

Pre-Post Phase II

Knowledge Base Questionnaire

2008-2009 & 2009-2010

Includes:

(1) Survey and (2) Statistical Analysis

For this assessment, candidates are asked to rate their global knowledge of school nursing and school nursing skills and competencies on a 5 point Likert scale. The questionnaire consists of 26 subject areas with specific questions relevant to each subject area This Pre-Assessment is completed by candidates prior to beginning core school nurse courses and the Post-Assessment is completed following completion of core school nurse courses. . This pre-post assessment gives faculty insight into learning outcomes and areas in the curriculum and clinical experience that need further strengthening.

1. SURVEY

California State University, Fresno
 Department of Nursing
 School Nurse Services Credential Program

KNOWLEDGE BASE QUESTIONNAIRE 2009-2010

Student Name:	Semester and Year
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(Check one of the following)

____ PRE-PROGRAM QUESTIONNAIRE ____ POST PROGRAM QUESTIONNAIRE

Please rate your level of knowledge/skill on a scale of 1 to 5 in the box to the right
 (1 = None, 2 = Poor, 3 = Fair, 4 = Good: 5 = Excellent)

Assessment Questions

1.	Philosophy of School Nursing	
a.	Personal understanding of function and role of the school nurse	
b.	CA School Nurse Organization, philosophy, contributions to school nursing	
c.	National Association of School Nursing, philosophy, contributions to school nursing	
2.	History/Future of School Nursing	
a.	School nurse role development	
b.	History and future issues in school nursing	
c.	Role of the school nurse practitioner	
3.	Current Issues n Education	
a.	Understanding for how school nurse fits into educational setting	
b.	Knowledge of political issues related to education	
c.	Insight into school-linked, school based health services	
d.	Knowledge of budget issues/organization of school districts	
e.	Insight into working with school boards/administrations	
4.	Coordinated School Health Programs	
a.	What a comprehensive school health program entails	
b.	Insight into planning the school nurse's school year	
c.	Integrating health education into the educational picture	
d.	School based clinics, management and services	
5.	Standards of School Nursing Practice	
a.	The Nursing Practice Act in the school setting	
b.	Professional Standards of School Nursing practice	

c.	California law related to school nursing practice	
d.	School district policies and their development	
6. Nursing Models/Theories		
a.	Basic principles of Betty Neuman's Systems Model	
b.	Application of Betty Neuman's Model in school nursing practice	
c.	Dorothea Orem's Theory Applied in Ambulatory Setting	
d.	The Roy Adaption Model in the school setting	
1. Families at Risk		
a.	Work experience with families with multiple problems	
b.	Articles/literature related to families at risk, resiliency	
c.	Empowerment strategies for families	
d.	Issues related to poverty and homelessness	
8. Cultural Tools/Assessment/Concepts		
a.	Experience working with multicultural populations	
b.	Leininger's Multicultural Model	
c.	Articles/literature related to multicultural differences	
9. Gifted and Talented Children		
a.	Current information on assessment/problems of gifted	
b.	Experience working with gifted children	
c.	Health problems associated with gifted children	
10. School Phobia/School Refusal		
a.	Current information/knowledge on assessment/problems	
b.	Work experience with children who exhibit school phobia	
11. Learning Disabilities		
a.	Current information on symptoms/diagnosis/treatment	
b.	Nursing assessment of learning disabled children	
c.	Experience working with learning disabled children	
12. Attention Deficit Disorders		
a.	Current research/information on ADD, ADHD	
b.	Current medication/treatment regimens	
c.	Experience in the management of children with ADD, ADHD	
13. Drug-Exposed Infants		
a.	Current information for implications related to learning	
b.	Experience working with prenatal exposed children	
14. Neurological Screening Tests		
a.	Insight into methods used in testing/screening for problems	

