

Qualitative and Quantitative Approaches to the Measurement of Complex Social Phenomena: A Case of Occupational Professionalisation

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Abstract

The article begins with a description of the triangulation principle in the social sciences. The main goal is to demonstrate the combination of qualitative and quantitative methods in the case of occupational professionalisation. The argumentation is built around the operationalisation of indicators of professionalisation of 63 occupations based on two different theoretical approaches, as well as the process of data collection presented in each case. The level of agreement of the two approaches is presented. In the final section, the findings are discussed, and outlines for potential new research in this field are presented.

1 Introduction

The main purpose of scientific research is the discovery of laws based on which interpretation and prediction of phenomena is possible. In this endeavour the quality of the measurement instruments (or the research in general) with which we obtain empirical data for the attainment of this purpose, is of crucial importance. In the social sciences, there are different approaches for establishing the quality of measurement. In the quantitative tradition of social research, assessing quality of research has a relatively long tradition. The first studies in this field go back to the 1940s and 1950s (e.g., Cantril 1944; Payne 1951). In later decades many more comprehensive and more systematic studies on the quality of (mostly survey) data and of factors that affect it were done. (e.g., Sudman and Bradburn 1982; Schwarz and Sudman, 1996; Sudman et al., 1996).

Within the paradigm of qualitative social research, the problem of research quality usually received only partial and incomplete study (e.g., Bogdan and Taylor, 1975; Emerson, 1981; Miller and Dingwall, 1997; Silverman, 1997);

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however, in the last decade or so, there have been more systematic discussions on this topic (e.g., Seale, 1999; Davies and Dodd, 2002; Pyett, 2003; Maxwell, 2004) as well as efforts to systematize the basic criteria for ensuring and establishing the quality of research findings (e.g., Whitemore et al., 2001).

With regard to establishing the quality of research, the concept of triangulation (Denzin, 1978/1989) is one of the main common grounds between qualitative and quantitative research. The basis of triangulation is the realization that the use of a single method, especially in the social sciences, does not assure reliable and valid data and research findings. Any single method, regardless of whether it is qualitative or quantitative, has built-in specific assumptions and logic, which allow it to uncover only some aspects of the phenomenon one wants to study. Since different methods uncover different dimensions of empirical reality, it is advisable and useful to use different methods in a research project and in so doing raise the 'probability' that those interpretations describe the phenomenon under study as adequately and accurately as possible. The assumption therefore is that, by using different research methods the disadvantages of any single method are overcome - at least to some degree. Denzin (1978/1989: 236-241) therefore proposes four types of triangulation within the same research project: using different types and sources of data, using different methods of data collection and analysis, employing different investigators and establishing research and interpreting findings on the basis of different theoretical perspectives.

The aim of this paper is to show how and with what results the strategy of data, method and theory triangulation was used in research on occupational professionalisation. Presented is the operationalisation of indicators of professionalisation for 63 occupations based on two different theoretical approaches, as well as the process of data collection in each case. In the section 3, the results are shown for each approach separately as well as comparatively. The level of agreement between the two approaches is presented. In the final section, the findings are discussed and outlines for possible new research in this field are presented. From the differences and similarities between selected approaches, one can establish any (in)consistency between the level of existence of professional institutions and how occupational or professional practitioners experience them. Besides highly relevant methodological aspects, this can be an early indication of whether a certain occupation is in its phase of professional growth or decline. From this, one can establish whether a certain occupational group is justified in possessing a certain professional institution, or the opposite. However, it is expected that significant inconsistencies will be relevant in only certain group of cases.

2 Operationalisation of indicators of occupational professionalisation: Qualitative and quantitative approaches

Occupational professionalisation is a very complex theoretical concept that is anchored to the very basis of sociology, sociology of work, sociology of organisations and, above all, to the sociology of professions. The concept explains the logic of organisational and social labour division, social stratification, education, training and employment. In all these contexts, occupational professionalisation stresses the question of how social groups organise and control the utilisation of occupational knowledge.

