

PROBLEM ORIENTED COMPARATIVE RESEARCH IN PE CURRICULUM

EXAMPLES FROM THE CZECH REPUBLIC AND OTHER COUNTRIES
SOME LEARNING, TEACHING AND ASSESSMENT ISSUES

PETR VLČEK

Department of Physical education

Faculty of Education, Masaryk University

Brno, The Czech Republic

This work was supported by a Faculty of Education Grant ("Curriculum Research of the Man and Health Education Area", MUNI/A/0963/2015)

INTRODUCTION

- Curriculum - study in international perspective
- The curricular revisions are currently being in process in several countries in Europe
- Diverse concepts of PE in different countries.
(sport, movement, physical and health)
- **PE more equivalent to other subjects**
- **Quality PE (curriculum – intended, implemented, realised)**
- The Czech and other countries point of view
- What we prefer in the curricular research - methodologically

SOME PROBLEMS OF INTERNATIONAL (COMPARATIVE) RESEARCH IN PE

- The texts are often descriptive, not verified, bias affected
- A lot of facts - often narration (tales) X little explanatory (looking for solutions)
- Random publication to some extend
- The authors do not know, what to write about the methodology - „I used the comparative method“

Other social sciences - experience

INTERNATIONAL RESEARCH - COMPARISON

Comparing = general process of our mind

X

Scientific comparison

- Types of comparative research - not only international
- Principles of comparative research
- Steps of scientific comparative method

TYPES OF COMPARATIVE RESEARCH

- Difference of the compared subject - **space** or **time**
Diachronic (vertical) X synchronic (horizontal)
- Space (area) - different ways of definition - international, regional, intercultur...
- Local character - schools, classes, individuals

Multilevel studies - continent, country, state, district, school, classrooms, individuals...(Bray, Thomas, 1995)

Macro/micro comparison, regional, historical, interdisciplinary...

ABOUT HISTORY

- Travellers tales - curiosity
 - Educational borrowing - learn form the foreign practices
 - International education and cooperation - world harmony and mutual improvement among nations
 - **Clasical period - Better methodology - seeking explanations**
1. **Forces and factors shaping national educational system**

ABOUT THE HISTORY OF COMPARATIVE SCIENTIFIC METHOD

- Description
- Interpretation
- Juxtaposition
- Comparison

Hilker (1962), Bereday (1964), Manson (2007)

THE FIELD OF RESEARCH

- ...analyse and compare dominant characteristics and developments in physical education and sport in two or more societies, cultures, countries, or areas **for purposes of investigating their similarities and differences** (Howel, 1979).
- Comparative education: an interdisciplinary subfield of education studies that systematically examines the **similarities and differences** between educational systems in **two or more** national or **cultural context**, and their interactions with intra- and extra-educational environments. Its specific object is educational systems examined from a cross-cultural (or cross-national , cross-regional) perspective through the **systematic use of the comparative method**, for the advancement of theoretical understanding and theory building (Manson, 2011, p. 215).

PRINCIPLES OF COMPARATIVE RESEARCH

There must be more objects, they must be comparable, in must be systematic explanation of the findings and its casualities in the global context which has to has to have scientific character.

- Plurality - comparatum X comparandum
- Comparability - tertiem comparationis
- Global context - emic X etic approach
- Scientific character - intentional, goal directed

THE METHOD

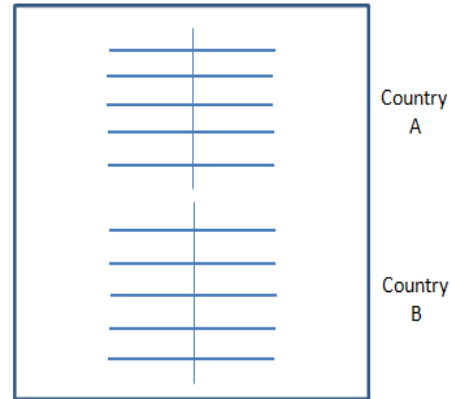
Formulating the problem

1. Description
2. Interpretation
3. Juxtaposition
4. Comparison

Bereday (1964)

