#### 2016-2017 Child and Family Science Assessment Report

Please download this document and provide a response to each question in the appropriate section. Send your assessment reports to the Director of Assessment, Dr. Melissa Jordine (<u>mjordine@csufresno.edu</u>). (Reports can be sent to Dr. Jordine via campus mail to mailstop SS 21). Please complete a separate report for each B.A/B.S. and M.A/M.S. program offered by the department.

1. What learning outcome(s) did you assess this year? List all program outcomes you assessed (if you assessed an outcome not listed on your department SOAP please indicate explain). Do not describe the measures or benchmarks in this section Also please only describe major assessment activities in this report. No GE assessment was required for the 2016-2017 academic year.

Note: We revised our SOAP in September 2017. The learning outcomes we list here are reflected on the previous SOAP (from 2015) and may be slightly different from the current version. But they were in place when we planned and executed these assessment activities.

#### **Direct Measure: Knowledge**

The first learning goal for the Child and Family Science programs is knowledge. The second outcome in this area is (1b) is knowledge of milestones of development at various ages, the third (1c) is research methods, and the fourth (1d) is the influence of law and society on children and families. These knowledge outcomes were assessed using our departmental qualifying exam.

### Indirect Measure: Knowledge, Skills, Dispositions

We used a senior survey to indirectly assess many of our learning outcomes including knowledge (1b), skills for professional success (2e), writing skills (2c), and engaged citizenship (3c).

### **Direct Measures: Critical Thinking**

We used two direct measures of critical thinking. Under the goal that students will effectively apply cognitive, technical, and interpersonal skills, we include a learning outcome (2a) that states "Graduates will be able to apply critical thinking, problem-solving, decision-making, and self-reflection skills through classroom and practical experiences."

2. What assignment or survey did you use to assess the outcomes and what method (criteria or rubric) did you use to evaluate the assignment? If the assignment (activity, survey, etc.) does not correspond to the activities indicated in the timeline on the SOAP, please indicate why. Please clearly indicate how the assignment/survey is able to measure a specific outcome. If after evaluating the assessment you concluded that the measure was not clearly aligned or did not adequately measure the outcome please discuss this in your report. Please include the benchmark or standard for student performance in your assessment report (if it is stated in your SOAP then this information can just be copied into the report). An example of an expectation or

standard would be "On outcome 2.3 we expected at least 80% of students to achieve a score of 3 or above on the rubric."

## Direct Measure: Knowledge

Knowledge was assessed in Child and Family Science students using a Qualifying Exam for graduating seniors that is required of all students in a culminating experience class (CFS 139, 145b, and 193). In the past, we have reported results of a Comprehensive Exam, offered to graduating seniors that covered multiple core major classes. We have transitioned to the use of a shorter Qualifying Exam that covers only our three pre-major classes. New students are required to pass the Qualifying Exam before being allowed to take core major classes. But in 2017, the majority of students who took the Qualifying Exam were graduating seniors in their capstone class.

The benchmark for success is that 80% of graduating seniors pass each component of the Qualifying Exam with at least 70% correct answers.

# Indirect Measure: Knowledge, Skills, Dispositions

Indirect Assessment was conducted using a survey of graduating seniors. It was administered near the end of the semester in each of our three culminating experience classes for Child Development and Family Science (CFS 139, 145b, and 193). There are three sections of the survey: 1) Demographic information about the student, 2) Evaluation of the degree program (this is the section analyzed for outcomes assessment purposes), and 3) the student's employment and graduate school plans for the future.

The complete senior survey is attached. The benchmark for success is that at least 80% of graduating students agree or strongly agree with items evaluating the program.

# **Direct Measures: Critical Thinking**

# **Card-Sorting Task**

Replicating the work of Smith et. al (2013) I created a card-sorting task relevant to child development intentionally using two dimensions: developmental stage, and theory. I conceptualized developmental stage as a surface-level way to categorize information about child development. Age is easily recognizable even by people without training in the discipline of child development. Four developmental stages were used: 1) infancy, 2) early childhood, 3) middle-childhood, and 4) adolescence. On all cards, the age of the child was very clearly indicated. However, I did not use these exact words on each card. For instance, one Infancy card refers to "the first year of life" and another refers to "babies".