Attempts to answer the question about which types of occupations can be labelled as professions seem to have accompanied theoretical developments in the field since its early beginnings (Durkheim, 1957[1898-]; Parsons, 1954; Greenwood, 1957). In principle, occupations and professions are treated as two very different phenomena. These early authors claimed that professions were a special category of service-based occupations such as doctors or lawyers, while professional elements of the remaining 'occupational pool' stood firmly outside the professional arena. However, later theoretical contributions (Krause, 1971; Larson, 1977; Burrage, 1988) implicitly admitted that professions remain occupations like all others, having strongly expressed professional elements, such as autonomy, professional associations, ethical standards and formalized educational programmes. Following this logic, it is precisely the extent and dynamics of professional attributes that indicate whether a certain occupation is in the phase of growth (*in statu nascendi*) or decline. Evetts (2006) took this one step further, claiming that extensive agreement about the appeal of the idea of professions and professionalism increasingly characterised in all work contexts. On this basis she coined the concept of organisational professionalism, the term that was until recently attached to commodification or commercialisation, as opposite poles of professionalism (Freidson, 2001).

In the sociology of professions, one can find two dichotomous approaches to the study of occupational professionalisation (Evetts, 2003). The functional perspective stresses the view of occupations *from above*. This approach focuses on the impact of a single group on society and how it strengthens occupational structures based on the demand for its daily work. On the other hand, the perspective of occupational ideology stresses the view of occupations *from within*. Hereby, the key question is how the occupational organisations are 'cultivated' from the supply side. This perspective deals with the reinstatement of occupational monopolies and other occupational institutions.

The functionalist perspective (the view from above) is very much linked to the assessment of secondary sources of occupational realities (qualitative approach). The critical ideological perspective (the view from within) is much more concerned with the opinion measurement of occupational practitioners (quantitative approach). In the existing research

practice, this methodological tool has been largely underused. Therefore, we propose to label the first approach as prescribed, and the second as perceived. In Table 1 we describe the main characteristics of both approaches.

Table 1: Characteristics of qualitative and quantitative approaches in studying occupational phenomena.

Measurement approaches	Qualitative	Quantitative
Connections with the main theoretical perspectives	Functionalist perspective	Perspective of critical professional ideology
Existing research practice	Mainly focused on case studies	Very few
Main characteristics and adjectives	Existing Structure aspect Prescribed Outside Structural Aggregate	Felt Agent aspect Perceived Inside Behavioural Individual

In continuation, we argue that two different theoretical mainstreams indicate the temptation of two different approaches in studying the concept of professionalisation. We indicate empirical operationalisation of both approaches. Further, we demonstrate how useful it can be to compare the results for the sociology of professions and social research.

2.1 Qualitative approach – the link to the functionalist perspective

As has been established, the functionalist perspective, in line with the strong qualitative methodological tradition in the sociology of professions, implies the study of occupations from above. It claims that occupations occur because of the need for certain occupational knowledge in the society. This is directly linked to the existence of professional institutions such as formal educational programmes, professional associations, codes of ethics, legal regulation or higher salaries. These visible professional attributes are considered the direct manifestations of more hidden elements such as control of professional work, social status, and professional identification. In this regard, functionalist describe occupations on different professional levels as an important factor in social stability and its moral basis (Durkheim, 1957[1898-]), stressing the high importance of practical occupational knowledge as the vital element of occupational professionalisation (Pavlin, 2007).

