

## **CREATING SYNERGY BETWEEN SCIENCE AND MANAGEMENT: FROM OLD TO NEW CISM ACADEMY**

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The aim of this paper is to provide an overview of fact-findings concerning the re-birth of CISM Academy (ACISM), framing them in the context of synergy between science and management. Firstly, a brief historical case review of original ACISM scientific interventions is presented; then I will forward the presupposition that those past activities were synergetic in their managerial meaning, as understood in present days. Secondly, I will elaborate the argument of synergy as a management tool on account of a collective practical knowledge construction.

### **From old to new ACISM**

The original CISM Academy (ACISM) during late 1960s and early 1970s has made efforts to develop scientific-based sport training in Latin America. Particularly in Brazil, ACISM and local Armed Forces established a successful partnership providing technical brochures and refreshing courses, having civilian and military target groups working together despite different sport specialization backgrounds. Thus, sport specialists, medical doctors and P.E. university's teachers participated in ACISM activities in Rio de Janeiro, main sport studies center in the country at that time, conducted by military – and invited civilian ones in some cases - experts from Europe and United States with international reputation.

It is important to mention that sport research in Brazil started in Army P.E. School of Rio de Janeiro during the 1930s but at the 1970s stage became evident the need of decentralization to other areas nationwide. Again, a special ACISM event in 1972 brought civilian medical doctors, coaches and teachers together in a intensive seminar aiming to consolidate sport physiology in different areas of the country in terms of knowledge production. As a result three new and non military laboratories were created in Rio Grande do Sul, Sao Paulo and Minas Gerais States early on that ACISM promotion. Consequently, these positive reactions gave birth to a post-event model with noticeable impacts in new initiatives of sport sciences many years ahead nationwide. With other influences besides ACISM in civilian institutions, leaders and managers, the number of sports sciences laboratories in Brazil had increased to nearly 200 units of different sizes up to 2005.

This outstanding impact in sport science in one single country has been identified *inter alia* by Correa (2005) when reporting the 1972 ACISM Rio de Janeiro Seminar, a joint event with Brazilian Armed Forces Sport Commission (CDFA) and Ministry of Education and Culture (MEC) from Federal Government. For this accomplishment, Major Raoul Mollet, CISM General Secretary, himself, travelled from Brussels headquarters to Rio de Janeiro to coordinate the international participants.

The Seminar's works included 356 Brazilian participants from all regions of the nation and the distinguished international experts – military and civilian - were namely K. Cooper, P. Rasch, J. Higgins e F. Kobs (USA); R. Mollet e L. Ribeiro (Europe); L. DaCosta e M. Rocha (Brazil). Still on account of Lt. Col. Correa mentioned above as a source, the sport science drive in Brazil had the 1972 Seminar as a milestone whether coincidental or not with ACISM influences. Symptomatically, in early 1970s there were 32 P.E. university courses in Brazil, a total increased to more than 800 courses in 2008, revealing an unexpected and huge growth when compared with the country's economic development in the same period of time.

Indeed, many Brazilian participants of the ACISM Seminar acted afterwards as development vectors as detected by Tubino & DaCosta (2005), creating laboratories and the discipline of “methodology of sport training” as well in most P.E. university courses. This evidence also may reinforce the thesis of synergy between international experts and their national counterparts at least on account of civilian human resources. Summarizing, the ACISM old roles had hypothetically provided synergetic effect in terms of scientific knowledge in Brazil and probably in other CISM member countries. Thus, new ACISM proposal may have as point of departure an updated approach based upon synergy, as follows in the next section.

### **Synergy as a computer-based collaboration tool**

Actually, in today’s computer age, synergy is an expected effect when scientific data can be used as a repository “which is considered a gateway to managerial information or the expert’s knowledge, i.e. the Knowledge Management (KM) concept” (McManus & Snyder, 2003). In other words, the renew of ACISM now under discussion may enhance the ability to share information by utilizing database tools and softwares in Knowledge Management concerns.

