Test Development Report

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Introduction

This report outlines the development and refinement of the Communications and Math Employment Readiness Assessment (CAMERA). Following an overview of the assessment and a brief summary of the original development process, the bulk of the report is devoted to a discussion of recent improvements, with an emphasis on task and item design, pilot testing procedures, data analysis, and composition of operational forms.

Overview of the Assessment

CAMERA is an assessment system developed by Preparatory Training Programs (PTP) for the evaluation of literacy learners whose first language is English and whose main goal is employment. The CAMERA test instruments have been conceived and designed for placement, interim assessment and outcomes testing in programs that are geared toward workforce literacy training and upgrading. The test battery comprises a series of realistic employment tasks requiring the demonstration of skills in the areas of document use, reading, numeracy and writing. Many of the assessment tasks are integrated, requiring the test taker to demonstrate more than one skill.

CAMERA is a competency-based assessment originally aligned to Ontario's Literacy and Basic Skills (LBS) levels. Its content, drawn from Human Resources and Social Development Canada's Essential Skills (ES) examples, reflects a range of representative tasks for the assessment of learners preparing to enter the workforce upon completing literacy upgrading. CAMERA is a criterion-referenced assessment. It tests skills and knowledge within predefined areas, and the test tasks are thus situated within contexts where learners will most likely apply these skills. Each instrument is administered according to a documented protocol and scored against a set of carefully defined criteria.

CAMERA comprises four distinct assessment instruments, each with a specific target audience and purpose.

Communications and Math Employment Readiness Assessment: CAMERA

The first instrument is CAMERA Stage 1, which has been designed to evaluate the ability of adult literacy learners functioning at the lower levels of development. This test was originally designed to align with competencies at LBS levels 1 and 2. It is progressive in nature, with earlier tasks at the lower end of complexity and subsequent tasks gradually increasing in complexity. A trained assessor facilitates CAMERA Stage 1, remaining with the test taker for most of the administration to ensure that the person is able to understand the instructions and attempt the tasks to the best of her or his ability. Only those learners who demonstrate an ability to understand written instructions are left to work through the final tasks independently. Throughout the administration, the assessor pays keen attention to the test taker's performance and comfort level in order to make a number of key decisions that influence the outcome. The assessor may decide to terminate the assessment when he or she gauges that the test taker has reached threshold, or the upper limit of ability. The assessment results are based on a conversion of the composite score achieved on a range of Stage 1 tasks.

The second instrument is CAMERA Stage 2, originally aligned with skills at LBS levels 3 and 4. This assessment targets the ability of mid-range literacy learners to address a variety of tasks at gradually increasing degrees of complexity. Instructions for this test have been carefully worded to ensure that learners are not disadvantaged or hindered by difficulties in comprehending what they are required to do. In this assessment, the test taker works through the tasks independently but may choose to skip any task that causes undue strain or discomfort. Results for CAMERA Stage 2 are based on a conversion of the composite score achieved on a suitable range of Stage 2 tasks.

The third instrument in the assessment battery is CAMERA Stage 3. This test was originally designed to address skills associated with LBS level 5. Learners attempting this assessment are required to demonstrate that they can work entirely independently by carefully reading and comprehending all background information that sets up the task and then following the detailed step-by-step instructions. This feature of the administration is intended to mirror conditions that exist in the actual workplace, where it is necessary to accomplish multiple tasks sequentially and independently. Results are based on a conversion of the composite score on a range of Stage 3 tasks.

For each of the above three instruments in the CAMERA assessment, there are two parallel forms, A and B, which render equivalent results. At each stage, the two forms are based on identical task and item specifications though, of course, the content varies.

The fourth instrument is the CAMERA Placement, designed to determine the stage at which a learner should enter literacy programming. This test includes tasks across the full range of LBS levels. It is progressive in nature, with early tasks at the lower end of complexity and subsequent tasks gradually increasing in complexity. Initial tasks are administered with the support of an assessor. Learners who demonstrate an ability to work independently are subsequently allowed to work through the remaining tasks on their own. Assessment results for CAMERA Placement are based on a conversion of the composite score achieved on tasks across all three developmental stages.

Each CAMERA test provides diagnostic information about skill attainment and skill gaps, also rendering a determination about whether the learner has achieved the outcomes of the target levels. The results on each test are presented in three ways, each intended for a different purpose. First, results show the extent to which the learner is able to demonstrate competency in each of the four skill domains: reading text, document use, numeracy and writing. This diagnostic information is intended to inform programming decisions, ensuring that learners receive instruction in the necessary skill domains. Second, in cases where test forms present items across multiple levels, results show the extent to which learners possess skills at these different levels. Typically learners demonstrate decreasing levels of competence as the task levels increase. Finally, overall results are provided for each test. Cut scores are applied to these overall results in order to inform decisions about program placement and promotion readiness. Together, the instruments in the CAMERA battery provide assessment results to meet the diagnostic needs of workforce literacy programs across the complete range of instructional levels, from placement to outcomes.

Working Assumptions

The following assumptions underpin the CAMERA test development:

- CAMERA is intended to serve as a diagnostic assessment.
- It is designed for the assessment of individuals whose first language is English.
- It is not intended for use in any high-stakes context.
- It is to be administered and scored according to standardized guidelines.

