CMQS
THE COMPENSATORY
MINIMUM QUALIFICATION
SYSTEM

BRANDON TIETZE BASSETT USD DEVELOPMENT AND IMPLEMENTATION

SOUND FAMILIAR?

Want to give everyone a chance, but

don't have the resources

Want to have standards, but

don't want to be unnecessarily strict.

Want to provide help to applicants, but

don't want to do all the work for them

Want to use minimum requirements, but

can't properly justify why they are required

INTRODUCTION & OVERVIEW

- Background of Issue
- Minimum Qualification (MQ) Problems & Solutions
- Compensatory MQ System (CMQS)
 - Overview
 - How to Develop
 - How to Use
 - Paper and Pencil
 - Online GOV

Background

- T&E theory
- Minimum Qualifications
- Where do MQ's apply?
- What's the problem?
- Who are we missing?

THEORY BEHIND T&E

BACKGROUND

T&E = Training & Experience

- Experience can best be viewed as an opportunity to gain knowledge, skills, and abilities (KSA's)
- However, individuals with same length of job experience will vary widely in KSA's and job performance

Source: McGonigle, 2002

THEORY BEHIND T&E

BACKGROUND

The KSA's gained are likely a function of person characteristics, situation characteristics, and their interaction

- Personal characteristic: Intelligence, openness to experience, and extroversion
- Situation: Degree to which environment provides different experiences
- Interaction: Motivation

Source: McGonigle, 2002

MINIMUM QUALIFICATIONS

BACKGROUND

- Serve as device to realistically limit number of candidates in selection (Prien, 1977)
- Standards of education, experience, and/or closely related personal attributes needed to perform a job satisfactorily, that are used to screen applicants (Levine, 1997)
- Define lower threshold of some attribute needed to succeed (Buster, 2005)
- Stage to determine if applicants are eligible for further testing (Lange, 2006)

WHERE DO MQ'S APPLY?

BACKGROUND

- Recruitment
 - Provide manageable applicant pool
 - Give job candidates realistic job preview (selfselect out)
- Selection
 - Serve as first hurdle in exam process
 - Create backbone of test content

Source: McGonigle, 2002

WHAT'S THE PROBLEM?

BACKGROUND

Answer: MQ System is Broken

- Education
 - Variation in school standards, courses taken, GPA
 - Does diploma or degree indicate the attainment of a specific KSA?
- Experience
 - Different for everyone (slow vs. fast learner)
 - Can be harmful (old dog & new tricks)
- Licenses & Certificates
 - Where is evidence of a link to a KSA?
 - Consistency among different programs

WHAT'S THE PROBLEM? EXAMPLE: ACCOUNTING TECH I

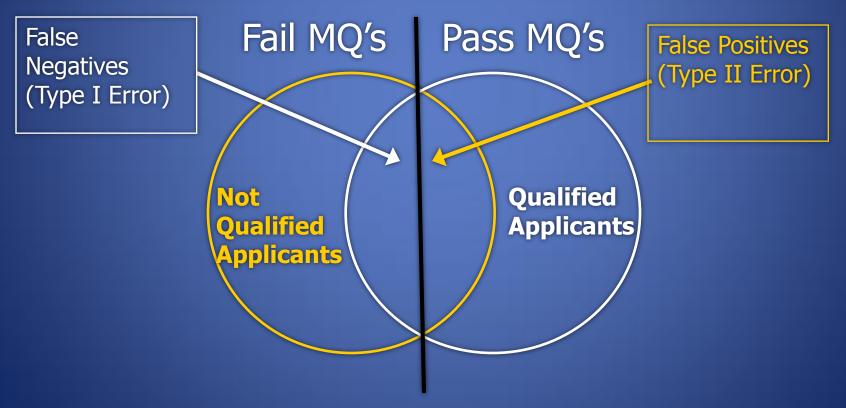
MQ = 2 years of increasingly responsible experience performing financial record-keeping and accounting functions

Candidate	Amount of Experience	Type of Experience (Duties Performed)
Applicant 1	4 years	Collecting and processing receiptsQuarterly budget reports
Applicant 2	2 years	 Supervising payroll and revolving cash dispersal Reconciling account discrepancies Weekly budget reports
Applicant 3	6 months	 Supervising payroll, revolving cash, and all vendor invoicing Working with Accounting Dir. daily on complex reconciling and adjustments to account Weekly audits of all District accounts

WHO ARE WE MISSING?