b.	Administration of school readiness tests, i.e. Denver Developmental	
c.	Administration of another type(s) of tests, i.e. neurological screening tests	
d.	Write up/presentation of results of test to Student Study Team	
15 Legal/Ethical Issues		
a.	Knowledge of liability issues in school nursing practice	
b.	Ethical issues r/t records, confidentiality, other	
c.	Policies/Procedures in school districts	
d.	Conflict between laws relating to health and education	
e.	Supervision of UAP (Unlicensed Assistive Personnel)	
f.	Laws relating to care of minors	
g.	Laws relating to education on reproductive issues	
h.	Ethical/legal issues relating to "Do Not Attempt to Resuscitate"	
16. Child Abuse		
a.	Reporting laws r/t who reports, what, when, to whom	
b.	Reporting laws specific to sexual activities of minors	
c.	Signs/symptoms of abuse/follow-up	
d.	Prevention of child abuse	
17. Violence		
a.	Spousal/dating relationships/domestic abuse	
b.	School violence/weapons	
c.	Health education/prevention of violence/bullying	
18. Health Promotion		
a.	Health fairs/community involvement in health education	
b.	Employee wellness programs	
c.	Teaching/learning theories	
d.	Health Framework/Health Ed. Standards for CA Public schools	
19. Children with Special Needs		
a.	Asthma management, medications, inhalers, Peak Flow Meters	
b.	Diabetes management in school, pumps, meters, administration of insulin	
c.	Management of seizures in the school setting	
d.	Experience working with handicapped and special equipment	
e.	Knowledge of genetic disorders and impact on education	
f.	Healthcare Plans/Emergency Action Plans	
g.	Delegation of care	
20. Children with Psychiatric/Behavior Problems		
a.	Knowledge of psychiatric problems affecting children/adolescents	
b.	Experience with working with children with these problems	

21.	Special Education	
a.	IEP (Individual Education Plan) meetings, assessment	
b.	Laws r/t special education	
c.	“Green Book” and other resources r/t spec. healthcare procedures	
d.	Section 504, school nurse role	
e.	Early intervention/family services	
f.	Individual Health and Support Plans (IHSP)	
g.	Specialized Physical Health Care Procedures	
h.	SELPA, definition and role	
22.	Environmental Safety	
a.	Schoolyard safety	
b.	High school safety issues	
c.	Health issues relating to lead, Asbestos, and mold	
d.	OSHA, role of the schools and community	
23.	State Mandated Screening	
a.	Laws relating to vision, hearing, and Scoliosis screening	
	Vision testing experience:	
b.	Distance vision screening	
c.	Near vision screening	
d.	Muscle balance screening	
e.	Color vision screening	
	Hearing screening and Threshold testing:	
f.	Skill with Otoscope/Tympanometry	
g.	Referral process/follow-up	
h.	Scoliosis screening	
i.	Diabetes II screening (Acanthosis Nigricans)	
j.	Height/Weight body mass index	
k.	Required State reporting on mandated screening	
24.	Immunization Requirement	
a.	Immunization Mandates	
b.	Insight into CSIR (California State Immunization Record)	
c.	TB skin testing requirements for enrollment into schools	
d.	Insight into immunization report as required by county/state	
25.	CHDP (Child Health and Disability Program)	
a.	Scope of program	
b.	1 st grade physicals requirement and timelines	
c.	Annual report on CHDP physicals	
26.	Other	
a.	Case-management techniques	

b.	Children of alcoholics	
c.	Community programs and for families/children	
d.	Computer programs in the Health Office	
e.	Crisis intervention in the school setting	
f.	CTA (California Teacher's Association)	
g.	Disaster preparedness in the school setting	
h.	District organization and funding sources	
i.	Drug abuse among adolescents	
j.	Grant writing/funding sources for research and programs	
k.	Medi-Cal billing/reimbursement	
l.	Nutrition Assessment (growth charts/calipers)	
m.	Pediculosis/Scabies	
n.	Preschool assessment	
o.	PTA (Parent and Teacher Association)	
p.	Research and its importance and impact on school nursing	
q.	SARB (Student Attendance Review Board)	
r.	School nurses as program managers in the school setting	
s.	Separation & loss, impact on children/adolescents/families	
t.	Sports injuries, emergency measures and treatment	
u.	STDs (Sexually Transmitted Diseases)	
v.	Teen Pregnancy programs	

California State University, Fresno
Department of Nursing
School Nurse Services Credential Program

(To be completed with Post Program Assessment Questionnaire)

List the topics/experiences covered in this program that were most beneficial to you in your school nursing practice. Rate them according to value (1 = least important, 4 = most important).

List other topics you would like to see covered in this program. Rate them according to interest (1 = least interested, 4= most interested).

Thank you! Your responses will be very valuable in planning for this program.

California State University, Fresno
Department of Nursing
School Nurse Services Credential Program

Information required for a Post-Program Survey:

Graduates are asked to share the following information so that a survey can be sent out in one year to employers asking them if the program adequately prepared the graduate to fill the role of the professional school nurse. It is NOT an evaluation of the graduate. This information is required by the California Commission on Teacher Credentialing to determine the program's effectiveness. No names are asked for, just comments on the effectiveness of the program.