Test Development Objectives

The main objectives guiding the test development process were as follows:

- Suitability for adult literacy programs with a workforce orientation
- Adequate coverage of four skill domains: Reading Text, Document Use, Writing, Numeracy
- Alignment with Ontario's Literacy and Basic Skills (LBS) levels
- Influence of Essential Skills (ES) on content, format and genre
- Task-based and realistic content
- Learner-centred and meaningful approach
- Reliable administration and scoring

Development of the Original CAMERA

The original CAMERA design was based on theoretical and content underpinnings drawn from a variety of sources, which included LBS performance indicators, authentic workplace document analysis, Essential Skills Profiles and ES complexity level descriptions. Task types for the assessment were posited according to their suitability for the intended target audience under the anticipated assessment conditions.

Essential Skills research played an important role in shaping the content and design of draft tasks, which were constructed to reflect authentic negotiation of a text or document according to the demands of a workplace setting. The items associated with each draft task were designed to target particular abilities associated with specified LBS skills and levels. All draft tasks were reviewed by an external test development consultant and refined by the test developers prior to pilot testing. The main goal of the pilot data analysis was to determine the LBS level of each task and item in the battery. Based on these results, the original assessments were constructed so that each would comprise an adequate range of tasks to ensure sufficient domain coverage and distinction across LBS levels. Tasks selected for inclusion in the assessment were those deemed most suitable for the assessment purpose–to place learners in the appropriate LBS levels and to monitor learning progress over the course of study in workforce literacy programs.

Background to the Refinement Project

Because the original CAMERA test forms were aligned to the Literacy and Basic Skills framework, they were introduced to the field under the following titles:

CAMERA 1-2
CAMERA 3-4
CAMERA 5
CAMERA Placement–based on a compilation of tasks from the above three components

The instruments were implemented in 2000 and were used in the field for five years. In 2005, PTP undertook a project to update and revise the original CAMERA and to create parallel forms of the assessment instruments. The main purpose of the revision was to improve the quality of the assessment. The development of alternate forms was intended to enhance the security, efficiency, and effectiveness of administration of the assessments.

Refinement Project Methodology

The refinement project began with a literature review geared toward situating CAMERA within the broader context of adult educational assessment. This investigation of currently held perspectives on competency-based assessment provided important information to support the enhancement of CAMERA's potential and the identification of its apparent strengths and limitations. Following the literature review, a qualitative analysis was undertaken of the original CAMERA components to determine which content areas should be retained or emphasized and which should be eliminated or modified. PTP assessors were a valuable source of insight for this stage of the project. They provided much useful feedback, both through a focus group and in subsequent written format.

Based on the results of this research and analysis, the following decisions were made:

Decisions about content of Original CAMERA 1-2

Original Number	Essential Skill	Task Type	Decision
Task 1	Document Use	Interpret signs	Retain with revisions
Task 2	Numeracy	Time	Retain with revisions
Task 3	Numeracy	Add and subtract prices	Retain with revisions
Task 4	Document Use	Complete form	Retain with revisions
Task 5	Document Use	Alphabetical order	Eliminate
Task 6	Numeracy	Numerical order	Eliminate
Task 7	Writing	Write a note	Retain with revisions

Original Number	Essential Skill	Task Type	Decision
Task 8	Document Use	Read a directory	Retain with revisions
Task 9	Reading Text	Read a notice	Retain with revisions
Task 10	Document Use	Read a calendar	Eliminate
Task 11	Document Use	Read a schedule	Retain with revisions
Task 12	Writing	Document an activity sequence	Eliminate
Task 13	Numeracy	Make calculations	Eliminate
Task 14	Reading Text	Read a notice	Eliminate
Task 15	Numeracy	Take measurements	Eliminate

Decisions about content of Original CAMERA 3-4

Original Number	Essential Skill	Task Type	Decision
Task 1	Document Use Numeracy	Alphabetical order Numerical order	Eliminate
Task 2	Reading Text	Read a notice	Retain with revisions
Task 3	Document Use	Interpret a graph	Eliminate
Task 4	Writing	Write a suggestion	Retain
Task 5	Reading Text	Read a memo	Retain with revisions
Task 6	Document Use Numeracy	Complete a form	Retain with revisions
Task 7	Document Use Numeracy	Interpret a graph	Retain with revisions
Task 8	Reading Text	Read a bulletin	Retain with revisions
Task 9	Document Use Numeracy	Complete a schedule	Eliminate
Task 10	Writing	Write a memo	Eliminate

Decisions about content of Original CAMERA 5

Original Number	Essential Skill	Task Type	Decision
Task 1	Document Use Numeracy	Alphabetical order Numerical order	Eliminate
Task 2	Reading Text	Read a letter	Eliminate
Task 3	Document Use	Interpret a graph	Retain with revisions
Task 4	Writing	Write a letter	Retain with revisions
Task 5	Document Use Numeracy	Compare documents	Retain with revisions
Task 6	Reading Text	Read a newsletter article	Retain with revisions
Task 7	Document Use Numeracy	Calculate mileage	Eliminate
Task 8	Document Use	Summarize expenses	Retain with revisions

Original Number	Essential Skill	Task Type	Decision
	Numeracy		
Task 9	Document Use Numeracy	Interpret a sales report	Eliminate

The eliminations and refinements illustrated above were carried out so that the new CAMERA instruments would comprise the fewest number of high-quality tasks needed to assign levels accurately and to provide adequate diagnostic information. Tasks were eliminated based on a number of criteria that impact the technical quality and administrative efficiency of an assessment. For example, some tasks were determined to be unnecessary because the same skills and strategies were adequately addressed across other tasks in the test. Eliminating such tasks helped to ensure that issues of length and redundancy would not have a negative impact on the administration time of the refined instruments. Other tasks were determined, over a period of usage, to be less-than-accurate indicators of the intended target LBS levels. Eliminating these tasks helped to improve the accuracy and integrity of the test results.

