

# **Beyond Picture Naming: An Evidence-Centered Assessment Redesign for a Foundational Cookery Manuscript**

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## **Abstract**

This study examined the assessment architecture of a 59-page illustrated foundational cookery manuscript. Structured document analysis mapped seven content units, their printed explanations, 153 scorable prompts, and the forms of learner evidence they solicit. The manuscript offers an accessible visual glossary of cooking terms, utensils, cookware, appliances, cutting techniques, napkin folds, and kitchen-hygiene rationales. Its repeated image-text pairings, recognition activities, recipe associations, and two drawing tasks can support vocabulary acquisition and learner engagement. However, most assessment evidence is limited to multiple choice, matching, identification, image naming, true/false decisions, and word search. The manuscript does not provide explicit learning outcomes, demonstrations, performance conditions, scoring criteria, answer keys, explanatory feedback, or reassessment pathways. Several assessments also introduce terms not directly taught in the preceding pages, including grill pan, scoring, bias slicing, cubing, cross-hatching, charger napkin, finger-bowl napkin, and several decorative folds. The only hygiene unit has no assessment. Learners are therefore asked to recognize culinary language without systematically showing that they can select, handle, use, clean, store, or explain tools and processes in context. No field-test data, learner scores, scorer agreement, or validation records were supplied, so instructional effectiveness cannot be inferred. Drawing on constructive alignment, authentic assessment, rubric design, and competency-based training, this article proposes a seven-unit evidence map and a four-part performance portfolio: planning, monitored execution, product evidence, and reflective justification. Each unit should

progress from image-supported recall to scenario judgment, guided demonstration, independent performance, feedback, and targeted reassessment. The source provides a strong visual foundation, but publication requires tighter content-assessment alignment, explicit criteria, model responses, accessibility improvements, and staged expert and classroom validation.

**Keywords:** cookery education; authentic assessment; evidence-centered design; competency-based training; visual learning; document analysis

## Introduction

Foundational cookery materials face a dual design challenge. They must help novices name unfamiliar tools and techniques, but they must also move learners toward safe, purposeful performance. A student who can identify a saute pan in a photograph may still be unable to select it for a task, control heat, handle it safely, judge a result, or clean and store it correctly. Vocabulary is therefore a prerequisite rather than a sufficient claim of culinary competence.

Constructive alignment requires intended learning, teaching activity, and assessment evidence to address the same action (Biggs, 1996). Authentic assessment adds attention to the task, physical and social context, product or process evidence, criteria, and judgment (Gulikers et al., 2004). In competency-based training, assessment is referenced to defined standards and integrates knowledge, practical skill, and attitude under specified conditions (Knapp & Ali, 2020).

Philippine cookery materials are expected to develop both concepts and demonstrable skills. The Department of Education's cookery resources describe authentic tasks involving cleaning and sanitizing tools, using kitchen equipment, and preparing, presenting, and storing food (Department of Education, n.d.). TESDA training regulations define the standards from which competency-based curricula, learning materials, and assessment tools are developed (Technical Education and Skills Development Authority, n.d.).

The source examined here is a 59-page illustrated cookery manuscript credited in its PDF metadata to Novelyn V. Lopez (Lopez, 2024). It contains units on cooking terms, tools, cookware,

appliances, cutting skills, napkin folds, and hygiene. This article audits the printed artifact, not the author, teacher, or learners. It evaluates potential evidence and publication readiness; it does not measure classroom effectiveness.

## Purpose and Research Questions

The study asked four questions: (1) What content and assessment forms are represented in the manuscript? (2) What learner actions can the printed tasks directly evidence? (3) Where do taught content, assessed content, and implied practical competence diverge? and (4) What redesign would produce coherent, authentic, and scoreable evidence across the seven units?

## Methods

### Design and Corpus

A structured qualitative document analysis with descriptive counts was conducted on the complete PDF. The corpus included seven section dividers, all instructional pages, images, self-assessments, drawing spaces, and the final references page. Page images were visually inspected and text extraction was checked against the rendered source.

The seven units were cooking terms and techniques; kitchen utensils and tools; cookware; cooking equipment and appliances; cutting skills and techniques; table napkin folds; and kitchen hygiene. A scorable prompt was counted when the learner was asked to provide or select one response. A composite picture prompt requiring both a cookware name and a possible dish was counted as one item, and each drawing-and-explanation activity was counted once. The resulting inventory contains 153 prompts.