Name and mailing address of a Principal of a school site at which you practice nursing:

Name and mailing address of the Director of Health Services:

Your own mailing address:

Note: Your address is needed as you will also be sent a survey asking you how well you feel that the program has prepared you to practice school nursing. You will also be sent a copy of the survey that will be received by your employer.

Thank you for sharing this information which is valuable to maintaining a quality program.

Bev Miller, Program Coordinator

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2. ANALYSIS OF DATA

KNOWLEDGE BASE QUESTIONNAIRE, PRE-POST PROGRAM PHASE II

Two cohorts of students in the SNSCP (2008-2009, 2009-2010) completed questionnaires designed to evaluate their knowledge of program content prior to taking courses and immediately after completing the course work. The purposes of this approach to program evaluation were to determine whether the program is addressing the needs of school nurse practitioners, whether as a result of the program participants showed gains in their knowledge levels, and whether these pre and post knowledge levels differed for nurses depending on how much school nurse experience they reported. Participants rated their level of knowledge of all content elements (128) in the program courses before and after the program by rating their knowledge of each element using a Likert-type scale of 1 (no knowledge) to 5 (very knowledgeable). A total of 59 participants had complete pre and post questionnaires. All participants were female, all resided in California, representing 24 of the State's 58 counties. Program participants were from the southern-most San Diego County to as far north as Butte County. The majority of participants were from counties in California's Central Valley. Seventy percent of participants were Caucasian, with the second largest groups Asian (12%) and Hispanic (12%). The majority of participants were married (82.5%) and were not enrolled in the CSUF MS/PN program (89.5%). The participants reported being in the following age ranges: 26-35 (16%), 36-45 (27%), 46-55 (48%), and 56 or older (9%).

Regarding the prior knowledge and knowledge gained by participants, for all 128 items, the pre-assessment mean scores were lower (indicating less knowledge) than the post-assessment scores (indicating knowledge gain). In no cases did all the participants rate themselves very knowledgeable (5 on the rating scale) of the topic prior to the program courses. In other words, no individual item prior to the course delivery had a mean rating of 5.0, suggesting that no content was included in the program that was already well known by all participants.

For group comparisons, the 128 items were grouped according to the categories in which they were initially clustered, resulting in 26 clusters of content (see instrument). Figure 1 shows the mean responses by content cluster for the pre and post instruments. In all cases, using dependent samples t-tests, the gains in reported knowledge levels were statistically significant at the $p < .001$ level. As can be seen on Figure 1, Participants started the program least knowledgeable about Content Cluster 10 (School phobia/school refusal) and Content Cluster 14 (Neurological screening tests). The gains in these two content areas were good, but remained the lowest areas in the post knowledge assessment as well. However, the post ratings were at or near the range of very good knowledge levels on the five-point rating scale. Participants started with the greatest knowledge in Content Clusters 16 (Child abuse), 23 (State mandated screening), and 24 (Immunization requirements). Nevertheless, significant gains in these three content clusters were made as a result of the program courses.

**CSUF School Nurse Services Credential Program
PRE-PROGRAM ASSESSMENT DEMOGRAPHICS SECTION**

Name (or I.D. No.)	Phase II entry date
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(Check appropriate box)

27. Years of School Nursing Practice

0	1	2	3	4 or more
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28. Age:

20-29	30-39	40-49	50 +
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29. Sex:

Male	Female
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30. Ethnicity:

American Indian/Alaskan Native	Asian/Pacific Islander	African American	Hispanic	White	Other
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31. Marital Status

Single	Married	Divorced	Widowed
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33. While pursuing your credential or graduate degree

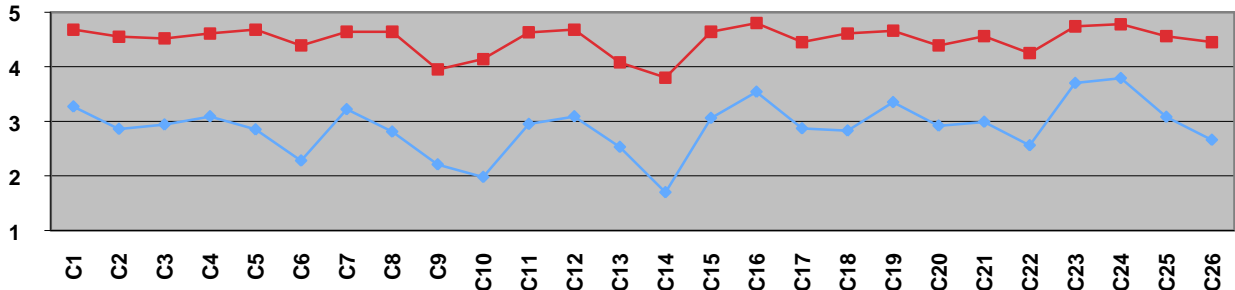
Worked full-time	Worked part-time	Did not work
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32. Please identify county of residence and state:

County:	State:
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Thank you for your valuable time in answering these questions! Your responses will be very valuable in planning for this program.

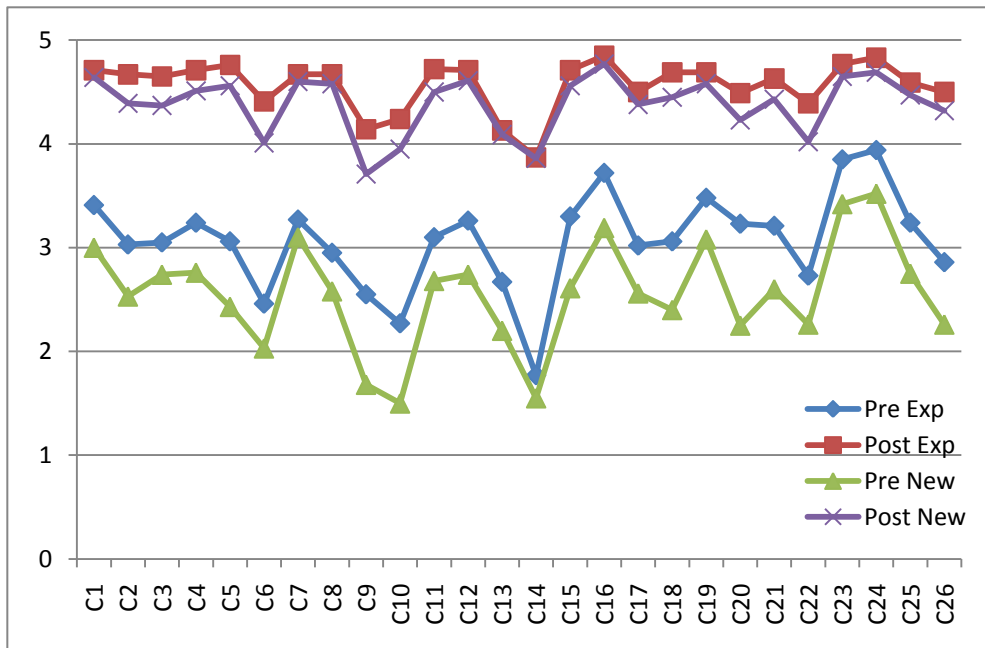
Figure 1. Mean Responses Pre (red) and Post (blue) by Content Cluster



Regarding experience in school nursing, it should be kept in mind that many of the participants may have been practicing nursing in other areas than school nursing prior to enrolling in this program. Therefore, reported years in school nursing may underestimate their total nursing experience and knowledge gained from other areas of practice. Those with 0 years (one person, 1.8%), just started as a school nurse. One year of experience was reported by 15.8%, two years by 21.1%, three years by 31.6%, and four or more years by 29.8%.

The relationship between years of school nursing experience and prior knowledge of the program was considered by comparing responses on the content clusters. Approximately 40% of participants had two or fewer years of school nursing experience and 60% reported three or more years of experience. In all content clusters, both pre and post, the more experienced group (3 or more years) rated their content knowledge higher than did the less experienced group (two or fewer years). See Figure 2. However, although the more experienced group started the program statistically significantly higher on only 12 (clusters 2, 4, 5, 9, 10, 12, 15, 16, 18, 20, 21, 26) of the 26 clusters, at the end of the course, they rated their knowledge higher than the less experienced group on only 3 of the content clusters (clusters 3, 9, 22). In other words, the program content and presentation were effective in making the two groups more equal in their knowledge than they were prior to starting the program. On only one content cluster (9, Gifted and Talented Children) did the more experienced group start with significantly greater self-reported knowledge and also complete the program with significantly greater self-reported knowledge.

Figure 2. Comparison of Pre and Post Content Cluster Means by Level of Experience.