Further refinements involved streamlining many of the remaining tasks as unnecessary items were eliminated. In some cases, two tasks of the same genre were conflated. In keeping with Essential Skills descriptors and criteria, several tasks were also redesigned to place a stronger emphasis on the separation of reading text and document use. Finally, new tasks were created to round out each CAMERA instrument and to ensure a balanced representation across task types and Essential Skills.

The new CAMERA test components were given the following titles:

CAMERA Stage 1–formerly CAMERA 1-2
CAMERA Stage 2–formerly CAMERA 3-4
CAMERA Stage 3–formerly CAMERA 5

Two equivalent forms, A and B, were created for each stage. While the content of A and B forms varied, the task types and item specifications were the same for both. The charts below show the composition of each new CAMERA test form as compiled for the pilot phase of the project.

Content of CAMERA Stage 1 Pilot Forms A and B

Task	Source	Essential Skill	Task Type
Task 1	Revised original task 1	Document Use	Interpret signs

Task	Source	Essential Skill	Task Type
Task 2	Revised original task 2	Numeracy	Tell time
Task 3	Revised original task 3	Numeracy	Calculate costs
Task 4	New task	Document Use Numeracy	Alphabetical order Numerical order
Task 5	Revised original task 4	Document Use	Complete form
Task 6	Revised original task 7	Writing	Write note
Task 7	Revised original task 8	Document Use	Read directory
Task 8	Revised original task 9	Reading Text	Read notice
Task 9	New task	Writing	Record work tasks
Task 10	Revised original task 11	Document Use	Read schedule
Task 11	New task	Reading Text	Read bulletin
Task 12	New task	Numeracy	Interpret record

Content of CAMERA Stage 2 Pilot Forms A and B

Task	Source	Essential Skill	Task Type
Task 1	Revised original task 5	Reading Text	Read notice
Task 2	New task to address level 3 numeracy skills	Numeracy	Make calculations
Task 3	Revised original task 4	Writing	Write suggestion
Task 4	Revised original task 6	Document Use Numeracy	Complete form
Task 5	Revised original task 7	Document Use Numeracy	Interpret graph
Task 6	Revised original task 8	Reading Text	Read bulletin
Task 7	New task to address document use	Document Use Numeracy	Interpret table
Task 8	New task to address writing	Writing	Write e-mail

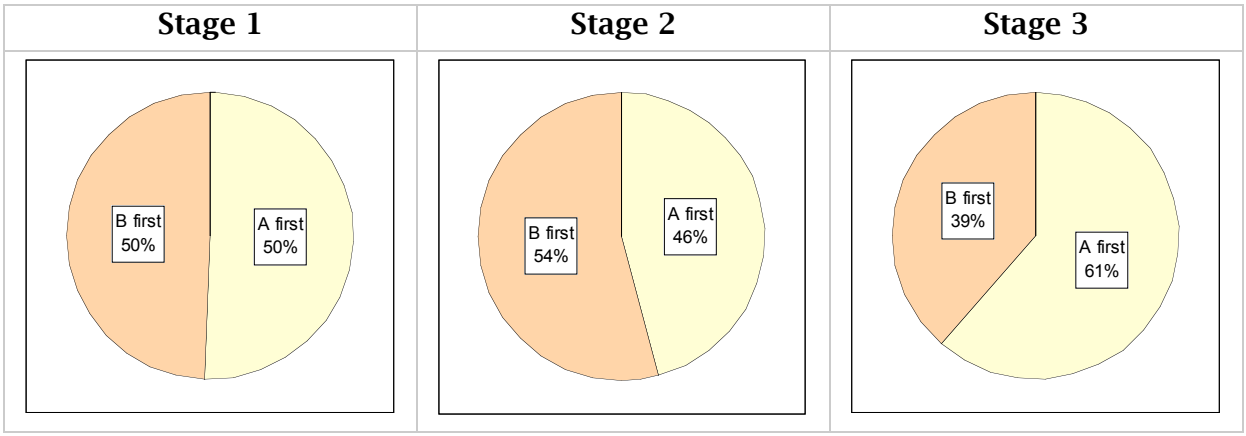
Content of Stage 3 Pilot Forms A and B

Task	Source	Essential Skill	Task Type
Task 1	Revised original task 3	Document Use	Interpret graph
Task 2	Revised original task 4	Writing	Write letter
Task 3	Revised original task 5	Document Use Numeracy	Compare documents
Task 4	Revised original task 6	Reading Text	Read article
Task 5	Revised original task 8	Document Use Numeracy	Summarize expenses