**Table 1**

### *Instructional and Assessment Inventory*

| Content unit       | Prompts | Dominant format                | Principal evidence            |
|--------------------|---------|--------------------------------|-------------------------------|
| Cooking terms      | 25      | Identification and image match | Term-definition recognition   |
| Tools and utensils | 36      | Multiple choice, match, name   | Tool name and stated function |

| Content unit    | Prompts | Dominant format                                  | Principal evidence                         |
|-----------------|---------|--------------------------------------------------|--------------------------------------------|
| Cookware        | 17      | Multiple choice, image, drawing                  | Vessel recognition and limited application |
| Equipment       | 26      | Multiple choice, true/false, word search, design | Appliance vocabulary and layout idea       |
| Cutting skills  | 20      | Multiple choice and matching                     | Technique terminology                      |
| Napkin folds    | 29      | Multiple choice, matching, image naming          | Type and fold recognition                  |
| Kitchen hygiene | 0       | None                                             | No printed assessment evidence             |
| Total           | 153     | Predominantly short response                     | Recall is stronger than performance        |

## Analytic Framework

Each prompt was coded by response form: selected response, matching, identification, image naming, true/false, word search, drawing or design, short explanation, or physical performance. It was also coded by principal action: remember, classify, apply, create, or justify. Direct alignment was recorded when the assessment sampled content explicitly presented in the unit; partial alignment when it required an extension that could reasonably be inferred; and mismatch when it introduced terminology or criteria not visibly taught.

The assessment system was then reviewed for purpose, conditions, resources, evidence, criteria, feedback, answer support, accessibility, and reassessment. Brookhart's (2018) argument that effective rubrics depend on appropriate and observable criteria guided review of scoreability. The analysis distinguished printed potential from actual instruction because a teacher may add demonstrations and feedback that do not appear in the manuscript.

## Procedure and Trustworthiness

The first pass reconstructed the seven-unit sequence. The second inventoried every assessment prompt and response form. The third compared assessed terminology with the immediately preceding content. The fourth traced practical claims - such as knife use,

equipment operation, cutting, folding, and hygiene - to observable performance evidence. The final pass examined answer support, navigation, references, editorial consistency, and accessibility.

One analyst reviewed one manuscript version, so no inter-rater coefficient was calculated. Counts can be reproduced using the stated rules, but judgments about authenticity remain interpretive. Examples of mismatch were retained only when the assessed term was not found in the corresponding instructional unit. The proposed framework is a design hypothesis requiring pilot validation.

## **Results**

### **Content Architecture and Visual Support**

The manuscript's clearest strength is its visual organization. Section dividers mark major topics, and most tools, cookware, appliances, techniques, and napkin folds are paired with photographs. Short definitions lower the entry barrier for learners encountering professional culinary vocabulary. The format is especially useful for concrete nouns and visible products, such as a whisk, stockpot, julienne cut, or pocket fold.

The content sequence is broadly logical. Terms establish a culinary lexicon; tools, cookware, and appliances identify resources; cutting skills introduce transformation; napkin folds extend presentation; and hygiene provides a closing rationale. Self-assessments recur after six units, giving the manuscript predictable rhythm. Image-supported identification, matching, and word search offer low-stakes rehearsal.

The limitation is that the visual glossary remains the dominant instructional form even when the intended capability is procedural. A photograph of a knife or fold shows appearance, not grip, sequence, force, control, sanitation, correction, or finished quality. The manuscript contains no stepwise demonstration for knife handling, equipment setup, cleaning, or cooking, and no annotated example of acceptable learner performance.

### **Assessment Inventory**

The 153-prompt inventory is substantial but highly concentrated in recognition and recall. The cooking-terms unit contains 25

prompts; tools, 36; cookware, 17; equipment, 26; cutting skills, 20; and napkin folds, 29. The hygiene unit contains no assessment. Multiple choice, matching, identification, and picture naming dominate. Two open drawing tasks ask learners to depict a favorite cookware item and a dream kitchen, but neither supplies criteria.

Some prompts create useful bridges. Learners name cookware and propose a dish, which begins to connect a vessel to a culinary purpose. The dream-kitchen task can elicit spatial reasoning, and the favorite-cookware task invites explanation. These are promising seeds for authentic assessment, but the manuscript does not specify constraints, safety zones, workflow, required labels, quality indicators, or scoring rules.

No answer key or explanatory feedback is printed. A learner who confuses a saute pan with a frying pan, a blender with a food processor, or julienne with batonnet receives no diagnosis. The absence of model responses is particularly consequential in items whose options are ambiguous or whose terminology differs from the teaching pages.

### **Alignment and Coverage Gaps**

Assessment sometimes reaches beyond the visible lesson. The tools section asks about ladles and grill pans although these are not developed with the same image-definition treatment as the main tool list. The equipment checks include toaster, slow cooker, dishwasher, and food dehydrator beyond the seven appliances described. The cutting matching task introduces scoring, bias slicing, cubing, garnishing, and cross-hatching, while the lesson focuses on another set of cuts and processes.

The napkin assessments expand even further. They ask about linen, cotton, bamboo, charger, finger-bowl, buffet, and pique napkins and folds such as peacock, swan, dove, envelope, and pleated fan, although the preceding unit emphasizes different categories and ten named procedures. Such extension can be valuable when signposted as transfer, but it becomes a validity problem when learners are expected to recall material they were not taught or given resources to infer.

Practical coverage is the larger gap. Learners do not physically demonstrate mise en place, measurement, tool selection, safe knife handling, cookware use, appliance setup, a specified cut, a napkin fold, cleaning, sanitation, or storage. There is no performance condition, time allowance, resource list, observable checklist, analytic rubric, or reassessment step. Consequently, the printed assessments support claims about vocabulary recognition more strongly than claims about cookery competence.