Discussion of basic professional attributes and the categorisation of different professions has been ongoing for several decades. Siegrist (1990), for example,

studies professions in regard to their historical origins: in this manner, he mentions corporate, state, free and neo-corporativistic professions. In a similar style, Brante (1990) describes professions with regard to their existence in organisations. Beckman (1990) draws occupational classification in connection with actual work: proletarian work with little autonomy and little knowledge, skilled work with little autonomy and much knowledge, vocational work with little autonomy and a great deal of knowledge and professional work with a great deal of autonomy and knowledge. A similar classification is offered by Lam (1998). She classifies jobs based on knowledge: professional, technical and bureaucratic. Discussion about generic occupational elements and their application to the occupational group itself and to society at large continues today. It focuses on the context of occupational deprofessionalisation (Freidson, 2001; Kreutzer, 2003; Pfadenhauer, 2003; Barley, 2005; Hinings, 2005) and even on organisational professionalisation (Evetts, 2006).

Many of these endeavours dictate that all occupations lie on the same continuum: on one side we find the almost non-expressed occupations, with the highly regulated professions on the other. It makes no sense to seek a sharp distinction between occupations and professions, as both concepts are related to similar social groups that can be compared in terms of numerous common attributes. Selected attributes are those that precisely indicate how much a certain occupation is professionalized, and whether it is in a professional growth or decline.

Although qualitative assessment of different occupational attributes can be described as a mainstream methodological approach in this field, these empirical in-depth studies are most often focused only on selected case studies of highly professionalized occupations (Larson, 1977; Abbott 1988; Macdonald, 1995), while there are fewer attempts to assess larger groups of occupations. Among these, we should mention Hickson and Thomas (1969), who developed the Guttman scale of professionalisation, or Harries-Jenkins (1970: 58), who sorted professional elements into six groups: structural, contextual, functional, educational, ideological and behavioural. Among the recent attempts also significantly bolstered by statistical data, we should mention the Slovenian author Kramberger (1999).

Among the professional attributes that are typically and most prominently considered, it would be proper to select for our purpose those that seem most relevant for universal trans-occupational secondary source assessment. In our opinion, the variables that suit this purpose are a) vertical institutionalisation of educational programmes, b) elements related to occupational regulation and c) elements of occupational organisation.

On the basis of the functionalist theoretical perspective described, we have constructed a three-dimensional variable that comprises dimensions of each corresponding indicator, as shown below. However, owing to the vast theoretical field, only selected, and in our opinion the most important aspects, are considered.

Indicators of occupational formalisation in public educational programmes are the following (in the brackets, the possible number of points is prescribed):

- (1) primary school or less
- (2) three-year secondary school programme
- (3) four-year secondary school programme
- (4) high school or higher educational programme (but not university level)
- (5) university programme

Indicators of occupational regulation are the following (points are prescribed cumulatively, each attribute brings one point):

- (1) one needs to have more than secondary school for occupational performance
- (1) one needs to have a certain horizontal level of occupation (e.g. social sciences) for occupational performance
- (1) public control of financing in the typical sector
- (1) the state awards certificates as well as the school
- (1) the state runs a demanding exam

Indicators of the existence of occupational associations (in brackets, the possible number of points is prescribed):

- (0) no associations
- (1) non-professional association
- (2) more non-professional associations
- (3) professional associations with employed personnel, an ethical code, appearance in the media
- (4) more professional associations or occupational chambers with fewer numbers of employees
- (5) professional associations and a chamber that actively regulates the occupation

As presented, it is suggested that the operationalisation of indicators of occupational professionalisation is measured as a latent three-dimensional variable, expressed by the average sum of single dimensions. In accordance with a broader literature review, we presume that contributions of all three dimensions to the final variable of professionalisation are not equal. We argue that the only feasible way of weighting evaluation in cases such as ours is to take into account expert 'qualitative' opinion. We suggest *occupational regulation* as the most important indicator: according to the theory, it shows the power and position of a certain occupational or professional group in the social environment. A half-lower weight was prescribed to *occupational associations*. Since their number varies through time in line with their impact on occupational and professional groups we

agree to prescribe a half lower weight to this variable. The weight of *occupational formalisation in the public educational program* is somewhere, although not exactly, in between. Presumptions of weighting importance were evaluated within the expert group (4 people) at the Faculty of Social Sciences. Based on theoretical evaluation of the importance of a certain dimension, we are able to assign weights to the three indicator groups as follows:

- Indicators of occupational formalisation through public educational programmes are multiplied by 10;
- Indicators of occupational regulation are multiplied by 14;
- Indicators of the existence of occupational organisations are multiplied by 7.