BACKGROUND

Answer: False Negatives



MQ Problems & Solutions

- Two Stage Selection Process
- MQ Best Practices
- MQ Systems Comparison

INTRODUCTION & OVERVIEW

The Story of Four Applicant Groups

Pass Screening Stage

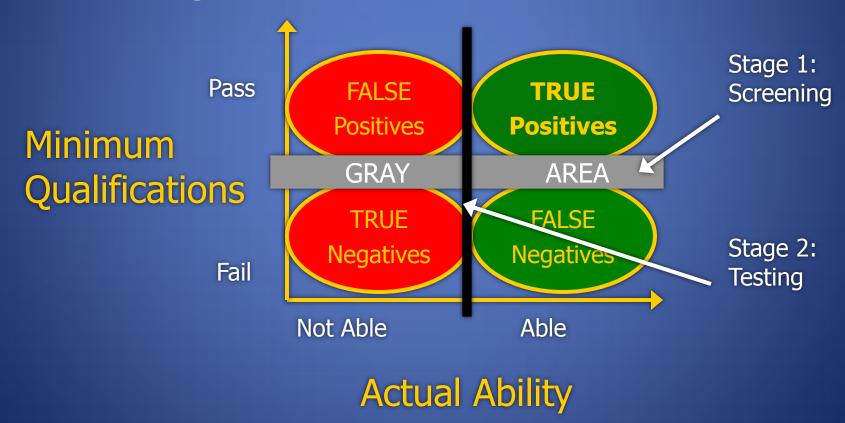
Possess YES KSA's NO

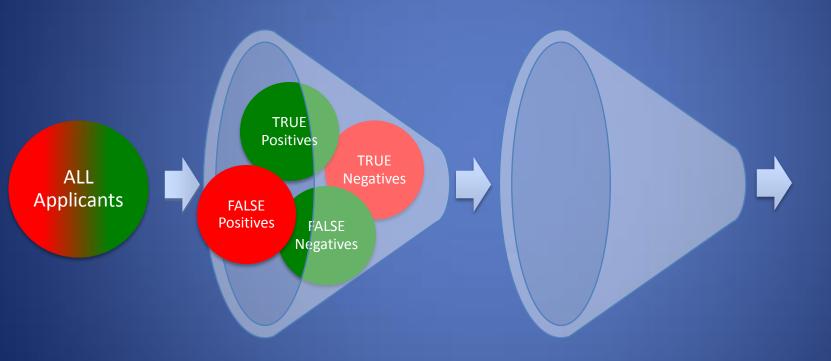
TRUE	FALSE
Positives	Negatives
False	TRUE
Positives	Negatives

