Comprehensive Exam - 2015

Problem Solving & White Paper

Guidelines for Writing Well
Strategies for Approaching these New Exams
Changes
Common Issues & Solutions

http://nursing.ucsf.edu/comp-exams

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General Guidelines for Writing

Structural Unity - *makes sense*
Significant Topic / Issue Identified
Organized Logically – Issue to Resolution
Valid Conceptual Approach & Analysis
Clear Interpretation & Implications

Stylistic Clarity - *reads clearly*
Precise – strong nouns, verbs
Concise sentences, paragraphs, sections
Transition signals -- paragraphs & sections

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Vital Resources

Vital resource - Dept. Administrative Assistants
- CHS: Judy Alonzo & Sharon Solorio
- PN: Mary Margaret
- FHCN: Maggie Pena
- SBS: Brandee Woleslagle

Comp Exam Coordinators
- CHS: Beth Phoenix & Dana Drew-Nord
- PN: Roxanne Garbez
- FHCN: Barbara Hollinger & Mary Lynch
- SBS: Susan Chapman

Additional Resources

- Advisors - topic & format
- Specialty faculty
- Former sample comps on reserve for ideas about issues – not format
- Scientific Writing Program Coordinator
  Susana.Leong@ucsf.edu

- Consider other arrangements
  - Typist
  - Paid tutors & editors
  - Peers as editors & proofreaders
- Create a timeline
Strategies – 2015 Revised Exam

Graduate Division Language

The Comprehensive Examination should demonstrate student mastery of the major field and ability to think critically.

Specific Purpose: evaluation of your abilities to...

- Critique research as it applies to your area of specialization
- Apply advanced clinical & theoretical knowledge to practice
- Utilize writing skills to disseminate nursing information in a scholarly paper
- Demonstrate yourself as a consumer of research

Strategies – What’s different?

- Four Exam Options
  - Critical Literature Review
  - Research Proposal
  - Problem-solving
  - White Paper (new)

- Four Sections - defined & scale-scored (1-5)
  - I. Writing Quality (tech fail)
  - II Topic/Issue
  - III. Literature Review Analysis
  - IV. Discussion /Application

- Section Scoring weights

- Suggested number of articles for exam type

- 20 pages, NOT 30

- Quantitative & Qualitative Research Review Tables in Appendices – shortens Lit Review with focus on substantive critiques
Strategies – What’s the same?

Same Pass / Fail Score
- Total points available – 330
- Points needed to pass -- 231

Same Process:
- Two readers // possible third reader // one retake possible
- See Orientation for Revised Exam (11/14) for details on process and options …
  [Link: http://nursing.ucsf.edu/comp-exams]

Problem Solving Exam

Evaluates your ability to identify and effectively communicate the resolution of a problem in an area of specialization

Resolution of specialized nursing problem, grounded in its context
- Describes identified need stemming from discrepancy between what is versus what should be

Choosing a Topic . . .
- Can be a problem/issue on an individual or a system level
- Must be appropriate to clinical situation
  - A situation challenging to you?
- Must be feasible
- Must be measurable
Problem Solving Exam

Four Sections - defined & scale-scored (1-5)

I. *Writing Quality (tech fail) 30
   1. Content & focus
   2. Logic & flow
   3. Structure & organization
   4. Sentence structure
   5. APA format (6th ed.)
   6. Correct grammar, punctuation, word usage, spelling

Score of 15 points or lower = technical fail

II. The Problem & Its Environmental Context 75

III. Literature Review (4-5 articles) 100
   - Research, Narrative, Theory

IV. Intervention, Implementation, Evaluation 125

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II. Problem & Environmental Context

(4 areas – 5 max each X 3.75 = 75 points total)

1. **Clarity of problem** – identifies/describes significant problem needing improvement in current practice
   - Specify why the issue is a problem
   - Describe problem context & where issue occurs

2. **Problem significance** – importance for client and/or nursing practice (impacted population, key stakeholders for solving it, proposal goal)

3. **Clarity of setting** – physical, socio-economic, and/or cultural setting & any relevant political context

4. **Clarity of roles & inter-relationships** – responsibilities & functions of individuals, relevant stakeholders & of nursing. Nature of interactions b/t significant individuals & influence of setting on these

II. Problem -- Clarity

**Specifics**: identify/describe **WHAT** significant problem needs improvement in current practice, why it’s a problem, & who’s involved...