In a similar way, according to his expert opinion, Kramberger (1999: 302) evaluates the importance of professional attributes to occupational/professional structures. Although the explained weights of indicators seem almost arbitrary, we argue that a more precise methodological exercise based on accurate numbers is hardly possible in this case.

2.2 Quantitative approach – link to the perspective of the critical occupational ideology

As was suggested in the first section of this paper the perspective of critical occupational ideology (Freidson, 1970; Illich, 1975; Larson, 1977; Burrage, 1988; Macdonald, 1995), contrary to the functionalist perspective, studies occupations and professions *from within*. This perspective stresses the question of how occupational groups gain social power, and how these internal endeavours generate professional attributes such as educational programmes or associations (Freidson, 1973; Larson, 1977; Burrage, 1988). This is very much related to the question of accumulation of social power and justification of this process, which is also linked to the origins of social classes, social exclusion and social stratification (Abrahamsen, 2005; Dahle, 2005; Gibson, 2005).

The pioneer of this critical reaction to the earlier optimistic view is Larson (1977), who emphasizes that market control of occupational groups is not a direct reflection of skills, expertise and ethical standards, but more a reflection of the professional project. The author describes the ‘professional project’ as an upgrade of the traditional stratification mechanism trying to justify the redistribution of social wealth in democratic states. This redistribution is based on utilisation and control of expert knowledge. The tradition of these claims continues in numerous authors such as Parkin (1979), Burrage (1988), or Macdonald (1995).

Few, if any, of these attempts measured the perceived elements of professionalisation by occupational or professional practitioners with a large-scale survey. Such an exercise would reveal the connection between the perceived

internal attitudes of occupational and professional practitioners towards professional institutions. We argue that this empirical endeavour would also provide the answer to the question of how selected professional attributes function in practice. Based on the theoretical contribution of a critical ideological perspective, we shall select the set of indicators that appear to be the most prominent, intending to supply this missing methodological link. We propose the following selection (Cronbach $\alpha=0,58$):

- Only people with a precisely defined education can occupy my workplace;
- The state precisely regulates procedures of my work through legislation;
- The labour union can significantly affect my work;
- The occupational Association and the Chamber can significantly affect my work.

The proposed opinion measurement of selected indicators seems to be satisfactory on a 5 - level Likert scale, in which individual values meant: 1 (totally untrue), 2 (partly true), 3 (neither true nor untrue), 4 (very true) in 5 (totally true). Data collection and description of results follow. Special attention is paid to a comparison of the two selected approaches.

3 Combining the results of qualitative and quantitative approaches

3.1 Research design

In the research that was performed at the University of Ljubljana in the Republic of Slovenia, we generated a non-random sample of 63 occupations (see Table 2). These occupations were equally distributed among sectors and accordingly among the labour force. We managed to include occupations that capture very disparate levels of occupational professionalisation by theoretical assumptions: from cleaners at the bottom, to doctors at the top. It is precisely this broad range of differently professionalized occupations that ensure scientific consistency in the final argumentation, although, the sample cannot be described as random. These occupations were comparatively analysed firstly by the qualitative, and secondly by the quantitative approach.

The qualitative approach encompassed the assessment of three sets of occupational dimensions: institutionalisation of formal education, professional organisation and occupational control as indicated in section 2.1. Assessment of *occupational institutionalisation in formal education* was done based on secondary sources of statistical data from the Ministry of Education. Assessment of *occupational associations* and *occupational regulation* was done by analysing

national data of educational institutions and research on the internet, mostly using data from the Statistical Office of the Republic of Slovenia.