LEAVING APPLICANTS BEHIND

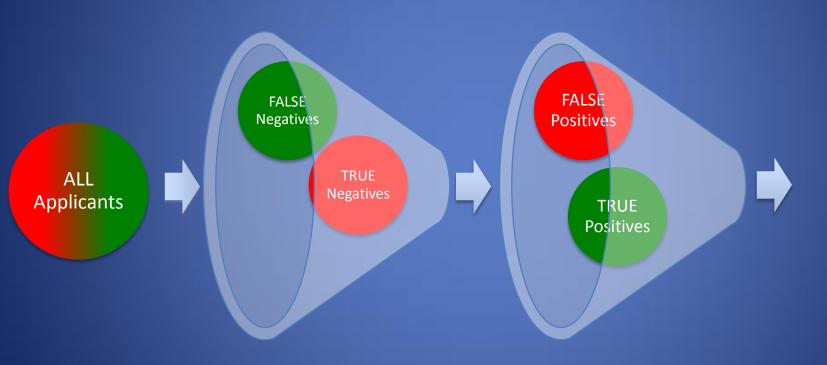
PROBLEMS & SOLUTIONS

Two Stage Process

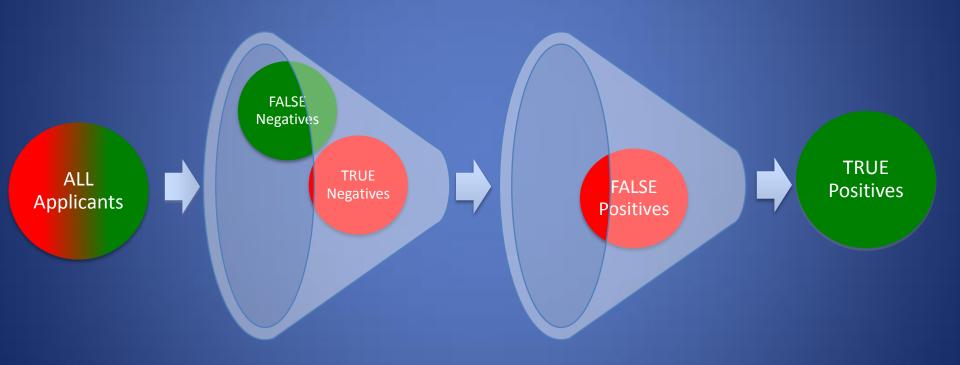




1) Screening

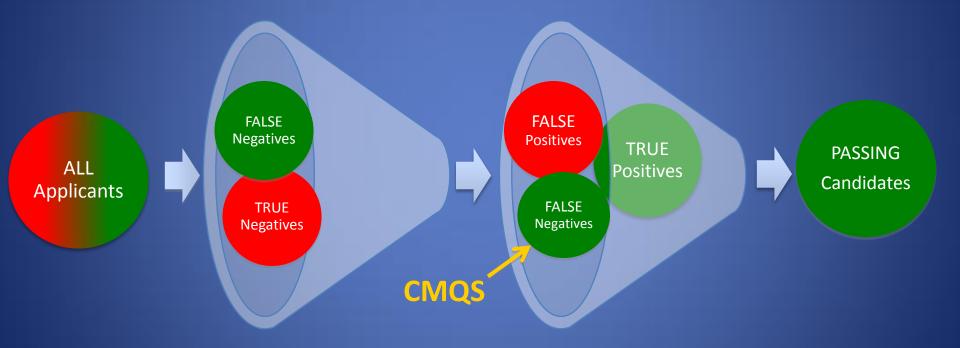


1) Screening



1) Screening

• What does the CMQS affect?



1) Screening

MQ BEST PRACTICES PROBLEMS & SOLUTIONS

- Content Validation with SME
- Focused only on entry level minimum performance on Day 1
- Fewer Components
- Level of specificity = TASK level
- Measurement mode = AMOUNT OF TIMES performed

MQ Systems Comparison

PROBLEMS & SOLUTIONS

Traditional

- Few ways to meet MQs
 - Adverse impact
 - False negatives
- Not validated
- Arbitrary quantity of MQ
- Analyst infers general link between candidate application and MQ
- Time wasted screening the "gray area" candidates

<u>Compensatory</u>

- Many ways to meet MQs
 - Larger applicant pool
 - More diverse experience base
- Validated
- Multiple specific quantities of MQ
- Applicant lists which specific event they are counting as a specific MQ
- Time saved by applicants self selecting in or out

CMQS:

Compensatory Minimum Qualification System

- Overview
- How to Develop
- How to Use
 - Paper and Pencil
 - Online (NEOGOV)

CMQS: OVERVIEW

Building Blocks – Developing the CMQS

- Posegate, 1949:
 - Use existing KSA's if sufficient; start there
 - Ignore KSA's gained through on-the-job training
 - Avoid formal education & years of experience MQ's
 - Use "minimums," not "desirables"
- Quinones, 1995:
 - Focus on Amount of Times a Task has been performed
- Levine, 1997:
 - Content validate every step with SME's
 - Define "barely acceptable employee" with SME's

CMQS: OVERVIEW

Building Blocks – Developing the CMQS

- McGongile, 2002:
 - Type of experience > important than Length
 - MQ's listed as behaviors rather than amount Educ & Exp
 - Use of "Performance Dimensions"
 - Equivalent activity statements within Perf. Dimensions
- Buster, 2005:
 - Nominal Group Technique using SME's
 - Bracketed MQ options for SME's to rate
 - No additional points at level where perf. does not increase
- Lange, 2006:
 - Technique for comparing CMQS vs. Traditional MQS (TMQS)

GOALS OF THE CMQS

- 1. Decrease Adverse Impact
 - Percentage of minority group members excluded from testing phase
- 2. Decrease Erroneous Rejection of False Negatives
 - Number of Capable applicants who don't qualify due to overly strict Minimum Qualifications
- 3. Decrease Technician/Analyst Work
 - Time spent qualifying applications (Screening)
- 4. Increase Candidate Accountability
 - Amount of documentation from the candidate themselves explaining how their experience meets the particular requirement

