

# Graduates' Job Quality Dimensions According to a Delphi-Shang Experiment

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**Summary.** In this paper, we discuss the salient information drawn from a Delphi experiment (Shang version) on some Italian job market issues realised by an email interview of a panel of experts. We define firstly the job quality dimensions of newly hired graduates and then compare it with the possible situation of graduates at the end of their careers. The dimensions are compared with a multivariate statistical analysis on the relationships between the satisfaction perceived by the Paduan graduates for their own job, and some personal and job characteristics. Such an evaluation may suggest new criteria for a future survey on “external effectiveness” of university education based on graduates' reports. The dimensions of initial and end-of-career quality of graduates are correlated to the experts' concepts through a semantic differential analysis.

**Keywords.** Job quality; External effectiveness of teaching; Delphi method; Shang method; Semantic differential analysis; Multiple regression analysis; University of Padua.

## 1. Aims and methodology of Delphi experiment

*«This way, it will be required to have a university degree to work as a street-sweeper».* This sentence was typical in the Sixties when, interrupting the long-lasting elite access to university, masses of youngsters entered the Italian university. The apparently sceptical motto meant that Italy was starting a process of liberalisation of the tertiary educational level, and individual educational

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<sup>1</sup> The two authors jointly designed and realised the work described in this paper. However, M.C. Martini has edited Sections 3, 4 and 5 of the paper and L. Fabbris the others.

choices were going to be determined by the job market more than by family wealth.

So many things have changed since then. The birth rate almost halved, the educational level increased rapidly, and about three quarters of young people have a high school degree. After the Italian educational reform, determined by Decree no. 509 of 1999, the enrolment in university steeply increased, so that in the academic year 2004/05, the ratio between the number of university refreshers and the number of people in the age of 19 was 60%.

It is likely that in a few years about half the young people entering the Italian job market will possess a university degree. Right now, the proportion of graduates searching for a job exceeds the proportion of technicians, intermediate, executive and professional workers in the Italian private and public economic sectors. Cappa & Fabbris (2004) showed that several graduates already accepted general clerical and other positions that before were rejected as initial jobs.

Hence, the quality of initial jobs is the key issue to define an acceptable job for a graduate.

A job is of good quality if it satisfies both the worker's and the employer's requirements. Job quality is a multidimensional concept that varies in time, space and among clusters of people.

In the following, we will represent the job quality at the insertion stage and privilege the viewpoint of graduates. In fact, we compare the experts' perceptions collected through a Delphi survey – Shang version, with the graduates' ones collected by means of a specific survey.

We selected the 12 experts among people who covered top positions in various cultural and professional Italian bodies specialised in labour market issues (academy, employers' and workers' associations, operators for guidance and job matching). Three sets of questions progressively focusing on job quality aspects were administered to the experts by email.

The first set of questions focused on the selection of quality dimensions. The experts were asked to define the three most important dimensions of job quality at graduate's recruitment-stage. The second set of questions related to the assignment of percentages of importance (with a 100 sum) to the five selected dimensions (see Section 2). The third to the importance of job quality dimensions at the top-of-career stage (Section 3). Then, the experts were made aware of the mean parameters of the obtained distribution and asked, if they wanted, to change their importance grades. This procedure can be considered a Delphi method, Shang version (Ford, 1975).

After the request of the last set of opinions, the experts were asked, through 20 dichotomous items, to state their knowledge and their perception of the characteristics of job market for the new graduates. We applied a semantic differential method on the obtained answers (Section 4).

The distribution of the obtained answers was compared with the analysis of data independently obtained from employed graduates of the University of

Padua surveyed six months and eighteen months after graduation. The data related to satisfaction with various aspects of their occupation.

The two informative approaches are radically different: the former is based on conjectures of 'third parties' about the relevance of selected variables for graduates' work; the latter is based on perception of employed graduates for aspects of their job referred more or less to the same time reference.

The comparison between the two viewpoints will highlight discrepancies between conjectured and practiced job dimensions and may suggest contents for a new survey on graduates' satisfaction with their job. The possible suggestions for a survey on early graduates' jobs are described in Section 5.

