

Capacity Assessment Framework – Research and Evaluation Unit at the Ministry of Education’s Department of Planning

*Developed by Project Team of the Assessment of Learning Outcomes and Social
Effects of Community-Based Education in Afghanistan (ALSE)*

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Introduction

This framework is intended to guide an individual-level assessment of the research capacities of the staff of the Ministry of Education’s Research and Evaluation Unit (R&EU). The overall goal of the framework is to improve research and evaluation skills of the R&EU staff through assessing their competency levels and through proposing capacity building interventions.

It has the following purposes:

1. To present the skills necessary for commissioning, designing, managing, and carrying out strong research and evaluation projects;
2. To propose tools and indicators that can be used to assess staff’s current (baseline) each skill level;
3. To provide the base for assessing the enhancement in the skills and competencies of staff at different points in time to ensure that the capacity of Unit is improving.

The framework includes 9 broad areas of skills (subject to change) required for each staff in the R&EU as well as 40 (subject to change) detailed required competencies. Since R&EU has staff with different titles and each required specific level of the competencies, therefore, the framework has 0 to 3 levels of each competency which each has its specific definition attached to it.

The framework is the first step in conducting a capacity assessment of the R&EU. The next step is the development of the capacity assessment tools. The prospective assessment tools include:

1. A CV of each staff which includes details of research and evaluation trainings, practical experience, level of involvement, and deliverables produced.
2. List of academic courses taken in research and evaluation
3. *Competency Questionnaire*: Each staff member completes a questionnaire of questions designed to assess knowledge of research and evaluation.
4. *Mini-projects*:
 - a. *Research Proposal*: Each staff member develops a practice research proposal in order to demonstrate skills in developing research questions, completing a literature review, and selecting appropriate research designs and tools. Each staff member reviews the research proposal of one other staff member in order to demonstrate skills in assessing a research proposal
 - b. *Communicating Findings*: Each staff member is presented with a raw research findings and completes a short report communicating those findings. In the case of quantitative research, this would take the form of simple data analysis such as cross-tabs. In the case of qualitative research, this would take the form of a listing of main themes and interview quotations.

- c. *TOR Assessment*: Each staff member assesses a TOR in order to demonstrate skills.
- d. *Inception Report Assessment*: Each staff member assesses an inception report (EQUIP-II Evaluation inception report) in order to demonstrate skills
- e. *Research Report Assessment*: Each staff member assesses a research report in order to demonstrate skills.

It is important to note that this framework is based on the current structure of the R&EU. The Unit needs to review its objectives and mandate and may restructure its staff accordingly. If this occurs, this framework may also require revision.

I. Research Capacity Assessment Framework

Area I: General Research Knowledge and Experience						
	3- High Competency	2- Moderate Competency	1- Low Competency	0- No Competency	Tools for Assessing Competency	Competency Indicators
1. Understanding of the difference between quantitative and qualitative research	<ul style="list-style-type: none"> Can differentiate between quantitative and qualitative research questions, understands the different data collection tools that are used in each Can identify and explain why in particular research project one method best fits another 	<ul style="list-style-type: none"> Has a general understanding that quantitative research focuses on numbers, while qualitative research focuses description 	Knows that there is a difference, but is unable to specify what that difference is	Fully unaware of the difference between quantitative and qualitative research	Competency Questionnaire	<p>Open-ended question on definitions</p> <p>Categorizing examples</p> <p>Multiple choice questions on types of data collection tools used.</p>
2. Difference between research, evaluation, review, and monitoring	<ul style="list-style-type: none"> Understands how research, evaluation, and monitoring are each distinct from each other, as well as where they overlap and contribute to each other Understands categories of each 	Generally understands the distinction between research, evaluation, and monitoring, but mixes up some components of each	Understands that there is a distinction between research, evaluation, and monitoring, but is unable to specify the differences	No conception of the difference between	Competency Questionnaire	<p>Open-ended questions on definitions</p> <p>Questions categorizing examples</p>
3. Reliability and	<ul style="list-style-type: none"> Understand the 	Understands the	Understands that it	Is unfamiliar	Competency	Open-ended