Considering the overall grand mean of all 128 items on the knowledge survey, the post knowledge level was significantly higher than the pre knowledge level (see Figure 3). The pre knowledge grand mean was 2.88 (SD .69) on the five-point scale, and the post grand mean was 4.50 (SD .37) ($t = -17.35, p < .001$). Comparing the grand means for the experienced and less experienced school nurses, the same overall pattern was found: post grand means were significantly higher than pre grand means. See Table 1 for a summary of these data.

Figure 3 Comparison of Grand Means for total group and by experience level.

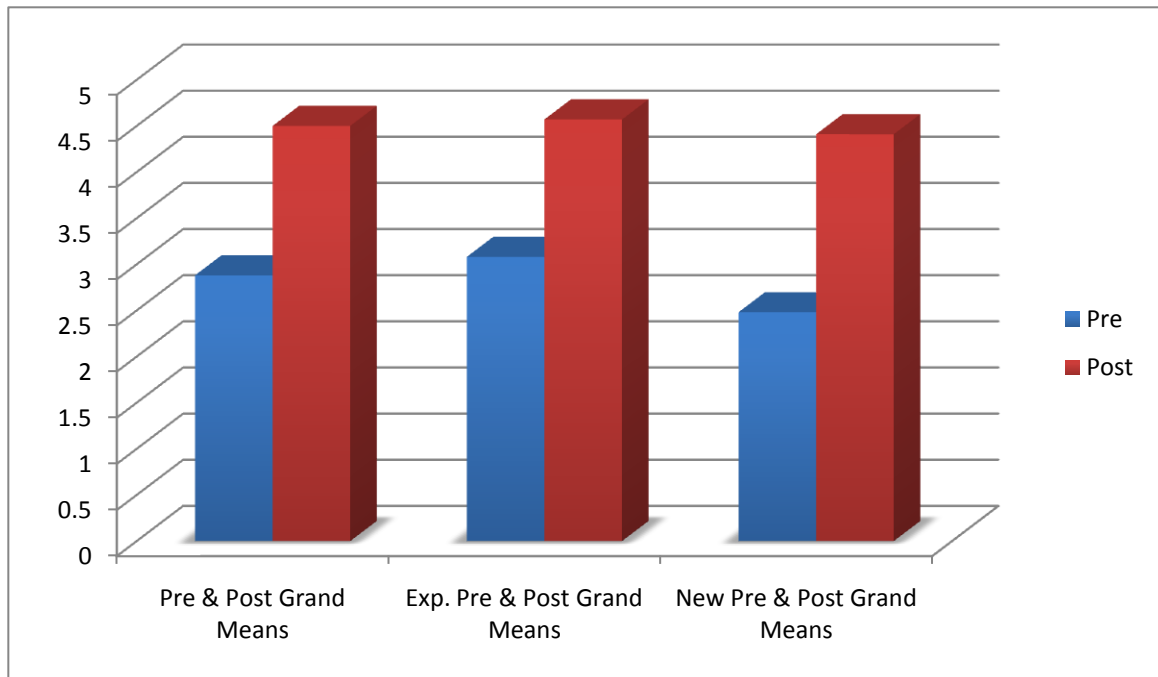


Table 1. Grand means compared using t-tests.

Grand Means	Pre (SD)	Post (SD)	t	p
Total Group	2.88 (.69)	4.50 (.37)	-17.35	p<.001
Experienced	3.08 (.71)	4.57 (.31)	-12.80	p<.001
New	2.48 (.47)	4.41 (.46)	-14.17	p<.001

A final analysis was done comparing the experienced and new (inexperienced) school nurses' pre and post grand means. See Figure 3 for a visual comparison of their grand means. Although the experienced group grand mean (3.07) was significantly higher than the new group grand mean (2.50) ($t=-3.28$, $p=.002$), The experienced (4.57) and new groups (4.37) were not statistically significantly different on their post grand means ($t= - 1.86$, $p=.07$). In other words, these data support what was reported in Figure 2 regarding the differences in the two groups at the beginning of the program (experienced school nurses had more knowledge), but at the end of the program, experienced and new school nurses were not significantly different in their knowledge levels. These results provide further evidence of the program content and delivery effectiveness.

Participants were also asked to provide feedback on the most beneficial aspects of the program content. A quick content analysis of participant comments indicated that they found legal and ethical issues, laws, mandates, policy information, and current issues in education as most beneficial. In addition, participants were asked to list other topics they felt should be covered in the course. The majority of participants left this section blank or indicated that the program content covered everything they could think of. The suggestions that were made by participants for topics to be included are being reviewed by program faculty to determine whether the suggested content had actually been included, needed to be expanded, or was missing from the courses. This information will be used to inform program faculty when they review and update the content of the program.