## 2. Dimensions of graduates' job quality

The recruited experts highlighted – in agreement with Touraine (1955) – the following dimensions:

- *Work environment and worker's logistics.* This dimension regards apparently heterogeneous features: easiness to reach the work site, quality (comfort, aesthetic) of physical spaces, adequacy of the available information, tools, methodology and technology<sup>2</sup> for work, quality of relational environment (interpersonal relationships with colleagues, hierarchical structure and customers, possibility of lifelong learning and working together with experienced colleagues and managers), interaction with other companies. Our experts weighed the importance of work environment and individual logistics 15.3%, with a certain variability of opinions (coefficient of variation 33%, see Table 1).
- *Social prestige.* This dimension is the mirror image of the job's relevance, as perceived by graduate's relatives, friends and other social microcosmos. The dimension is considered by experts less important than others as for initial jobs (weight: 12.7%), since initial jobs are transient and most of them are obscure to people who do not belong to work organisations similar to the graduate's one.
- *Internal acknowledgment of competences.* This dimension may be decomposed in two sub-dimensions: value given to economic features (income) and professional features (type of job and qualification, use of high-level competences). Experts rated this dimension 20.4%, mainly as a function of the relevance of professional acknowledgment of graduate's work.
- *Chances of professional enhancement.* As the previous dimension, it is structured as the union of economic and professional sub-dimensions, but in a dynamic, instead than cross-sectional, perspective. Specifically, those

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<sup>2</sup> For the ambivalent role of technology as a parameter of job quality for intellectual workers see Lutz (1992).

**Table 1.** Average score and standard deviations of graduates' job quality dimensions and compositional aspects drawn from a Delphi survey

<i>Dimensions</i>	<i>% weight</i>	<i>Aspects</i>	<i>Average score</i>	<i>Standard deviation</i>
Purposive autonomy	22.9	<i>Flexibility of working times &amp; modes</i>	7.1	7.5
		<i>Possibility to propose projects</i>	8.5	2.0
Expectation of professional enhancement	29.6	<i>Increase professional position</i>	8.7	2.1
		<i>Increase income</i>	7.6	8.4
		<i>Improve competences</i>	8.5	0.6
Internal competence acknowledgement	20.4	<i>Economic aspect</i>	7.1	1.6
		<i>Professional position</i>	7.7	1.4
		<i>Competence utilisation</i>	7.7	1.1
Social prestige	12.1			4.0
Work environment and worker logistics	15.0	<i>Locations' comfort and aesthetic</i>	7.1	6.7
		<i>Technology, work methodology</i>	7.6	1.0
		<i>Relational environment</i>	8.4	1.0
		<i>Proximity to home, access easiness</i>	5.8	0.8
			5.8	2.6

graduates who feel that their professional potential is initially sacrificed accept a job according to the perception that *in nuce* chances of bettering their initial work position are important<sup>3</sup>. The rate assigned by experts to this dimension is 28.7%, absolutely higher than the relevance of job contract (tenure) and functional qualification. Moreover, the variability among experts is limited (coefficient of variation 22%).

- *Purposive autonomy*. This is the dimension of creativity, freedom of designing one's own work, spirit of responsibility, non-affliction even for a dependent work position. Autonomy relates both to the subjective choice of operational times and modes, to the possibility to propose innovative projects, and to the possibility of realising ever changing functions and applying various kinds of competences. Even this dimension is so fundamental for graduates jobs' qualification, that experts assign to it a 22.9% weight.

The five dimensions could be post-classified according to Herzberg (1959) essential classification criterion:

- (a) *Hygienic factors*, i.e. factual features of work, such as physical environment, work organisation, internal social and cultural environment, income and incentives, perspectives of the economic division;

<sup>3</sup> Some psychologists (Nielsen, 1993) call this dimension "empowerment". Evidently, it is like a set of chances to be disbursed during the professional life.

- (b) *Motivational factors*, which have roots into human superior needs: self-realization, social acknowledgement, and freedom in own work realization. The motivational factors are the intrinsic-to-job factors that may improve the worker's feeling of belonging to a social community and promote his/her psychological growth<sup>4</sup>.

The classification of needs of employed graduates may be juxtaposed to the Maslowian human needs hierarchy (Maslow, 1954). Interpreted in relation to work (Mc Gregor, 1960; Bonazzi, 2002), the needs may relate to:

- (i) *physiology* if they concern short term worker's economic safety,
- (ii) *long term stability and professional safety*,
- (iii) *socialization*, concerned with the worker's environment,
- (iv) *social esteem*, concerned with the workers' expected appreciation for their activity and professional status;
- (v) *self-accomplishment*, concerned with the enrichment of their psychological dimensions so to become "what they shall be able to become".

