# THE EVOLUTION OF JOB ANALYSIS: COMPETENCY ASSESSMENT COMES OF AGE

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Job analysis has long been a player in business and organizational worlds. It has served as a tried and true measure of job responsibilities for use in hiring, development, and compensation. There are few who will dispute the value that job analysis has added to the business world. However, as businesses evolve their assessment tools must also change and improve. For a while now competency assessment has been used to supplement job analysis, and now stands on the brink of replacing it.

The ideas behind and uses of competency have changed as businesses have evolved over time. Originally, competency was used as a support for job analysis – this can be seen in some of the earlier definitions. Boyatzis, a professor of organizational behavior, defined job competency is an underlying characteristic of a person that leads to or causes superior or effective performance (Yeung, 1996). McLagan goes on to further explain that those characteristics are composed of the knowledge and skills needed to perform a job effectively (1996). She later expands on that definition to describe competencies as knowledge, skills, and attitudes that knowledgeable people infer from behavior or strategic requirements what human capabilities underlie high performance (McLagan 1997). An encompassing definition that shows competency as support for job analysis can be seen in the following: Competency is an individual's actual performance in a particular situation. Competency describes how well that individual integrates knowledge, skill, attitudes and behavior in delivering care according to expectations (Nolan 1998).

Over time competencies have grown past being support for job analysis and have taken on a life of their own. Competencies reside and can be seen throughout the organization … there is a paradigm shift to the competency based organization which focuses on the individual's needed skills to accomplish organizational goals (Nelson 1997). It was taken a step further when competency was defined a person's capabilities and inner drives rather than subject matter or knowledge (Anonymous 1997).

Competencies have broadened past support and now are used as a tool in their own right as can be seen in this last definition. The intent of a competency definition is to provide enough details about the competency so that someone using the model can recognize the competency in action, can probe for it, can recommend development actions, and can notice opportunities for competence (McLagan 1996). The idea of a competency model

as more than a supplement to job analysis has come into being, and now competencies stand on their own as a valuable organizational tool.

Job analysis is a decision tool in which a particular job is taken apart piece by piece and a report, called a job description, is written on precisely how that job is done.  The job analysis can be referred to as a consideration in hiring, development, and compensation.  A competency model is also a decision tool, but it tends to be a stronger tool with higher reliability, because it always takes into account knowledge and skills, - which are often omitted in job descriptions (McLagan 1996).  The job competency assessment process objectively identifies common attributes among superior performers, taking into consideration the knowledge, skills, and motivations that lead to that superior performance (Mele 1993).

We live in a rapidly changing world in which business, industry, government institutions and nonprofit organizations are forced to create new, innovative responses to the "speed of light" changes in their environment (Van Der Veen 1993).  Job analysis takes too long to complete and is so narrow that by the time the job description is presented the information is of little use or completely obsolete.  Job analysis focuses on four general categories of skill types: technical, supervisory, interpersonal, and general business (Riehl 1998).  In this rapidly changing world, these singular categories are too narrow to accommodate the rapid changes needed.  The business world needs their employees to have the capacity to flow over into several skill categories.  Organizations are beginning to care about their human competency base and how it is developing, their market value increasingly relies on the intangibles of knowledge and human capital (McLagan 1997).  In this world of growing reliance on intangibles, the traditional model of job analysis is simply not cutting it.  Competency models account for those intangibles and are much more flexible on how those needed skills and knowledge are acquired.  For instance many organization are allowing experience to substitute for education and vice versa (Levine 1997).  As it stands presently, competency analysis provides an effective working language of knowledge, skills, and attitudes (KSAs) which meets the needs of the organization that the traditional job analysis is no longer able to do.