In other words, synergy is surely a management creation in nowadays perspectives giving grounds to institutions – whether dedicated to sport or not – towards extracting valuable information by utilizing a data repository. In short, the new roles of ACISM would imply in being connected to Knowledge Management (KM) procedures and devices in view of its past successful experiences.

As I recently described elsewhere (DaCosta, 2009), KM is oriented to the management of continuous innovation which implies in transferring knowledge from people to people much than from machines to people. Furthermore, KM deals equally with explicit (documented information that can facilitate action) and tacit knowledge (comprehension gained through study, experience, practice, and human interaction). In operational terms, the interplay between tacit and explicit knowledge is a transfer of knowledge based on expertise or skilled judgment from one person to another.

### **KM as a tool for scientific collaboration: the case of Atlas of Sport**

In practical terms, the latter analytical interpretation of KM has been tested in recent years by the Author of this study case who was also a member of ACISM and speaker during the 1972 event. In this privileged capacity I had become the chief organizer of the “Atlas of Sport in Brazil”, an ongoing KM project beginning in 2003 and sponsored by a group of civilian sport organizational bodies with military participation in data surveys (Army, Navy, Air Force and Military Police). This project had as outcome a CD ROM Beta form in 2004, a paper book version in 2005 (920 double pages) and a web-based site from 2007 on with free access at < [www.atlasesportebrasil.org.br](http://www.atlasesportebrasil.org.br) > in Portuguese and English versions.

Scientifically speaking, this work in progress of KM includes equally civil and military facts finding in a time line frame, making possible observations and projections of the synergetic approach as far as data contributors were selected either in academic institutions (explicit knowledge) or in non professional areas of sports activities (tacit knowledge). In this context, contributors have been taking part in the Atlas of Sport project by means of a volunteers’ network promoted by the Federal Council of Physical Education-Brazil, a nationwide non profit organization with almost 200 thousand members in 2009.

In terms of reference for consulting purposes, the Atlas of Sport in Brazil (DaCosta-Org, 2005) is a database that combines historical and scientific information with sporting events and development processes, if any. The methodology includes information and data – that is mostly descriptions and statistics - in timeline and location frames having texts and mapping displays as the output. This cultural and geographic mapping in double size volume from 2005 version had 199 chapters and 410 authors from different professional and educational backgrounds participating in voluntary basis. The thematic areas scrutinized by the Atlas summed up 20 choices, 5% of them with direct Armed Forces participation. Aggregation of knowledge from all chapters was represented by scenario methodology at the end of the 2005 book and available in the Internet version up today through a search tool included in the Atlas of Sport site.

Data and information collection tasks have been oriented by a standard framework to be followed by authors. This device was assumed on account of the former KM experience of DaCosta and collaborators with Sport for All in international coverage (DaCosta & Miragaya, 2002). That standard orientation proved its effectiveness facing the authors' educational and professional diversity and the KM operational need of combining tacit with explicit knowledge. Another measure to guarantee scientific value of Atlas of Sport's texts and maps have been the intervention of editors, that is the function of supervising and eventually checking information and data came from authors. This editorial process during the 2003-2005 phase implied in having three thousand files circulating among authors and editors under the coordination of the project's organizer.

In all, this KM sport national project encompassed 17 supervising editors, mainly with Ms and PhD degrees covering texts elaboration and thematic surveys; non academic authors were mostly sport local leaders or clubs and federation's managers in addition to P.E. undergraduate students who worked in field surveys for selected authors. Post investigation focusing on Atlas's volunteers suggested a sense of belonging connecting project's participants to their production (Perisse Nolasco, 2006).