Both Herzberg and Maslow hypothesize that each layer of human needs is to be satisfied in turn, from bottom to top. *I.e.*, a worker whose needs are below a certain level is not pulsed to satisfy a higher need.

Instead, the quantification of the importance of all needs for employed graduates, upon which our work relies, implicitly states that newly employed graduates are concerned, in different proportions, with all job quality dimensions<sup>5</sup>.

If we borrow from the philosopher Campanella the image that social levels are like a terraced hill with a large basis and a progressively harder spiral path to the top (the so-called "Sun city" of Utopia), we can state that workers' needs start from survival levels and move towards higher levels of self-fulfilment. Any worker aims to self-accomplish him/herself, once low and intermediate needs are satisfied. Graduates' expectations start close to the hill-top. In fact, they expect to be offered high standard jobs, consistent with their educational level and strengthening their social esteem and early self-accomplishment.

The strictly motivational components qualify graduates' jobs for 64.3%, those exclusively environmental for just 15.3%, those inherent to income and professionalism, which may be put half way between the two poles of Herz-

<sup>4</sup> Herzberg (1966) argues that only the motivational factors may generate satisfaction, while income and the quality of the work environment may, at most, minimize work dissatisfaction. Vroom (1964) discussed the relevance of the individual motivation on job search and working activities.

<sup>5</sup> Maslow's scale describes the historical evolution of human needs. The dimensions of graduates' jobs are cross-sectional, *i.e.* inherent to a particular time point of graduates' lives. The graduates too, when the distance between their own aspirations and the real possibilities in the job market becomes overwhelming, will start satisfying the lower levels of the scale.

berg's scale, for the remaining 20.4%. Hence, even if the acknowledgement of competences were added to the environmental ones, the self-accomplishing dimensions would dominate the job quality rates.

Finally, our experts have put the job quality dimensions in a order that is similar to the Maslowian scale. What is different from that scale is the experts' indifference for social prestige stemming from the professional role of the newly hired graduate.

### 3. The employed graduate as a homo socialis

The representation of the job quality is different at the top stage of career and at the beginning (Table 2). Expectations of graduates tend to grow together with successes, may be conditioned to the work environment and evolution of social and professional models.

The most relevant differences between starting and final stages of career concern the importance of work environment quality and the possibilities of growth, both of which are less and less relevant as time goes on (the relative weight is 4% lower at the top of career for both dimensions), and that of external esteem, which increases of about 5%.

The possible changes the experts imagined are rather intuitive: the graduate's motivation for growth, together with the need for professional autonomy and creative freedom, remain salient. Altogether, these dimensions represent almost half (47.6%, but they were 51.6% at the start) of the job quality dimensions. The possibility of professional growth remains the most important dimension through the working life, so emphasizing that good jobs are continuously evolving jobs.

The external esteem for a graduate's job and hierarchical position increases its importance during the professional career. In fact, it may be a velleity at the very beginning, but it acquires relevance as the position consolidates. The ac-

**Table 2.** Percentage rates, and corresponding standard deviations, of 5 graduates' job quality dimensions, at the recruitment stage (after adjustments) and at the top of professional career, according to Delphi experts

<i>Dimension</i>	<i>Recruitment stage</i>		<i>Top of career</i>	
	<i>Rate %</i>	<i>Stand. dev.</i>	<i>Rate %</i>	<i>Stand. dev.</i>
Purposive autonomy	22.9	6.9	23.1	3.2
Expectation of professional enhancement	28.7	6.4	24.5	4.1
Internal competence acknowledgement	20.4	5.8	23.6	4.0
Social prestige	12.7	3.3	17.3	3.6
Work environment and worker logistics	15.3	5.0	11.5	4.1
	<i>100.0</i>		<i>100.0</i>	

knowledge of the professional value of a job becomes a pathway for individual's social empowerment. A certain time after recruitment, a job becomes a vehicle to realize the ambitions of a graduate as *homo socialis*, a social person.

The quality of job environment, which is at the lowest rank in the beginning, loses further importance if referred to final stages of career. This is not surprising, since the quality of the work environment, being a "hygienic factor" *à la Herzberg*<sup>6</sup>, is given for granted for the (high level) market segment we are dealing with. Of course, it is even less relevant if referred to the top managerial positions, which are likely at the edge of professional career.