Pilot Testing

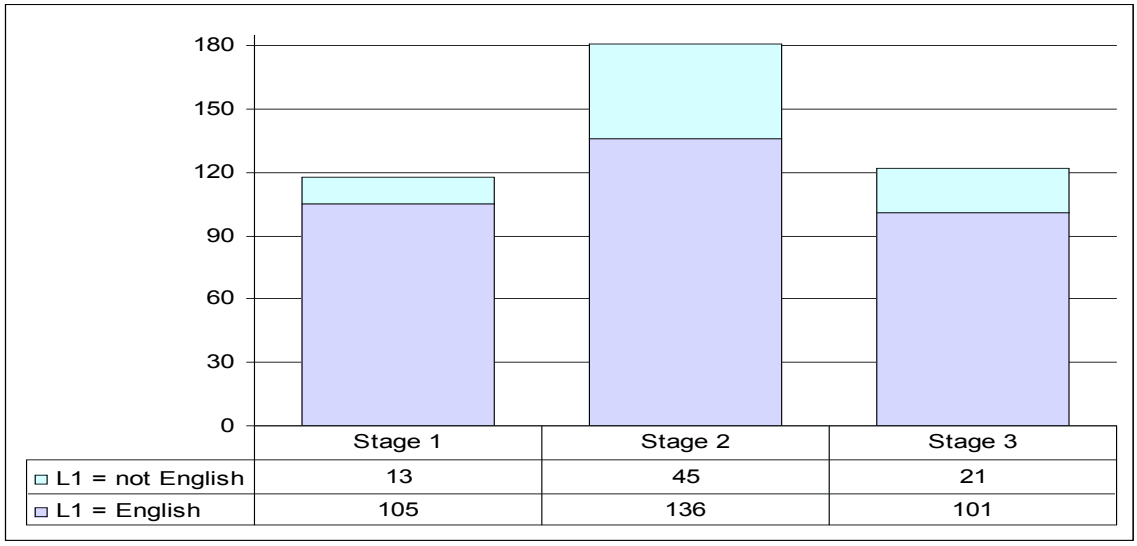
Because one of the goals of pilot testing was to ensure the equivalence of parallel forms A and B, the pilot materials were configured so that each subject attempted tasks from each of the forms. Approximately half of the group attempted tasks from form A followed by tasks from form B, while the other half attempted tasks from form B followed by tasks from form A.

The graphs below illustrate the configuration and administration of pilot forms.



The pilot sample consisted predominantly of individuals whose first language was English. In cases where English was the second language, subjects had a strong enough command of the language so that this was not a barrier to accessing the tasks and items.

The graphs below depict the proportion of first-language English speakers for each sub-sample.



Communications and Math Employment Readiness Assessment: CAMERA

The three tables below provide a summary of pilot locations and sample sizes.

CAMERA Stage 1

Literacy Program	Location	Numbers
Action Read	Guelph	10
Georgian Literacy	Collingwood	16
Hamilton Literacy Council	Hamilton	11
Literacy London, Inc.	London	3
Napanee Community Learning Centre	Napanee	5
Niagara Region Literacy Council	St. Catharines	3
Organization for Literacy	Sarnia	8
Peel Adult Learning Centre	Mississauga	4
Port CARES	Port Colborne	4
Preparatory Training Programs	Toronto	1
Prince Edward Learning Centre	Picton	5
Quinte Adult Day School	Belleville	6
Quinte Literacy	Belleville	5
St. Louis Adult Learning Centre	Cambridge	6
St. Marys Adult Learning Program	Stratford	4
Toronto District School Board	Toronto	28
	TOTAL	**119**

CAMERA Stage 2

Literacy Program	Location	Numbers
Canadore College	North Bay	11
East End Literacy	Toronto	8
Georgian College	Owen Sound	6
Georgian Literacy	Collingwood	4
Iroquois Falls Adult Learning Centre	Cochrane	12
Lambton Kent District School Board	Sarnia	10
Peel District School Board	Greater Toronto Area	45
Preparatory Training Programs	Toronto	33
Quinte Adult Day School	Belleville	10
St. Marys Adult Learning Centre	St Marys	10
Toronto District School Board	Toronto	32
	TOTAL	**181**

CAMERA Stage 3

Literacy Program	Location	Numbers
Alternative Education Centre	Kapuskasing	17
Canadore College	North Bay	12
Georgian College	Owen Sound	11

Literacy Program	Location	Numbers
Hamilton-Wentworth Catholic District School Board	Hamilton	12
Lambton College	Sarnia	7
Mohawk College	Hamilton	29
Preparatory Training Programs	Toronto	21
Quinte Adult Day School	Belleville	4
Thames Valley District School Board	Woodstock	9
	TOTAL	**122**

Pilot testing was well supported by literacy programs across Ontario. Instructors participated willingly in the administration and reported positive feedback from learners, who viewed the experience as interesting and beneficial.

Results of Data Analysis

The analysis and interpretation of data were carried out by two test developers in collaboration with an external assessment consultant. The objectives of the analysis were to determine the following:

- Relative difficulty of tasks
- Relative difficulty of items
- Degree of equivalence across parallel forms
- Task success relative to LBS levels
- Item response success relative to LBS levels

All of the pilot forms were constructed to include more items than would be needed for the operational assessment. This was done so that any items revealed by the data analysis to be flawed, redundant or problematic could be removed from the final versions, leaving only the most informative and technically sound material for the operational test. As a result of the data analysis, a number of items were revised or relocated, and in some cases task order was changed to create a smoother progression of difficulty.