Competency Assessment uses in General

While there are specific uses for competency assessment, there are global uses for the organization.  To begin with, competency assessment as a tool goes a long way toward making everyone in an organization participate and accountable.  The company can be open about stating the outputs, knowledge, skills, and attitudes that are important to that organization (McLagan 1997).  That openness in and of itself creates a sense of accountability simply by informing the employees of what is expected of them.  It goes beyond informing the employees of solely the technical aspects of their job that they are expected to perform.  Competency assessment also helps the organization find the right person to work within their organizational culture.  It goes far beyond person - job fit, it is the person - organization fit that competencies cater to (Nelson 1997).   Some experts have attempted to categorize the general uses of competency assessment and have developed four general objectives.  Those four objectives (Reihl 1998) are to:

1. instill the individual with greater responsibility for development of his or her valued skills,
2. provide the information resources to define, measure and achieve that development,
3. instill greater accountability in managers and supervisors for their subordinates' aggregate skill set,
4. provide top management with consistent, strategic decision-support criteria for staff development, deployment, outsourcing, and hiring tactics.

Competency Assessment in Hiring

The hiring process has begun to increasingly rely on competency assessment as a decision making tool.  This makes sense after all, since the staffing costs generally dwarf all other costs of an organization.  Competency assessment offers the opportunity for organizations to develop competencies by position and to generate interview guidelines that are more likely than traditional models to help the staff hire the best person for the position and the organization (Meade 1998).  In addition to saving money there is a serious contention that competency based hiring is legally more defensible than more traditional methods (Meade 1998).  The legal strength of competency based hiring is partially based in the scrapping of unnecessary restriction that are not related to the competence to perform the job – this greatly benefits both women and ethnic minorities (Schofield 1993).

The main focus for organization rest in financial responsibility.  By hiring the correct person the organization does not waste money and is able to use that money to develop profit potential elsewhere.  However, when the organization hires the wrong person a lot of time and money is wasted resulting in lost profitability.  There are three main results when the wrong person is hired:

1. *Turnover* – this can lead to lost productivity, advertising and recruitment costs, management time, and interrupted service to the customer
2. *Below Average Productivity* – if the wrong person is hired they are either unable or unwilling to perform at or above average levels which results in less superior performers and therefore lost profit
3. *Legal Entanglements* – of all employment related lawsuits, 92% are related to having hired the wrong person, which can result in wrongful termination, failure to promote, etc

(Anonymous 1995).  By using competency based hiring the organization is less likely to hire the wrong person and therefore less likely to have profit-draining costs related to staffing.

Contemporary research supports the contention that worker preferences for job and organizational characteristics (person – organization fit) are related to job performance, voluntary termination, and employee attitudes about both the job and the organization (Villanova 1994).  The concept of person – organization fit has become increasingly important in hiring and recruitment.  Competency based hiring is a strong tool in assessing person – organization fit.  Organizations are taking a look at their culture and

the competencies needed to fit in, as well as the traditional knowledge and skills normally assessed during the hiring stage.  Currently have research which shows that job compatibility (person – organization fit) scores are non-redundant with hiring decisions based on the traditional methods which utilize such tools as applicant review, reference check, and interview (Villanova 1994).  The minimum qualifications - education, experience, etc. needed to perform the job satisfactorily - are no longer the breaking point for who is the right person for the position and for the organization (Levine 1997).

Competency Assessment in Training and Development

Competency Assessment is increasingly being used as the basis for initiating, developing, and guiding both training and development.  By using competency assessment, organizations are able to match project requirements with a person's skill and competency set so as to choose the best person for the project.  In addition to choosing the right person, the organization is able to detect skill gaps in their employees and identify them as areas of positive growth opportunity (Riehl 1998).  By identifying competency and skill gaps the organization is better able to point the individual to developmental solutions that meet their needs in regards to their needed areas of improvement (Riehl 1998).  In doing this employees are not forced to go through redundant or useless training – it is more specialized to improve them as an individual.