HOW TO DEVELOP PERFORMANCE DIMENSIONS

Step 1: Establish Performance Dimensions

- -Derived from Task Statements
 - Gather information (Job Analysis)
 - Observation, incumbent interviews, literature review
 - SME workshop to identify relevant:
 - performance dimensions, KSAs, and Tasks
 - SME's identify which dimensions applicants could have performed in previously to gain experience
 - SME's review relevance of dimension to the job
 - Importance & Whether needed at entry level
 - SME's review likelihood that applicants would have experience with performance dimension behaviors

HOW TO DEVELOP WORK ACTIVITIES

Step 2: Establish Work Activities

- SME's generate at least 2 activities that demonstrate proficiency with each Dimension
 - Activities are qualitatively unique
- SME's estimate how well applicant will do with specific amount of activity experience
 - Based on # of times performing activity (Quinones, 1995)
 - Stop giving points where additional experience would not increase performance (≤ 200 attempts)

How To Develop

SUBSTITUTIONS

Explanation: Compensatory Substitutes

- In Step 2: SME's establish at least 2 Activities for every Performance Dimension
- Applicants may "compensate" for an insufficient activity score with a sufficient activity score within the same Performance Dimension

Knowledge:

- Modern office practices, procedures and equipment.
- Routine record-keeping methods and practices.
- Correct English usage, grammar, spelling, punctuation and vocabulary.
- Telephone techniques and etiquette.
- Operation of standard office equipment including copier, typewriter and other machines.
- Basic math.

Abilities:

- Perform general clerical duties such as filing, duplications, and maintaining routine records.
- Operate a copier, typewriter and calculator.
- Make basic arithmetic calculations accurately.
- Understand and follow oral and written directions.
- Meet schedules and time lines.
- Communicate and work cooperatively with others.

Tasks:

- Perform general office support duties including filing, record-keeping and processing routine information related to the assignment.
- Assist higher level clerical, secretarial and managerial personnel in the performance of their duties.
- Receive visitors to the office and answer telephones; refer callers and visitors to appropriate personnel; answer routine questions according to established guidelines.
- Maintain various logs, records, files and inventories; index and cross reference files according to instructions; compile information and prepare routine reports.
- Receive, sort and distribute incoming and outgoing mail.
- Duplicate items; package and distribute completed copies.
- Ensure the timely distribution and receipt of information from various sources;
 follow up as requested regarding missing or incomplete data.
- Make telephone calls as directed; take and relay messages and schedule appointments.
- Operate standard office equipment including calculator, copier and other machines as required by the assignment.

	Sample Performance Dimensions	r
1	Performing general office support duties including filing, record-keeping and processing routine information	.55
2	Assisting higher level office personnel in the performance of their duties	.34
3	Providing customer service for visitors and callers	.26

Work Activities:

- Performing general office support duties including filing, record-keeping and processing routine information
 - Organizing documents into a filing system
 - Receiving and directing written information in office environment
- Assisting higher level office personnel in the performance of their duties
 - Doing support work for other office employees
 - Working with coworkers on larger group projects

Work Activities Rating Scale To what extent is the amount of times attempted suitable for identifying the barely acceptable applicant? Not at All This amount of times attempted is not enough to expect from a barely acceptable applicant on day one of the job This amount of times attempted appropriately defines what is required of the barely acceptable applicant on day one of the job This amount of times attempted is more than should be expected from a barely acceptable applicant on day one of the job

Work Activities Rating Worksheet	# of Attempts	Rating
Organizing documents into a filing system	1 – 19	1
	20 – 59	2
	60 – 99	3
	100 – 149	3
	150 – 200	3
Receiving and directing written information	1 – 19	1
in office environment	20 – 59	2
	60 – 99	3
	100 – 149	3
	150 – 200	3