- **Where** the problem occurs
  - ICU or community clinic?
- **Who** is solving the problem
  - APN ?
- **What** is to be accomplished
  - Improve Nurses’ Knowledge?
- **Target** population
  - ICU Nurses or all PCPs at “X” clinic?
II. Problem: Significance, Roles, & Inter-relationships

Importance of problem to patients or profession
- Accurate Hemodynamic Monitoring is essential for ICU patients
- Increase in Type II DM in obese children must be addressed

Clarity of Roles & Inter-relationships
- Describes function of individuals’ significance to problem, their roles & influence on the setting
- ICU nurses, Clinical Nurse Specialist, Head Nurse, APN, Community Outreach Workers

II. Topic Examples – Problem-Solving

- Initiating an Oral Care Program in a Nursing Home
- Post-Partum Depression: Transition to Motherhood
- ICU Nurses’ Knowledge Deficit Regarding Hemodynamic Monitoring
- Loss of Venous Access and Dialysis Delay in End Stage Renal Disease Patients
- Headache Management Programs: Improving Outcomes for Women Patients with Migraines
- Optimizing Sickle Cell Disease Pain Management for..
II. Problem: Cautions

- Instituting a delirium treatment program in acute care setting
  - Is delirium identified? Multiple etiologies . . .
    What will the intervention be? How will you measure this?
- Improving parenting skills by identifying temperament in toddlers in preschools
  - What is meant by “parenting skills?” How will you get access to preschools? Is there literature that indicates that identifying temperament will change parenting behavior?
III. P-S Lit. Review Section (4-5 articles)

Overall Focus
1. Documents problem nature & current approaches to its resolution – in the literature
2. Identifies theoretical/conceptual framework underlying the issue or its resolution

Uses Research Review Tables appropriately (Appendices I & II)

III. P-S Lit. Review Criteria

Handbook Suggestions (4-5 articles)
- Quality of References
- Addresses elements of critique
- Quality of critique & interpretation
- Quality of theoretical framework
III. P-S  Lit. Review: References

Reference Quality
Reviews literature significant to area, including classic & current works. Identifies literature gaps. Meta-analyses & literature review articles discussed, if appropriate, for background & significance

Articles critiqued in this section - primary sources

Possible - very BRIEF intro to your lit. exploration related to the identified issue needing an intervention – Ask advisor

Search / Selection Process - BRIEFLY

- Search process
  - Databases, search, number, key words
- Selection process
  - How 4-5 articles selected
  - The journal articles were chosen because they examine…and the reviewed articles are organized..

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III. P-S  Lit. Review: Critique Elements & Interpretation

- Show what’s there, related to nature of problem or its resolution
  - Critique should identify what exists in either documenting the issue or in resolving it related to your defined issue/problem – even if not nursing proposals
  - Details in Research Review Tables in Appendices
- Synthesis & interpretation of your articles
  - Related to nature of problem or proposed resolution
  - What’s your interpretation of other proposed interventions? Issues or adaptations necessary?

Quality of Critique & Interpretation for proposed intervention

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III. P-S Lit. Review - Critique Elements

Research literature:
- Synthesize each study’s findings presented in the Research Review Tables (Appendix I or II)
- Discuss relevant study points or findings or conclusion
- Include study author’s interpretation of findings & strengths / limitations (validity & reliability, Levels of Evidence – Appendix III )

Non-research literature: main points, credibility of author/content

Most below in the Tables: Appendices I & II

- Study Aim & Design (RCT, longitudinal, survival analysis etc). If randomized, mention how they achieved randomization
- Sample, how recruited. Key inclusion & exclusion criteria. If is split into groups, brief mention of groups' demographics
- Procedure -- what happened over the time during the study?
- Measures used (appropriate?) Statistical analysis (appropriate?)
- Results (including p values?)
- Conclusions - authors’ acknowledgments of limitations

