

Job profile research for the purchasing profession

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The study reported in this article is based on theories about job and competence analysis and a project in which job profiles were developed that were aimed at providing a framework of reference for evaluating in-service training programmes for purchasing professionals (professional buyers of goods and services in various sectors of the economy) provided by a training institution of an association for purchasing management. This project was commissioned as part of the permanent maintenance policy of the training institution, but also based on experience with an earlier comparable project, and concerns about test development using job profiles and related attainment targets. The study is part of a research programme on course development for professional training. Ideas about course content validation were explored and tested. The article addresses the issue of trustworthiness and uncertainty reduction in the job profile research process. It specifically looks at the methods used in job profile development and perennial research problems that are related to that, such as stratification of a professional sector, sector-specificity of job information, formatting job profiles, and the value added of small-scale in-depth analyses of work processes versus large-scale job surveys. It concludes that small-scale, context-related analyses of jobs adds most value, but that this is not sufficient for ensuring faith in the study results. Large-scale surveys complement the in-depth analyses in this respect. So using a mix of in-depth and large-scale methods is recommended in conducting job profile research.

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Introduction and research questions

Purchasing (or procurement) may be a profession with which training and development researchers are quite unfamiliar. But it is an emerging profession, since an important part of the turnover of companies is determined by their activities. The Purchasing Managers Indexes are important indicators of the economy, which can even influence the Stock Market. Purchasing is also a wide profession, since all larger organisations have purchasing departments. In very large companies, corporate purchasing functions can also be quite big, with a central corporate purchasing policy unit, and decentralised purchasing departments. In the chemical industry and retail business, purchasing directors may have budgets of several billions of euros or dollars, as an important part of the total turnover of companies is determined by activities of purchasing professionals. Organisations can realise significant savings by strategic negotiations with their suppliers. This adds directly to the financial results of the organisation, and that is why purchasing directors gradually move into boards of directors as CPEs, chief purchasing executives. The organisation of the purchasing profession looks a lot like that of the training and development profession, although the training and development profession has not yet succeeded in getting a chair in the corporate boardroom, probably because the training and development profession has difficulty convincingly demonstrating the financial benefits to the organisation, despite the many attempts to develop methodologies for cost-benefit and return-on-investment calculations. There are national and international purchasing management associations, which offer various opportunities for continuing professional education in this field. Interestingly, there are only a few initial educational programmes in the field of purchasing. Also many purchasing professionals originally come from other disciplines. They receive their (in-service) professional education from various sectoral purchasing training bodies.

This article reports on the second project for job profile development for the purchasing profession. The first project was conducted in 1993. The purpose of that study was to ensure that courses of a professional Association of Purchasing Management remained current. In the course of about a year, during an extensive research and development process, job profiles (Mulder *et al.*, 1994) and job training profiles (Bellemakers *et al.*, 1994) were delivered. Job profiles, which are drawn up for different categories of purchasing professionals, essentially consist of a description of the content and structure of the profession, in this case, that of the purchaser. Profiles like these provide management of sectoral organisations in the field of training and examination with a framework on which to base their programmes and, in doing so, allow these organisations to better align training and testing programmes with the learning needs within the profession. Job training profiles consist of overviews of attainment targets (general training objectives), curriculum content descriptions, and references to educational material and other sources of information, structured by the job profile of a certain job, in this case for instance the purchasing manager or senior buyer. They can be compared with detailed course and module descriptors.

The study that was conducted in the 1990s was not carried out for practical purposes only, but was part of a research programme on needs assessment and course content decision making for professional and occupational education and training. In several studies that preceded the first purchasing study, ideas about course content validation were explored and tested (Mulder, 1989; Mulder & Te Brake, 1990; Mulder & Thijsen, 1990; Mulder, 1991; 1992). A *post hoc* evaluation of the study (Mulder, 1994) showed that large-scale quantitative needs assessment based on surveys did not result in sufficient confidence about the job profiles. Furthermore, the detail in task lists made subsequent use of the job profiles quite difficult.

The practical purpose of the present study was to develop current job profiles of purchasing professionals that could be used to evaluate the training programmes, to redesign these programmes if necessary, and to support test development. The study was also used again to test several research strategies in job profile development. This

was now done as part of a comprehensive research programme about competence development (Mulder, 2001a; 2001b; 2002).

So in fact the study presented here has a set of two-tier research questions, the first tier aimed at the practical development of the job profiles, the second tier at the evaluation of the job profile development research strategies used. The practical research questions are:

- (1) Is the job profile acceptable for the association for which it is developed?
- (2) Is the job profile useful for evaluating and redesign of the existing training and testing programmes?

The methodological questions are:

- (1) In what way do research strategies for job profile development contribute to the trustworthiness of the resulting job profiles, and do they reduce uncertainty in job profile research processes?
- (2) What role can competence mapping play in the development of job profile research?

Theoretical framework

This study builds on a large body of theory and research in the field of curriculum decision making in work-oriented training and development. The first approaches to align occupation-related training programmes to the content of work were rather technical in nature. This was, for instance, the case with the DACUM method (Developing A CURriculum) (see Adams, 1975; Norton, 1997). This method, which is still being used effectively, and comparable methods, were described by Finch and Crunkilton (1998). After the rather technical start, the work of Habermas (1971) on the theory of communicative competence became influential. This meant that more attention was given to the process of decision making about curriculum and course content. The work of Frey on the theory of generative action culminated in his approach of curriculum decision making in groups (Frey, 1982). According to his idea, this decision-making process should comply with communication rules that were in line with the work of Habermas, and he saw this process as a generative process, and not as a replicative or reconstructive process. As such this process is linked to later socio-constructivist processes of learning and work (Engeström, 1987), and communities of practice (Wenger, 1998). Schwab (1987), based on his earlier work in the 1960s and 1970s, indicated the limits of the mere technical approaches to curriculum development, and introduced 'the practical', which in essence was the detailed and situated deliberation about educational issues. In a way, the limitation of his approach is that it is context and time specific, whereas more general methods are needed for curriculum decision making for larger groups and diverse contexts, taking the disadvantages of the earlier technocratic approaches of curriculum development into account. Walker (1990) also stressed the importance of deliberative decision making, and his approach to this is useful in decision making processes that affect larger groups in more diverse contexts. Dillon (1994) put the issue of deliberation in a broader perspective, pointing at the importance of this concept for education and society in general.