validity	distinction between reliability and validity ▪ has demonstrated experience reviewing research design/tools to ensure that they are reliable and valid	difference between reliability and validity, and why each is important in conducting research, but has not applied that knowledge	is important to have a research design/tools that is reliable and valid but cannot specify the distinction	with the concepts of reliability and validity	Questionnaire CV	questions on definitions Questions categorizing examples Experience reviewing research designs/tools
4. Generalizability in quantitative and qualitative research	▪ Understands how quantitative and qualitative research generalize differently ▪ has experience summarizing or reviewing findings to ensure that claims made are accurate	Understands how quantitative and qualitative research generalize differently, but has not applied that knowledge either in summarizing or reviewing findings	Understands that quantitative and qualitative research generalize differently, but cannot specify the distinction	Is unfamiliar with how quantitative and qualitative research generalize	Competency Questionnaire CV	Questions categorizing examples Experience summarizing or reviewing findings
5. Triangulation	▪ Understands what triangulation is, how to triangulate data ▪ has demonstrated experience doing so	Understands what triangulation is and how to triangulated data, but has no experience applying that knowledge	Understands the concept of triangulation, but not how to triangulate data	Is unfamiliar with what triangulation of data is	Competency Questionnaire CV	Short answer question on how to triangulate data for a particular example Experience conducting research projects with multiple data sources
Area II: General Research Experience						

	3- High Competency	2- Moderate Competency	1- Low Competency	0- No Competency	Tools for Assessing Competency	Competency Indicators
6. Courses/training in research methods OR experience conducting research or evaluation projects	Has completed PhD coursework work in evaluation and research methods OR holds an MA that focused on social science research methodology OR has experience conducting and/or managing at least 3 evaluation studies	Has taken 1-3 graduate level courses in evaluation and research methods OR 3 or more trainings in research methods OR has been involved in conducting and/or managing 1-3 evaluation studies	Has taken 1-2 trainings in evaluation methods OR has been involved in some—but not all—aspects of an evaluation study	Has received no training in research methods	CV or transcript	Courses taken Employment history
7. Ethical issues in research	Knows the principles of ethics in research and/or Has passed an institutional review board or other training in research ethics and has used these principles in designing a research project	Has some understanding of research ethics principles and/or Has been trained on research ethics and has applied the principles in helping to develop a research project	Some awareness of research ethics, and has applied them only in some parts of the research process	No familiarity with ethical issues in research	Competency Questionnaire CV	Research projects developed & summary of how ethics principles were considered Certificate of completion
Area III: Research Project Development/Commissioning a Research Project						
	3- High Competency	2- Moderate Competency	1- Low Competency	0- No Competency	Tools for Assessing Competency	Competency Indicators
8. Key steps in the research and/or evaluation process	Has a strong understanding of all steps in the research process and demonstrated	Has a good understanding of all steps in the research process, and has helped	Has a general understanding of most—but not all—steps in the research project,	Is unfamiliar with the research process	Competency Questionnaire	Open-ended question describing research process Putting the different

	experience designing/ commissioning a project	design/commissioning a research project	and but has limited experience applying that knowledge		CV	steps of the research process into a flow diagram Research projects developed
9. Assumptions and gaps in existing evidence	Can independently analyze existing evidence and identify assumptions and what gaps exist	Analyzes existing evidence and identifies assumptions gaps to some extent	Can analyze existing evidence and identify what assumptions and gaps exist with help	Is unable to able to analyze existing evidence and identify what assumptions or gaps exist	Competency Questionnaire Research Proposal Mini-Project	Steps in a literature review Quality of literature review completed (comprehensiveness , organization, etc.)
10. Translating policy questions into research/evaluation questions	Demonstrated ability to translate policy questions into research questions that are specific and that assess well-defined concepts	Can translate policy questions into research questions to some extent (e.g. questions and concepts may not be well-defined)	Can translate policy questions into general research themes	Is unable to translate policy questions into research questions or themes	Competency Questionnaire	Open-ended questions presenting policy questions and asking for them to be translated into research questions, including an explanation of key concepts
11. Synthesizing experience and theory into a cohesive literature review	Demonstrated ability to synthesize experience and theory into a literature review that clearly indicates the	Can synthesize experience and theory into a literature review that vaguely indicates the importance of the research / is	Can synthesize experience and theory into a literature review that does not indicate the importance of the research / is only	Does not know how to construct a literature review or assess a literature review	Research Proposal Mini-Project	Quality of literature review completed (comprehensiveness organization, etc.)