Income, one of the internal acknowledgement features, assumes a different relevance at the last career stage. The employed graduates, focusing on their professional life, and comparing their income with the peers' ones<sup>7</sup>, may perceive income as a gold standard for power and self-esteem.

Hence, the long-term representation is the most similar to Maslowian pyramidal order. The top dimension is that of self-realization through work, followed by social esteem and then by extrinsic quality needs qualified by work and relational environments.

It should be mentioned that the variance of rates assigned by experts to the dimensions is larger if referred to the initial working stages than to the job-consolidated paths. This suggests that experts' judgements are better defined if they relate to the final career stages (which the experts are directly experiencing) than to the volatile freshmen's conditions.

#### **4. Semantic differential on expert's perception of the job market**

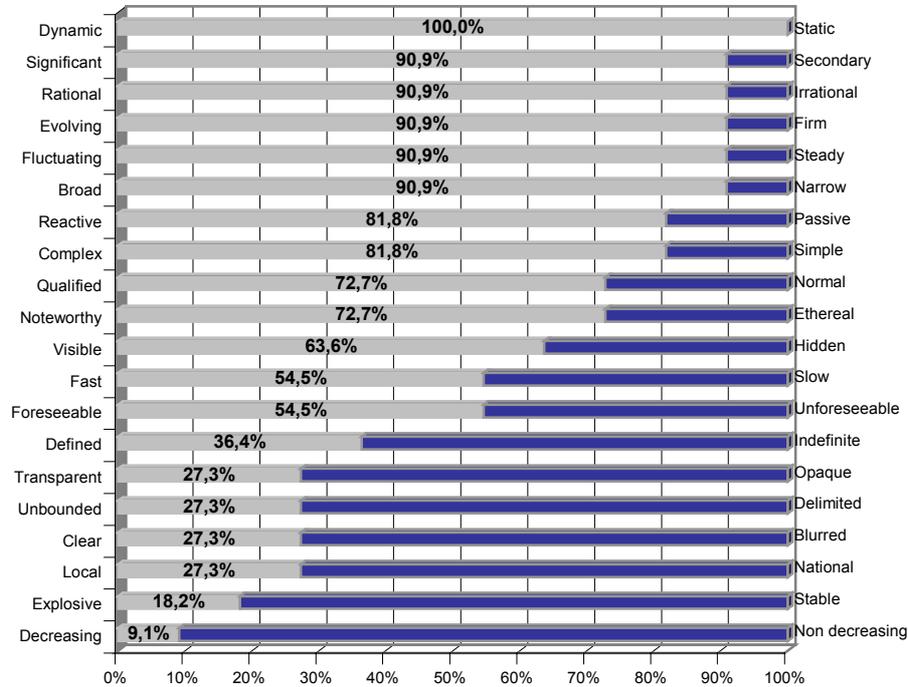
In order to understand the basics of the opinions on job quality given by the consulted experts, we applied the method of semantic differential on their answers to a set of 20 couples of antithetic dichotomous adjectives. The experts defined, for each of the paired adjectives, which was the one that better represented their perception of the graduates' labour market.

The percentages of endorsement of each adjective are presented in Figure 1. The consulted experts perceive the large majority of features of the job market

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<sup>6</sup> Herzberg *et al.* (1959) hypothesize that job satisfaction and dissatisfaction are caused by different factors: satisfaction may derive from motivating factors while dissatisfaction by *hygiene factors*, where *hygiene* means work environment, worker logistics and income.

<sup>7</sup> In comparing their incomes with peers' ones, women may assign a different value than men. Ross & Mirowsky (1996) state that women look, in a larger proportion than men, for other-than-economic satisfaction sources, like the acknowledgement of a well-done job.