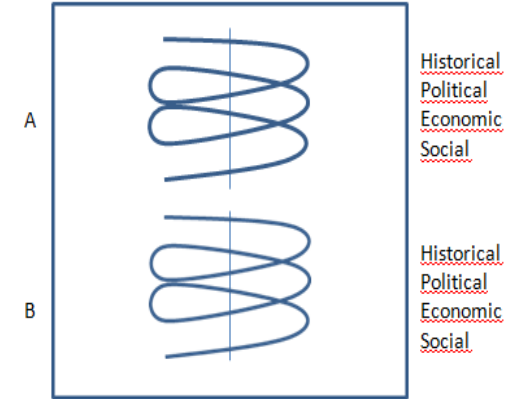
1. DESCRIPTION

Pedagogical data only



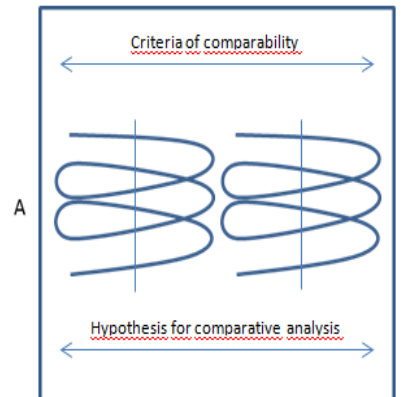
2. INTERPRETATION

Evaluation of Pedagogical data



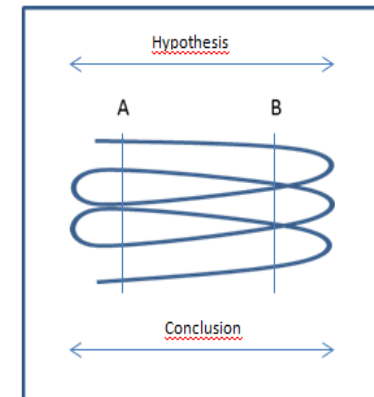
3. JUXTAPOSITION

Establishing similarities and differences



4. COMPARISON

Simultaneous comparison



**Find
10
differences**



MODERN HISTORY

- Travellers tales – curiosity
- Educational borrowing – learn form the foreign practices
- International education and cooperation - world harmony and mutual improvement among nations
- Clasical - better methodology - seeking explanations
 1. Forces and factors shaping national educational system
 2. **Modern - social science explanation - empirical methods - to clarify relationships between education and society**

FORMULATING THE PROBLEM

- No method is comparative unless it is preceded by a formulation of an **abstract scheme which serves as a guiding hypothesis for the collection and presentation of comparative data.**
- A pure enunciation of facts about foreign countries in in the light of (modern) social science comparative methodology is not a comparative treatment.

Fundament

All effort at data gathering, classification, manipulation and interpretation are directed toward testing assumptions solving a problem.

1. DESCRIPTION (DATA GATHERING)

- Problem → samples, number of respondents (n)

Case-oriented research X Variable-oriented research

Conceptual, systematical, with regard to the theory

Relevant data!

- It is not only inefficient and uneconomical to enter the data without a hypothesis, but in a sense it is **not fair**
- Collect own data X reliance on existing sources
- Observation, text analysis, interview, questionnaire, ... statistics X PISA, TIMSS, TALIS, PIRLS etc.
- Multilevel studies
- Combination - triangulation

2. INTERPRETATION

- Operationalization - process of defining a concept so as to make the theoretical concept clearly distinguishable – categories
- Hermeneutics etc.
- Must be done within the cultural, historical context - glacier

3. JUXTAPOZITION

The precondition (purpose) of juxtaposition is to establish a **tertium comparationis** - the criterion upon which a valid comparison can be made - generalize

- Already similarities and differences visible
- Graphics

4. COMPARISON

- Confirmation strengthens the confidence...body of knowledge and state of the art
- Case interpretation
- General analytical methods – analysis, synthesis, induction, deduction, abstraction, generalization...
- Theory making...
- Conclusions about a particular problem.
- It may and should suggest action to improve the situation or really act!

DISCUSSION

- A series of separate country-by-country studies can hardly be a substitute for work that is comparative from the beginning and is designed to solve a problem cross-nationally.
- Innocent of a problem, clearly defined concepts and variables = it is just the beginning

Single case study?