	importance of the research	sometimes able to assess a literature review to see that it clearly indicates the importance of the research	able to assess a literature review with help			
12. Applying different research/evaluation designs	Demonstrated knowledge of different quantitative and qualitative research designs and proven ability to pick which research design is appropriate for answering a specific research question	Knowledge of some research designs and ability to pick which among known designs is appropriate for answering a specific research question	Knowledge of some research designs and inconsistent ability to pick which design is appropriate for answering a specific research question	Very limited or no knowledge of research designs	Competency Questionnaire Research Proposal Mini-Project	Categorizing examples Appropriateness of research design selected
13. Selecting data collection techniques/tools	Demonstrated knowledge of a wide range of quantitative and qualitative data collection techniques, and proven ability to pick the technique(s) that are appropriate for answering specific research questions	Knowledge of a limited range of data collection techniques, but is able to pick among known technique(s) which is most appropriate for answering specific research questions	Knowledge of a limited range of data collection techniques, and is inconsistently able to pick which technique(s) are most appropriate for answering specific research questions	Very limited or no knowledge of data collection techniques	Competency Questionnaire Research Proposal Mini-Project	Categorizing examples Appropriateness of data collection tools selected
14. Able to synthesize research questions,	Able to develop a research proposal that clearly specifies research	Able to develop a research proposal/TOR that connects research	Able to develop a research proposal/TOR, but that does not	Unable to develop a research proposal/TOR	Research Proposal Mini-Project	Quality of mini-project as a whole (organization and logic)

literature review, and methodology into a research proposal	questions, connects them to existing literature, and logically proposes a methodology appropriate to answering them	questions to existing literature and methodology to some extent (e.g. other, more appropriate, literature may exist and other methodologies may be even stronger and relevant)	always logically connect research questions to existing literature or to appropriate methodology	that logically connects research questions to existing literature or to appropriate methodology		
15. Developing a realistic timetable for a research project	Demonstrated ability to construct/assess a realistic timetable for a research project and to carry out the project according to that timetable	Can construct/assess a timetable for a research project, but that timetable is not always realistic	Can only construct/assess a timetable for a research project with help	Is unable to construct/assess a timetable for a research project	Research Proposal Mini-Project	Practicality of timetable included in the mini-project
16. Developing manual and guidelines	Able to develop, a quality manual or guideline for assessment Research and ToR proposal, Inception Report, and is able to train other and use the guideline.	Understands what needs to be the outline and content of the manual and guideline, but is unable to develop it	Able to use manual or guideline for assessment Research and ToR proposal, Inception Report, but cannot develop	Unable to use prepared manual and guidelines properly.	CV	Level of experience
Area IV: Measurement & Tools						
17. Theory of Change	Understands what a theory of change is, why it is important to	Understands what a theory of change is and is able to identify inputs and	Has a general understanding of what a theory of change is, but is	Does not know what a theory of change is	Competency questionnaire	