Gradually, the notion emerged that curriculum decision making, especially in the field of work-related education and training programmes, should consist of a combination of methods linked to the empirical research tradition that can yield trend analyses, sector studies, alumni research, and curriculum analyses, and social-constructivist approaches of communication about curriculum content, resulting in a pattern of informed decision making. This approach showed that in areas of divergent opinions, argumentative group decision making could lead to convergence of opinions, and stability of this convergence over time (Atkins, 1992; Mulder, 1992). It appeared that quality of the input for decision making was important. In research methodological terms this was seen as a validity issue. As a result of this, more attention was paid to the validity of job profile research.

Together with these developments, various new theoretical insights influenced the strategies for job profile research. First of all, the performance perspective became influential. In essence, it stressed the importance of the socio-economic effectiveness of work-related education and training programmes. The work of Swanson (1994) and Rummler & Brache (1995) are examples of this performance analysis approach. Secondly, and related to the performance orientation, the competence movement had a significant influence on the debate about aligning vocational, professional and corporate education to work. Competencies were seen as performance requirements. The work of Eraut (1994) on competence and professional expertise, and Dubois (1993; 1998) about competence and performance development, showed how competence development and performance improvement were intertwined. The consequence of the competence concept, how diverse in nature, was that meaningful clusters of knowledge, skills and attitudes for job performance had to be found, and that task lists alone would not be sufficient for the development of training programmes. Thirdly, roles studies (McLagan, 1989) and studies in the field of human resource development (Walton, 1999), the learning organisation and life long learning (Tjepkema *et al.*, 2002) had their influence on the theory development behind job profile research. The role studies underlined the importance of analysing work processes in terms of outputs, competencies, levels of mastery, and trends that affect the development within the profession. The studies in human resource development and the implementation of the concept of the learning organisation show that initial vocational and professional education are more and more related to corporate training, education and development processes. This means that job profile research should be aligned to human resource development and work-related learning processes (Boreham, 2002; Boreham, Samurçay & Fischer, 2002). Finally, the concept of lifelong learning implies that it is important to include in job profiles competencies like learning ability, learning motivation, attitude to change and self efficacy.

Research methods

These theoretical insights were taken into account in designing the job profile development process. As already mentioned, two sets of research questions were asked in this study, practical development oriented and development-methodological questions.

For the first set of questions, interactive meetings with a consultative committee that was created on behalf of the Association of Purchasing Management, and direct interaction with the Association and the Foundation for Purchasing Examination were used. A follow-up exchange of information was used to assess the use of the job profile in curriculum redesign and adaptation of testing procedures.

For the second set of questions, in-depth reflection on practice within the research team was used. Meetings were held to discuss the advantages and disadvantages of certain development strategies, and they were carefully implemented. This implementation can be seen as a test of the strategies in a single-case study design. This is the only way in which context valid insight in the way research strategies for job profile development work can be gained, since job profile development projects generally take a long period of time, and there is no database with the population of projects from which one could draw a sample. Moreover, it is unlikely that the actors in these projects would be available or willing to cooperate in research on the methods applied in the profile development, since criticism of the methods used would imply doubts about the validity of the profiles, which could have devastating effects on the work of the stakeholders in job profile development, curriculum design, and testing practice.

The job development research strategies that are tested are:

- qualitative multi-perspective iterative interviews for trend analysis;
- stratification of the profession, group interviews for generating and structuring task and competencies lists;
- a large-scale task performance survey;

- a test of sector-specificity of job profiles;
- job profile mapping;
- job picture development;
- competence mapping.

These research strategies were used deliberately on the grounds of earlier experience with job profile research within the same profession, and theoretical considerations.

Job profile development process

As to the job profile development process, the following activities were undertaken. At the beginning of the project an expert workshop was organised with the purpose of discussing the major developments in the purchasing profession. Various purchasing and human resource managers of large organisations and other experts were invited, based on a nomination procedure of the Foundation for Purchasing Examination, which commissioned the study. A tentative list of trends, which was based on the literature and preliminary interviews, was used as input for this workshop. The trend list was amended, and several essential remarks as to the design of the study were mentioned.

Further to this, literature research on developments in the field of purchasing was carried out, which also contributed to the development of the tentative task and competence lists. Parallel to that, group interviews with heads of purchasing departments, senior buyers and buyers were conducted about the developments that influence their jobs, and the tasks they perform. Furthermore, individual interviews were held with (assistant) buyers about the supporting staff. A group interview with HRM and HRD professionals was carried out, and also group interviews with heads of purchasing departments by sector of economy. Four of these group interviews were held, in industry, business service, government and trade, respectively. Also, a group interview with purchasing consultants was conducted, to see what models and strategies were used to improve purchasing practices.

To evaluate the trustworthiness of the qualitative approach in the various individual and group interviews, an additional survey on tasks was conducted among a representative sample from the membership of the Association for Purchasing Management. A pre-survey was conducted to find the right respondents who were willing to participate in the main survey. From the research population ($n = 3083$), 806 persons replied. This group was used for the main survey. Of them, 261 purchasing professionals responded to the main questionnaire, which was sufficient to validate the results from the qualitative interviews. To check the representativeness of the final response group, the deviation of the population, pre-survey and main survey respondents by sectors of industry were calculated (see Figure 1), and as can be seen from Figure 1, the deviations are small enough to conclude that the final research group (the respondents from the main survey) was sufficiently representative of the whole research population.

Information from the survey was also used to develop job pictures. Based on this information the final job profiles were formulated. Next, developers were selected and instructed, new specifications of attainment targets were formulated, and training profiles were composed.

Results and conclusions

In this section the results and conclusions will be presented for both the practical and research methodological part of the study.