III. Research Literature Summary Critique Tables

- Organize your articles into a table that compares & contrasts different critique components – see template – & briefly describe it
- Include factual material. If something stands out as an issue or unusual, then consider noting that in the body where you can discuss it as part of the issue. This helps with fitting factual appendix material into a single page.
- Limit to 1 page/article
- Detailed table information not repeated in the Comprehensive Exam itself

The Exam focuses on your critique, your analysis!
III. Review: Quantitative vs. Qualitative

http://nursingplanet.com/research/qualitative_research.html

<table>
<thead>
<tr>
<th>General Framework</th>
<th>Quantitative</th>
<th>Qualitative</th>
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</thead>
<tbody>
<tr>
<td>Seek to confirm hypotheses</td>
<td>Seek to confirm hypotheses</td>
<td>Seek to explore phenomena</td>
</tr>
<tr>
<td>Positivist paradigm</td>
<td>Naturalistic paradigm</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Quantitative</th>
<th>Qualitative</th>
</tr>
</thead>
<tbody>
<tr>
<td>To predict &amp; control</td>
<td>To understand (what, how, why)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tools</th>
<th>Quantitative</th>
<th>Qualitative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highly structured methods: questionnaires, surveys, &amp; structured observation</td>
<td>Use semi-structured methods: in-depth interviews, focus groups, &amp; participant observation</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Design</th>
<th>Quantitative</th>
<th>Qualitative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rigid design</td>
<td>Emergent design</td>
<td></td>
</tr>
<tr>
<td>Controlled &amp; experimental</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Focus</th>
<th>Quantitative</th>
<th>Qualitative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prediction</td>
<td>Outcomes</td>
<td>Generalizability</td>
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<tr>
<td>Outcomes</td>
<td>Generalizability</td>
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</table>

<table>
<thead>
<tr>
<th>Data analysis</th>
<th>Quantitative</th>
<th>Qualitative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statistical</td>
<td>Non-statistical</td>
<td></td>
</tr>
</tbody>
</table>

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Appendix I: Quantitative Research Literature Review Table

<table>
<thead>
<tr>
<th>Citation</th>
<th>Conceptual Framework/Theory</th>
<th>Aims</th>
<th>Design &amp; Methodology</th>
<th>Sample &amp; Setting</th>
<th>Variables</th>
<th>Measurement &amp; Analysis</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Author's name, article title</td>
<td>Year of publication, journal</td>
<td>Theoretical basis of study</td>
<td>Study purpose</td>
<td>What were hypotheses/ null hypotheses or stated research question?</td>
<td>Design?</td>
<td>Briefly describe procedures used to collect data</td>
<td>n = ?</td>
</tr>
</tbody>
</table>

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### Appendix II: Qualitative Research Literature Review Table

<table>
<thead>
<tr>
<th>Citation</th>
<th>Theoretical Framework</th>
<th>Design &amp; Methodology</th>
<th>Aims</th>
<th>Sample &amp; Sampling</th>
<th>Analysis</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Author/ s name, article title, Year of publication, journal</td>
<td>Theoretical basis of study</td>
<td>Study design</td>
<td>Data sources</td>
<td>Data collection strategies</td>
<td>Study purpose</td>
<td>Number of participants</td>
</tr>
</tbody>
</table>

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### *Levels of Evidence: Appendix III – where appropriate*

- **Ia** – Evidence from Meta-analysis of Randomized Controlled Trials (RCT)
- **Ib** – Evidence from at least one RCT
- **IIa** – Evidence from at least one well designed, non randomized controlled trial
- **IIb** – Evidence from at least well designed experimental trial
- **III** – Evidence from case, correlation, & comparatives studies
- **IV** – Evidence from a panel of experts
III. P-S Lit. Review - Choosing a Theory

- Applicable to critical literature review issue
- Should further clarify, support, & explain your topic/issue
- **Nursing theory not required**
- Explain theory in text -- not just in an appendix
  - use it to frame your discussion