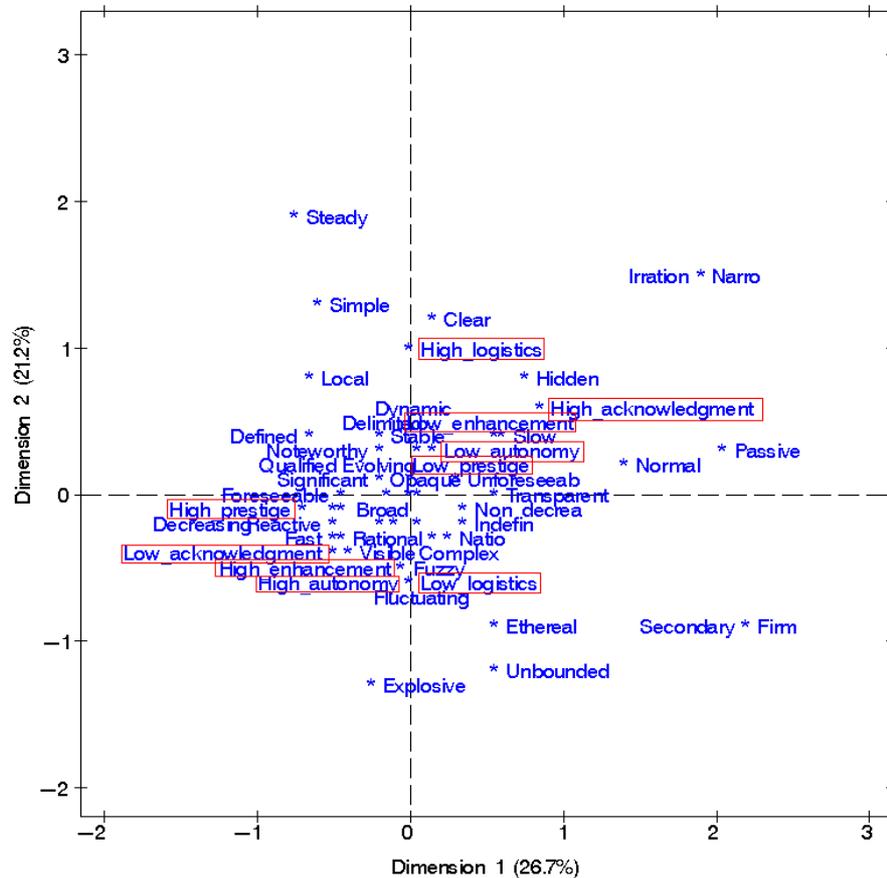
**Figure 1.** Relative frequencies of experts' endorsement of antithetic adjectives describing graduates' job market

in a similar way. They converge on perceiving that graduates face a very dynamic, rational, evolving, but fluctuating, job market. The analysts perceive differently its variations and the possibility given to them to understand the dynamics and forecast its endpoints.

The correspondence analysis (Greenacre, 1984; 1993) through the SAS-CORRESP procedure (SAS Institute, 1999, 2000) highlights the multiple relationships among experts' opinions. Main results<sup>8</sup> of correspondence analysis are presented in Figure 2, where the importance levels assigned by experts to the five dimensions of job quality at the recruitment stage are projected, too.

Along the main axis the vision of a dynamic and rational labour market, i.e. regulated by well-defined laws, is juxtaposed to a stagnant, unqualified and almost random market. The second dimension relates to the possibility of identifying the extension of the market, and the vision of a delimited and transparent market is juxtaposed to that of a vague, explosive and unbounded ground.

<sup>8</sup> The two main dimensions account for almost 50% of the overall inertia. After Benzécri (1979) correction, the first dimension explains 51.5% and the second 28.4% of the inertia.



**Figure 2.** Correspondence analysis on bivariate occurrences of adjectives describing the graduates' job market and projection of aspects rated by experts over the factorial axes

Both factorial dimensions are related to the possibility of forecasting how the job market evolves. The first dimension refers to the possibility to master the ruling principles of the market, the second to its complexity and extension.

These factors stem from the ratings given by the experts to the dimensions of job quality. The perception of difficulties in grasping the principles that govern the graduates' job market is related to low and medium qualification level occupations, characterized by low levels of complexity, available mainly at the local level, in a certain way, to the professions less pertinent to the competences possessed by graduates.

On the opposite side, an occupational scenario characterized by qualified and wide-angle jobs, where the employees can exploit their competences and obtain decisional autonomy and growth chances, is perceived by experts as a rational situation they can master and represent on request.

## 5. Job quality satisfaction of employed graduates

The University of Padua graduates have rated the dimensions of their job market, too. Of course, the surveyed dimensions are those they could perceive at the very beginning of their professional career: the internal-to-company acknowledgement and the characteristics of the working environment. The missing ones are the growth chances, the decisional autonomy and the social (external) acknowledgement of job quality.

Our main hypothesis is that the newly recruited graduates reduce the complexity of job quality to the satisfaction rate for their job. The plausibility of the equation  $Job\ quality = Satisfaction$  for job is indirectly shown by the fact that graduates often associate high job satisfaction levels to underpaid or even to unpaid jobs, and show appreciation for potential job returns which undergo the contingent situation.