I conceptualized theoretical framework as a deeper, more conceptual way to categorize information about child development. I used four theories that are

foundational to the discipline, and about which our students learn in multiple courses. The theories included were: 1) Attachment Theory, 2) Erickson's Psychosocial Stages, 3) Piaget's theory of cognitive development, and 4) Behaviorism. As with the references to age, I did not use the same key words for each theory on every card. The sixteen cards (see Figure 1) each contained a statement that reflected both a theory and a developmental stage. For instance, one card addressed attachment in infancy, one addressed attachment in early childhood, and so on. Another card addressed Erikson's theory in infancy, another addressed Erikson's theory in early childhood, and so on.

		Hypothesized Dee	ep Feature: Theory	
	Attachment Theory	Erikson	Piaget	Behaviorism
Infancy	Attachment relationships form in the latter half of the first year of life.	During the first year of life, babies must determine if the world can be trusted.	Infants develop object permanence near the end of the first year.	Infants learn through classical conditioning when they associate bath with bedtime.
Early Childhood	Young children use their caregiver as a secure base from which to explore.	Early childhood is the time when children typically establish a sense of initiative.	Preschoolers can't perform mental tasks, such as conservation and seriation.	Young children can be taught to use the toilet through reinforcement of new skills.
Middle Childhood	School-age children have better peer relationships when they have a secure relationship with parents.	Middle childhood is characterized by children working hard to learn things.	School-age children use concrete operations, so they can think logically about physical objects.	Teachers often rely on external motivators to support learning in middle childhood.
Adolescence	Teenagers begin to form secure base relationships with friends and romantic partners.	Teens are generally busy establishing their sense of identity.	Cognitively, adolescents acquire the ability to reason about abstract issues.	Punishment is not an effective way to teach adolescents, in fact it is dangerous.

Figure 1: Child Development Card-Sort

Students were provided with these sixteen cards and asked to group them together in whatever manner made the most sense to them. They were instructed to make at least two groups, but were given no other instruction. I predicted that novice students would either not use either of the hypothesized categories or use only the hypothesized shallow feature (developmental stage) to categorize the cards, and the advanced students would use the hypothesized deep feature (theory) to categorize the cards. In order to test this hypothesis, I analyzed the percent card pairings, a technique described by Smith et. al (2013).

Essentially each card-pairing is identified as one that would, or would not, have been hypothesized by a deep feature, and separately, by a shallow feature. So if a student put the Attachment Theory in Infancy card along with the Attachment theory during adolescence cards together, then that pairing would be hypothesized by the deep feature of theory, but it would not be hypothesized by the shallow feature of developmental stage. On the other hand, if a student categorized the Erikson in early childhood card with the Behaviorism in middle childhood card, that would not be hypothesized by the deep feature of theory, but it would not be

shallow feature of age. So every single pair of cards in the students' categories was coded as hypothesized by the deep feature (yes or no) and hypothesized by the shallow feature (yes or no). Therefore, each student was assigned a score for deep features (the percent of their pairings that were hypothesized according to theory) and a score for shallow features (the percent of their pairings that were hypothesized according to according to the percent of their pairings).

In addition, each pair was identified as one that was unexpected by either hypothesized grouping or not. For instance, if a student put the Attachment theory in early childhood card with Piaget's theory in adolescence card, that pairing would not have been predicted by either shallow or deep hypothesized categories, and the pairing is therefore unexpected. Each student was also assigned a score for unexpected pairings (the percent of pairings that were not hypothesized by deep or shallow features). Cards in categories by themselves were counted as unexpected categories.

We hoped to see progress such that advanced students would use more shallow and deep categories, as opposed to unexpected pairings, than would novice students. Given that this project created the card-sort activity for this discipline, we could not predict the prevalence of these categories, we could only hope to see change.