[*Useful Website on Nursing Research, Theories, Education. Currently, it lists 85 theories that can be accessed here: [http://currentnursing.com/nursing_theory/](http://currentnursing.com/nursing_theory/)*

III. P-S Lit. Review - Some Theories

Of the 85 theories listed [http://currentnursing.com/nursing_theory/](http://currentnursing.com/nursing_theory/) these might be familiar to you:

- **Application Goal Attainment Theory** [# 2]
- **Application of Peplau's Interpersonal theory in Nursing Process** [# 7]
- **Behaviorist Theory** New !!! [# 12]
- **Care, Cure and Core: The Three C’s of Lydia Hall** [# 14]
- **Erikson’s Theory of Psychosocial Development** [# 22]
- **Health Promotion Model** [# 26, Nola Pender]
- **Grounded Theory in Nursing Research** [# 31]
- **Kurt Lewin’s Change Theory** [# 40]
- **Maslow’s Theory of Needs** [# 46]
- **Models of Prevention** [# 49]
- **Nursing Theories: An Overview** [# 54]
- **Systems Theory In Nursing** [# 64]
- **Transcultural Nursing** [# 83]
Concepts - possible mechanisms underlying increased risk of Type 2 diabetes in people on atypical psychotropics

<table>
<thead>
<tr>
<th>Physiological</th>
<th>HPA axis &amp; sympathetic nervous system hyperactivity resulting in cortisol overproduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Genetics</td>
<td>Diabetes only occurs in those with a genetic predisposition</td>
</tr>
<tr>
<td>Co-morbidity</td>
<td>Diabetes is really due to alcoholism or binge eating</td>
</tr>
<tr>
<td>Socio-cultural</td>
<td>Due to socioeconomic, disability, marital status, access to health care</td>
</tr>
<tr>
<td>Health care</td>
<td>Providers fail to adequately monitor overall health</td>
</tr>
<tr>
<td>Behavioral</td>
<td>Inactivity, diet, smoking due to the psychiatric illness</td>
</tr>
<tr>
<td>Medication</td>
<td>Side effects, appetite stimulation and subsequent weight gain</td>
</tr>
</tbody>
</table>

IV. Problem-Solving: Intervention, Implementation, Evaluation

(5 areas – X 5.0 = 125 points possible)

Clarity of expected outcomes

1. States intervention / action to be taken to resolve or reduce issue
2. Describes precisely implementation phase
3. Defines evaluation procedure for selected intervention / action

Defensible & Realistic
IV. Intervention & Implementation

Describe intervention itself. Then implementation

- Clarity of Expected Outcomes
  - Improved Nurses’ Knowledge evidenced by improvement on post-test scores

- Clarity & Appropriateness of Implementation
  - Outline appropriate procedures for implementing it
  - Consider resources & constraints in environment

Educational intervention is three-fold:
Self-study, then 4 hour mandatory class, bedside guidelines developed

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IV. Problem-Solving: Evaluation

- Clarity & Appropriateness of Evaluation
  - Delineates specific, measureable, appropriate criteria for assessing each expected outcome
  - Describes how data would be collected to evaluate intervention’s effect

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New Problem-Solving Exam Scoring

I. Quality of Writing*…… 30 points

II. Problem & Context …. 75 points

III. Literature Review …. 100 points

IV. Intervention, Implementation Evaluation…. 125 points

- Total points available – 330
- Points needed to pass -- 231

Former P-S Exam Comments

Excellent Exam

“Increasing Physical Activity in Employed Mothers”

- Problem Clearly Articulated
  Immediately linked to theoretical perspective
- Lit. Review Clearly Structured
  Divided into topical headings
  Multiple discipline research summarized
  Analytical critique – SELECTION
- Conceptual Framework Appropriate
  Linked to problem & intervention

Conceptual framework appropriate
  Linked to problem in literature & relevant intervention
Former Excellent P-S Exam Comments

“Lack of Age-Specific Acute Care for Elderly Patients”