In CAMERA Stage 1, tasks were reordered to progress from easiest to most difficult. A number of unnecessary items were removed, and some tasks were changed or reworded to strengthen the items and increase the extent to which the two forms of the assessment were parallel. Of the original 81 items, 55 items remained in the final instrument.

In CAMERA Stage 2, a numeracy task was added, and several weak or problematic items were removed, so that of the original 63 items in the pilot instrument, 51 remained.

In CAMERA Stage 3, tasks remained intact, though some items were removed or reworded to increase clarity and parallelism between the two forms. Of 60 pilot items, 44 were retained for the operational version.

Following the data analysis, a second round of pilot testing was carried out to ensure that revised or relocated items would perform as expected. Pilot subjects wrote both forms of the test, each form written on a different day. Order of administration of forms was counterbalanced to mitigate the possibility of a practice effect. The assessments were scored by a single assessor, and task and item data were again analyzed and reviewed.

Sample numbers and locations for the second pilot are provided in the chart below.

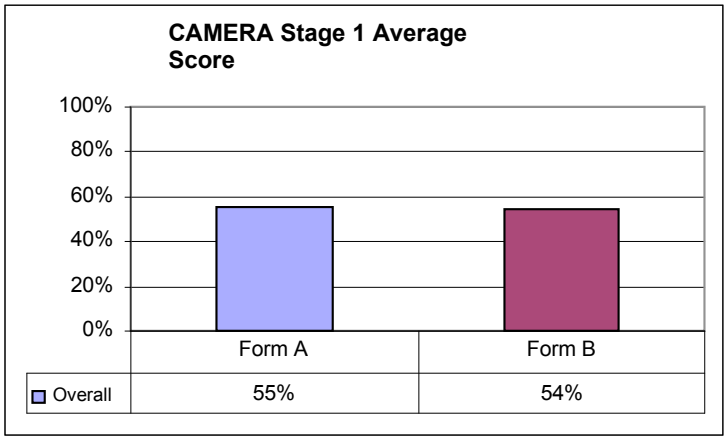
CAMERA Stage 1	**37** subjects • 14 LBS 1 • 23 LBS 2	Preparatory Training Programs, Toronto Action Read, Guelph Georgian Literacy, Collingwood Peel Adult Learning Centre, Mississauga East End Literacy, Toronto
CAMERA Stage 2	**34** subjects • 11 LBS 3 • 23 LBS 4	Preparatory Training Programs, Toronto Peel Adult Learning Centre, Mississauga
CAMERA Stage 3	**28** subjects • 28 LBS 5	Preparatory Training Programs, Toronto Peel Adult Learning Centre, Mississauga

Composition of the Operational Test Forms

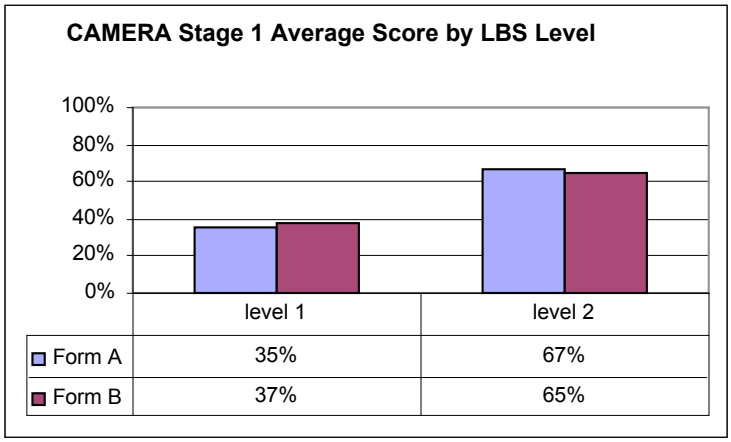
The second pilot procedure confirmed that the refined test forms were sufficiently equivalent and that they provided a balanced snapshot of a learner's ability in the four target skill areas. Therefore, no further changes were made to the instruments.

The graphs below attest to the equivalence of the CAMERA operational forms.

