

DEFINITION: Know-How is the sum total of every kind of knowledge and skill, *however acquired*, needed for acceptable job performance. Know-How has three dimensions - the requirements for :

- Practical procedures, specialized techniques, or scientific disciplines
- Planning, organizing, coordinating, integrating, staffing, directing and/or controlling the activities and resources associated with an organizational unit or function, in order to produce the results expected of that unit or function. This knowledge and skill may be exercised consultatively or directly.
- Active, practicing person to person skills needed for various relationships with other people. Considers the relative importance, difficulty and sensitivity of communication (written and oral) both internal and external to university.



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KNOW-HOW

MEASURING PRACTICAL, TECHNICAL KNOW-HOW: This type of knowledge and skill may be characterized by breadth (variety), or depth (complexity), or both. Jobs may require, in varying combinations, some knowledge about many things or a good deal of knowledge about a few things. Thus, the measuring of Practical, Technical Know-How requires an understanding of "HOW MUCH KNOWLEDGE IS NEEDED ABOUT HOW MANY THINGS AND HOW COMPLEX ARE THEY?"

		**JOB COMPLEXITY																			
		T.			I.			II.			III.			IV.			V.				
		Performance of a task(s) highly specific as to the objective and content, and not involving the leadership of others			Performance or direction of activities which are similar as to content and objectives, with appropriate awareness of other activities.			Direction of a unit with varied activities and objective OR guidance of a subfunction(s) or several important elements across several organizational units			Direction of a large unit with functional variety OR guidance of a function(s) which affects all or most of the organization.			Direction of a major unit with substantial functional diversity OR guidance of a strategic function(s) which significantly affects the organization's planning and operations			Management of all units and functions in the organization				
		1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3		
SCIENTIFIC DISCIPLINES	PRACTICAL PROCEDURES	A Familiarity with simple work routines; procedures	38	43	50	50	57	66	66	76	87	87	100	115	115	132	152	152	175	200	A
		B Capable of carrying out uninvolved, standard procedures, work routines and/or using equipment or machines which are simple to operate	50	57	66	66	76	87	87	100	115	115	132	152	152	175	200	200	230	264	B
		C Experienced in applying methods or procedures which generally are well defined and straightforward, but with occasional deviations. Skill in the use of specialized equipment may be needed	66	76	87	87	100	115	115	132	152	152	175	200	200	230	264	264	304	350	C
		D Accomplished in implementing practical procedures or systems which are moderately complex, and/or specialized skills which require some technical knowledge (usually-non-theoretical) to apply, giving additional breadth or depth to a generally single element	87	100	115	115	132	152	152	175	200	200	230	264	264	304	350	350	400	460	D
	SPECIALIZED TECHNIQUES	E A sound understanding and skill in several activities which involve a variety of practices and precedents, OR a basic understanding of the theory and principles in a scientific/professional or similar discipline.	115	132	152	152	175	200	200	230	264	264	304	350	350	400	460	460	528	608	E
		F Extensive knowledge and skill gained through broad or deep experience in a field (or fields) which require a command of EITHER involved, diverse practices and precedents OR scientific/professional theory and principals, OR both.	152	175	200	200	230	264	264	304	350	350	400	460	460	528	608	608	700	800	F
		G Mastery of theories, principles and complex techniques OR the diveres, or cumulative equivalent gained through broad seasoning and/or special development.	200	230	264	264	304	350	350	400	460	460	528	608	608	700	800	800	920	1056	G
		H Externally recognized in a complex scientific field or other learned discipline	264	304	350	350	400	460	460	528	608	608	700	800	800	920	1056	1056	1216	1400	H