# **Child Development Pseudoscience Inventory**

In order to assess decision-making about information in our discipline, I developed a list of fifteen statements that reflect common misconceptions, many of which are clearly pseudoscientific nonsense, in the field of Child Development. Some are clearly false (such that agreement would reflect an epistemically unwarranted belief) and others are stated in the reverse and so are true (such that disagreement would reflect an epistemically unwarranted belief) and others are stated in the reverse and so are true (such that disagreement would reflect an epistemically unwarranted belief). The scale was constructed this way in order to reduce the impact of a response set. The true items were reverse coded so that they could be combined with the false items to measure epistemically unwarranted belief.

	A	В	C	D	E
Si	ure it's false	Uncertain, but think it's false	Really don't know	Uncertain, but think it's true	Sure it's true
1	L. Routine child	hood vaccines cause deve	lopmental problems suc	h as autism in some childre	en. (FALSE)
2	2. The quality o	of early parent-infant relati	onships meaningfully pre	edicts health and happines	s later in life. (TRUE)
3	3. Putting babie	es to sleep on their backs,	instead of on their tumm	ies, reduces the risk of SID	)S death. (TRUE)
4	1. Humans only	vuse about 15% of their br	ains at any one point in t	ime. (FALSE)	
5	5. If caregivers	respond immediately whe	n a baby cries, the baby l	earns to cry more. (FALSE)	)
6	6. Children who	ose parents divorce are so	damaged by the experie	nce that most never fully r	ecover. (FALSE)
,	7. It is possible to be severe	to genuinely believe that y ly distorted. (TRUE)	you remember something	g that never actually happ	ened, or for a memory
8	3. Humans and (TRUE)	chimpanzees once shared	a common ancestor, and	d these species diverged m	nillions of years ago.

Figure 2: Epistemically unwarranted beliefs in child development

- Listening to Mozart, or other classical music during gestation and infancy improve the child's later math skills. (FALSE)
- 10. Authoritative Parenting, characterized by both warmth and guidance, consistently produces the best outcomes. (TRUE)
- 11. Satanic cults in many communities in the US kidnap children for ritual sexual abuse. (FALSE)
- 12. Parents and teachers should frequently praise children to raise their self-esteem. (FALSE)
- 13. Disciplining children with corporal punishment (spanking) makes them more compliant with adult rules in the future. (FALSE)
- 14. Eating a lot of sugar makes kids hyper. (FALSE)
- 15. Fluoride is added to public water supply for the sole purpose of reducing tooth decay, and has been shown to be effective at this, with no adverse effects. (TRUE)

The average pseudoscience score is simply the mean of agreement on these items (with the appropriate items reverse coded). As this instrument has not been normed in the published literature, we could not anticipate the scores we expected from our students. We only hoped for statistically significantly less belief among advanced students as compared to novice students.

**3.** What did you discover from the data? Discuss the student performance in relation to your standards or expectations. Be sure to clearly indicate how many students did (or did not) meet the standard for each outcome measured. Where possible, indicate the relative strengths and weaknesses in student performance on the outcome(s).

### Direct Measure: Knowledge

125 students took the qualifying exam in Spring 2017, most of whom (107) were seniors enrolled in a capstone class. In order to get an assessment of graduating seniors, the following analysis is limited only to those 107 seniors who are close to graduation.

	Average Score	Percent of Students Scoring 70% or Better
Child Development	69.8%	59%
Family Science	60.8%	21%
Research Methods	66.2%	43%
Total Score	66.0%	31%

The average score on the Qualifying Exam was 66%. Furthermore, a bit less than one-third of our students achieved a passing score. Obviously, we are nowhere near our target of 80% of students scoring a 70% or better on our qualifying exam on their first attempt. However, this is just what had been expected. We know from several years of a comprehensive exit exam that foundational information from our introductory courses has not been retained by many of our upper division students. It is creating high fail rates and bottlenecks in our upper division coursework.