I Results and conclusions regarding the development of the job profile for purchasing professionals

In this section, the results of the project will be summarised under five headings: trends (that influence future performance requirements), job profiles, sectoral bias in task

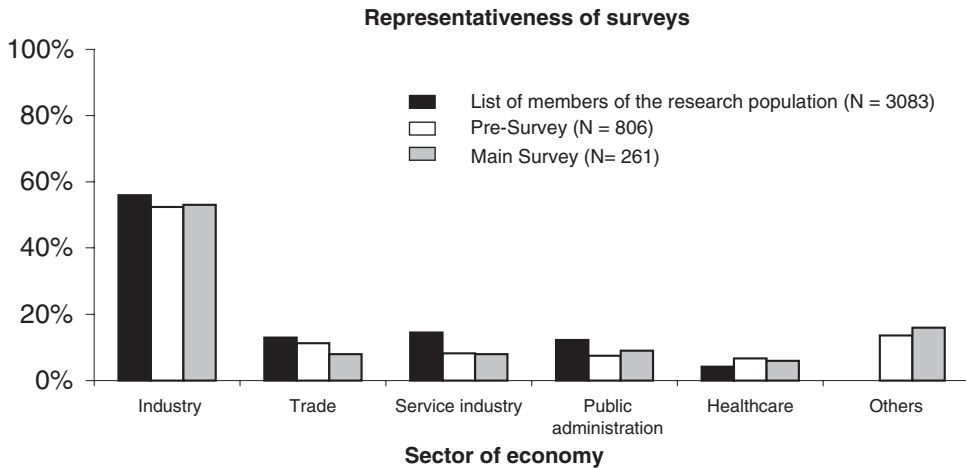


Figure 1: Comparison between the distribution of members of the research population, the respondents of the pre-survey and the respondents of the main survey by sector of economy.

performance (that might necessitate differentiation in the training programmes), competencies and job pictures, and longer-term effects. At the end the conclusions will be formulated.

This project led to various publications: an executive summary of the project distributed to all members of the Association for Purchasing Management, and the Association for Human Resource Development (Wesselink *et al.*, 2001), a research report in which the study and the results are described more fully (Wesselink *et al.*, 2002), and a so-called service document (Miltenburg *et al.*, 2002), which is a handbook with specific guidelines for test development for the purchasing training programmes based on the job profiles that were developed.

Trends

The first result of the study was a list of ten trends that initially were divided into three main categories: macro trends, micro trends, and professionals trends, resulting from the more or less autonomous developments within the purchasing profession. Macro trends result from developments that occur in the environment of the organisation such as socio-economic and political-governmental developments and national legislation. Micro trends are trends that are related to factors in the organisation, such as strategic choices, culture, and attitude towards the purchasing professionals. Professional trends are pushed by academic research, consultancy, knowledge circulation, training and development. Although this distinction is defensible, we decided not to present the trends separately, since they are too interconnected.

The trend list was developed in an interactive way during the various qualitative group and individual interviews, and was finally inserted in the survey. Respondents were asked to rate the influence they thought trends would have on their purchasing performance on a 3-point scale (1 = unimportant; 2 = neither important nor unimportant; 3 = important). The average of the ratings are presented in Table 1.

The trends that are rated can be summarised as follows.

- *The purchasing organisation is gaining in strategic importance*

As a result, the purchasing organisation's contribution to achieving the strategic goals of the organisation is becoming increasingly visible. Actors within the organisation thus become more aware of the importance of purchasing. Due to this development, the function of the purchaser has become more important, and with it, so have the qualification demands. This trend may be summarised in the statement: 'Purchasing matters'.

Table 1: Trends that will affect the purchasing profession

Trend	Average	Sd	N
Purchasing strategically more important	2.67	0.53	237
Selling internally	2.55	0.63	237
E-business	2.44	0.62	238
Focus on core competencies	2.38	0.66	237
Working in multidisciplinary teams	2.32	0.72	237
Chain management	2.31	0.72	236
Globalisation	2.19	0.74	236
Alliances	2.19	0.71	237
Differentiation	2.17	0.66	236
Ethics	2.05	0.70	237

- *Selling purchasing internally*

This trend stems from the increasing emphasis on decentralised autonomy and self-government. With the rise of e-business, it has become easier for each employee within an organisation to buy products and services independently. This results in an increased pressure on the purchasing organisation to demonstrate its added value, and to streamline and support decentralised purchasing processes. It is up to purchasing professionals in organisations to prove their added value to the right people, at the right moment, in the right way (as a reversed marketing process).

- *E-business*

This trend is propelled primarily by the information-society. Although E-business has been a trend for some time, the consequences of this trend are only partially visible. At present, the internet makes it possible to communicate, compare, commission statements, and purchase goods and services online. The possibilities for using the internet in the purchasing sector will only have increased ten years from today. It is not inconceivable that the majority of purchases will then take place through e-procurement within e-market places, or even through laser projection conferences, which will allow people who are geographically far apart to confer 'live' and simultaneously in projection rooms. This may appear like science fiction, but the impact of long-term developments are generally underestimated. E-business is expected to peak in the near future.

- *Focus on core competencies*

This trend started in the 1990s and has continued since. Organisations increasingly put out to contract certain products and services in an effort to outdo the competition. In purchasing, this means buyers are increasingly involved in strategy development concerning make-or-buy decisions, as well as outsourcing.

- *Working in multidisciplinary teams*

Buyers are frequently becoming part of teams in which various disciplines are represented. For example, buyers must deal with financial, legal, logistical, technical and marketing experts. The same is true for their contacts with suppliers if purchasing becomes involved in projects dealing with the development of new products or processes. Buyers often even assume a leading role in such projects.

- *Chain management*

Chain management is a development aimed at process and product control. Its aim is to strengthen the whole chain, from supplier to consumer, against the competing organisations or chains. Purchasing is then directed toward the management of relations, early supplier involvement and co-makership. This trend is not only an organisational-external trend, but also an internal trend. Chain management may result from an organisation's specific strategy, which, in that case, is targeted at the chain as a whole.

- *Globalisation*

An increasing number of organisations opt for (international) mergers or foreign dependencies as a result of competition. In addition, geographical distance is no longer a limiting factor when it comes to choosing suppliers, due to developments such as e-business.

- *Alliances*

By fostering collaboration with other purchasing organisations, buyers attempt to realise the purchasing benefits large organisations have. Consortium buying is also part of this trend.