The quantitative approach was carried out within the large-scale research project of occupational knowledge at the University of Ljubljana. The final sample included 1512 individuals, on average 24 per occupation. We chose to study those occupational practitioners in the largest organizations. We presumed that we could study occupation there in its 'pure' form, without the number of additional tasks that might often be present in smaller organizations. Typically, one or more members of our project team guided the survey. For occupations where the corresponding level of education was primary school or lower, we carried out face-to-face interviews by applying our questionnaires. In most cases and wherever possible, this process was performed by a member of our project team, who usually guided respondents, reading and explaining individual questions: our survey groups completed a questionnaire in an average of about 20 minutes.

The final analysis is done on the occupational aggregate level: the total sample of 1512 respondents is classified into 63 different occupations that are subject to further analysis. Setting up the occupation as the basic unit makes the results more robust (we lower the impact of individual characteristics).

In the following section, the results of analyses are presented, first separately for each approach and then comparatively.

3.2 The qualitative approach to occupational professionalisation

As described in the previous sections, we studied occupational professionalisation by assessing professional attributes from secondary sources. Values for the three-dimensional variable set are calculated with weights and average values of variables. To repeat, these elements are a) the vertical *occupational institutionalisation of public educational programmes*, b) *occupational regulation* and c) *existence of occupational associations*. We present the results (standardised scores) in Table 2.

The average standardised index of values encompasses occupations such as bank treasurer, computer programmer, manager, mechatronic engineer, woodworking technologist, engine driver, preschool teacher or secretary. At the top of this scale, we can find those occupations that are the most typical professions according to professionalisation theory: doctor, lawyer, pharmacist, university worker and nurse specialist. On the other hand, industrial factory worker, cleaner, warehousing specialist and bricklayer are at the bottom of the scale. These results are very much in accordance with theoretical assumptions.

Table 2: Qualitative assessment of professional attributes from the secondary sources.

Rank	Occupation	Index – prescribed
1	Doctor	2,210
2	Lawyer	1,828
3	Pharmacist in a pharmacy	1,828
4	University worker ³	1,828
5	Nurse specialist	1,364
6	Pharmacy technician	1,282
7	Primary school teacher	1,255
8	Secondary school teacher	1,255
9	Police worker	1,173
10	Accountant	1,091
11	Civil servant - adviser	1,064
12	Civil servant - higher adviser	1,064
13	Pharmacist in a factory	1,064
14	Electrical engineer	0,873
15	Soldier - rifleman	0,709
16	Soldier specialist	0,709
17	Chemical technician	0,608
18	Economist in organisation	0,490
19	Electrical engineer	0,490
20	HRM referent	0,490
21	Mechanical engineer	0,490
22	Traffic technician	0,490
23	Food science technician	0,299
24	Food science technologist	0,299
25	Journalist	0,299
26	Mechatronic manager	0,299
27	Translator	0,299
28	Bank treasurer	0,108
29	Computer programmer	0,108
30	Manager	0,108
31	Mechatronic engineer	0,108
32	Woodworking technologist	0,108
33	Engine driver	-0,056
34	Preschool teacher	-0,056
35	Secretary	-0,056
36	Sales engineer	-0,165
37	Shop manager	-0,165
38	Chemical technician	-0,247
39	Maintenance of electronics	-0,247
40	Maintenance w. in engineering	-0,247
41	Mechanical technician	-0,247
42	Bank commercialist	-0,547
43	Farmer	-0,547
44	Automotive mechanic	-0,711

45	Electrotechnician of energetic	-0,711
46	Civil servant - referee	-0,820
47	Electrotechnician	-0,820
48	Mechanical operator	-0,820
49	Personal banking consultant	-0,820
50	Bookkeeper	-0,929
51	Driver	-0,984
52	Electrician	-1,093
53	Fitter in electronics	-1,093
54	Hairdresser	-1,093
55	Joiner	-1,093
56	Metal worker	-1,093
57	Sales person	-1,093
58	Insurance agent	-1,202
59	Bricklayer	-1,475
60	Cashier	-1,475
61	Warehousing specialist	-1,748
62	Cleaner	-2,021
63	Factory worker	-2,021

* For index elaboration see section 2.1.