# Indirect Measure: Knowledge, Skills, Dispositions

Results of the Senior Survey from spring 2017 are presented here alongside the results from previous years. The table below presents average scores (from 1=strongly disagree to 5=strongly agree), as well as percent who agree or strongly agree with items asking students to evaluate their degree program.

	2014	2015	2016	2017
Number of students surveyed	92	98	116	101
My major coursework gave me a strong	4.7	4.6	4.6	4.7
knowledge base in my field.	(99%)	(99%)	(94%)	(99%)
I have learned how to conduct myself	16	15	16	15
professionally in accordance with the ethics and	(95%)	(95%)	(01%)	4.5 (07%)
standards of my discipline.	(3578)	(3578)	(3470)	(3778)
I received adequate academic advising to help me	4.0	3.9	3.8	3.8
navigate my educational path while in this major.	(67%)	(79%)	(60%)	(61%)
My major coursework adequately prepared me for	4.3	4.2	4.2	4.3
full-time work in my discipline.	(92%)	(82%)	(79%)	(86%)
My major included classes that were a waste of	2.0	2.0	2.5	2.2
my time.	(12%)	(7%)	(28%)	(17%)
Classes in my degree program were too difficult	2.6	2.6	2.5	2.3
	(19%)	(23%)	(17%)	(7%)
Classes in my degree program were too easy	2.4	2.3	2.3	2.3
	(9%)	(8%)	(5%)	(3%)
I received adequate guidance to help me choose a	3.4	3.6	3.3	3.4
career path in my discipline.	(52%)	(56%)	(38%)	(42%)
I became a better writer because of the classes I	4.0	3.8	3.7	3.8
took in my major.	(76%)	(61%)	(64%)	(69%)
Most coursework for my major was interesting and	4.5	4.6	4.4	4.6
useful.	(100%)	(96%)	(92%)	(95%)
The classes in my major helped me to become a	4.5	4.5	4.4	4.5
better human being.	(95%)	(92%)	(87%)	(89%)
My coursework inspired me to become an	4.5	4.2	4.1	4.1
engaged citizen.	(95%)	(82%)	(81%)	(79%)
My classes in my major were intellectually	4.6	4.5	4.3	4.5
stimulating, and excited me about my field.	(97%)	(92%)	(88%)	(94%)
The faculty in my program were responsive to my	4.4	4.2	4.2	4.5
needs and interests.	(92%)	(83%)	(80%)	(90%)

Overall, our graduating seniors are very happy with our program. They believe that their knowledge base is strong, and that they are well-prepared for their careers. Our classes are interesting and useful, our faculty are responsive, and students feel tended to as human beings and citizens as well as students.

The primary area of concern is advising (both academic and career). We do not meet our benchmark for either type of advising. Career guidance has been an identified area of concern for some time, going back to our most recent two program evaluations. Satisfaction with academic advising has declined as the advising load became burdensome with the increase in number of students and a decline in the number of faculty. We have since shifted academic advising to the Jordan College Advising and Career Development Center. We believe that the change has been an improvement, but we acknowledge that for students, it might be more difficult to go to a different building to meet with someone they do not know as a professor. We had hoped that, as the change became normal, the rating for academic advising would bounce back up. The shift to the advising center happened in January 2016, so we suspect that a lot of our graduating seniors in 2017 remember it the old way, and it's just too early to see a bounce.

# **Direct Measures: Critical Thinking**

We discovered that both card-sorting and pseudoscience beliefs are significantly different between the novice and advanced students, suggesting that their critical thinking improves during the course of the program.