Minimum Qualifications Activity Worksheet						
Work Activity	Frequency	Examples		List the employers that your		
	How many times have you attempted the	To attempt this activity the number of times listed to the left, you'd have to perform the task				
	activity listed? (choose range)	every day for almost	every week for about	or every month for about	experience is with	
Organizing documents into a filing system	a. 1 – 19	less than 1 month	less than 5 months	less than 1.5 years		
	b. 20 – 59	1 - 3 months	5 months - 1 year	1.5 - 5 years		
	c. 60 – 99	3 - 5 months	1 - 2 years	5 - 8 years		
	d. 100 – 139	5 - 7 months	2 - 3 years	8 - 12 years		
	e. 140 – 200	7 - 10 months	3 - 4 years	12 - 16 years		
Receiving	a. 1 – 19	less than 1 month	less than 5 months	less than 1.5 years		
and	b. 20 – 59	1 - 3 months	5 months - 1 year	1.5 - 5 years		
directing	c. 60 – 99	3 - 5 months	1 - 2 years	5 - 8 years		
written	d. 100 – 149	5 - 7 months	2 - 3 years	8 - 12 years		
information	e. 150 – 200	7 - 10 months	3 - 4 years	12 - 16 years	34	

HOW TO USE PAPER & PENCIL

Minimum Qualifications Activity Worksheet						
Work Activity	Frequency	Examples			List the employers that your	
	How many times have you attempted the	To attempt this activity the number of times listed to the left, you'd have to perform the task				
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Organizing documents into a filing system	a. <mark>1 – 19</mark>	less than 1 month	less than 5 months	less than 1.5 years	Farmer's Insurance	
	b. 20 – 59	1 - 3 months	5 months - 1 year	1.5 - 5 years		
	c. 60 – 99	3 - 5 months	1 - 2 years	5 - 8 years		
	d. 100 – 139	5 - 7 months	2 - 3 years	8 - 12 years		
	e. 140 – 200	7 - 10 months	3 - 4 years	12 - 16 years		
Receiving and	a. 1 – 19	less than 1 month	less than 5 months	less than 1.5 years		
	b. <mark>20 – 59</mark>	1 - 3 months	5 months - 1 year	1.5 - 5 years	Best Buy	
directing	c. 60 – 99	3 - 5 months	1 - 2 years	5 - 8 years		
written information	d. 100 – 149	5 - 7 months	2 - 3 years	8 - 12 years		
	e. 150 – 200	7 - 10 months	3 - 4 years	12 - 16 years	35	

HOW TO USE PAPER & PENCIL

Minimum Qualifications Scoring Worksheet					
Performance Dimension	Related Work Activities	Rating Received	Meets MQ		
Performing general office support duties including	Organizing documents into a filing system	0			
filing, record-keeping and processing routine information	Receiving and directing written information in office environment	2	✓		
Assisting higher level office personnel in the	Doing support work for other office employees	2	✓		
performance of their duties	Working with coworkers on larger work projects	0			

^{*}Applicant must meet one MQ in each Performance Dimension

HOW TO USE ONLINE AUTOMATION: NEOGOV

- Step 1 Create Supplemental Questions
 - Posting > Supplemental Questions
- Step 2 Create Scoring Plan
 - Supplemental Questions > Scoring Plan
 - Scoring Factors > Scoring Factor Cases
- Step 3 Create Evaluation Step
 - Exam Plan > Evaluation Step

HOW TO DEVELOP STEP 1 - SUPPLEMENTAL QUESTIONS

CLERICAL ASSISTANT	I		<u>Ite</u>	em Bank	Scoring Plan
					* Required
* Question	How many t into a filing	times have you attempted system?	to organize	e documer	nts ^
* Response Format	Text An:	swer 💿 Select From Choic	es Answer	O Yes/I	No Answer
* Input Type	Radio	~			
· ·	to provide s To enter the Intern Respo Ex. Los	hoose the "Select From Ch everal reponse options from e options use a spreadshee nal Code (optional) - (SIGMA o nse Option - Actual response e (Angeles e (optional) - A number of point	n which jol et box displ r TRAC) cod option as it	o seekers ayed belo e <i>Ex. LA</i> appears to	can choose. ow. a job seeker
	Please enter	r the response options into	the space	below.	
	Code Res	ponse Option	Points		
	a 1-1	.9 times	0	A 🗣 DEI	LETE
	b 20-	·59 times	2	📤 🔻 DEI	LETE
	c 60-	·99 times	2	📤 🔻 DEI	LETE
	d 100)-139 times	2	A 🗣 DEI	<u>LETE</u>
	e 140)-200 times	2	♠ ♥ DEI	LETE
	Add Optio	on			