Learning events (LE) and Self-directed learning (SDL) have risen to the forefront of competency based training.   Learning events are an excellent solution to filling in the competency and skill gaps of an individual.  In this model of learning the supervisors define the level of ability required for each position in position profiles.  By experiencing learning events an individual can gather a skill by skill collection of ratings in that position's model skill profile and that position's competency benchmark (Riehl 1998).  In doing this, the individual is able to develop the necessary skills and competencies to move into a position on their own accord.  Self-directed learning follows much the same concepts but is much more structured than learning events.  There are six basic elements that are integral to the development of an effective self-directed learning package:
1. Trainee centered objectives
2. Arrangement of material into manageable pieces of information
3. Addition of the chosen medium
4. Packaging and revision
5. Trainee evaluation
6. Pilot tests
(Piskurich 1994).  It seems to be a general consensus among users that learning events are used for developmental purposes the majority of the time and that self-directed learning is used mainly for training, since it is much more structured and standardized than learning events.  However, this is not always the case as both are effective methods of training and development.

Since we have already made a distinction between training and development, it would seem pertinent that we evaluate how competency assessment breaks down the issue.  Traditionally new hires trained for a position before going in to start their job.  Once

inside the organization an individual went through training for a higher position, while concurrently doing their present job – they called this development.  In the traditional model the two tracks were treated as separate with little connection.  Competency assessment has changed this notion; there are now three tracks in the training and development region, and they greatly overlap:

1. *The career line* – includes job history, where they gained experience, what kind of experience they gained, which jobs now and in the future would benefit form the employees' experience, what further experience is needed.
2. *The KSA line* – What knowledge, skills, and attitudes are necessary to perform according to present and future standards, what relevant knowledge, skills and attitudes does the employee possesses currently.
3. *The education & training line* – what level and type of education is needed to perform at adequate or superior levels, what succession of courses and training had a significant impact on performance, what additional courses and training are needed  available to prepare employee for adequate or superior performance.

(Van der Veen 1993).  The three tracks - career, KSA, and education & training - work together to produce a wholly competent employee, who is able to contribute to the organization in a positive and highly productive manner.

Competency Assessment in Compensation

Compensation is always an ultrasensitive area for both the organization and the employees.   It is so sensitive due to the fact that the organization is concerned with profit margins, while compensation is the primary building block in the hierarchy of employee needs (Cooke 1994).  To have a successful compensation system there must be consistency.  The employees need to have a clear understanding of how they will be evaluated, by whom and how often (Anonymous 1993).  There needs to be a common vocabulary for discussion of the capabilities, assessment, and compensation of the employee (McLagan 1996).  In addition, there needs to be a complete description of the job characteristics and employee competencies desired, as well as a certain measure of nontransparency, so as to protect the validity of personnel decisions (Villanova 1994).

The field of compensation has seen some recent trends that have changed the manner in which organizations provide compensation for their employees.  As with all trends, the field of compensation saw several come and go.  However, three trends have out-lasted the temporary buzz that most new ideas inspire before they die out.  Those trends (Pasternak 1993) include:
1. A movement to strengthen the link between compensation and company philosophy
2. Changes in the traditional job analysis and evaluation
3. Improvements in the variety and administration technology of 410 K plans
A major development from the recent trends has been the concept of merit-based pay.  The idea is to link appraisal to pay.  There is no longer set increments that an employee

must slowly climb up based on experience and time on the job.  The concept of merit-based pay all but destroys the concept of a single ladder system based on time.  The new system is more like a series of escalators based on performance.  In other words, the better you perform, the better you will be paid – there are few if any limits.  The only problem is that an employee can quickly reach his or her ceiling level of abilities and then may feel "stuck."  The competency-based model focuses more on the value of the employee to the organization.  There are no true limits to competency based pay – as long as the employee continues to increase his or her competencies and grow in value to the organization.  For each competency there are four levels of performance:

1. Consistently exceeds requirements
2. Meets requirements
3. Partially meets requirements
4. Not meeting requirements

The competency-based model can serve as an inspiration to low performing employees, because they can improve their pay a little at a time, as they gain competencies.  This can reward an employee greatly for improving his or her knowledge, skills and attitudes in one competency.  This hopefully will motivate the employee to improve other competencies.  This is a win – win solution, the employee is rewarded for their improvements, they set their own pace for improvement and reward, and their productivity rises accordingly – which leads to greater profit for the organization (Anonymous 1993).