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3.3 Quantitative assessment of professional attributes

As described in Chapter 2.2, we have evaluated the occupational institutionalisation through opinion indicators related to the perception of occupational associations, trade unions, state regulation and formal education. In Table 3 we present the index values for occupational professionalization and a rank for each occupation (standardised scores).

Table 3: Quantitative assessment of professional attributes.

Rank	Occupation	Index – perceived
1	Doctor	2,766
2	Pharmacist in a pharmacy	2,351
3	Engine driver	2,186
4	Traffic technician	2,005
5	Primary school teacher	1,924
6	Secondary school teacher	1,547
7	Nurse specialist	1,477
8	Maintainance w. in engineering	1,352
9	Lawyer	1,202
10	Fitter in electronics	1,151
11	Electrical engineer	1,051
12	Hairdresser	0,863
13	Police worker	0,831
14	Accountant	0,791
15	Electrotechnician of energetic	0,442
16	Pharmacist in a factory	0,378
17	Bank treasurer	0,358
18	Sales person	0,354
19	Farmer	0,293
20	Mechanical operator	0,262
21	Preschool teacher	0,248
22	Food science technologist	0,209
23	Civil servant - higher adviser	0,206
24	Manager	0,171
25	Driver	0,083
26	Insurance agent	-0,001
27	Civil servant - adviser	-0,036
28	University worker	-0,051
29	Mechatronic manager	-0,097
30	Soldier - rifleman	-0,097
31	Pharmacy technician	-0,139
32	Chemical technician	-0,150
33	Warehousing specialist	-0,163
34	Electrician	-0,319
35	Woodworking technologist	-0,333
36	Cashier	-0,337
37	Automotive mechanic	-0,340
38	Electrotechnician	-0,436
39	Soldier specialist	-0,462
40	Bank commercialist	-0,489
41	Shop manager	-0,495
42	Metal worker	-0,539
43	Food science technician	-0,556
44	Economist in organisation	-0,578
45	Chemical technician	-0,611
46	Translator	-0,615
47	Personal bank consultant	-0,644
48	Civil servant - referee	-0,674
49	Maintainance of electronics	-0,684
50	Electrical engineer	-0,688
51	Secretary	-0,715
52	Cleaner	-0,783
53	Sales engineer	-0,795
54	Mehatronic engineer	-1,113
55	Mechanical engineer	-1,114
56	Bookkeeper	-1,172
57	HRM referent	-1,172
58	Journalist	-1,189
59	Mechanical technician	-1,225
60	Joiner	-1,241
61	Bricklayer	-1,337
62	Computer programmer	-1,367
63	Factory worker	-1,746

* For index elaboration see section 2.2.

In addition, the results of this ‘perceived’ scale are very much in accordance with the theoretical assumptions. At the top of the scale, the occupations are similar to those in the previous methodological exercise, such as doctor, pharmacist, teacher or nurse specialist. However, there are also some occupations that in the previous section were positioned a bit lower, such as engine driver or traffic technician.

The average values of this professionalisation index encompass occupations such as civil servant, manager, driver, insurance agent, university worker and mechatronic manager. It is interesting that the index at this ‘perceived’ scale is also taken by university worker, a result which can be explained with reference to a special (self) interpretation of academic freedom and independence from the state. At the bottom of the scale, one finds manual worker in a factory, bricklayer and joiner. In addition, computer programmer is in this group. The self-perceived level of professionalisation within this category is surprisingly low.

In the section below, we focus on discrepancies between qualitative and quantitative assessment of the social phenomena being studied, and on the relevant methodological implications.