HOW TO DEVELOP STEP 1 - SUPPLEMENTAL QUESTIONS

	RICAL ASSISTANT I	Qui	ck Sort		m Bank Scoring Plan
	l New Question				Show Inactive Questions
#	Question	Req.	Conf. E	mp.	Action
1.	How many times have you attempted to organize documents into a filing system?	•			
	○ 1-19 times				·
	○ 20-59 times				
	○ 60-99 times				
	○ 100-139 times				
	○ 140-200 times				
2.	List the employer(s) who you performed this activity with.	•			
					Edit Illactivate op Down
з.	How many times have you attempted to receive and direct written information in an office environment?	•			
	○ 1-19 times				
	○ 20-59 times				
	○ 60-99 times				
	○ 100-139 times				
	○ 140-200 times				
4.	List the employer(s) who you performed this activity with.	•			
Add	New Question			<u>S</u>	Show Inactive Questions

HOW TO DEVELOP STEP 2 - SCORING PLAN

STF-01 CLERICAL ASSISTANT I

<u>View Supplemental Questions</u> | <u>Show Questions</u>

Scoring Plan > Scoring Factors > Scoring Factor Cases

Add New Scoring Factor Show Cases

SF	Name	Туре	Case	# of Cases	Action
1	MQ - PD 1 (Information Organization)	Pass/Fail	<u>View/Add Cases</u>	2	Edit Delete
2	MQ - PD 2 (Teamwork)	Pass/Fail	<u>View/Add Cases</u>	2	Edit Delete

HOW TO DEVELOP STEP 2 - SCORING PLAN

STF-01 CLERICAL	ASSISTANT I
Scoring Plan > Scor	ring Factors > Scoring Factor Cases
	* Required
* Factor Titie	MQ - PD 1 (Information Organization)
* Type	Pass/Fail
* Pass Required	Yes ○ No No
* Factor Questions	How many times have you attempted to organize documents into a filing system?
	List the employer(s) who you performed this activity with.
	How many times have you attempted to receive and direct written information in an office environment?
	🔁 List the employer(s) who you performed this activity with.
	How many times have you attempted to do support work for other office employees?
	List the employer(s) who you performed this activity with.
	How many times have you attempted to work with coworkers on larger group projects?
	List the employer(s) who you performed this activity with.
Comments	
	Savo