Developing Competency Assessment

In order to develop an appropriate competency assessment model, much care must be taken in the process.  To begin with, there are some terms and ideas that should be integrated into the model.  Some of the terms and ideas (Mirabile 1997) include but are not limited to: *Ability* – refers to talent, while may be learned or enhanced there tends to be a natural predisposition to them.  *Behavior* – observable demonstration of some competency, can be taught, learned and measured.  *Behavioral Anchors* – more specific than simple behavior, there are built in levels of increasing complexity.  C*ompetency* – knowledge, skill, attitude or characteristic associated with high performance, some definitions include motives, beliefs, and values.  *Criticality* – measure of how important a particular competency is for a job or group of jobs.  *Proficiency* – how much of a particular competency a person must have to be successful in their work.

There are many tools that can be used to develop a competency model.
A quick knowledge and skill assessment of the job description is an excellent place to start.  Follow that by finding a current successful performer and develop a model of the competencies they use.  The future should also be taken into account by listening to what experts are saying about the future competencies that will be needed (McLagan 1996).  This is also an excellent idea to document outputs, knowledge, skills, and attitudes that superior performers demonstrate.  Singular critical-incident interviews, as well as sets of critical-incident interviews, contribute to the development of the competency model as well as drawing on learnings from past behavior (McLagan 1997).

The estimate is that approximately 80% of the important actions for successful job performance are controlled by 20% of the competencies used in the job (McLagan 1996). Therefore, it is essential as to how the competencies are chosen in order for a competency model to be successful.  It is necessary that a competency model be developed in a detailed manner.  One method of determining competencies (Wilde 1993) is listed below:

1.  Study a detailed job description for the position in question
2.  Select some 10 - 12 aspects of the job which seem to be the most important or the most often performed
3.  Make sure that within the selected aspects there are at least two to three groups of responsibilities which fall into a defined category
4.  Determine the essential competencies which must be utilized in order carry out the groups of responsibilities
5.  Prepare a list of clear definitions for the sets of aspects and competencies so as to avoid uncertainty in their interpretation
6.  Design a profile evaluation form with which to assess the competencies

The above is a rather specific manner of determining competencies, but there is much more to developing a competency model that determining the competencies.  A broader, yet more encompassing method (Nolan 1998) can be seen in the following:

1.  Specify the role and work setting
2.  Identify competency areas
3.  Write competency statements
4.  Write performance criteria
5.  Develop competency assessment tools
6.  Design a documentation method

In addition to the above developmental process, it is important to note that the most important point about competency models is that the formats be governed by the collective wisdom of the people that need and build them (Mirabile 1997). Without the collective wisdom, no amount of correct developmental processes will produce an effective competency assessment model.

Once a competency assessment model has been developed, it must be implemented. There are several questions that an organization should analyze the following as it goes about implementing the competency assessment model (Reihl 1998):

1.  What are our competency-based management business objectives?  What changes do we wish to affect?  What payback do we expect?
2.  What information do we rely need to collect to support the business objectives?
3.  Have we carefully laid out staff communication programs?  Is what we are telling them consistent with what we plan to do?  Is everybody on board?
4.  Do we really have the resolve to stick with it?  Will we keep the repository up to date and refine it as changing business conditions dictate?
5.  Have we chosen an easy to implement competency model tool that supports our need with a minimum overhead?

Using Competency Assessment

Creating wealth has become increasingly a matter of competency.  Organizations are looking for new ways to integrate people practices in all areas of the organization. They have realized this dream partially in competency assessment and are beginning to implement it throughout the organization (McLagan 1997).  There is a severe shift in focus from jobs to the organization.  Efforts are being made to identify competencies throughout the entire organization.  Once determined those competencies are organized into menus that individuals and teams can use to describe, perform, and enhance their work and people practices (McLagan 1997).