- *Differentiation*

The purchasing profession is developing at a steady pace. Increased deepening and specialisation may be discerned within this sector. Differentiation in purchasing becomes apparent in the distinction per sector of economy (consider, for example, public procurement, in which the public and political aspect of large purchases play a vital role), the size of the organisation (in large multinationals the purchasing division is extremely specialised, while in a small single-owner business, the owner carries out all these tasks), the level of professionalism (are the goods and services purchased by professional buyers or by others?) or organisational policy (does the organisation opt to contract out their purchasing or not?).

- *Ethics*

Not only is a buyer required to behave in an ethically acceptable manner, the whole (purchasing) organisation is expected to purchase ecologically sound products. In this trend, sustainability is the key issue. If a purchasing organisation fails to consider social developments, this will result in negative publicity. Abundant examples may be found in the media.

In the 1993–1995 research, many of these trends were also observed. However, it should be considered that a trend always starts slowly, reaches a peak and then fades. The influence of important trends, however, is permanent.

The results of the trend study are confirmed by the results of other research. A publication by Carter *et al.* (2000), which was published at the same time as this project was carried out, revealed eighteen trends, among which E-business was seen as the most important. It is predicted that E-business will foster demand-based thinking within the chain. In addition, many trends in the area of chain management are mentioned, such as relation and performance management. Also, alliances and syndicate buying are distinguished as trends. In a study by Croon *et al.* (1998), globalisation, working in multidisciplinary teams, growing strategic importance of the purchasing organisation and internal selling of purchasing were identified as important trends.

Job profiles

Based on the interviews, the workshop with purchasing experts, and the survey, four jobs were distinguished within the purchasing profession: Purchasing Manager (PM), Senior Buyer (SB), Buyer (B) and Assistant Buyer (AB). For these jobs, a total of 105 tasks were distinguished, generated by reviewing the task list from 1993 during the various interviews, which were categorised as follows:

- *Purchasing management.* Development of purchasing policies, management of the purchasing organisation and processes aimed at improving the organisation.
- *Information and communication.* Communication with internal as well as with external sectors, information technology and globalisation.
- *Initial purchasing.* Specification of needs, selection of suppliers, and contracting suppliers.
- *Operational purchasing.* Ordering goods and services, monitoring the buying process and follow-up, evaluation and administrative handling of the purchasing process.

Profiles were drawn up for these four jobs based on the qualitative interviews and quantitative survey. The job profiles for the field of 'Initial Purchasing' are presented in Box 1 (for reasons of limited space, not all job profiles are presented).

Box 1: Job profiles for the field of 'Initial Purchasing'

1. Specifying the purchasing need				
Tasks	PM	SB	B	AB
1.1. Supporting and advising the development of functional and technical specifications of purchasing needs with the internal customer.	•	•	•	•
1.2. Verifying whether what has to be purchased measures up to functional and technical specifications of the organisation.	•	•	•	•
1.3. Evaluating the completeness of the specifications.		•	•	•
1.4. Determining the amount that has to be purchased.		•	•	•
1.5. Offering advice to and taking part in the decision-making process in new or strategic purchasing trajectories.	•	•	•	
1.5.1 Offering advice to and taking part in the decision-making process in make-or-buy decisions.	•	•	•	
1.5.2 Offering advice to and taking part in the decision-making process in decisions about buying or leasing.	•	•	•	
1.5.3 Offering advice to and taking part in the decision-making process about investments in goods.	•	•	•	
1.5.4 Offering advice to and taking part in the decision-making process about co-makerships.	•	•	•	
1.6. Contributing expertise on purchasing to new products or processes from the beginning of projects.	•	•	•	
1.7. Involving potential suppliers in new process and product developments.	•	•		
1.8. Making an inventory of internal expertise which is of importance to specific purchasing needs.	•	•		
2. Selecting the suppliers				
Tasks	PM	SB	B	AB
2.1. Doing research on the purchasing market with regard to the suppliers' market.		•	•	
2.2. Making an inventory and offering advice on (potential) suppliers for the fulfillment of purchasing needs.		•	•	•
2.3. Verifying whether suppliers can measure up to the formulated supply criteria, e.g. supply period, supply reliability, continuity, service, services after delivery and ethical aspects.		•	•	
2.4. Applying for and comparing offers.			•	•
2.5. Distributing purchasing needs in European tenders.	•	•		
2.6. Evaluating whether certain goods or services have to be bought beyond the list of preferred suppliers.		•		
2.7. Negotiating with suppliers about offers.	•	•	•	•
2.8. Choosing and/or offering advice (in a team) on the choice of the most suitable supplier.	•	•	•	

Box 1: Continued

3. Contracting suppliers				
Tasks	PM	SB	B	AB
3.1. Specifying by contract the agreements with the suppliers.		•	•	•
3.1.1 Specifying prices and payment conditions.		•	•	•
3.1.2 Specifying logistic and quality conditions.		•	•	
3.1.3 Specifying fine regulations.		•	•	
3.1.4 Specifying guarantee regulations.		•	•	
3.1.5 Specifying legal regulations.		•	•	•
3.2. Contracting suppliers.		•	•	

PM = Purchase Manager; SB = Senior Buyer; B = Buyer; AB = Assistant Buyer

Box 2: Aggregated job profiles for purchasing professionals

	PM	SB	B	AB
Management				
1. Developing purchasing policy	++	+	-	-
2. Managing the purchasing organisation	++	+	-	-
3. Improving the purchasing organisation	++	++	+	+
Information and communication				
1. Communication with internal sectors	++	+	+	+
2. Communication with external sectors	+	++	+	-
3. Information technology	++	+	-	+
4. Globalisation	++	++	-	--
Initial purchasing				
1. Specifying the purchasing need	-	++	-	--
2. Selecting the suppliers	-	++	+	--
3. Contracting suppliers	-	++	+	-
Practical purchasing				
1. Ordering goods and services	--	-	+	++
2. Monitoring the purchasing process	--	-	++	++
3. After-care, evaluation and administrative conclusion of the purchasing process	--	-	+	++

PM = Purchasing Manager, SB = Senior Buyer, B = Buyer, AB = Assistant Buyer
 ++ = very important; + = important; - = unimportant; -- = very unimportant

The individual job profiles were aggregated in Box 2. In this box, the weights of the task cluster for the various jobs are indicated. This overview shows, as expected, that management tasks are very important for purchasing managers and senior buyers. The same holds for the field of information and communication. Initial purchasing is very important for the senior buyer. And operational purchasing is the main field for the buyer and assistant buyer.

