. (Zeigler, 1987, p 10) In this study we measure the current status of research methodology in sport management. We focus on the methodology, not on the content, used in the leading publications of the field.

## Method

For the period 1999-2003, we coded all articles from the European Sport Management Quarterly (ESMQ), Journal of Sport Management (JSM) and Sport Management Review (SMR), omitting commentaries and book reviews. The articles were coded by two independent researchers. The coding dimensions were modified and adapted from Olafson (1990), Podsakoff & Dalton (1987), and Scandura & Williams (2000).

#### Results

A total of 185 articles were reviewed, with 79 articles from JSM; 59 from ESMQ and 47 from SMR. 31.4% of the studies employed sample survey as the primary research strategy. 22.7% of data were collected from case studies, 9.2% are based on field studies (primary and secondary data) and 8.6% from other approaches (computer simulation, laboratory experiment,...) 28.1% of the articles did not report empirically based research. These were descriptive, conceptual or based on a formal theory, and were excluded for further analysis, leaving 133 articles.

## Method of data collection

Questionnaires (30.7%) and interviews (22.4%) are most often used. 19.9% used archival data. Simulations, field experiments, observations, focus groups,... are classified as other (21%).

## Level of analysis

46.6% of the research published is at the individual level and 30.8% at the organizational level. None of the other units of analysis (group, sector, society) reaches 5%

## Type of analysis

Descriptive analysis on the one hand (30.3%) and multivariate techniques at the other (30%) are used in over a third of the studies. Analysis of variance (36.5%) and regression analysis (32.9%) are the most reported multivariate types of data analysis. Chi-square is the most used non-parametric test (60.9%). There is a modest amount of qualitative research (19.7%).

#### Construct validity

14.1% of the coded articles did not report the use of a construct validation and in 35.7% of the cases a construct was not applicable. Of the studies referring to construct validity, reliability (33%) and factor analysis (14%) are most used. Cronbach alpha is the most reported reliability construct (88.5%).

## Time frame of study

Only 10.5% of the studies used longitudinal research.

#### Discussion

Compared to previous studies of the field, there is some improvement. Pure descriptive studies are less dominant. However, sound empirical research is still lacking. There is scarce attention to problems of internal and external validity, power of statistical tests, construct validity etc. Choices of research design are very conservative. It might be useful for researchers to step outside the dominant practices of their areas and try some techniques and methods employed in other areas.

Researchers have to be aware of there methodological choices. As Podsakoff and Dalton mentioned, "people do what they know, do what they have done, do what is efficient and do what is rewarded". Being aware of our choices is the first step to the improvement of our field.

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## Appendix

Table 1
Results of the methodological study

Coding dimensions	Results (%)
Research strategy	Results (70)
Sample survey	31.4
Case study	22.7
Field study: primairy data	4.3
Field study: secondary data	4.9
Formal theory/ conceptual/ descriptive	28.1
Other (computer simulation, laboratory experiment,)	8.6
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Method of data collection	
Questionnaire	30.7
Interview	22.4
Other (simulation, field experiment. observation,)	21
Archival	19.9
Not applicable / not clear / not reported	6
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Level of analysis	
Individual	46.6
Organization	30.8
Group	4.5
Sector	4.5
Society	4.5
Other	6.8
Not applicable	2.3
Type of analysis	
Qualitative	19.7
Descriptive	30.3
T-tests	5.6
Non-parametric tests	8.1
Multivariate techniques	30
Other	4.5
Not applicable	1.8
Two applicable	1.0
Construct validation	
Confirmatory/ exploratory factor analysis	14
Reliability	33
Discriminant/convergent/predictive validity	1.9
Interrated reliability	1.3
Not reported	14.1
Not applicable	35.7
Internal validity: time frame of studies	
Cross-sectional	83.5
Longitudinal	10.5
Not applicable	6.0