SOME PROBLEMS IN THE CZECH PE

- The fall of communism in Czechoslovakia
- After separation, Slovakia and the Czech Republic decided to reform national curricula - nearer their education to western European countries
- The curricula changes affected PE
- After 20 years the educational changes are being evaluated and the curriculum is currently being revised

RECENT DEVELOPEMENT OF PE CURRICULA IN THE CZECH REPUBLIC

According to the curricula papers - each elementary and secondary school - supposed to create its own programmes

Reforming process - criticized

- low support of the Ministry of Education, Youth and Sport - weak co-ordination
 - formalism
 - low activity of the academic community
 - low acceptance of the curricular reform among teachers
- ⇒ worsening study results of Czech pupils

REACTION - EDUCATIONAL STANDARDS

- The curricula documents were revised (very little) and educational standards were „implemented“
- First standards - Math, Czech language, English
- In October 2012 professional groups for the development of the educational standards - until the end of June 2013.
- The group developing the standards for PE consisted of a MŠMT guarantor, a NUV guarantor, three academic representatives and three representatives of the basic schools
- The task of this group was to develop the educational standards for PE until the end of April 2013.

EDUCATIONAL STANDARDS IN PE

Development of the standards - no empirical evidence

The Curricula documents were originally formulated without the assumption of the future standards extension

The educational outcomes defined in the curricular documents

- skills
- theoretical knowledge
- **attitude and behavioural outcomes**

Thus, according to the curricula programmes the PE educational content is difficult to achieve and to evaluate

*Based on the **local (CZE)** research results (Vlček & Mužík, 2012): current conception of the Czech PE is not accepted homogenously - **low congruence between the intended, realised and achieved curricula***

Curricula Programmes: health targets – movement content – sport realisation (non didactical approach) – all kind of achievements

PROBLEM - CONGRUENCE

PROBLEM - CURRICULA REVISION

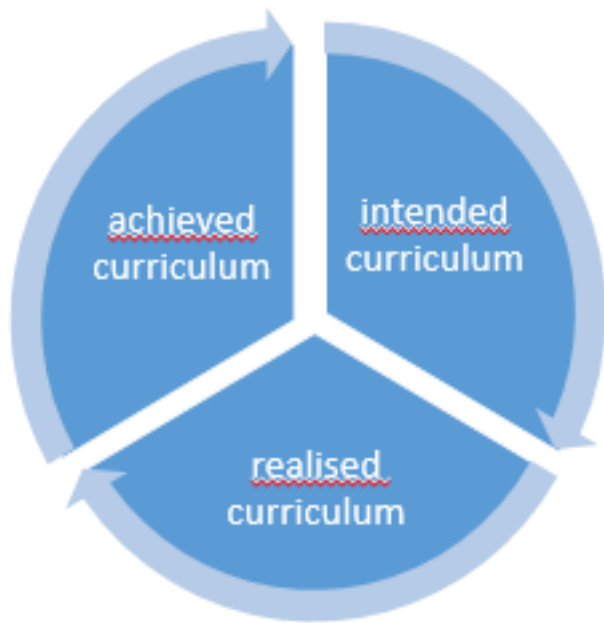
PROBLEM - IMPLEMENTATION

RESEARCH HYPOTHESIS FOR THE INTERNATIONAL RESEARCH

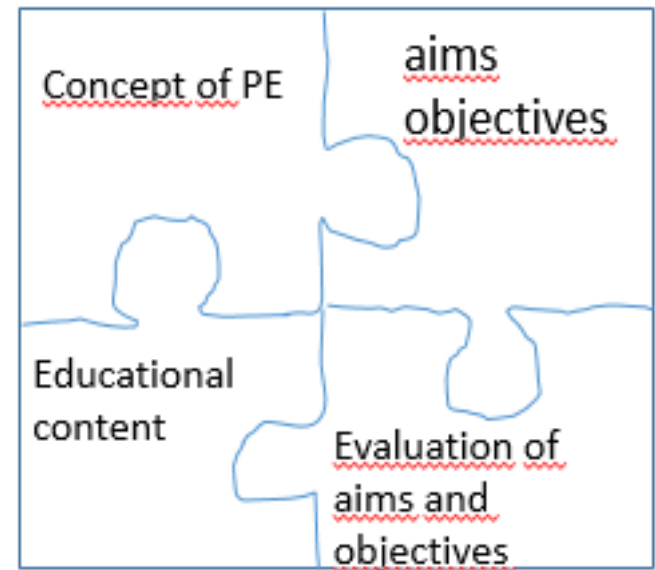
- Curricular reforms are also taking place in some countries abroad (in some of that countries successfully).
- We reflect the problems of the Czech curricular revision through foreign curricula research.
- Chosen countries: the Republic of Ireland, the Netherlands
- (USA, Germany, Slovakia, Spain...).
- Our hypothesis - high congruence of curriculum = high student's achievement.