Sectoral bias in task performance

In the group interviews with purchasing professionals from the sectors industry, public administration, the service industry, and trade, attention is paid to differences

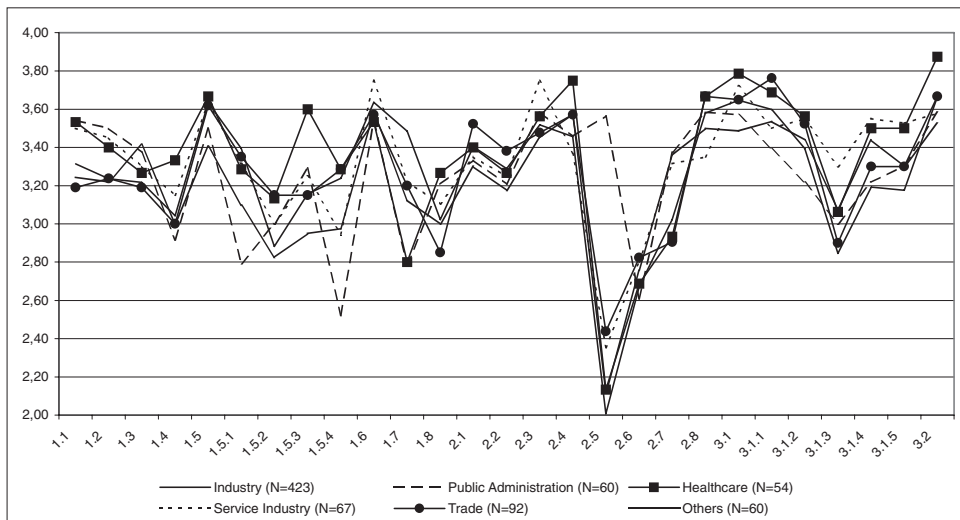


Figure 2: Differences of importance scores by task in the field of initial purchasing by sector of economy of the respondents. The numbers in the figure correspond with the numbers of the tasks in Box 1.

by sector in the field of purchasing. It can be observed that the field of purchasing does not vary a lot by sector of economy. Figure 2 presents an example of a test of homogeneity of performing purchasing tasks across industries. In this figure the field of initial purchasing is taken as an example. The task numbers correspond with the numbers of tasks in the job profiles, and the vertical dimension represents the importance of the task performance (1 = not important; 5 = very important). Based on visual inspection of the various graphics, the first conclusion is that task performance is rather homogeneous across industries. Further statistical testing (with a series of T-tests) confirmed this first conclusion. There are, however, some remarkable differences that will be summarised here.

In industry, especially in large international organisations, purchasing directors are often abroad, managers also work very internationally and independently, and there is a close relationship between logistics and purchasing. Tight delivery schedules require that goods and services that are being bought are delivered (just) in time. Public procurement has to deal with regulations as to European tendering, and public control over decision making. This requires transparency of the purchasing (decision-making) process. And it is not unusual that politics is involved in large-scale acquisitions, like in the defence sector or with large infrastructural projects. Purchasing professionals in the service industry mainly buy facilitary goods and services. This means that they are hardly involved with the core competencies of the organisation. Purchasing in this sector is regarded as being less important because of this. The challenge for buyers in this sector is to show their added value clearly. In the trade sector there is a close relationship between purchasing and sales. Purchasing professionals need to conduct appealing and persuasive product presentations, to convince sales professionals that the products to be bought will be sold afterwards. Related to this, purchasing professionals are very often involved in marketing campaigns.

The sector-specific variation of purchasing policies and strategies were regarded as being too small to justify differentiated training modules. The conclusion was that the diversity of participants from different sectors of the economy would have added value for the learning process. During the teaching-learning process sector-specific examples and exercises could be given to treat the differences sufficiently.

Competencies and job pictures

The job profiles consist of overviews of tasks purchasers will perform, in the light of the trends that were observed in general. The purpose of this study was also to include job pictures, with competencies that are relevant for job performance, which were meant to communicate the findings of the study to the profession, as well as to serve as input for the course evaluation and test development process. As mentioned before, competencies are seen as clusters of knowledge, attitudes, skills and values needed to perform certain tasks, solve problems, and to generally allow one to function adequately and effectively in a certain discipline, trade, organisation, function or role. Examples of competencies are: management skills, resistance to stress, sensitivity, organisational skills, creativity, learning ability, ability to pass on knowledge, problem-solving skills and persuasive power. During the interviews lists of competencies were made, and during the course of the interviews these were compiled in structured lists. For this, the classification of Onstenk (1997) was used:

- *Job-related and work methods-related competencies.* These are aimed at the ability to solve relevant purchasing problems that are related to core tasks of the purchasing professional.
- *Administrative, organisational and strategic competencies.* These are aimed at the organisational context and the related problems with which the purchasing professional has to deal in a correct way.
- *Social-communicative and normative-cultural competencies.* These are aimed at group processes in the teams in which the purchasing activities are being carried out.
- *Learning and realisation competencies.* These are aimed at the ability of the purchasing professional to contribute to the development of the organisation and the field of purchasing itself.

The competencies themselves are based on the work of Hoekstra & Van Sluijs (2000), and are adapted to the field of purchasing. Box 3 shows the list of job-related and work methods-related competencies.

The overview of competencies is used in the job pictures. The job pictures also consist of data collected during the survey. They comprise a verbal description of the job profile (based on the task lists described earlier), the list of relevant competencies, an indication of the compensation of the job, and the level of the job, including specifications of initial education programmes and in-service courses that are relevant for the job. The compensation of purchasing varies widely, and therefore, the salary ranges are quite wide.