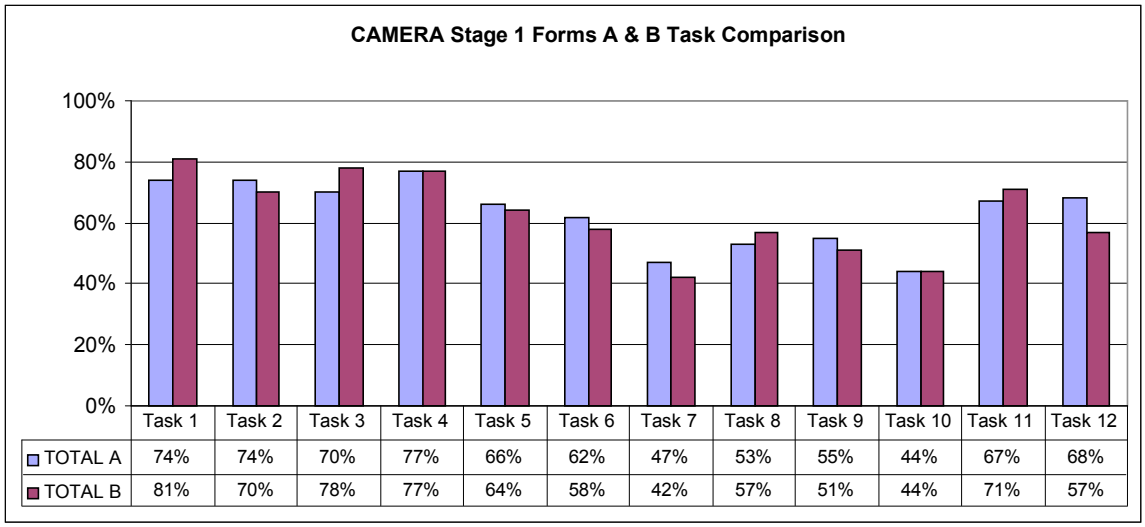
CAMERA Stage 1



	Form A	Form B
Overall	55%	54%

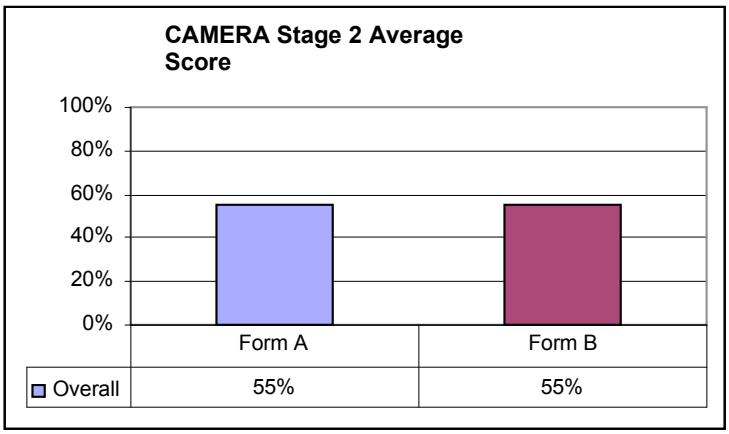


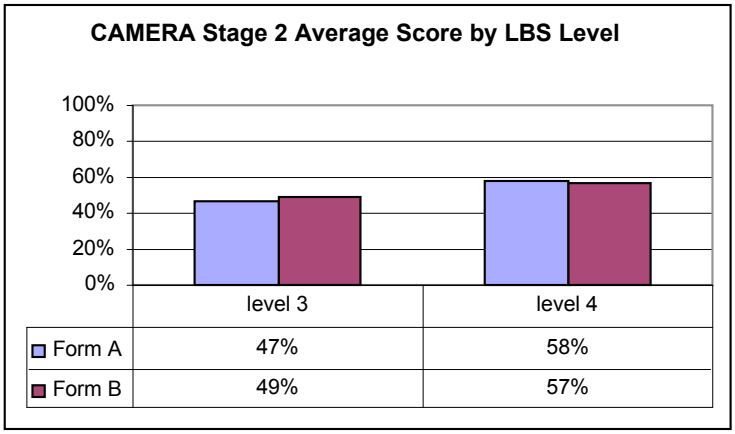
	level 1	level 2
Form A	35%	67%
Form B	37%	65%

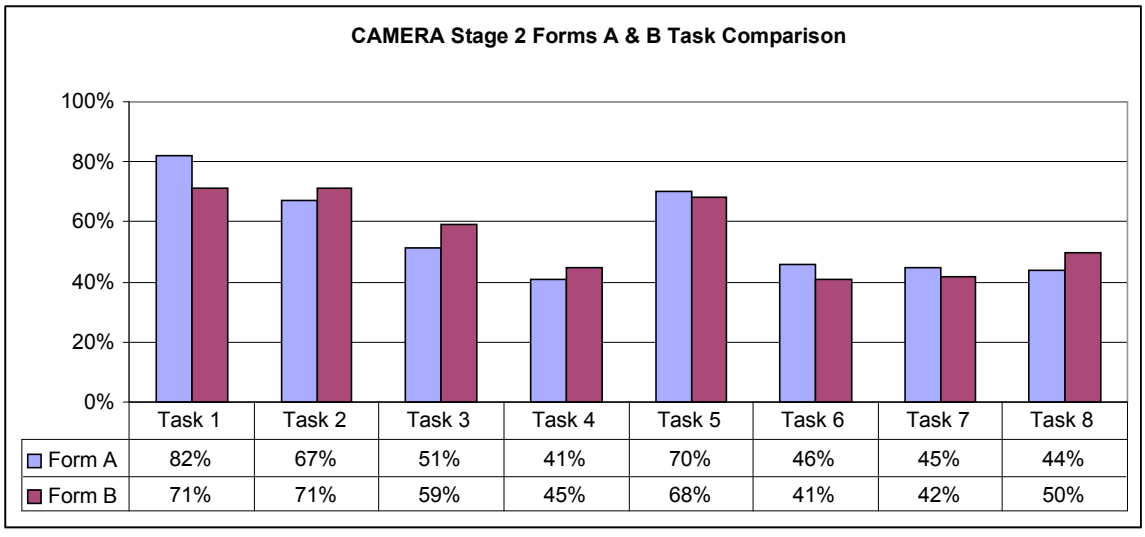


	Task 1	Task 2	Task 3	Task 4	Task 5	Task 6	Task 7	Task 8	Task 9	Task 10	Task 11	Task 12
TOTAL A	74%	74%	70%	77%	66%	62%	47%	53%	55%	44%	67%	68%
TOTAL B	81%	70%	78%	77%	64%	58%	42%	57%	51%	44%	71%	57%