Competency models provide valuable information, but they are all but useless, unless there is a coherent and systematic implementation strategy to leverage the essential information.  Implementing a competency model is a change effort, and as such required the traditional change model of Content, Process, and Structure.  There needs to be an accountable agent to ensure the confidentiality, accuracy and relevance of the competency model.  (Mirabile 1997).  Another essential element is that there be a certain transparency to the competency assessment.  The entire organization needs to be aware of the outputs, knowledge, skills, and attitudes that are important to the organization and essential to successful performance (McLagan 1997).

The successful implementation and use of competency assessment requires quite a bit of effort and knowledge, competency assessment is not something to be jumped into haphazardly.  While there are many factors that go into successfully using competency assessment, there are four factors that are absolutely required.  Those four factors (McLagan 1996) are:
1. Sharp observation skills
2. Top management support
3. Open-mindedness about the reasons for low competency ratings
4. New tools, processes, and systematic approaches to such activities as hiring, training & development, and compensation

Summary

In closing we can take an overview look at what goes into a competency assessment model.  There are four basic stages (Horney 1996) described as:
1. *Assessment* – do task analysis to determine knowledge, skills, attitudes and competencies needed to be effective
2. *Deploy* – Identify people's skill gaps and how to best help those employees
3. *Learning* – develop skill and competency acquisition plans to fill in the skill and competency gaps
4. *Alignment* – develop and align human resource systems to sustain the new competency assessment model

By following this road map the organization is likely to achieve high employee productivity and therefore higher profitability – it's a win - win situation.

## Resources

Anderson, C.  1994.  Can Employees Physically do the Job?  Human Resources Professional.  7(5): 305.

Anonymous. 1993.  CEO to CEO.  Association Management.  45(5): 164-165.

Anonymous.  1993.  Focus on Merit Pay: Scottish Equitable Life Insurance.  Industrial Relations Review & Report.  (548): SS2-SS5.

Anonymous.  1994.  Key Competencies are Measured by Work-Relevant Questionnaires.  Personnel Journal (Personnel Supplement).  1,4.

Anonymous.  1995.  How to Hire the Right Person.  Supervision.  56(5): 10-11.

Anonymous.  1995.  IT Pros Share Common Bonds.  Managing Office Technology.  40(4): 45.

Anonymous.  1997.  Competency Approaches Throughout History: A Case Example.  Training & Development.  51(5): 46.

Anonymous.  1997.  Assessment Building Blocks.  Security Management.  41(3): 35.

Armstrong, M. & Baron, A.  1998.  Out of the Tick Box.  People Management.  4(15): 38-41.

Bander, D.  1986.  Building a Better Project Manager.  Computerworld.  20(21): 69-78.

Baruch, Y. & Lessem, R.  1995.  Job Analysis: Can if Still be Applied?  Indications for Various Organizational Levels.  International Journal of Career Management.  7(6): 3-9.

Bredahl, R.  1997.  Piggyback Skills Training with Hazard Analysis.  Occupational Health & Safety.  66(10): 30-32.

Cooke, R.  1994.  Solving the Compensation Puzzle.  Credit Union Management.  17(8): 45-47.

Hager, P.  1994.  General Issues about Assessment of Competence.  Assessment and Evaluation in Higher Education.  19(1): 3-16.

Hanley, J.  1993.  Does the Job Match the description?  Human Resource Professional.  5(4): 19-22.

Horney, N. & Koonce, R.  1996.  Competency Alignment.  Executive Excellence.  13(9): 19.

Johnson, M. & Kaupins, G.  1993.  Lies, damn Lies and the Selection Interview: Don't Take them Lies Lying down.  Industrial Management.  35(3): 23-24.