Longer-term project effects

Since the project was carried out a couple of years ago, longer-term project effects can also be reported. There have been content-related changes in the training programmes provided by the Association of Purchasing Management, as well as changes of instructional nature. Concerning the content-related changes, an upgrading of the content material of the programme for the assistant buyer has been carried through. Apart from existing relevant knowledge, insight and skills, new concepts such as e-procurement have been added to the programme. Redundant or unnecessarily repeated concepts were deleted. For the year 2003–2004 the programme for purchasing-logistics workers (at the operational assistant level) was updated. That programme was deliberately not upgraded, to make a clearer distinction between this programme and the programme for the assistant buyer. In the same period the programme for the buyer (for buyers and senior buyers) was upgraded. The first five modules are now completed. The whole new programme consists of eight modules, whereas in the old structure the number of modules was nine. According to the recommendations of the study to differentiate the programme as to the sector or type of purchasing of the trainee, in these modules there is one choice possible for each participant, according to the sector or the type of purchasing. As the first option the module 'Public procurement' is developed. This is also relevant for the necessary professional development of purchasing practices in governmental organisations in

Box 3: Overview of job-content and work methods-related competencies of purchasing professionals

Competence	Explanation
Purchasing	The purchaser is able to obtain the required goods and services of the selected supplier on the basis of specifications of the internal customer.
Integral thinking	The purchaser is able to consider all the aspects of and consequences for the organisation when actions are taken and decisions have to be made.
Analytical abilities	The purchaser has the capacity to make a good analysis of the relations between, cause and results of situations, decisions and actions.
Generalising	The purchaser is able to draw a conclusion at a general level from some specific actions or decisions.
Information management	The purchaser is able to record new and useful information and is able to make it accessible for other colleagues.
Financial management	The purchaser is able to make considered decisions in the financial margin of an assignment, project or department.
Customer orientation	The purchaser is able to determine the needs of the internal customer and is able to cater to or to anticipate on these needs.
Negotiating	The purchaser is able to effectively communicate arguments, pointing out common viewpoints and interests in a manner which causes all parties to accept and agree.
Advising	The purchaser is able to effectively communicate relevant advice on purchasing.
Networking	The purchaser is able to develop and maintain effective relationships in a formal as well as in an informal manner, with the aim of realising a mutual added value for the different parties.
Legal-solving abilities	The purchaser has at his disposal legal insights, so he can use this knowledge and these skills in problematic situations.

the framework of European tendering conditions. Other optional modules that are planned are: Purchasing in the trade sector, Purchasing in the healthcare system, and others are planned for the years 2005–2006. In autumn 2003 a new programme was developed, especially for purchasing professionals at the strategic or executive level. Next to strategic purchasing aspects, emphasis is put on communication and business administrative competence. This is done to implement the recommendation in the study to place a programme in the market at the strategic level for graduates from higher education and those professionals working at that level. Fundamental knowledge and insight in purchasing and related processes is required to be eligible to enter these programmes. Another recommendation of the study, to offer a provision for non-purchasing professionals, who have to buy goods and services to a certain degree, but on a part-time basis, is followed up by the new Purchasing Academy, that caters for the needs of workers who perform a purchasing role within their wider job. The in-company trajectories for this target group is growing fast.

Concerning the instructional changes, the changes can be summarised as follows:

- *Purchasing process orientation.* Instead of teaching the course content in blocks that are content oriented, the parts of the programme follow the elements of the purchasing process. This approach resulted in a better alignment of theory and practice, but it demands greater flexibility of the instructors.
- *Alignment of theory and practice.* This is also reached by changing the use of language in the modules. The previous texts were predominantly filled with examples from industry. More variation is included in the text, to strengthen the recognition of the theories and concepts by the trainees who come from a diverse background in purchasing. Practical examples and cases are about equally distributed across different sectors of the economy.
- *Increasing the skills component.* At all levels of the programmes there is more attention for developing social and communication skills of the trainees. This is realised by introducing more contact hours and content about these topics, and the inclusion of interactive workshops for combined groups of different programmes.
- *Training and coaching of instructors.* Simultaneously to the changed purchasing content there is more attention for the role of the instructor. This role is changing from knowledge transmitter to facilitator and coach of learning trajectories. As a result of a dedicated policy regarding workshops, content meetings and individual coaching, instructors are being coached and prepared for their role.
- *Knowledge managers.* To ensure sufficient instructional and content-related capacity on the various purchasing fields, four knowledge managers are appointed. Their task is to prepare and implement the instructional innovations in the programmes, and to help instructors translate new concepts in their fields, and new instructional strategies into daily practice. These knowledge managers are being assessed by the directorate of the training organisation on the content, quality and organisation of their work.
- *E-learning.* The organisation invests a lot in developing e-learning modules, especially in the Purchasing Academy, which has mainly multinational enterprises as clients. In the HRM policies of these companies, e-learning has a high priority. The first parts of the basic training programmes will be offered in a blended way from the year 2005–2006.

It is expected that around 2006–2007 the time will come to evaluate the research results again and to test them against the developments in practice current at that time, and to adjust them for the future.

Conclusions regarding the practical research questions

The practical research questions were: (1) Is the job profile acceptable for the association for which it is developed? and (2) Is the job profile useful for evaluating and redesign of the existing training and testing programmes. Based on the evidence our conclusion is positive. The job profile was acceptable for the association, especially because of the use of the mix of methods during the job profile development process. Furthermore, as will be clear from the previous section, the job profile was also useful for the evaluation of the training programmes, curriculum redesign and adaptation of testing programmes.

II Results and conclusions regarding the research methodology for job profile development

In this section the results of the testing of the research strategies in the process of job profile development will be presented. This will be done in the order in which the research strategies were mentioned in the section on the research methods. At the end the conclusions as to the research questions will be formulated, and these are summarised in Box 5.

Qualitative multi-perspective iterative interviews for trend analysis

As to this approach, a remark has to be made regarding the nature of the job profile research process. Job profile researchers have to bear in mind this is a construction

process, in which values, norms and interests play a role. Job profiles have a normative character, and as a consequence of this, various stakeholders want to push the profile research in a certain direction. This, for instance, clearly appeared to be the case during the expert group workshop at the beginning of the project. Some members of the workshop wanted the project group to focus on innovative front runners only. Faes *et al.* (2001) did this, using traits to distinguish profiles of buyers. The purpose of our project, however, was to collect information on purchasing in general that could serve as a new basis for evaluating and redesigning the purchasing training programmes. Limiting the study to front runners would imply that the results of the study might become detached from the practice of the 'average buyer'. Many purchasing departments of individual purchasing professionals are not yet at the forefront of the latest developments. During job profile research, the embedded research part of the development process should be conducted as carefully as possible, trying to avoid front-end limitations, as they will hamper the validity of the final result to a large extent.