WHAT IS CONGRUENCE (FIDELITY, ALIGNMENT)?

Congruence of curricular levels



Congruence within curricular document



INTERNATIONAL COMPARATIVE RESEARCH

JUXTAPOSITION OF THE CONTEXTUAL FACTORS

PE CURRICULUM IN IRELAND

- Curriculum is being revised continually - the last PE curriculum revision in 1999
- Physical Education Primary School Curriculum - document of more than 80 pages
- high support for teachers - Physical Education Teacher Guidelines (116 pages; possible ways of realization

PE CURRICULUM IN NETHERLANDS

- Curriculum is being revised continually - the last curriculum revision in 2006 - present curricula is the third generation of curricula based on core objectives (1993, 1998)
- Core objectives - 6 pages for PE in the curricular document of 73 pages, obligatory
- Basic document for PE in

CONCLUSIONS OF THE COMPARISON

- All countries are revising the curriculum - some common X different approaches
- All countries use a similar structure of the curricular documents - national level and school level – decentralisation, outcome based, different number of PE goals, less performance orientated
- Czech goals of PE concentrate more on health issues X PE goals of the other countries are more diverse - move towards movement conception of PE
- Achievement of personal maximum level of each student depending on his individual possibilities (deflection from)
- Congruence within curricula:
- Ireland - goals also reflected in the educational content, methods of evaluation follow the goals
- Holland - two key goals for PE, which are possible to achieve in educational content, deeply developed evaluation of each prescribed activity

CONCLUSIONS FOR CZE

There is a better congruence within the PE curricula in other countries than in the Czech document

Czech rep. - health oriented goals, lack of support in educational content

- No congruence of PE concept and its content - Mismatch of entirely health oriented goals in the Czech curriculum
- Czech curriculum - miss methods, forms of teaching and learning strategies as a key tool to achieve expected results (both Irish and Dutch curricula - teacher guidelines)
- It is important to develop links between core competencies, expected outcomes and specific subject matter

RESULTS OF COUNCLUSIONS?

We wrote the **EVALUATIVE STANDARDS** - <http://standardtv3.webnode.cz/>.

Vzdělávací obor	Tělesná výchova
Ročník	9.
Tematický okruh	1. Činnosti ovlivňující zdraví
Očekávaný výstup RVP ZV	TV-9-1-02 Žák usiluje o zlepšení své tělesné zdatnosti; z nabídky zvolí vhodný rozvojový program
Indikátory	<ol style="list-style-type: none">1. žák pravidelně zařazuje do svého pohybového režimu aerobní pohybové činnosti2. žák pravidelně sleduje výsledky své tělesné zdatnosti v kondičních testech a usiluje o zvýšení její úrovně3. žák si upraví svůj pohybový režim s pomocí konkrétní nabídky rozvojových programů a zdůvodní výběr programu vzhledem k výsledkům své tělesné zdatnosti
Ilustrativní úloha	
Uveď vytrvalostní aktivity aerobního charakteru, které pravidelně používáš, a zdůvodni jejich význam pro svůj organismus.	
Poznámky k ilustrativní úloze	TV-9-1-02.1

Ilustrativní úloha	
Zapisuj si své pohybové výkony (počet kliků, uběhnutých kilometrů, délku skoků atd.) po dobu 3 měsíců (jednoho pololetí). Zhodnoť dosažené výkony, porovnej je a vysvětli jejich vývoj.	
Poznámky k ilustrativní úloze	TV-9-1-02.2