As a KM project envisaging synergetic and networking procedures, the Atlas of Sport has been updating as a multimedia development towards scientific promotion in sports contrasting with other similar achievements which aims at putting into place information retrieval and production without identified personal mediation and supervision. This priority to sport specialists and devotees development instead of making them users makes the difference facing other similar systems. Table 1 in this concern presents comparative features from Wikipedia, Encyclopedia Britannica and Atlas of Sport in order to find out the very nature of KM adopted by the latter system.

In addition to the Atlas of Sport's differentiation as a database tool, the following benefits shed light to its role as a platform for sport specialists and laymen development in KM perspectives and national scope:

- The most comprehensive databank of Physical Education and sports in Brazil;
- All about Brazilian Physical Education, sports (traditional, Olympic, non-Olympic, extreme, adventure, clusters), recreational activities (leisure and traditional games), publications, educational institutions, organizations related to sports (government, clubs etc), military organizations, professionals, athletes, human resources, health clubs among others;

- All chapters with descriptive texts containing summaries, historical background, bibliography, sources and references, as concerned to explicit and tacit knowledge;
- Detailed maps showing where sports are played, taught and investigated in the country with definitions and historical background;
- Complete tables and figures of market sizes and other quantifiable information;
- Interpretations of facts by scientists, supervisors of respective areas;
- Bilingual information (Portuguese and English);
- Operational objectives proposed to survey facts of memory and inventory of physical activities in Brazil not only as sports practices and P.E. practices but also as physical activities geared towards health and leisure;
- Contents to reach the following target publics: politicians and government authorities; media; sports and physical education leaders and professionals; managers and directors of sports confederations (national level), federations (state level), leagues (municipal level) and clubs (local level); researchers and teachers in Brazil and abroad; military sport specialists;
- Financial support provided by eleven leading organizations associated in a “Consortio” (consortium), a unique instrument in Brazil when it comes to the sports area and similar activities in education, leisure and health;
- Mobilization of volunteers similar to actions that gave origin to Brazilian sports clubs since XIX century, and, in essence, that still keep some of them active: (1) the appeal to the common cause and (2) team work aiming at concrete and successful results;
- Preservation of the tradition started by the very first study of local sports inventory made in 1893, held at the Turf Club of Rio de Janeiro;
- Chronology of memory facts used as framework for each chapter and for the Atlas system as a whole, creating new possibilities for history research and continuing updating;
- Consideration of oral reports (tacit knowledge) as valid but non permanent references at the same level of biographic and documental sources (explicit knowledge);
- Acceptance of spatial inventory made by field observation and local consultation as much as temporary estimates and quantitative data for submission to progressive updating;
- Definition of sports adopted by the European System of Sports Statistics (COMPASS), which is the model chosen to organize data so that they become comparable with data from other countries, and therefore more analytical and conclusive;
- Standardization of COMPASS sport definition considering sports “as all forms of physical activity which, through casual or organized participation, aim at expressing or improving physical fitness and mental well-being, forming social relationships or obtaining results in competition at all levels”.

## Conclusion: towards the new ACISM using KM solutions

Conclusively the relationships between science and management and the interplay between military and civilian sport scientific development in the computer age still trust in people to people transfer of knowledge as they did in the 1970s in the interest of original ACISM. However, database electronic system with access to Internet is now a groundbreaking to this synergetic effect of peopleware. In this new technological setting, innovation is a continuing search as long as computers are not submitted to limitations in moving to one country to another as experienced by old ACISM.

These arguments are supportive to the renew of ACISM as referred to KM theory and practice as demonstrated by previous sections. In brief, KM is a creative practical knowledge construction by means of peopleware. Moreover, the KM project Atlas of Sport here discussed is a large-scale and low-cost enterprise which may be a model to future ACISM operations. In spite of being hosted by national institutions and directed to regional interests, this project gave insights and operational solutions to similar international achievements in sports as reported by DaCosta (2009).

Finally, to find a recovery of ACISM towards KM solutions is not only a technological updating but a search of military scientists for their own power on behalf of sport friendship, as they did in the challenging past times of 1970s.

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