In the deliberations about the perspective of the research, it is helpful to start from the concept of the 'average buyer'. Needless to say, this person does not exist; it is just a theoretical construct. This construct, however, is needed in defending the quest for general tasks and competencies that in the end can serve comprehensive professional education. The construct of the average buyer can retain the integrity of the development process, as in order to draw up a training profile, the greatest common denominator of the profession should be taken as a point of departure.

During the research process interpretation remains necessary. The informed deliberative approach during this process has been effective in realising this. During various group interviews and discussions, gradually elaborated versions of trend overviews and descriptions were produced. Much progress could be made in developing the trend overview, whereas after about twelve group sessions a decreasing level of added value of the interviews could be noted, which in general can serve as a sign for sufficient data collection.

As a final remark we would like to stress the purpose of making an overview of the trends in job profile development. It is to provide a clear picture of the future developments. If these trends are not taken into consideration, this will result in a profile that will reproduce the status quo in the respective training programmes to a large extent. In developing new job profiles, it is important to take future developments into account, so as to prevent the curriculum from lagging behind the developments within the profession. A general conclusion therefore is that it is necessary to spend relatively much attention on the trends in and around the profession, otherwise the job profiles may be rejected (or not used).

Stratification of the profession, group interviews for generating and structuring task lists

Stratification of the profession is an essential issue at the start of a job profile development project, also when there already is a certain stratification, for there is evolution in job profiles. For instance, when the job profiles of the 1990s are compared with the current job profiles, a significant upgrading can be noted: the profile for administrative support workers in purchasing is not included any more in the data collection plan (and consequently not in the final job profiles), because this job has largely disappeared. The work involved has been delegated to other workers in the organisation, or is now being carried out by assistant buyers or buyers using electronic purchasing support systems. On the other hand, the job of buyer is more differentiated than before; therefore, the profile of the senior buyer has been added. As mentioned earlier, stratification of the purchasing profession resulted in four job categories: manager of the purchasing department, senior buyer, buyer, and assistant buyer. Like the concept of the average buyer, these categories are constructs. Reality shows a very diverse range of (often sexy) job titles, the meaning of which is quite unclear in terms of required entry level, responsibilities, tasks, competencies and earnings. Stratification of a profession in general job categories helps clear the mist that exists in the practical job titles.

Another structuring element in the job profile study was the subdivision of tasks in task domains. In the 1993 study ten task domains were distinguished. If both classifications are compared, it can be noted that the content-related tasks were much more differentiated in the first study. The majority of these task domains were merged in two larger domains: (pro-active) initial purchasing and practical (operational) purchasing. The other two domains, management, and information and communication, were much more elaborated. This division was also more closely related to the four job categories that emerged from the interviews. In this respect the task domains were more effectively aligned to the job categories.

Large-scale task performance survey

The added value of large-scale job surveys for job profile development appeared to be limited; it contributed to the confidence in the data by the professional audience, and the resulting job profiles, but the data collected by the survey had hardly any impact on the composition of the job profiles. For that sole purpose, this job survey did not live up to the costs and time lag involved; a selective use of a well-prepared qualitative research design is sufficient, if the researchers can convince the (representatives of a) professional community of this.

On the other hand, the survey was used to collect data for the compensation of the respondents, which was used as input for the job pictures. Qualitative interviews with relatively low numbers of participants are not an appropriate data collection technique for this, and nor are group interviews, because of the confidential character of most compensation schemes in organisations and of individuals.

The list of tasks used in the current study (105 tasks) was significantly shorter than the one used in 1993 (283 tasks). The old list was too detailed, and many tasks appeared to be outdated. This aggregated list added to the responsiveness of the target group. This leads to the conclusion that although the nature of the process of job profile research is analytical, this research should avoid too much detail. Tasks should be defined at a discriminating level to the extent that they are still meaningful for job profile and job training profile construction.

Test of sector-specificity of job profiles

The sector-specific interviews as well as the survey were used to check the sector-specificity of the job profiles. The survey did not add much to this check. The sector-specific group interviews already revealed the large commonality in the job profiles in the various sectors. The survey merely confirmed this. This leads to the conclusion that a series of sector-specific group interviews is sufficiently effective for evaluating sectoral variations in task performance. Furthermore, these group interviews tend to result in much more context-related information that can be used in composing the job profiles and job pictures.

Job profile mapping

For mapping job profiles, three components were essential: (1) the stratification of the profession, (2) the categories of tasks, and (3) the task lists. The job profiles were mapped by content domain, not by job. The resulting bullet lists (see Box 1) gave a total overview of the job tasks that are relevant for the jobs distinguished. This way of mapping the job profiles appeared to be useful, and communicated better with the target group representatives. It is expected that the decreased level of detail in the job profiles, and the clearer differences between the jobs will help in deciding about and designing of meaningful learning situations.

Job picture development

The job pictures (see Box 4 for an example) appeared to be helpful in communicating the results of the study to the Association of Purchasing Management and their members. The 1993 job profiles consisted of task lists and graphics of these tasks with importance and frequency scores. A concise job picture of about one page is much more effective. The introduction of the job pictures led to an unanticipated use of the

Box 4: Job picture of senior buyer

Senior buyers have delegated responsibilities for purchasing certain products or sets of products, or they are responsible for the supplies of a certain department in the organisation. Senior buyers usually are supervising purchasers of the purchasing department. They distinguish themselves from the purchaser because of their experience and greater purchasing responsibilities. Purchasing managers delegate tasks to senior buyers. On the other hand, senior buyers assist in the development of a departmental purchasing policy, or they support purchasing managers with developing policies on specific areas. Senior buyers make decisions based on the goals of the purchasing department. Mostly senior buyers are specialists in a certain purchasing domain. Senior buyers implement proposals for improvement, initiated by purchasing managers or by themselves.