	Novice	Advanced	
	Students	Students	
	N=67	N=55	ANOVA
	Mean	Mean	
	(Standard	(Standard	
	Deviation)	Deviation)	
Percent Shallow Categories	41% (.25)	36% (.15)	F=0.97, p=.326
Percent Deep Categories	22% (.15)	43% (.36)	F=21.84, p<.0001
Percent Unexpected Categories	37% (.16)	21% (.17)	F=29.64, p<.0001
Average Pseudoscience Beliefs	3.3 (.51)	2.3 (.50)	F=102.09,
			p<.0001

Table 2: Critical Thinking Outcomes

With regard to the card-sorting activity, the advanced students were more likely to use deep categories (43% versus 22%) and less likely to use unexpected categories (21% versus 37%). The use of shallow categories, however, was not significantly different between the two groups. In addition, the advanced students were significantly less likely to endorse epistemically unwarranted beliefs related to child development.

# **Novice Student Group**

Within the novice group, a large number of students seemed to believe that they had quite advanced knowledge about child development. I had not anticipated this, and so wondered who these false experts were, and whether their self-report about expertise could be believed. Therefore, I divided the novice group into two categories: the false experts (n=21) and the honest novices (n=48). The false experts offered a self-rating of their knowledge as intermediate (defined as: "I have good foundational knowledge

of some aspects of child development") or advanced (defined as: "I have thorough foundational knowledge of child development"), but they reported having zero or one previous class in child development. The honest novices reported a self-rating of knowledge as either novice ("I don't know anything about is yet, it's all new to me") or beginner ("I know a few things, but there's much more than I don't know").

The first thing I explored was the students' declared majors. More than half of students in the novice group are officially registered as Liberal Studies majors (41 out of 69 = 69%), with a much smaller number being registered as Child Development majors (14 out of 69 = 20%). Consequently, a very large portion of the false experts are Liberal Studies majors (60%), but Liberal Studies majors make up roughly the same proportion of honest novices (57%). So the explanation is NOT that they have taken several child-related classes due to their major, and therefore feel entitled to claim expertise.

Next, I looked for objective evidence of expertise, and compared the two groups.

	False Experts (n=21)	False ExpertsHonest Novices(n=21)(n=48)	
Grade in the class	2.20	2.00	NS
Cumulative GPA after the semester ended	2.85	2.87	NS
% unexpected categories	40.7%	35.4%	NS
% shallow categories	36.8%	43.0%	NS
% deep categories	22.6%	21.6%	NS
Average pseudoscience belief	3.46	3.31	NS

Table 3: False Experts versus Honest Novices

These comparisons are striking. The false experts are identical to the honest novices on every outcome I explored. The only difference seems to be that their self-appraisals are inaccurate.

# **Advanced Student Group**

The purpose of outcomes assessment is to evaluate whether students achieve the outcomes that we have identified as important goals of our curriculum, and this is normally accomplished by assessing students who are near the end of their degree program. Therefore, now that we have established the validity of our measures, we turn to an analysis of critical thinking among our graduating seniors. How are they doing?

We can start with a comparison. The card-sorting study that I replicated here reported the percentage of matched cards that had been predicted by the shallow categories, by the deep categories, and that had been unexpected. Our advanced students fell somewhere in between, which is exactly what we would have expected. They were less likely to use shallow categories than were introductory students, but more likely to use them than were faculty. They were more likely to use deep categories than introductory students, but less likely than were faculty. And finally, they were less likely to use unexpected categories than were introductory students, but they used them about as much as the faculty did.

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	COMPARISON:	COMPARISON:	Our
	Smith et al	Smith et al	Graduating
	Introductory	Tenure Track	Child
	<b>Biology Students</b>	<b>Biology Faculty</b>	Development
			Seniors
% Shallow Categories	40%	9%	36%
% Deep Categories	29%	72%	43%
% Unexpected Categories	30%	20%	21%

#### Table 4: Categorization of Knowledge Among Graduating Seniors

Without data normed on Child Development students, this is the best I can do to determine if our graduating seniors are on track. In future years, we can use longitudinal methods to see if our students improve over time. And now we will be able to use these data as a baseline to see if future cohorts display progressively better critical thinking skills when we attempt interventions to promote critical thinking. The prevalence of epistemically unwarranted belief, similarly, is difficult to interpret because we don't have a specific target. We would hope that our graduating seniors would reject all epistemically warranted beliefs in their chosen discipline, but prior research suggests that this is unlikely or even impossible.