**Table 2**

*Examples of Taught-Assessed Divergence*

| Unit      | Assessed extension                                        | Observed issue                       | Revision                                   |
|-----------|-----------------------------------------------------------|--------------------------------------|--------------------------------------------|
| Tools     | Ladle and grill pan                                       | Not developed like main tools        | Add teaching cards or remove               |
| Equipment | Toaster, slow cooker, dishwasher, dehydrator              | Assessment exceeds seven-item lesson | Teach, scaffold transfer, or revise        |
| Cutting   | Scoring, bias slicing, cubing, garnishing, cross-hatching | Terms absent from lesson sequence    | Align glossary and task                    |
| Napkins   | Charger, finger-bowl, buffet, pique; several new folds    | Categories and folds change in test  | Use only taught terms or provide resources |
| Hygiene   | No prompts                                                | High-importance content unassessed   | Add scenario and practical inspection      |

## Discussion

The manuscript contains many activities but not yet an evidence system. An evidence system begins with a claim - what the learner should be able to do - then defines the task that would elicit that capability and the observations that would support a judgment. The current design often moves directly from an illustrated definition to a recall question. That sequence is appropriate for first exposure but incomplete for vocational learning.

A revised unit should use a progression: image-supported vocabulary, contrast cases, scenario selection, guided demonstration, independent performance, explanation, feedback, and targeted reassessment. For example, knife instruction could begin with tool identification, then ask learners to select a knife for a food, demonstrate safe grip and cutting, produce a specified size, explain

their choice, and correct an identified error. Napkin instruction could similarly move from naming to following a procedure, producing a stable fold, and evaluating suitability for a service context.

The 153 existing prompts need not be discarded. They can be retained as formative checks, edited for alignment, and paired with answer explanations. A smaller set of authentic tasks can then provide stronger evidence: a mise-en-place plan; a tool-and-equipment selection conference; a monitored measurement and cutting task; a cookware-method matching demonstration; a safe appliance setup; a service-ready napkin fold; and a hygiene inspection with corrective action.

A four-part portfolio can integrate the units. Planning evidence includes a recipe, workflow, tool list, and hazard check. Execution evidence includes observation notes and critical checkpoints. Product evidence includes measured cuts, a cooked or assembled product where facilities permit, a table-setting artifact, and clean-down. Reflective evidence includes a short oral or written justification and a reassessment record. This approach preserves accessibility while making practical claims transparent.

**Table 3**

*Four-Part Portfolio for Foundational Cookery*

| Part       | Learner work                                                    | Evidence retained                          | Decision                  |
|------------|-----------------------------------------------------------------|--------------------------------------------|---------------------------|
| 1. Plan    | Recipe or service brief, workflow, tools, equipment, hazards    | Annotated plan and readiness check         | Ready or revise           |
| 2. Execute | Measure, handle tools, make a cut or fold, use equipment safely | Observation checklist and correction notes | Meets or not yet          |
| 3. Product | Present specified culinary or table-setting output; clean down  | Product record and analytic rubric         | Criterion profile         |
| 4. Justify | Explain choices, diagnose error, propose improvement            | Reflection or oral defense                 | Feedback and reassessment |

## Revision and Validation Priorities

First, each section needs explicit learning outcomes using assessable verbs and defined conditions. Every assessed term should be taught, visually supported, or clearly labeled as transfer.

Numbering errors, missing items, duplicated words, grammar, spelling, and terminology should be corrected. A complete answer key should explain misconceptions rather than list letters only.

Second, authentic tasks need analytic criteria. Criteria should address task-specific evidence such as appropriateness of selection, measurement accuracy, safe handling, process control, product consistency, sanitation, communication, and reflection. Criteria should describe observable quality, not generalized effort or confidence. Learners should know which safety failures require an immediate stop and which quality criteria can be improved through feedback.

Third, publication should include instructor notes, alternatives for limited equipment, clear image rights, live text, meaningful alternative text, consistent headings, labeled tables, readable contrast, and instructions that do not depend on images alone. Validation should progress through cookery expert review, assessment review, language editing, accessibility testing, learner cognitive interviews, instructor usability testing, and a supervised pilot. Pilot evidence should include completion time, item functioning, scorer agreement, common misconceptions, portfolio quality, and reassessment outcomes.

## **Limitations**

The study analyzes one PDF version and cannot observe demonstrations, feedback, or supplementary resources provided by a teacher. It did not administer the assessments, measure learning, interview the original author, or compare alternative materials. Counts treat composite tasks as single prompts and do not imply equal difficulty. The proposed portfolio requires adaptation to learner age, facilities, ingredient access, school policy, and current competency standards.

## **Conclusion**

The manuscript provides an inviting visual foundation for cooking terms, kitchen resources, cutting vocabulary, napkin presentation, and hygiene awareness. Its 153 prompts create frequent practice, but they primarily support recognition and recall; practical

competence, feedback, and reassessment remain largely unobserved. Publication readiness requires explicit outcomes, tighter taught-assessed alignment, answer explanations, authentic micro-performances, observable criteria, a four-part portfolio, and staged accessibility and classroom validation. With these changes, picture naming can become the first step in a defensible progression toward culinary performance.

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