***HUMAN RELATIONS SKILLS		
1. Ordinary courtesy and effectiveness in dealing with others. This is the base level on interpersonal skill utilized by most individuals in the course of performing the job. It includes the ability to tactfully communicate with fellow workers, supervisors, other members of the organization to request or transmit routine information, ask questions or get clarification	2. Understanding, influencing and/or responding to people's needs are important considerations in the job. This level of interpersonal skill is required in jobs which regularly interact with others, within the organization, with customers or with the public. Skills of persuasiveness or assertiveness as well as a sensitivity to the other person's point of view are often required to influence behaviour, change an opinion, turn a situation around or "sell" an idea or concept to achieve agreement. The requirement for public contact does not necessarily demand this level of human relations skill particularly if the purpose is to provide or solicit information.	3. Alternative or combined skills in understanding, motivating, educating or developing people are important in the highest degree. The highest level of interpersonal skill (such as negotiating solutions in an attempt to achieve consensus, etc.) is usually required by positions which have significant interaction with other people at any level within or outside the organization. These positions require a well developed understanding of human behaviour and those factors which influence or cause behaviour change.

DEFINITION: Problem Solving is the amount and nature of the thinking required in the job in the form of analyzing, reasoning, evaluating, creating, using judgement, forming hypotheses, drawing inferences, arriving at conclusions, and the like.

Problem Solving has two dimensions:

- The environment in which the thinking takes place - the extent to which the job is expected to work cooperatively as part of a team (two or more jobs) on a pre-defined task/project or operationally, or independently with various levels of assistance.
- The challenge of the thinking to be done - the complexity of the thinking, including the requirement of a job to apply professional knowledge easily from one situation to another, and communication to others

N.B. The evaluation of Problem Solving should be made without reference to the job's freedom to make decisions or take action; this is measured on the Accountability Chart.



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PROBLEM SOLVING

MEASURING PROBLEM SOLVING: All thinking requires the presence of knowledge in the form of facts, principles, procedures, standards, concepts, etc. This is the raw material to which the thinking processes are applied.

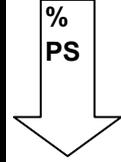
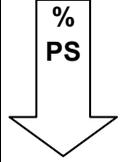
Problem Solving measures the degree to which thinking is processes, adaptability and communication skills must be applied to the required knowledge in order to obtain the results expected of the job.

To the extent that thinking is further challenged through team participation is considered an important component of problem solving.

N.B. To the extent that thinking is limited or reduced by job demands or structure, covered by precedent, simplified by definition, or assisted by others. Problem solving is diminished if results are obtained by the automatic application of skills rather than by the application of the thinking processes to knowledge.

		**THINKING CHALLENGE							
		1	2	3	4	5			
		Identical situations requiring solution by simple choice of learned things, ability to communicate basic rationale, each situation is nearly the same as the prior one, and through simple choice the correct decision is made.	Similar situations requiring solution by simple choice of learned things, ability to communicate basic rationale and alter approach based on prior situations	Differing situations requiring search for solutions within area of learned things, ability to communicate rationale, solutions result from comparison of problem elements to reference points within one's own experience and then in the use of judgement to reflect prior decisions	Variable situations, requiring analytical, interpretative, evaluative, and/or constructive thinking, ability to communicate principles used to arrive at decision, and defend the application of the principles, considers various possible courses of action and their consequences before taking or recommending further steps.	Novel or nonrecurring path-finding situations requiring the development of new concepts and imaginative approaches, ability to communicate and defend decisions			
The thinking environment is guided and circumscribed by:									
STEP VALUES 2432 2112 1840 -1600- 1400 1216 1056 920 -800- 700 608 528 460 -400- 350 304 264 230 -200- 175 152 132 115 -100- 87 76 66 57 4- -50- 5- 43 6- 38 7- 33 8- 29 9- -25- 10- 22 11- 19 12- 16 13- 14- 14 15- -12- 16- 10 17- 9 18- 8 19- 7 20- -6- 5	STEP BELOW 100%	-THINKING ENVIRONMENT	A. Thinking within very detailed and precisely defined rules and instructions AND/OR with continually present assistance.	10%	14%	19%	25%	33%	A
			B. Thinking within detailed standard practices and instructions AND/OR with immediately available assistance or examples	12%	16%	22%	29%	38%	B
			C. Thinking within well defined somewhat diversified procedures; many precedents covering most situations AND/OR readily available assistance	14%	19%	25%	33%	43%	C
			D. Thinking within clear but substantially diversified procedures; precedents covering many situations AND/OR access to assistance, involvement in team work in known areas of expertise	16%	22%	29%	38%	50%	D
			E. Thinking within a well-defined frame of reference and toward specific objectives, in situations characterized by functional practices and precedents, team work responsibilities in sections of a project.	19%	25%	33%	43%	57%	E
			F. Thinking with a general frame of reference toward functional objectives, in situations with some nebulous, intangible, or unstructured aspects, team work in major area(s) of a project	22%	29%	38%	50%	66%	F
			G. Thinking within concepts, principles and broad guidelines towards the organization's objectives or functional goals; many nebulous, intangible, or unstructured aspects to the environment, overall project management	25%	33%	43%	57%	76%	G
			H. Thinking within business philosophy AND/OR natural laws AND/OR principles governing human affairs.	29%	38%	50%	66%	87%	H