HOW TO DEVELOP STEP 2 - SCORING FACTOR CASES

STF-01 CLERICAL ASSISTANT I

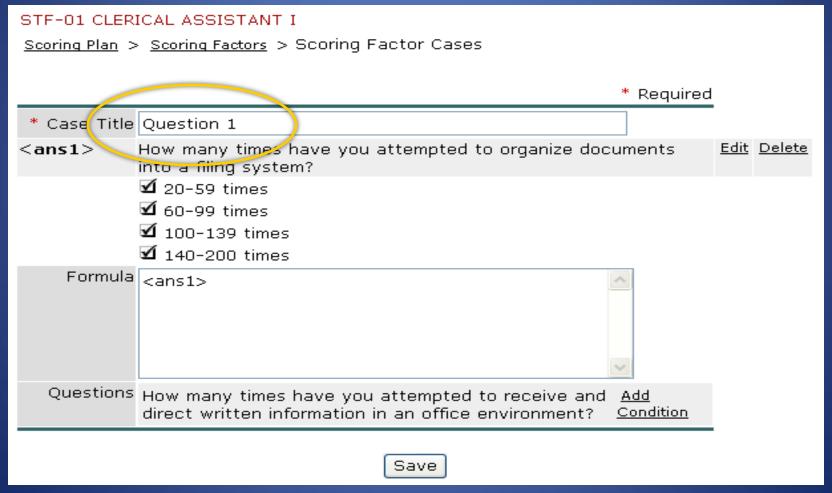
View Supplemental Questions

Scoring Plan > Scoring Factors > Scoring Factor Cases

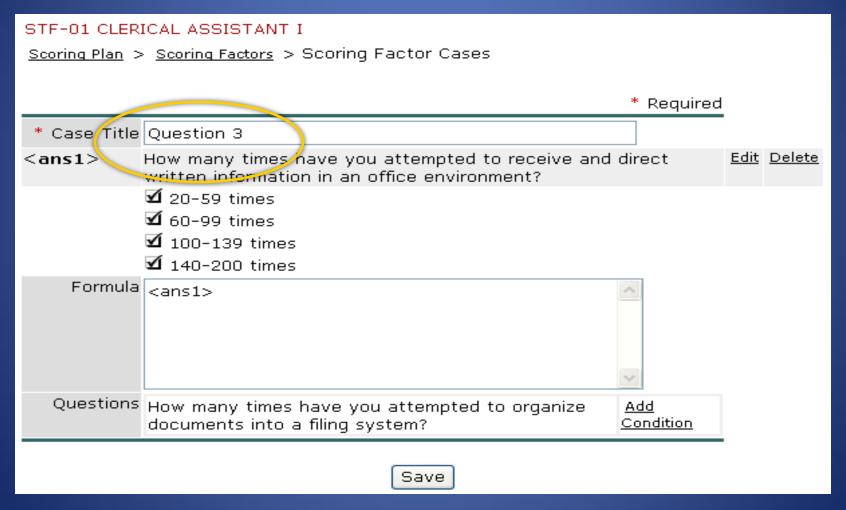
Add New Factor Case

Case	Title	Points	Action	
Case 1	Question 1	Pass/Fail	Edit Delete	
Case 2	Question 3	Pass/Fail	Edit Delete	

HOW TO DEVELOP STEP 2 - SCORING FACTOR CASES



HOW TO DEVELOP STEP 2 - SCORING FACTOR CASES



Exam Title Clerical Assistant I Department Personnel Commission

Exam Number 05-015 Division

Vacancies

Job Posting

Job #	Job Title	Status	Last Updated	Assigned To	Action
STF-01	CLERICAL ASSISTANT I	Continuous	01/09/08	Kristin Olson	<u>Edit</u> <u>Delete</u>

Recruiting Plan Add New

Ad Type Ad Name Requested Date Start Date End Date Ad	ction
---	-------

Evaluation Steps Add Step View Applicants (0) View Applicants by Step (0) App Flow

Step	Evaluation Step	We	ight	Results	At Step	Action
Step 1	Application Received		N/A	<u>View Results</u>	0	<u>Filter</u>

Advanced Filters Add New

Filter Name	Created	Action	
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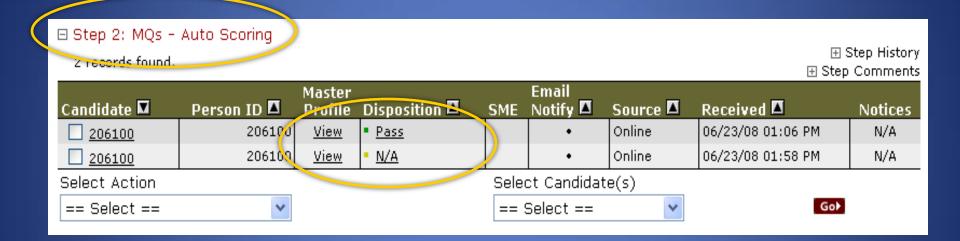
Eligible Lists Add New Show Archived Eligible Lists

List Name	List Type	Expiration Date	# Or Total	List Active	Action
Default List	Normal	N/A	0	0	Edit Archive

05-015 Clerical Assistant I	[
		* Required
* Step Type	Supplemental Questionnaire	
Step Name	MQs - Auto Scoring	
Display Candidate Status As		
* Evaluate On	OScored	
	Pass/Fail	
Comments		<u>^</u>
Prerequisite Steps	Application ReceivedMQs - Auto Scoring	
	Save Cancel	

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	Exam Title Clerical As	sistant I	Depa	artment Personnel	Commission	
	Exam Number 05-015		Division			
			Va	cancies		
Job Posting						
Job #	Job Title	Status	Last Updated	Assigned To	Action	
STF-01	CLERICAL ASSISTANT I	Continuous	06/23/08	Kristin Olson	<u>Edit</u> <u>Delete</u>	
Recruitir	n g Plan <u>Add New</u>					
Ad Type	Ad Name	Requested Date	Start I	Date End C	Date Action	
Evaluati	on Steps <u>Add Step</u> <u>Vi</u>	ew Applicants (2) View	Applicants by Ste	ep (2) App Flow		
Step	Evaluation Step	Weight Result	s At	Step Action		
Step 1	Application Received	N/A <u>View R</u>	esults	0 <u>Filter</u>		
Step 2	MQs - Auto Scoring	N/A <u>View R</u>	<u>esults</u>	2 <u>Edit</u> Dele	ete <u>Filter</u>	
			•			
Advance	d Filters Add New					
Filter Na	me	Create	d	Action		
Eligible L	ists <u>Add New</u> <u>Show A</u>	Archived Eligible Lists				
List Nan	ne List Type	Expiration Date	# On Total	List Active Action		
<u>Default Li</u>	<u>st</u> Normal	N/A	0	0 <u>Edit</u>	<u>Archive</u>	