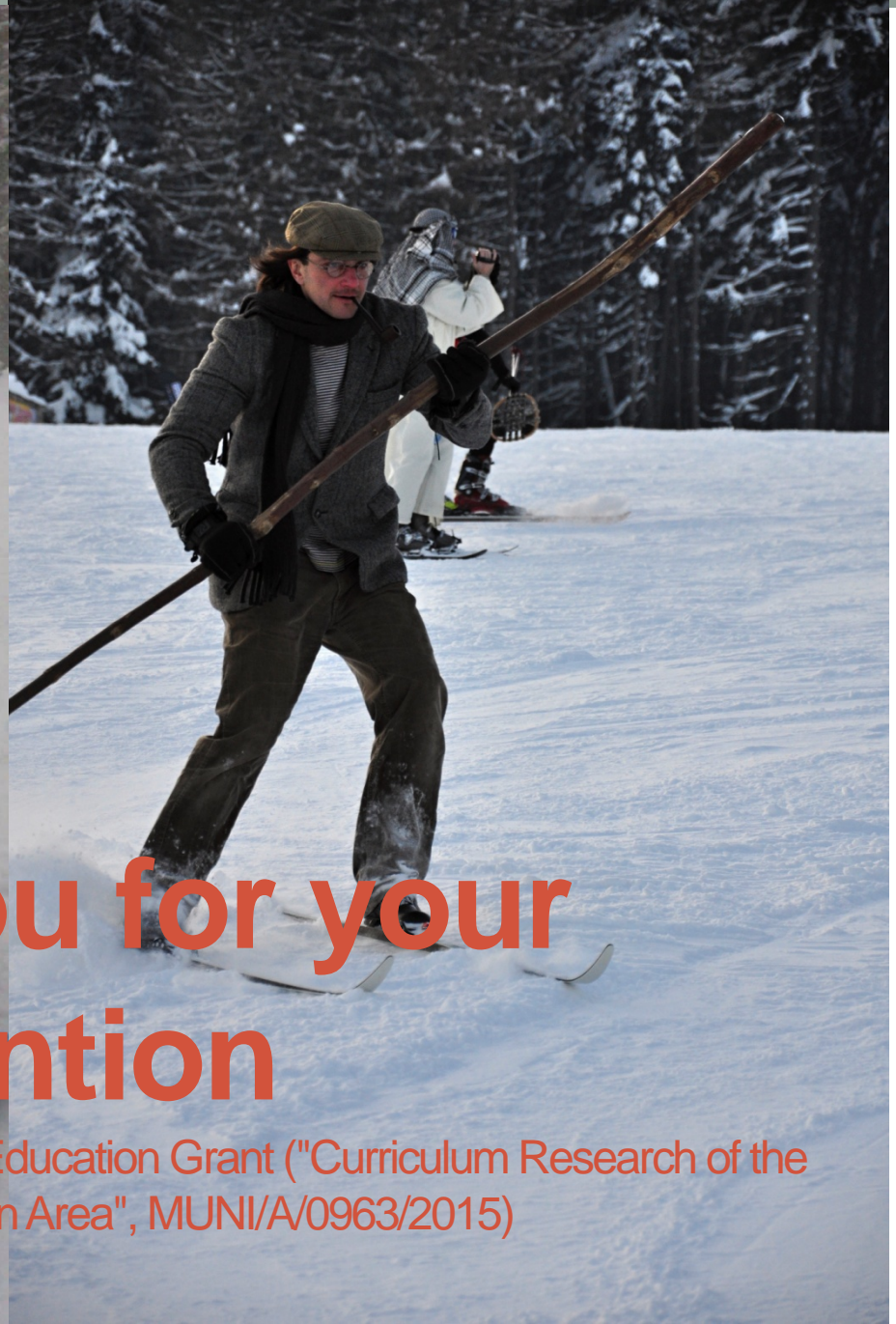
**WHAT IS THE PROBLEM FOR THE
RESEARCHER AND THE
ACADEMICS?**

TO FIND THE PROBLEM!

**VERY USEFUL TO COOPERATE
WITH THE PROFESSIONALS IN THE
FIELD - FROM THE INTERNATIONAL
COMPARATIVE RESEARCH -
EUPEA WINS 😊**

**MY PERSONAL PROBLEM? - THE WORST
DRESSED MEMBER OF THE FAMILY
NO RESEARCH DONE YET!**





**Thank you for your
attention**

This work was supported by a Faculty of Education Grant ("Curriculum Research of the Man and Health Education Area", MUNI/A/0963/2015)