The determinants of job satisfaction are detected at two time points: six months and eighteen months after graduation. Before the first time point, the graduates experience several contacts with companies and attempt to start an autonomous activity. Between the two time points the working experience begins to consolidate, therefore the comparison between the two configurations may highlight possible trends of consolidated and prestigious career positions.

A multivariate regression analysis was performed on graduate's job satisfaction rate, on a 1 to 10 scale, as a criterion variable. The possible predictors may be classified in three categories:

- *characteristics of the graduates and of their career as university students*: attended course; gender; work situation at graduation; degree grade; time delay for degree achievement;
- *aspects of internal-to-company acknowledgement*: type of job contract; professional position; income; consistency between university title and job; value given to competences at work; use of competences acquired by attending either basic or professional courses; use of *forma mentis* for professional work; use of job-specific and on-the-job acquired competences; missing professional competences; excessively or not-enough job-specific education; adequacy of acquired competences for work;
- *aspects of working environment*: size and economic sector of the company; distance between home and workplace; number of coordinated employees; company habits to work in team; prevailing educational level of work-team; difficulties and advantages of working in team.

A sample of 1695 employed graduates and another of 1911 have been interviewed, respectively, six and eighteen months after graduation. Since graduates may be classified according to the attended faculty, we adopted in our first attempt a multilevel model with random intercept (Snijders & Bosker, 1999; Biggeri *et al.*, 2001).

**Table 3.** Parameter and significance level estimates from stepwise regression analysis on the criterion variable "satisfaction with job six months after graduation"

	$\beta$	<i>s.e.</i>	<i>p-value</i>
Intercept	3.13	0.32	<0.001
Veterinary degree	-0.92	0.33	0.006
Autonomous job	0.50	0.16	0.002
Administration (general) employee	0.19	0.07	0.011
Unpaid work	0.99	0.38	0.009
Income lower than 750 Euro	-0.38	0.22	0.082
Company with 20 to 249 employed people	-0.15	0.08	0.073
Working in social services	-0.45	0.17	0.009
University degree needed for job	0.27	0.07	<0.001
Consistency between job and university degree	0.19	0.05	<0.001
Use of <i>forma mentis</i> for work	0.15	0.05	0.002
Competences missing for working purposes	0.14	0.07	0.052
Use of basic knowledge acquired at university	0.03	0.01	0.001
Relevance of competences at work	0.73	0.06	<0.001
Part-time job	-0.37	0.16	0.024
Difficulty in working alone	-0.81	0.27	0.003
Difficulty in team working	-0.87	0.21	<0.001
Advantages in team working	0.27	0.07	<0.001

The intercept variance was not statistically significant<sup>9</sup>.

Therefore, we abandoned the multilevel approach and applied a multiple regression with stepwise selection of predictors (Draper, 1998). We used the SAS package (Sas Institute Inc., 1999; 2000) for regression estimation with parameters 0.10 significance level for selecting a marginal covariate, and 0.15 for discarding a selected covariate.

The estimated model is described in Table 3. The model explained 28% of the overall variance. It is rather evident that graduates' features do not explain satisfaction for job if the equation includes the indicators of job environment and working habits. The only exceptions are the graduates in Veterinary, who are much less satisfied than expected.

Various aspects of the internal-to-company acknowledgement and working environment are, instead, relevant for job satisfaction explanation. The internal acknowledgement pertains to economic gain, professional position and competence exploitation aspects. Since the survey was held just a few months

<sup>9</sup> For the sake of precision, the intercept variance was very low for the nil model and went to zero after predictor selection. Hence, the application of the multilevel model gives parameter estimates analogous to those of the multiple regression analysis.

after recruitment, it is not possible to disentangle the professional career growth. Hence, at the very beginning, satisfaction stems from chances given to the newcomers to realize professionally qualified activities and to put in evidence their own professional skills.

Explanatory indicators of consistency between graduates' type of job and study contents, use of *forma mentis* and basic knowledge acquired at university, relevance of the degree and competences for their job, define the level of acknowledgment of graduates within the company.

Anyway, some distance between the education acquired at university and the competences required within the company – both for working alone and in team – is outlined by graduates as a job dissatisfaction cause. These difficulties are related mainly to cross-occupational skills.