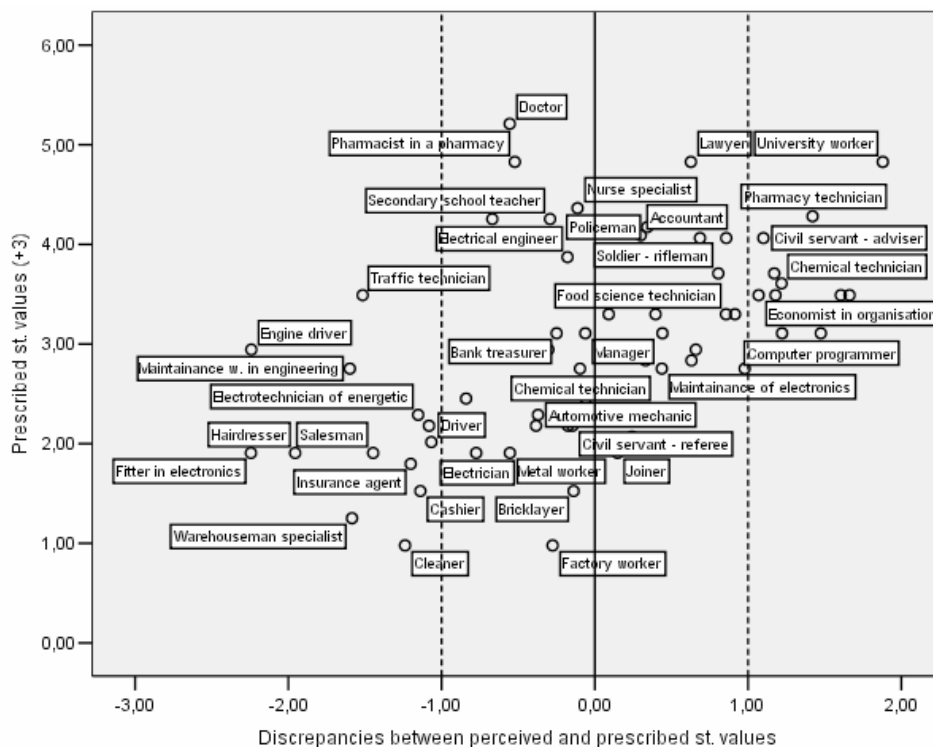


Figure 1: Distribution of occupations according to a) discrepancies between prescribed (quantitative approach) and perceived (quantitative approach) standardised values in relation to b) prescribed standardised values.

3.4 What can we learn from the discrepancies between the quantitative and qualitative approaches?

Mutual comparison of standardised values between approaches indicates the relative consistency of measurement by both methods. The correlation between quantitative and qualitative standardised values is statistically significant (Pearson correlation coefficient is 0,479) at the significance level of 1 percent. Figure 1 presents the rank differences of all occupations in standardised scores.⁴

On the *vertical axis* of Figure 1, we can see the basic distribution of standardised values converted to positive values (by adding 3). These values indicate the level of professionalisation that was previously described in Table 2. We included this distribution in order to provide a better overview of the *horizontal axis* that is crucial for our exercise. This (horizontal) axis indicates the distribution of occupations and professions according to discrepancies measured in standardised deviations between what is prescribed (quantitative approach) and what is perceived (qualitative approach).

We presume that congruency between quantitative and qualitative method refers to occupations that are within one positive or negative standard deviation from the average value. Values of occupations that are distant by more than one standardised deviation in the *positive direction* indicate significantly higher levels of professionalisation from the viewpoint of formal institutionalisation in society in comparison with perceived professionalisation among the occupational practitioners. Contrastingly, in the *negative direction*, there are occupations with a perceived value of professionalisation much higher than one would presume by looking only at existing occupational institutions.