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Exam Title Clerical Assistant I				Department Personnel Commission				
Exam Number 05-015				Division				
					Vacancies			
Job Posting								
Job #	Job Title		Status Last Updated		d Assigned To		Action	
STF-01	CLERICAL ASSISTANT I		Continuous	06/23/08 <u>Kr</u>		tin Olson	Edit Delete	
Recruiting Plan Add New								
Ad Type Ad Name		R	Requested Date	Start Date		End Date Action		
Evaluation Steps Add Step View Applicants (2) View Applicants by Step (2) App Flow								
Step Evaluation Step			Weight Result	ts At Step		Action		
Step 1 Application Received			N/A <u>View r</u>	ew kesaits 0		<u>Filter</u>		
Step 2 MQs - Auto Scoring			N/A View F	Results	2	<u>Edit</u> Delet	e <u>Filter</u>	
Advanced Filters Add New								
Filter Name			Create	Created		Action		
Eligible Lists Add New Show Archived Eligible Lists								
List Nan	ne List Typ	e E	xpiration Date	# Or Total	List Active	Action		
<u>Default Li</u>	<u>st</u> Norn	nal	N/A	0	0	<u>Edit</u> <u>A</u>	<u>rchive</u>	

Exam Title Clerical Assistant I Cut-Off Raw Score N/A Exam Number 05-015 Raw Score Percentage N/A Passed Step 1 Step Name MQs - Auto Scoring Date Failed Step 1 Weight % Total Candidates 2 Active Only View Step Statistics Show Applications: Candidates Passed 1 record found. Page 1 of 1 Master Person ID Raw Score Raw % Raw Max Score Type Details **Profile** 0.000 0.00% Online 206100 4.000 View View: Candidates Failed 1 record found. Page 1 of 1 Master Person ID Raw Score Raw Max Score Details Raw % Type **Profile** 206100 View 4.000 0.000 0.00% | Online View

MQ - PD 1 (Information Organization)

Case 1) Question 1

CRITERIA NOT MET

Case 2) Question 3

CRITERIA MET

Scoring Factor: PASSED

MQ - PD 2 (Teamwork)

Case 1) Question 5

CRITERIA NOT MET

Case 2) Question 7

CRITERIA MET

Scoring Factor: PASSED

Total Points: 0

Max Points: 4.000

Final Score: 0%

Exam Title Clerical Assistant I Cut-Off Raw Score N/A Exam Number **05-015** Raw Score Percentage N/A Passed Step 1 Step Name MQs - Auto Scoring Date Failed Step 1 Weight % Total Candidates 2 Active Only View Step Statistics Show Applications: Candidates Passed 1 record found. Page 1 of 1 Master Person ID Raw Score Details Raw % Raw Max Score Type **Profile** 0.000 0.00% Online 206100 4.000 View View: Candidates Failed 1 record found. Page 1 of 1 Master Person ID Raw Score Raw Max Score Raw % Type **Profile** 206100 4.000 0.00% Or line 0.000 View View

MQ - PD 1 (Information Organization)

Case 1) Question 1

CRITERIA NOT MET

Case 2) Question 3

CRITERIA NOT MET

Scoring Factor: REJECTED

MQ - PD 2 (Teamwork)

Case 1) Question 5

CRITERIA MET

Case 2) Question 7

CRITERIA MET

Scoring Factor: PASSED

Total Points: 0

Max Points: 4.000

Final Score: 0%

CMQS: CONCLUSIONS

- More work up front, much less work down the road
- Fewer False Negatives
- Less Adverse Impact from MQ Screening
- More accountability on applicant to accurately represent T&E
- All components follow Uniform Guidelines
 Ultimate Goal: More high scoring candidates

Thank You



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