TO FIND PROBLEM SOLVING POINTS, READ OFF WHERE KNOW-HOW SCORE AND PROBLEM SOLVING % INTERSECT



	38	43	50	57	66	76	87	100	115	132	152	175	200	230	264	304	350	400	460	528	608	700	800	920	1056	1216	1400	
87%	33	38	43	50	57	66	76	87	100	115	132	152	175	200	230	264	304	350	400	460	528	608	700	800	920	1056	1216	87%
76%	29	33	38	43	50	57	66	76	87	100	115	132	152	175	200	230	264	304	350	400	460	528	608	700	800	920	1056	76%
66%	25	29	33	38	43	50	57	66	76	87	100	115	132	152	175	200	230	264	304	350	400	460	528	608	700	800	920	66%
57%	22	25	29	33	38	43	50	57	66	76	87	100	115	132	152	175	200	230	264	304	350	400	460	528	608	700	800	57%
50%	19	22	25	29	33	38	43	50	57	66	76	87	100	115	132	152	175	200	230	264	304	350	400	460	528	608	700	50%
43%	16	19	22	25	29	33	38	43	50	57	66	76	87	100	115	132	152	175	200	230	264	304	350	400	460	528	608	43%
38%	14	16	19	22	25	29	33	38	43	50	57	66	76	87	100	115	132	152	175	200	230	264	304	350	400	460	528	38%
33%	12	14	16	19	22	25	29	33	38	43	50	57	66	76	87	100	115	132	152	175	200	230	264	304	350	400	460	33%
29%	10	12	14	16	19	22	25	29	33	38	43	50	57	66	76	87	100	115	132	152	175	200	230	264	304	350	400	29%
25%	9	10	12	14	16	19	22	25	29	33	38	43	50	57	66	76	87	100	115	132	152	175	200	230	264	304	350	25%
22%	8	9	10	12	14	16	19	22	25	29	33	38	43	50	57	66	76	87	100	115	132	152	175	200	230	264	304	22%
19%	7	8	9	10	12	14	16	19	22	25	29	33	38	43	50	57	66	76	87	100	115	132	152	175	200	230	264	19%
16%	6	7	8	9	10	12	14	19	22	25	29	33	38	43	50	57	66	76	87	100	115	132	152	175	200	230	16%	
14%	5	6	7	8	9	10	12	14	16	19	22	25	29	33	38	43	50	57	66	76	87	100	115	132	152	175	200	14%
12%	4	5	6	7	8	9	10	12	14	16	19	22	25	29	33	38	43	50	57	66	76	87	100	115	132	152	175	12%
10%	3	4	5	6	7	8	9	10	12	14	16	19	22	25	29	33	38	43	50	57	66	76	87	100	115	132	152	10%

GENERAL: Accountability is the amount of opportunity which a job has to bring about some results and the importance of those results to the organization. It is the degree to which the person in the job must answer for the results. There are three components in Accountability in the following order of importance:

- **Freedom to Act** - the degree to which personal or procedural control and guidance exists, as defined in left-hand column.
 - **Impact** - as defined at upper right.
 - **Magnitude** - the size of the unit or function most clearly affected by the job.
- N.B.** Magnitude and Impact must fit together; neither can be final or meaningful without being related to the other. Also, *there may be more than one magnitude-impact combination which would appropriately describe a given job!*



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ACCOUNTABILITY

•• **IMPACT:** The degree to which the job affects or brings about the results expected of the unit or function being considered.