Data on epistemically unwarranted beliefs were measured according to a Likert scale ranging from 1 (certain that it's false) to 5 (certain that it's true). To dichotomize scores into belief or disbelief, I interpreted a score of 4 or 5 to indicate belief, a score of 1 or 2 to indicate disbelief, and a score of 3 is not classified as either.

Table 5. Frevalence of chisterincary onwarranted benefs					
	Percent who believe the	Percent who disbelieve the			
	false claim	true claim			
FALSE CLAIMS					
Vaccines cause autism (FALSE)	3%				
15% of brain used (FALSE)	32%				
Responding to cries makes babies cry more (FALSE)	24%				
Divorce permanently damages most children (FALSE)	12%				
Mozart Effect (FALSE)	40%				
Satanic Ritual Sexual Abuse (FALSE)	20%				
Praise builds self-esteem (FALSE)	26%				
Spanking produces compliance (FALSE)	6%				
Sugar makes kids hyper (FALSE)	56%				
TRUE CLAIMS					

Table 5: Prevalence of Epistemically Unwarranted Beliefs

Attachment predicts outcomes (TRUE)	8%
Supine sleep reduces SIDS (TRUE)	12%
False memories are possible (TRUE)	16%
Human evolution (TRUE)	32%
Authoritative parenting is best (TRUE)	6%
Fluoride in water is safe (TRUE)	26%

It is disturbing, though not particularly surprising, that half of our graduating seniors believe incorrectly that sugar makes kids hyper, that 40% believe that listening to classical music makes kids better at math, and that a quarter to a third believe wrongly that humans only use a small fraction of their brain power, that responding to cries makes babies cry more, that praise builds kids' self-esteem, and that a similar proportion reject human evolution and the safety of fluoride in water. Clearly, we still have work to do.

Finally, I also explored whether the card-sorting activity and pseudoscience beliefs were associated with other indicators of academic learning and achievement. As all of these variables are continuous, I used correlation coefficients for this analysis.

		1.	2.	3.	4.	5.	6.	7.
1.	% Shallow Categories	1.00						
2.	% Deep Categories	<mark>885</mark> p<.0001	1.00					
3.	% Unexpected Categories	222	257	1.00				
4.	Avg Pseudoscience Belief	.004	100	.201	1.00			
5.	Cum GPA	170	.322* p<.023	<mark>329*</mark> p=.020	279	1.00		
6.	Comprehensive Exam Score	.173	.060	<mark>493**</mark> p<.0001	<mark>389**</mark> p=.008	<mark>.343**</mark> p=.006	1.00	
7.	Grade in Theory Class	126	.267	<mark>310*</mark> p=.032	<mark>362*</mark> p=.012	<mark>.624**</mark> p<.0001	.339** p=.007	1.00

These analyses suggest an interesting interpretation of the results of the card-sorting activity. The use of shallow categories was not significantly correlated with any other indicator of learning. The use of deep categories (theory) was positively correlated with cumulative GPA, but surprisingly, it was not related to the student's performance in the advanced theory class or the comprehensive exam score. However, and rather strikingly, the use of unexpected categories was significantly and strongly correlated with all other indicators of academic achievement. It was negatively correlated with cumulative GPA, with comprehensive exam score, and with grade in the advanced theory class. It appears that, at this level of education, we should expect students who are performing well to reduce the use of unexpected categories rather than to (more narrowly) start to organize their knowledge through theory. Organizing by

developmental stage is also a reasonable goal for seniors who have mastered the content of their major.

4. What changes did you make as a result of the data? Describe how the information from the assessment activity was reviewed and what action was taken based on the analysis of the assessment data.

As usual, department faculty worked together to create these measurement tools, to collect data from the relevant classes, and to discuss the results after they had been analyzed by the assessment coordinator.