- Problem & Context articulated clearly
- Literature Review -- clear structure
  Organized -- issues & theory discussed
  Relevant & full critiques & analysis
- Intervention, Evaluation –
  Realistic. Ready to be implemented

Former Weak P-S Exam Comments

“Pain Management of Thoracic Trauma Patient”

- Problem – **not defined well**: thoracic trauma -- no
  significance/relevance of it as a nursing issue or how
  the problem could be dealt with soon enough.
  Not clearly linked to lit. review & intervention
- Literature Review – not adequate lit. search (gap)
  too short, not focused, misinterpreted studies
- Intervention & Evaluation
  **Not feasible, tied in, or measured appropriately**
New Option* White Paper – Four Areas

I. Writing Quality (tech fail) 30
II. Introduction & Background 80
III. Literature Review: Theoretical Frame & Research Summary
     (Research Tables: App I & II) 115
IV. Policy Solution 105

Criteria: design, environmental resources/ constraints, sample & selection process/consent forms, materials/tools, with copy of tools in appendix, procedures, data analysis, resources, limitations
Adequate / Consistent / Clear / Appropriate / Feasible / Integrity / Realistic

I. *Writing Quality - Important
(same for all exams)

1. Content & focus
2. Logic & flow
3. Structure & organization
4. Sentence structure
5. APA format (6th ed.)
6. Correct grammar, punctuation, word usage, spelling

Each category 1-5 points = 30 points total

Score of 15 points or lower = technical fail
II. White Paper: Introduction & Background

(4 areas X 4.0 = 80 points possible)

Describes a health policy issue or condition. Shows how issue framed & why important using data to illustrate size, scope.

- Clarity of policy issue
  - What the issue/condition is & reason for selection

- Significance of policy issue
  - Historical context & when issue emerged. What’s been done about it & how long. Key stakeholders & their interest.

- Importance to health care /nursing
  - To health, health care, policy, nursing

- Quality of evidence
  - Current, relevant evidence, with original tables, charts, figures for data summary. Summary of data implications

III. White Paper: Literature Review, Theory

(5 areas – X 4.6 = 115 points possible)

Theoretical perspective & relevance to issue to suggest, predict, explain, or enhance understanding. Synthesize relevant literature, using Tables appropriately

1. Quality of theoretical discussion
   - Clear discussion of relevant policy or organizational theory

2. Quality of References
   - Significant literature (classic, current) identifying gaps. Meta-analysis, other articles as appropriate for background & significance. Primary Sources critiques

3. Quality of research tables**
   - Table – identify/explain objective information from studies

4. Addresses elements of critique
   - Critique relevant study points, findings, conclusions & author’s interpretations

5. Quality of critique & interpretation
   - Accurate critiques & potential for knowledge contribution

IV. White Paper: Policy Solutions
(4 areas – $ \times 5.25 = 105$ points possible)

Discuss possible policy decision/action for implementation

- Implementation of Solution
  - Clear description of policy intervention, supporting data

- Feasibility & Cost Analysis – timeframe

- Evaluation Framework
  - Clear evaluation criteria. Delineate specific, measurable, appropriate criteria – assessing each expected outcome. Associated costs

- Summary & Conclusion
  - Concise summary of issue, data, findings, policy action, evaluation

Common Weaknesses / Strengths

Unclear Topic / Significance  State what & why

Undefined Organization  Show how
  - Selection & order of articles unclear

Literature Critiques  Give your evaluation
  - Just listing & describing

Last Section  Critically analyze
  - Unclear what it means for nursing practice
Checklist

- Select **significant** topic / issue
- Research **relevant** Literature

- **Outline structure** of 3 sections – **draft**

- **Review** content, structure, language
- **Get reader/advisor** reviews
- **Revise, edit** for clarity, logic, style
- **Follow Comp Orientation Process**

Common Reasons Comps Fail

- Started too late for necessary time & effort
- Did not meet with advisor to obtain feedback & ensure being on track
- Did not follow advisor’s advice
- Changed comp topic at last minute
- Primary editor’s English composition skills not adequate for appropriate feedback on writing
But You Are Here & Will Pass!!