School Nurse Services Credential Program
2008-2009 and 2009-2010

POST KNOWLEDGE BASE ASSESSMENT COMMENTS BY CANDIDATES

Faculty response after reviewing candidates' comments regarding subject matter and/or clinical experiences that they would like to see covered in the program.	
Reported as Most beneficial Number following topic = no. of candidates reporting	Like to See Covered
<p>Attending school nurse meeting and conferences Attention Deficit Hyperactive disorder (1) Adolescent health issues, includes mental health (5) Blackboard presentations (1) Bullying issues and SN responsibility (1) CA Health Framework (1) Case management (2) Child abuse issues (1) Children with special needs (11) Clinical hours (1) Communicable Disease Control (2) Community programs and involvement (3) Coordinated school health programs (7) Counseling Techniques (1) CSNO/NASN, learning about organizations (4) Cultural issues and differences (6) Current issues in education (3) District funding (1) Education Code and other laws (16) Emotional disturbance, school refusal (1) Ethical dilemmas (1) Evidence based practice (1) Families at risk (3) Health care plans, IHPs (1) Health curriculum review (1) Health Education standards (1) Health promotion (9) Home visits (2) Health teaching (2) IEP, Individual Education Planning experience (12) Interdisciplinary paper (1) Issues related to secondary school nursing practice (2) Laws related to IDEA, HIPAA, FERPA (1) Laws related to special education (5) Learning disabilities (2) Legal issues in school nursing practice (21) Legal process (2) Legislative paper assignment (2)</p>	<p>Note:</p> <ul style="list-style-type: none"> • If already addresses in the program, note * • If experience relates to candidate choice with goals and objectives in practicum, see ** • If subject matter may need further emphasis in program, see *** • If subject matter is not a program responsibility, see **** <p>***Implementing research project **Meeting with city officials to discuss task force ***preventing gang related activities ****Strategic and financial planning ***Non-traditional education *Litigation protective measures ***Tips on communicating with teachers/admin. ***Working with illegal immigrants - resources *Scholarship availability **Writing a "short IHP (samples other than book) ***Support groups for drug/alcohol dependent teens, e.g. AA, Cocaine Anonymous, Al-Anon, Nar-Anon ***Specialized procedures ***Neurologic testing/other tests ***Dealing with noncompliant parents *Ways to prioritize your time and become more efficient ***Best practice in case management *Time management: juggling multiple schools ****How to get other organizations to teach for you ***More emphasis on mental health issues/at risk *More on eating disorders in adolescents ***Increasing parent involvement and responsibility ***How the SN deals with the death of a student ***Understanding the RIF process *Pandemics ***More in depth regarding gifted and talented students</p>

<p> Managing unlicensed assistive personnel (1) Medi-Cal billing (2) Mental health issues, elementary and secondary (3) Middle school experience (1) Networking with fellow classmates (4) Newsletter assignment (1) Organization and documentation (1) Policies and procedures (1) Preceptor experience (1) Promoting the image of school nursing (1) Resource articles (1) Risky behavior and substance abuse (4) Role of the school nurse (4) SARB – School Attendance Board Review (5) School nurse leadership development (1) School nursing parameters (1) Scoliosis issues and screening experience (1) Screening for Acanthosis Nigricans (diabetes II) (1) Sexually transmitted diseases (1) Small group facilitating activity/assignment (1) Special Ed. Experience (7) Standards of School Nursing Practice (10) State mandated screening techniques (8) Secondary school nursing practice (3) Secondary school violence issues (1) Sports injuries (2) Sun Wise program implementation (1) Teaching anti-tobacco curriculum (1) Teen legal rights (3) Teen pregnancy issues and programs (6) Websites (2) </p>	<p> The topics that have 3 asterisks (***) are topics that faculty will discuss plans to incorporating these topics into clinical discussions in practicum courses. </p> <p> Note: Neurological screening (QNST/Denver Developmental) has been offered in a separate one unit course as an elective in previous years during summer sessions. Due to lack of enrollment numbers in recent classes, courses needed to be cancelled. Faculty believes that knowledge of neurological screening skills is important in school nursing practice. For this reason faculty will be discussing ways in which to offer a workshop or to incorporate neurological screening skills into core school nurse courses in the near future. </p>
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