King, J.  1997.  Cross-training Pleases Georgia-Pacific IS Staff.  Computerworld.  31(8): 75-76.

Kutner, M.  1996.  A Review of Statewide Learner Competency and Assessment Systems.  Office of Vocational and Adult Education, Washington DC.  Reports – Research (143).

Levine, E. & Maye, D. & Ulm, R. & Gordon, T.  1997.  A Methodology for Developing and Validating Minimum Qualifications (MQs).  Personnel Psychology.  50(4): 1009-1023.

Love, K. & Bishop, R. & Heinisch, D. & Montei, M.  1994.  Selection Across Two Cultures: Adapting the Selection of American Assemblers to Meet Japanese Job Performance Demands.  Personnel Psychology.  47(4): 837-846.

McLagan, P.  1996.  Great Ideas Revisited.  Training & Development.  50(1): 60-64.

McLagan, P.  1997.  Competencies: The Next generation.  Training & Development.  51(5): 40-47.

McNamara, D. & Ogilvie, J.  1996.  Job Analysis Kit.  Personnel Psychology.  49(3): 79-771.

Meade, J.  1998.  Identifying Criteria for Success Helps in Making effective Hiring Decisions.  HR Magazine.  43(5): 49-50.

Mele, J.  1993.  Are You Hiring the Right Drivers?  Fleet Owners (Big Fleet Edition).  88(4): 62-65.

Mele, J.  1993.  Hiring Smarter.  Fleet Owner (Big Fleet Edition).  88(3): 82.

Mirable, R.  1997.  Everything you Wanted to Know about Competency Modeling.  Training & Development.  51(8): 73-77.

Nelson, J.  1997.  The boundaryless Organization: Implications for Job Analysis, Recruitment, and Selection.  Human Resource Planning.  29(4): 39-49.

Nolan, P.  1998.  Competencies Drive Decision Making.  Nursing Management.  29(3): 27-29.

Pasternak, C.  1993.  Trends in Compensation.  HR Magazine.  38(4): 31.

Perkins, L.  1995.  JSA: A New Look for an Old Friend.  Occupational Hazards.  57(8): 63-66.

Piskurich, G.  1994.  Developing Self-Directed Learning.  Training & Development. 48(3): 31-36.

Riehl, H.  1998.  Managing with Skills.  Ivey Business Quarterly.  62(4): 50-54.

Schofield, P.  1993.  Improving the Candidate Job-Match.  Personnel Management. 25(2): 69.

Ukens, C.  1998.  Groups Tussle over R.Ph. Competency Assessment.  Drug Topics. 142(6): 18.

Urbanek, S.  1997.  Job Analysis: A Local Government's experience.  Public Personnel Management.  26(3): 423-429.

Van der Veen, J.  1993.  A Research Based Model for Job Analysis.  Journal of European Industrial Training.  17(5): 15-23.

Villanova, P. & Bernardin, J. & Johnson, D. & Dahmus, S.  1994.  The Validity of a Measure of Job Compatibility in the Motin Picture Theatre Personnel.  Personnel Psychology.  47(1): 73-90.

Werner, J. & Bolino, M.  1997.  Explaining US Courts of Appeal Decisions Involving Performance Appraisal: Accuracy, Fairness, and Validation.  Personnel Psychology. 51(1): 1-24.

Wilde, E.  1993.  Finding the Right Person for the Job.  Management Services.  37(3): 24-26.

Wotruba, T. & Castleberry, S.  Job Analysis and Hiring Practices for National Account Marketing Positions.  Journal of Personal Selling & Sales Management.  13(3): 49-65.

Xie, J. & Johns, G.  1995.  Job Scope and Stress: Can a Job Scope be too High? Academy of Management Journal.  38(5): 1288-1309.

Yeung, A.  1996.  Competencies for rHR Professionals: An Interview with Richard E Boyatzis.  Human Resource Management.  35(1): 119-131.