Income is a positive issue for work refreshers but it is less relevant than other features of the internal acknowledgement of graduates' activities. In fact, a low income may be associated to an unsatisfactory job, but at least at the initial stage, interesting work activities may be more relevant for job satisfaction than being paid for that. In some sense, graduates feel, at the beginning, that a good occupational project may be an investment, similar to a prolongation of the study period.

Work setting is relevant for graduates' job satisfaction: working in a medium size company or in social services, and having part-time jobs are as makeshifts compared with both small and large size companies and full time jobs. The dissatisfaction of working in small size companies and in the social services is generated by the fact that most graduates belong to the humanities. That of part-time jobs may be due to the perception of some women to be unwillingly submitted to family duties and then to be forced to slow down their career.

Instead, the importance of the relationships with colleagues is clear, both for settings that privilege working in team or alone. Good work relationships may better the newcomer's perception of the work setting, whilst a good job may be spoiled by difficulties with colleagues. This corroborates the intuition of the Delphi experts that home-to-work distance is less important than the internal relational setting to define graduates' job satisfaction levels.

Autonomous jobs are associated with high levels of satisfaction. Indirectly, this indicates that work autonomy improves job satisfaction. In fact, who is more free to design and organize his/her own work than an autonomous worker?

For the analysis of the data eighteen months after graduation, we attempted a multilevel model, but, since the intercept variance was irrelevant after predictors' selection, we applied a multivariate regression model with stepwise selection of predictors. Parameters of the analysis were the same as in the six-month application.

The results, presented in Table 4, are quite similar to those of the six-month analysis: the estimated model explains a 30% variance, but neither personal

**Table 4.** Parameter and significance level estimates from stepwise regression analysis on the criterion variable "satisfaction with job eighteen months after graduation"

	$\beta$	<i>s.e.</i>	<i>p-value</i>
Intercept	3.13	0.22	<0.001
Bachelor obtained in Science Faculty	0.59	0.27	0.031
Autonomous job	0.30	0.13	0.028
Income above 1.200 Euro	0.15	0.08	0.074
Private company job	-0.23	0.06	<0.001
University degree needed for job	0.20	0.07	0.003
Use of <i>forma mentis</i> for work	0.14	0.05	0.004
Use of basic knowledge acquired at university	0.05	0.02	0.006
Use of professional knowledge at work	0.04	0.02	0.030
Relevance of competences at work	0.82	0.05	<0.001
Adequacy of formation for working purposes	0.05	0.02	0.013
Education unspecific for job purposes	0.12	0.07	0.064
Difficulty in working alone	-0.78	0.24	<0.001
Difficulty in working in team	-0.80	0.23	<0.001

characteristics of graduates, nor their university curriculum explain job satisfaction. The only exceptions, in this case, are the bachelors of the Science Faculty who show an above-the-average level of satisfaction.

Some time after recruitment, internal competence acknowledgement and socio-relational work setting determine job satisfaction. The importance of work setting lowers, in accordance with experts' perception of a diminishing relevance of the work conditions as the professional career consolidates.

Even eighteen months after graduation, it is evident that working in a private company has negative effects on satisfaction, while working autonomy induces positive effects.

Hence, broadly speaking, the regression analyses confirm the experts' intuitions that the first job quality is due mainly to the internal-to-company professional acknowledgement and autonomy left to graduates to design and organize their own job activities. The only aspects of the work setting that are relevant for job quality are the human and relational ones.

Our analyses highlight that the type of degree (bachelor, master) and the attended faculty do not significantly determine graduate's job satisfaction, even at the initial stages of work, with the only exception of one degree for each application. This implies that the existing differences in job satisfaction among graduates do not depend on their title, but on their individual professional paths. The graduates, who get acknowledgements for what they are able to do, and operate in a stimulating and reasonably competitive work setting, will be satisfied workers.

We can then state that job quality dimensions of graduates are rather universal and cross-disciplinary, and that the aspects presented in Sections 2 and 3 are common to all graduates with just slight differences between the technical and scientific programmes and the humanistic ones.

## 6. The design of questions on graduates' working life

We have been able to find the relevant dimensions of graduates' job quality with the help of experts consulted through a Delphi experiment. We estimated the importance of each dimension at the initial and consolidated stages of graduates' professional career and corroborated our estimates with the determinants of their job satisfaction. Now, we outline the possible questions to collect data on these aspects.