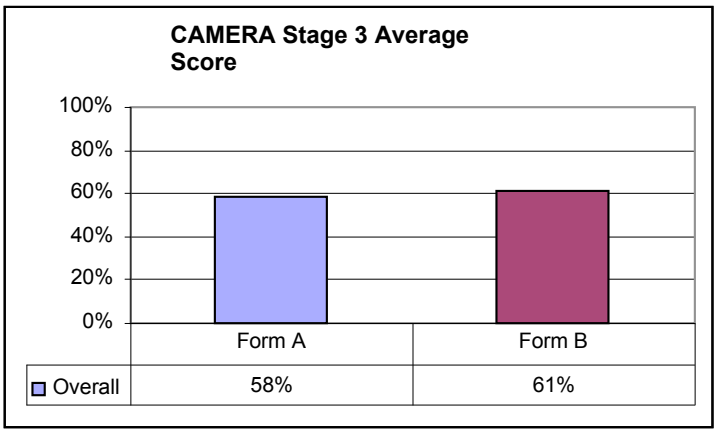
CAMERA Stage 2

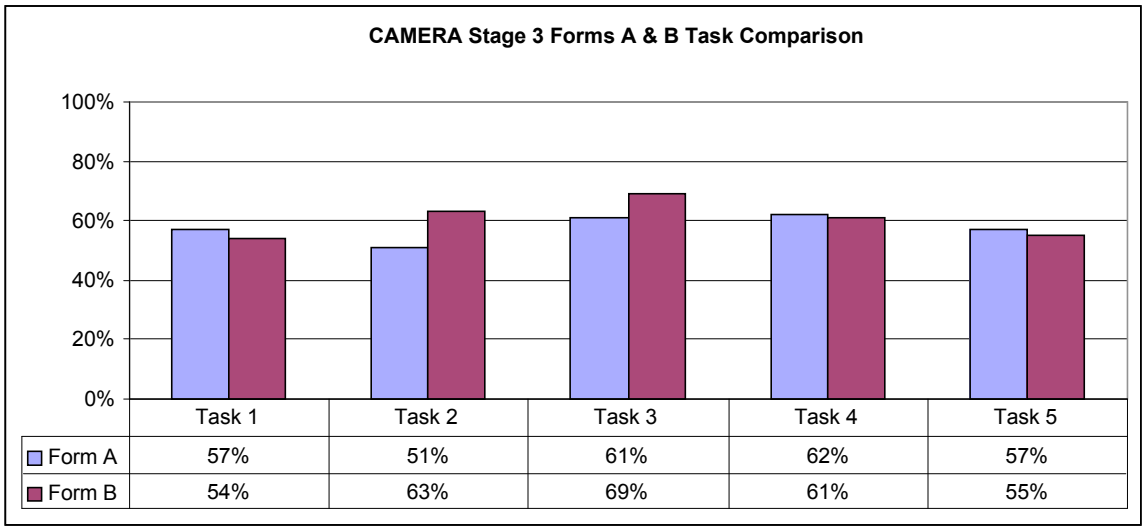






CAMERA Stage 3





The following tables show how the balance of skills evolved from the original CAMERA to the refined operational forms.

Number of raw score points associated with each Essential Skill for CAMERA Stage 1

	Document Use	Reading Text	Numeracy	Writing	TOTAL
Original version CAMERA 1-2	37		25	20	82
Refined version CAMERA Stage 1	18	10	13	14	55
Difference	-9		-12	-6	-27

Number of raw score points associated with each Essential Skill for CAMERA Stage 2

	Document Use	Reading Text	Numeracy	Writing	TOTAL
Original version CAMERA 3-4	38		18	20	76
Refined version CAMERA Stage 2	12	13	12	14	51
Difference	-13		-6	-6	-25

Number of raw score points associated with each Essential Skill for CAMERA Stage 3

	Document Use	Reading Text	Numeracy	Writing	TOTAL
Original version CAMERA 5	25		18	20	63
Refined version CAMERA Stage 3	12	10	12	10	44
Difference	-3		-6	-10	-19

When the content of CAMERA Stages 1, 2, and 3 had been finalized, materials were selected for the operational version of the CAMERA Placement. The selection process began with a review of data gathered on the original placement test, which revealed that many of the original tasks and items were technically sound. Those original tasks which proved to distinguish most clearly between levels were retained and streamlined through the removal of unnecessary items. In cases where a task to be retained was among those that had been revised for inclusion in CAMERA Stage 1, 2 or 3, the revised task was used for the CAMERA Placement.

The final step in the test development process was to establish cut scores for each CAMERA instrument. The methodology used to derive the cut scores was multi-pronged, drawing on information gathered during the usage of the original CAMERA and on data analyzed in the second pilot phase of the refinement project. For each operational test instrument, the mean, median and range of pilot scores were considered for each task, along with the average performance of groups whose LBS levels were known. The test developers' expert judgment was also brought to bear throughout this process, which was informed by the criteria and specifications that had guided the design of tasks for the refined instruments.