On this basis, we can draw two important conclusions. Firstly, results in a methodological sense illuminate the importance of the methodological triangulation that was described in the introduction to this paper: relying on one single method (quantitative or qualitative) can be in certain cases very misleading. Secondly, the discrepancies between two methods provide important insight into the research topic.

In our case, we are able to identify a group of occupations whose perceived level of professionalisation does not match their institutional frameworks. This can be a clear indication that institutions related to these occupations cannot play their professional role, owing to market turbulence or other reasons. There can be at least two main reasons for that: some occupations are apparently in their (early) phases of deprofessionalisation (e.g. journalist, university worker), or they are

⁴ Since the same discrepancy between different positive/negative pairs of (perceived/prescribed) standardised scores can be obtained and in order to obtain correct (and interpretatively more meaningful) discrepancies, we first transformed all standardised values into positive values: we have chosen to add 3 to each standardised value. The final formula is: discrepancy = (prescribed st. values + 3) - (perceived st. values + 3).

undergoing more radical transformation (e.g. soldier specialist, mechatronic). In these cases, the link between the world of work and the world of education in line with occupational institutionalisation is apparently weakening, since occupational practitioners do not perceive the existing institution as an important factor in their work.

On the opposite side, we also identified a group of occupations whose perceived professionalisation was well beyond the corresponding institutional frameworks. This group of occupations indicate a tendency towards occupational professionalisation, while the institutional background has not yet been set up to an adequate extent. In these cases existing occupational institutions have a formally weak position in society (e.g. hairdresser, engine driver), or in some cases they hardly even exist (e.g. insurance agent).

Although interpretations of discrepancies between the two different approaches can vary according to individual cases, the utilisation of multiple methods within the same research opens a very starting-point for further empirical research in the field of social sciences in general. Such multiple methods can provide new insights into research phenomena.

4 Conclusions

The results of this study show a relatively consistent measurement of the level of occupational professionalisation by both approaches; expectations based on theoretical considerations are confirmed to a large degree. There are certain exceptions (e.g., journalist), which may point toward new developments in the direction of deregulation of some professions, or the opposite (hairdresser).

It also seems that measurement of occupational professionalization is consistent if the two approaches are compared – the correlation between the results of both approaches is positive and moderately high. The study of complex social phenomena such as occupational professionalisation by only one method (e.g. qualitative or quantitative) can be in a certain cases misleading. Various social concepts such as professionalisation, social stratification, learning and education and many others can be, on the one hand, observed as ‘realities’ within the society, while the other part is integrated in people’s minds.

Despite great care in the methodological design and conduct of the study, there are at least three ways in which such studies can be improved in the future:

- a) The reliability of survey items for measuring professionalisation is relatively low; therefore, further work should be done on finding and testing better attitude indicators of professionalization, especially by combining qualitative and quantitative approaches.
- b) The indicators in the objective approach are relatively few, and the weighting procedure depends on subjective and relatively arbitrary decisions of a group of specific experts. The objective measurement of

professionalisation could be improved by finding additional indicators and testing different ways of weighting the indicators (e.g., statistically or by checking with other independent researchers and/ or representatives of various professions).

- c) The whole idea of professionalism, which in the Anglo-Saxon tradition, is limited only to a few highly professionalized occupations, such as doctors or lawyers, should be shifted more towards the continental tradition linking the concept of professionalisation with a broader spectrum of occupations. Without knowing what is happening on one side of this spectrum (e.g. cleaners, taxi drivers, or hairdressers) it is difficult to develop a holistic understanding of the concept, and therefore an understanding of typical 'illustrative' examples (e.g. doctors or lawyers) can be insufficient. This is especially the case in the latest research on professionalism that transfers the whole concept from occupational groups to enterprises and corporations (Evetts, 2006).

Owing to the accelerating dynamics in the emerging knowledge-based society, the widening of social concepts from one to many social spheres, as in the case of professionalism, will initiate a need for integration of previous case-based qualitative research with quantitative research, and vice versa.

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