P - PRIMARY: Controlling impact - the position has effective control over the significant activities and resources which produce the results and is the sole position (at this level of Freedom to Act) which must answer for the results.

S - SHARED: Equal and joint control, with a few others, of the activities and resources which produce the results, OR control of what are clearly most (but not all) of the variables which are significant in bringing about the results.

C - CONTRIBUTORY: Contribute significantly to the end results expected of the unit or function or team OR interpretive, advisory, or other important supporting services for use by others in achieving results

I - INDIRECT: Job provides informational, recording, or other facilitating services for use by others in achieving results.

		---MAGNITUDE-->																				
		(M) Indeterminate				(1) \$10,000 - \$100,000 OR Results affect a unit of the department and external focus for a limited number of students, staff or faculty				(2) \$100,000 - \$1,000,000 OR Results affect entire department or unit and external focus for segments of students or staff or faculty				(3) \$1,000,000 - \$10,000,000 OR Results affect more than one department or unit and external focus for all students or all staff or faculty in one or more functional area(s).				(4) \$10,000,000 - \$100,000,000 OR Results affect the entire campus and community; external focus for all campus community as well as general public.				
		AMI EQUIVALENT-->																				
		--IMPACT-->																				
		I	C	S	P	I	C	S	P	I	C	S	P	I	C	S	P	I	C	S	P	
FREEDOM TO ACT	R These jobs are subject to explicit, detailed instructions and/or constant personal or procedural supervision.	5	7	9	12	7	9	12	16	9	12	16	22	12	16	22	29	16	22	29	38	R
	A These jobs are subject to direct and detailed instructions and/or very close supervision.	8	10	14	19	10	14	19	25	14	19	25	33	19	25	33	43	25	33	43	57	A
	B These jobs are subject to instruction and established work routines and/or close supervision	12	16	22	29	16	22	29	38	22	29	38	50	29	38	50	66	38	50	66	87	B
	C These jobs are subject, to standardized practices and procedures, general work instructions, and frequent supervision of progress and results.	19	25	33	43	25	33	43	57	33	43	57	76	43	57	76	100	57	76	100	132	C
	D These jobs are subject, to practices and procedures covered by precedents or well-defined policies and periodic supervisory review.	29	38	50	66	38	50	66	87	50	66	87	115	66	87	115	152	87	115	152	200	D
	E These jobs are subject to broad practices and procedures covered by professional guidelines and defined policies, circumscribed operational activity is achieved with managerial direction.	43	57	76	100	57	76	100	132	76	100	132	175	100	132	175	230	132	175	230	304	E
	F These jobs are broadly subject to functional policies and goals, and to managerial direction of a general nature.	66	87	115	152	87	115	152	200	115	152	200	264	152	200	264	350	200	264	350	460	F
	G These jobs are subject to the guidance of general policies and directives from senior management.	100	132	175	230	132	175	230	304	175	230	304	400	230	304	400	528	304	400	528	700	G
	H These jobs, by virtue of their direction of significant activities, their pervasive effect on the organization and their involvement in strategic decisions, are subject only to guidance from the top and from general organization policies	152	200	264	350	200	264	350	460	264	350	460	608	350	460	608	800	460	608	800	1056	H
	I Subject to guidance of broad organization policies, community or legislative limits, and the mandate of the organization.	230	304	400	528	304	400	528	700	400	528	700	920	528	700	920	1216	700	920	1216	1600	I