						developing data collection tools
Area V: Data Collection						
	3- High Competency	2- Moderate Competency	1- Low Competency	0- No Competency	Tools for Assessing Competency	Competency Indicators
20. Conducting data collection	Significant first-hand experience conducting qualitative and quantitative data collection	Some first-hand experience conducting some types of qualitative and quantitative data collection	Limited experience conducting qualitative or quantitative data collection	Has never been involved in data collection	CV Competency Questionnaire On-the-job-assessment	Academic and work experience Multiple choice/open ended questions about best practices for conducting different types of data collection (e.g. interactions with interview participants) Projects conducting data collection at the MoE
21. Sampling Strategies	Has knowledge of a range of sampling strategies and is able to pick a strategy appropriate to research question and research design	Knowledge of some sampling strategies and is able to pick among those strategies for the most appropriate	Knowledge of some sampling strategies and is able to pick which strategy is more appropriate for the research project with help	Unfamiliar with sampling strategies	Competency Questionnaire	Open-ended questions defining different types of sampling Multiple choice questions about appropriateness of different sampling strategies
22. Managing data collection	Has extensive experience managing and	Has experience managing and monitoring some	Has limited experience managing and	No experience managing and monitoring data	CV On-the-job	Work experience Projects managed at

	monitoring data collection and anticipate potential problems	aspects of the data collection and has track record of anticipating some potential problems	monitoring data collection and no track record of anticipating potential problems	collection	assessment	the MoE
Area VI: Designing, Managing and Conducting Data Entry						
	3- High Competency	2- Moderate Competency	1- Low Competency	0- No Competency	Tools for Assessing Competency	Competency Indicators
23. Database development	Is able to develop an extensive database for entering survey data or/and supervise database development process	Is able to develop a simple database for entering survey data	Is able to develop a database with help	Is unable to develop a database	CV	Work experience Examples of database(s) developed
24. Data entry	Is able to accurately enter survey data	Is able to accurately enter survey data with help	Has experience entering survey data, but needs additional training	No knowledge of how to enter data	On-the-job assessment	Completing data entry on-the-job
25. Transcription	Has extensive experience transcribing interviews	Has limited experience transcribing interviews (e.g. has transcribed 1 or 2)	Has previously done work summarizing interviews, but not transcribing them word-for-word	No experience transcribing interviews	CV	Work experience
26. Data quality assurance (control)	Has extensive experience in quality control of data collected from the field and data entered into the database	Has limited experience in quality control of data collected from the field and data entered into the database	experience on conducting one or two quality control but has not designed it by his/herself	Has no experience in quality control of data	CV	Work experience
Area VII: Design and Perform Data Analysis						
	3- High	2- Moderate	1- Low	0- No	Tools for	Competency

	Competency	Competency	Competency	Competency	Assessing Competency	Indicators
27. Quantitative Data Preparation						
28. Statistical Analysis	Advanced knowledge of statistical models and techniques	Knowledge of simple forms of regression	Knowledge of descriptive statistics and basic t-tests	No statistical knowledge	CV/academic experience On-the job assessment	Experience analyzing data/courses completed Experience conducting statistical analyses at the MoE
29. Quantitative data analysis software (e.g. Stata, SPSS, R)	Able to perform advanced analyses with at least one quantitative data analysis software	Ability to use at least one quantitative data analysis software or excel to extract descriptive statistics	Has reviewed at least one quantitative data analysis software, but has not used it for conducting analysis	No experience or knowledge of quantitative data analysis software	Competency questionnaire CV On-the-job assessment	Provide an example of one finding and for a two sentence presentation Experience analyzing quantitative data Experience conducting statistical analyses at the MoE
30. Coding qualitative data	Is able to lead a project coding qualitative data, developing/revising a codebook and ensuring high levels inter-coder reliability	Is able to participate in a project coding qualitative data, adhering to a codebook	Has knowledge of how to code qualitative data, but has not participated in a project	No experience coding qualitative data	CV On-the-job assessment	Experience analyzing qualitative data Experience conducting qualitative data analysis at MoE
31. Qualitative data	Is able to use at	Is able to use at	Has reviewed at	No experience or	CV	Experience