The most important dimension is growth potential at any stage of graduate's professional life. It is the cornerstone of any decision, from recruitment to subsequent activity changes. Although company dynamics are unforeseeable, the perspective tension of professional growth should be, and can be, perceived since the first contact between graduate and the company.

The indicators of professional growth trend are:

- (i) the acknowledgment of competences by company's management and the consequent climbing of internal hierarchy. Graduates perceive that their competences may be valued if the relational environment is receptive and the structure is oriented to continuous learning. At least at the beginning, one should survey the consistency between the formative investment and the professional activities of graduates, i.e. if job-specific skills and *forma mentis* moulded at university as basic items. Some time after recruitment, one should be checked to see if graduates are assigned a responsibility position that gives them the possibility to manage projects and people.
- (ii) The economic acknowledgment of professionalism. Even if income may appear initially secondary to other issues, in the end, social life and comparison with peers raises its importance. Hence, satisfaction for economic benefits and, possibly, (broad-class) income represent questions related to complementary aspects of the recognized professional value of a graduate worker.

One may argue if a newcomer is able or not to foresee his or her economic and professional future in a company. However, since job quality is the mirror image of the complex relations between the graduates and their job activities (within the framework of work setting), the workers are the best witnesses of their own professional destiny and the appropriate sensors of their jobs' multi-facet evolutionary trends.

Another important dimension of job quality is the chance given to graduates to design and manage, in an autonomous and responsible way, their own work activities. The questions related to autonomy may deal with:

- (i) jobs realized either as self-employed (entrepreneur, professional, hand-craftsman), or as partners in a cooperative or a professional office,
- (ii) job flexibility level of an employee in terms of chance to manage times and modes of work. The cases of managers/executives, researchers, persons belonging to industrial technical offices, and other people who can manage themselves, may be put in evidence.

In a broader sense, work autonomy may be conceived as the chance to express creativity at work. Since the perception of professional freedom is a distillate of the empathic relations between the graduates and their work structure, this subjective aspect may be highly relevant for job quality measurement.

Another job quality dimension is the responsiveness of the work setting. A first aspect to be surveyed is the distance between home and workplace. Experts consider this aspect of little importance; nevertheless, Italian (young) graduates consider it a sensible issue in job bargaining. It may be asked if the workplace is either within the same commune of residence, or within the same province, or the same district, or outside the district, or abroad.

The sustainability of the work setting, as a daily vital environment and the quality of methods and work-tools available may be surveyed by asking graduates to rate any aspect of it. A question on setting sustainability and another on technical (or technological) level of the instruments may suffice to detect the physical aspects of work setting. To figure out the quality of relational dimensions, questions should be posed on relations with the hierarchy, colleagues and customers.

The last dimension identified by experts is the social (external) recognition of the graduate's job relevance. It is the least important dimension at the starting stage, but it becomes more and more relevant as the career progresses and the graduate settles down. The social acknowledgement may be detected by asking the prestige associated by relatives and close friends to the job position.

At the end, the level of overall satisfaction for job should be measured, anyway. Quantitative (for instance, 1 to 10) scales may allow comparisons in time and space more than just ordinal ones.

Our experts figured a graduate worker as a member of professional and social elites. However, graduate's job quality dimensions appear applicable for any other worker. Hence, in future experiments, it could be verified if there are differences in the expected intensity level of quality dimensions. For instance, is it the need of self-completion of the same order of magnitude for all categories of workers, or do expectations vary according to the (beginning, or target) hierarchical position? Do expectations vary according to the technical role? Do expectations vary according to interactions between expertise, technology and professional position?

In our experiment, we took for granted that job quality dimensions are similar in all companies. Nevertheless, small and medium companies require competences and satisfy workers in a way that is different from the larger ones<sup>10</sup>. How these differences were related to job dimensions, they may be an issue for further research.

Our experiment was not fully successful in detecting the relationship between the importance of job dimensions and experts' viewpoints. This may be due to a substantial homogeneity of viewpoints. It could be interesting to test if the thin semantic differences were related to the simply dichotomous scales used, or to the small sample size of experts.

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<sup>10</sup> Blauner (1964) finds that alienating production processes, typical of large companies, threatens the empathy between workers and company. Fabbris & Visentin (2005) highlight that larger productive organisations exploit specialized competences better than small-size ones, and generate higher satisfaction levels for newly recruited graduates.

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