Relationship of Essential Skills to CAMERA Tasks

When the operational instruments had been compiled, the test developers reviewed all of the tasks in the final CAMERA test battery and independently assigned an Essential Skills level to each task. In order to do this, the test developers drew on their experience as Essential Skills analysts, following the criteria set out in the ES complexity matrix, to determine which descriptors best captured the characteristics and difficulty of each task. When all tasks had been reviewed and levels independently assigned, the test developers conferred to discuss the assignments and arrive at a consensus.

Decisions were as follows:

CAMERA Stage 1	ES Level
1. Time (Numeracy)	n/a
2. Alphabetical order (Document Use)	n/a
3. Numerical order (Numeracy)	n/a
4. Read directory (Document Use)	2
5. Complete entry form (Document Use)	1
6. Interpret signs (Document Use)	1
7. Write note (Writing)	1
8. Read notice (Reading Text)	1
9. Calculate costs (Numeracy)	1
10. Read bulletin (Reading Text)	2
11. Record work tasks (Writing)	1
12. Read schedule (Document Use)	2

CAMERA Stage 2	ES Level
1. Read notice (Reading Text)	2
2. Make calculations (Numeracy)	2
3. Write suggestion (Writing)	2
4. Complete form (Document Use/Numeracy)	2/2
5. Interpret graph (Document Use)	2
6. Read bulletin (Reading Text)	2
7. Interpret table (Document Use/Numeracy)	3/2
8. Write e-mail (Writing)	2

CAMERA Stage 3	ES Level
1. Interpret graph (Document Use/Numeracy)	2/3
2. Write letter (Writing)	3
3. Compare documents (Document Use/Numeracy)	3/2

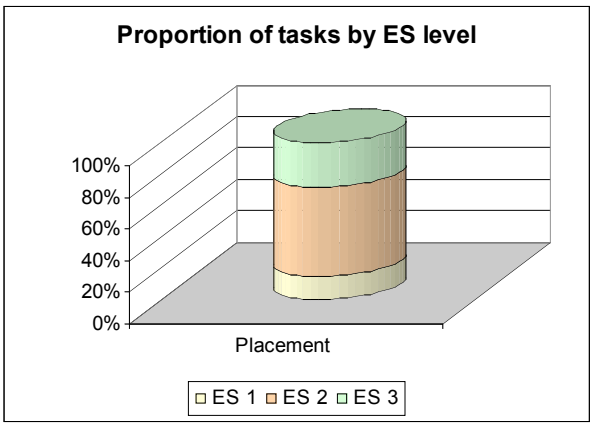
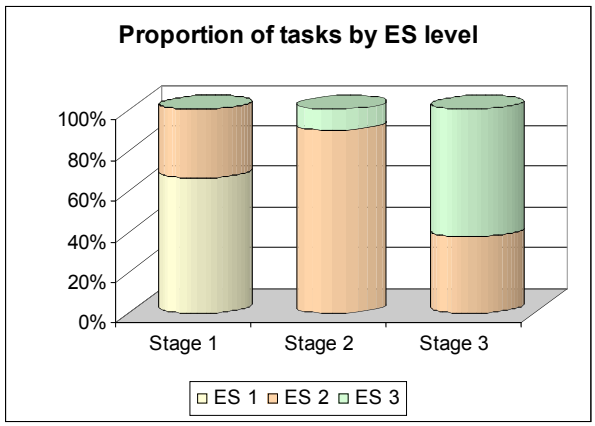
CAMERA Stage 3	ES Level
4. Read article (Reading Text)	3
5. Summarize expenses (Document Use/Numeracy)	3/2

CAMERA Placement	ES Level
1. Read schedule (Document Use)	2
2. Write note (Writing)	1
3. Read notice (Reading Text)	2
4. Complete form (Document Use/Numeracy)	2/2
5. Read article (Reading Text)	3
6. Write letter (Writing)	3

The content of the above charts provides evidence to support the notion that as tasks increase in difficulty according to the criteria in the LBS matrix, they also increase in difficulty according to the ES complexity levels. This alignment of CAMERA tasks to Essential Skills can provide much useful information on how learners at the various stages of literacy development perform on tasks associated with particular degrees of complexity.

It is, however, extremely important that potential users of the assessment bear in mind the inescapable fact that CAMERA results cannot be used to place learners according to ES criteria. There are three main reasons why this is so. First, while the alignments shown in the charts may appear to imply a relationship between the LBS matrix and ES complexity levels, in fact, this is not a perfect linear relationship, as each scale is intended for a different purpose. Second, although Essential Skills research informed the design and development of CAMERA content, the interpretation of results was driven by the LBS framework and not by Essential Skills. Third, and of greatest significance, is the fact that the ES complexity matrix has been designed solely for the placement of tasks, not learners.

The graphs on the following page indicate the estimated proportion of CAMERA content pegged at each of the ES levels.

CAMERA Placement	CAMERA Stages
	

Recommendations for Further Research

The research that has been carried out to date indicates that the CAMERA instruments can be used with confidence for low-stakes applications such as placement, interim assessment and outcomes testing in workforce literacy training programs.

It is recommended that further studies be undertaken to investigate the inter-rater reliability and predictive validity of the test forms. Research on inter-rater reliability would be designed to determine the degree to which different assessors are able to apply the CAMERA scoring principles to arrive at the same results for a given test taker. A study of predictive validity would shed light on the accuracy and effectiveness of CAMERA results for predicting how a test taker will perform in a particular real-life setting.