analysis software (e.g. Atlas.ti, Invivo, Dedoose)	least one qualitative analysis software to code qualitative research project without guidance , or to code by hand	least one qualitative analysis software to code qualitative research project with guidance	least one qualitative analysis software, but has not used it for qualitative data analysis	knowledge of qualitative data analysis software	On-the-job assessment	analyzing qualitative data Experience conducting qualitative data analysis at MoE
Area VIII: Report Writing/Reading						
	3- High Competency: Knowledge of the concept and demonstrated experience applying it independently	2- Moderate Competency: Knowledge of the concept but has only applied it with help	1- Low Competency: Vague knowledge of the concept and limited or no experience applying it	0- No Competency: No knowledge of the concept	Tools for Assessing Competency	Competency Indicators
32. Presentation of quantitative data	Able to interpret and communicate the details of quantitative data results in language that is accessible to those with lower levels of research knowledge	Able to interpret and communicate quantitative data results generally—can only present in a more detailed way with help	Able to interpret and communicate quantitative data analyses only with help	Unable to interpret and communicate quantitative data results	Competency Questionnaire Communicating Findings Mini-Project (or shorter exercise on competency questionnaire)	Provide an example of one finding and for a two sentence presentation Accuracy and clarify of presentation
33. Synthesizing/Presenting qualitative data	Is able to synthesize qualitative codes/findings into cohesive themes and present them clearly	Is able to help compile codes into possible themes, but cannot present them clearly	Has a general idea of what it means to compile codes into themes but is unable to do so	No knowledge or experience synthesizing qualitative findings into codes and themes	Communicating Findings Mini-Project (or shorter exercise on competency questionnaire)	Accuracy and clarify of presentation
34. Interpreting	Is able to interpret	Is able to interpret	Is inconsistently	Unable to	Communicatin	Accuracy and clarity

findings	findings as they relate to the main research questions and literature review	findings, but not necessarily as they relate to the main research questions and literature review	able to interpret findings	interpret findings	g Findings Mini-Project (or shorter exercise on competency questionnaire)	of presentation
35. Ability to translate findings into policy recommendations	Has demonstrated ability to interpret and clearly present what policy recommendations are indicated by the research findings	Is able to make policy recommendations, but they are inconsistently linked to the research findings	Is able to make policy recommendations, but they are not linked to research findings	Unable to make policy recommendations	Communicating Findings Mini-Project (or shorter exercise on competency questionnaire)	Accuracy and clarity of presentation
Areas IX: Research and Evaluation Project Assessment/Review skills						
36. Assessing research findings	Demonstrates a strong understanding of what makes research findings valid and reliable, as well as what claims can be made based on that data, and has demonstrated ability applying that knowledge to assess research findings	Has a good understanding of what makes research findings valid and reliable, as well as what claims can be made, and has applied that knowledge with help	Has a vague understanding of what makes research findings valid and reliable and accuracy in applying that knowledge is inconsistent	Does not know how to assess the validity and reliability of research findings	Research Report Assessment Mini-Project	Accuracy and detail of assessment
37. Assessing a research TOR	Able to assess TOR in detail, including (1) whether the objective of the research is clearly stated, (2) that the	Able to assess the general quality of a TOR, but not necessarily able to specify where it needs to be	Able to assess a TOR, only with help	Unable to assess a TOR	TOR Assessment Mini-Project	Accuracy and detail of assessment

	research is needed, and (3) deliverables are clearly stated and aligned with the research objectives, and (4) realistic and appropriate scope of work (5) sound and realistic timetable is estimated	improved				
38. Assessing a research proposal	Able to assess a research proposal in detail, including (1) the quality of the research questions, (2) lit review & justification for the research, (3) appropriateness of the methodology and data collection tools proposed	Able to assess the general quality of a research proposal, but not necessarily able to specify where it needs to be improved	Able to assess a research proposal, only with help	Unable to assess a research proposal	Research Proposal Mini-Project	Accuracy and detail of assessment
39. Assessing an inception report	Able to assess an inception report in detail, including (1) the appropriateness of the methodology, (2) appropriateness of the data collection tools, and (3)	Able to assess the general quality of an inception report, but not necessarily able to specify where it needs to be improved	Able to assess an inception report, only with help	Unable to assess an inception report	Inception Report Assessment Mini-Project	Accuracy and detail of assessment

	feasibility of the scope of work and timeline					
40. Assessing a research report	Able to assess a research report in detail, including the (1) literature review and justification for the research, (2) validity and reliability of the methodology used, (3) how clearly the findings are communicated, and (4) whether the conclusions drawn are warranted based on the methodology and data collection tools	Able to assess the general quality of a research report, but not necessarily able to specify where it needs to be improved	Able to assess an research report, only with help	Unable to assess an research report	Research Report Assessment Mini-Project	Accuracy and detail of assessment