Senior buyers analyse needs, give advice to colleagues at several levels in the organisation. They are a member of multidisciplinary teams, which they assist by bringing in their purchase expertise. A big task is the external communication with important or even vital suppliers. Realising new relations, for instance co-makerships and strategic alliances, as well as providing suppliers with feedback, advice and support, are important tasks for a senior buyer. Senior buyers make as much as they possibly can use of international networks and they maintain these networks. They promote efficiency and effectiveness of the purchasing organisation by means of developing and using computerised systems. Senior buyers make use of the Internet whenever beneficial for the organisation.

Senior buyers try to get involved in projects for new products or processes at an early stage, to let other participants take advantage of their purchase knowledge. Another task is to involve potential suppliers in development projects early on. In the case of a large or potentially hazardous purchasing deal, senior buyers negotiate with potential suppliers based on close cooperation with representatives of other disciplines in the organisation. Senior buyers make appointments about contracts and check whether everything is according to the agreement. Mostly, senior buyers are responsible for finalising the purchasing contracts. Besides, they provide purchasing managers with advice in problematic situations when it comes to the operational purchase trajectory and inform them in which way this can be more efficient or effective.

study results in selection processes of purchasing personnel in member organisations, which signifies the usefulness of these documents. In fact, job pictures serve as the condensed results of job profile research for the job categories.

Competence mapping

During the expert workshop at the beginning of the study, there was quite some pressure exerted by some human resource managers and purchasing directors to try to focus the study on competencies only. And although inclusion of competencies was planned, the intention was not to restrict the study to competency analysis only, since the competence concept would have been insufficient for job profile development; job task analysis is needed to cover the content-related part of job performance and subsequent training programme development; the use of competence profiles is worthwhile, because it can protect course designers from bias regarding content-oriented and knowledge-based training programme design. The competence concept also appeared influential in defining task clusters like management and information and communication. Finally, they have consequences for designing learning arrangements and test development. Competence-oriented training, for instance, implies authentic testing in the form of assessments. In this respect, the Foundation for Purchasing Examination that commissioned this study has to redesign the testing practice from this new perspective, a process that most likely will take several years.

Qualitative multi-perspective iterative interviews (QMPIIs) for trend analysis:

- Trend analysis is essential for developing current job profiles.
- QMPIIs are effective.

Stratification of the profession, group interviews for generating and structuring task lists:

- This is essential for job profile mapping; it provides structure and content for data collection and interview topic lists (and if needed, survey questionnaires).

Large-scale task performance survey:

- Adds to the cost, time consuming, limited added value for job profiles, but appreciated by professional community, adds credibility to the results.
- Survey data can be used in job picture mapping.
- Alternative: individual interviews – fewer respondents, but higher quality of data.

Test of sector-specificity of job profiles:

- This can be achieved by sector-specific group interviews.
- The survey does not add much value to this, although it allows statistical testing, which again adds credibility for the professional community.

Job profile mapping:

- The stratification of the professional can be used as an input.
- Structure and titles of task domains should be covered in the first interviews.
- Importance of survey scores can be used as criteria for task inclusion.

Job picture development:

- An effective way of communicating the results to the professional audience.
- Helps in human resource management of the purchasing profession.

Competence mapping:

- Essential but not sufficient because of the lack of content specificity that is needed for course design.
- Task-orientation remains important for job content-related knowledge.

Box 5 presents a summary of the results of this part of the study.

Conclusions regarding the methodological research questions

The research methodological questions of the study were: (1) In what way do job profile research strategies contribute to the trustworthiness of the resulting job profiles, and do they reduce uncertainty in job profile research processes? and (2) What role can competence mapping play in the development of job profile research? In this section the results and conclusions regarding these strategies are formulated.

As to the first research question we conclude the following. Small-scale qualitative interviews were as informative as large-scale surveys, that Gestalt-like job pictures communicate better than long lists with task frequency and importance scores, and that competency-oriented job profile development has important added value, but in itself is not sufficient for job profile development, as it does not effectively account for the content dimension of the field. The large-scale survey conducted in this study primarily served as a second opinion, and like all second opinions, they add to the cost of diagnosis, but may be quite desirable for the health of the patient. In the case of job profile research we conclude that they are not absolutely necessary.

As to the second research question, our conclusion is that general behavioural competencies are insufficient for the development of job profiles, because of the lack of content specificity that is needed for course design. As stated above, sufficient content-related task information is needed to enable the development of the job profile. If this is missing, the curriculum and test developer is left behind with empty sleeves.

Suggestions for further research

Based on this study, there are some suggestions for further research.

The first suggestion is aimed at analysing the career development of purchasing professionals. Critics maintain that the purchasing profession is diffuse, and that the amount of full-time purchasing staff is decreasing. 'Everybody's a buyer', is their metaphor of stating that many employees decide on buying goods and services, albeit that this buying behaviour is often suboptimal, and that they are subconsciously incompetent. Further research is necessary to study the internal labour markets of organisations, to evaluate the buying behaviour of employees that are not full-time purchasing professionals, to study how purchasing professionals enter the profession, and how they proceed through their career. Finally, it is necessary to analyse the best performing and most innovative purchasing strategies and practices separately, to learn how front-runners are organising their purchasing function. This will provide a better knowledge base for evaluating and planning professional training programmes.

Secondly, an interesting extension of job profile research would be to include higher ranking professionals (and if possible internal and external clients) in the analysis of the trends that affect the profession, task performance that is desired, and competence that is needed. A risk of current job profile research may be that it is biased towards the perceptions of the professionals themselves, who for instance may systematically raise the importance of their profession within the organisation.

Finally, follow-up research would also be interesting on the use of job profiles in course decision making, programme development, implementation and testing. This could reveal factors that might prove worthwhile for future job profile research projects.

We contend that job profile research remains a valuable research domain that delivers valuable input for further alignment of learning programmes vis-à-vis the developments in the profession, and that empirical research is a necessary component of that, to inform deliberative decision making about the content of training programmes. To make this deliberation feasible in a reasonable period of time, and thus 'practical', the process needs to have a good balance between generality and specificity. The criterion for this is in the eventual use of the profile. That much specificity is needed that is useful in the use of the profiles. Both overgeneralisation and overspecialisation lead to job profiles that are not useful.

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