II. Required Competency Levels for RE&U Staff

*****Requires revision based on accurate job descriptions of R&EU Staff***

Area I: General Research Knowledge and Experience				
	REU	Evaluation and	Evaluation and	Data

	Manager	Research Specialist	Research Officer	Analyst
1. Difference between quantitative and qualitative research	3	3	2	2
2. Difference between research, evaluation, and monitoring	3	3	3	2
3. Reliability and validity	3	3	2	2
4. Generalizability in quantitative and qualitative research	3	3	2	2
5. Triangulation	3	3	2	2
Area II: General Research Experience				
	REU Manager	Evaluation and Research Specialist	Evaluation and Research Assistant	Data Analyst
6. Courses/training in research methods	3	3	1	1
7. Ethical issues in research	3	3	3	3
Area III: Research Project Development/Commissioning a Research Project				
	REU Manager	Evaluation and Research Specialist	Evaluation and Research Assistant	Data Analyst
8. Key steps in the research process	3	3	3	1
9. Assumptions and gaps in existing evidence	3	3	1	0
10. Translating policy questions into research questions	3	3	1	0
11. Synthesizing experience and theory into a cohesive literature review	3	3	1	0
12. Applying research/evaluation designs	3	3	2	0
13. Selecting data collection techniques/tools	3	3	1	0
14. Able to synthesize research questions, literature review, and methodology into a proposal	3	3	2	0
15. Developing a realistic timetable for a research project	3	3	1	0
16. Developing manuals and guidelines	3	3	2	0
Area IV: Measurement and Tools				
17. Theory of Change	3	3	2	2
18. Developing Indicators	3	3	2	2
19. Developing data collection tools	3	3	2	3
Area V: Designing and Managing Data Collection				
	REU Manager	Evaluation and Research Specialist	Evaluation and Research Assistant	Data Analyst
20. Conducting data collection	3	3	3	1
21. Sampling Strategies	3	3	3	1
22. Managing data collection	3	3	0	0

Area VI: Designing, Managing and Conducting Data Entry				
	REU Manager	Evaluation and Research Specialist	Evaluation and Research Assistant	Data Analyst
23. Database development	2	2	1	3
24. Data entry	2	2	1	3
25. Transcription	2	2	1	2
26. Data quality assurance (control)	3	3	2	2
Area VII: Designing and Performing Data Analysis				
	REU Manager	Evaluation and Research Specialist	Evaluation and Research Assistant	Data Analyst
27. Statistics	2	3	2	3
28. Quantitative data analysis software (e.g. Stata, SPSS, R)	2	3	2	3
29. Coding qualitative data	2	3	2	3
30. Knowledge of qualitative data analysis software (e.g. Atlas.ti, Invivo, Dedoose)	2	3	2	3
Area VIII: Report Writing/Reading				
	REU Manager	Evaluation and Research Specialist	Evaluation and Research Assistant	Data Analyst
31. Presenting quantitative data	3	3	2	3
32. Presenting qualitative data	3	3	2	3
33. Interpreting findings	3	3	1	2
34. Ability to translate findings into policy recommendations	3	3	1	1
Area IX: Research and Evaluation Project Assessment/Review Skills				
35. Assessing research findings	3	3	1	2
36. Assessing a research TOR	3	3	2	1
37. Assessing a research proposal	3	3	2	1
38. Assessing an inception report	3	3	2	1
39. Assessing a research report	3	3	2	1
40. Developing manual and guidelines	3	3	2	0