# Direct Measure: Knowledge

We have included the comprehensive exam (now qualifying exam) as part of our outcomes assessment for several years now. Therefore, we have spent the last several years addressing the issue of inadequate knowledge among our graduating seniors. It continues to be alarming to us. Furthermore, we note the discrepancy between their self-reported knowledge base and their demonstrated knowledge on an objective exam.

We have made multiple curriculum changes that are slowly coming on board as they finish making their way through curriculum committees. These changes include:

- Introduction of a pre-major that forces students to take research methods early in their curriculum, and allows students to declare our major only if they perform satisfactorily in those classes and on a Qualifying Exam. Therefore, we expect our majors to have much stronger knowledge of research methods.
- Reducing the number of major electives and replacing those units with additional upper division developmental classes. In the past, students chose one upper division developmental class (Infancy, Middle Childhood, or Adolescence). Now, we added a new developmental class (Early Childhood) and majors are required to take all of these. Therefore, we expect our majors to have much stronger foundational knowledge in child development.
- Our introductory family science class used to be an elective, now it is a requirement for all students, and it is a pre-major class. Therefore, we expect our majors to have much stronger foundational knowledge in family science.

As our new curriculum takes shape, we have begun to notice problems with the sequence of our classes. We have decided to add a series of prerequisites to our upper division classes. While this has the potential to slow students down as they move through our curriculum, we expect that it will improve their chances of success, thereby reducing failures and minimized curricular bottlenecks. Course change proposals to add prerequisites will be submitted during Fall 2017 semester.

# Indirect Measure: Knowledge, Skills, Dispositions

We have also been using this Senior Survey for multiple years, therefore, we have been discussing the issues identified there. The two areas of concern are advising, and the development of writing.

We added CFS 100 to our curriculum, which is an introduction to careers within our discipline. It was offered for the first time in spring 2017. It was very popular, but it was only one section and it is not required for students on an older catalog. Therefore, most graduating seniors have not had the benefit of this class. We believe that students' evaluation of career advising will improve once all students are required to take CFS 100.

Another change we have recently made is to add a W course in our major. We debuted our new W class (CFS 130W) in spring 2017. Therefore, we hope to see that area rated more highly once students are required to take that class.

# **Direct Measures: Critical Thinking**

Department faculty discussed the results of the critical thinking research at a meeting early in the fall semester, and we expect that we will continue to return to important themes as the year goes by. We noted that the problem of the so-called "False Experts" in our introductory course might be the same as problem of high confidence regarding knowledge among seniors despite low performance on our objective measure of knowledge. False confidence could be an impediment to learning for those who think they are already experts. On the other hand, our graduates are very pleased with the program they completed, and we recognize the value of them leaving with enthusiasm and confidence. So we do not know yet if, much less how, we want to address this. At this point, our awareness has been raised.

We are also pleased to note that students in our program seem to think more critically after going through our curriculum. One change that has been made is an agreement to adjust the way we teach our research methods class (CFS 153). The literature on epistemically unwarranted beliefs clearly supports explicit instruction about non-science, rather than teaching research methods and hoping students can infer how to recognize non-science. This project forced us to come up with a list of epistemically unwarranted beliefs relating to child development, which has raised our awareness of these issues. We now have a section of our Research class explicitly devoted to identifying pseudoscience in Child Development.

5. What assessment activities will you be conducting in the 2017-2018 AY? List the outcomes and measures or assessment activities you will use to evaluate them. These activities should be the same as those indicated on your current SOAP timeline; if they are not please explain.

The Child and Family Science SOAP submitted in 2015 is being replaced by a recently revised one. The SOAP needed revision for the following reasons:

- 1. **Comprehensive Exit Exam** We have eliminated the regular use of the Comprehensive Exam for graduating seniors, therefore, it cannot be our primary and annual instrument for the assessment of knowledge. Instead, we will administer the Comprehensive Exam to one class of graduating seniors every five years. That will be used to test the effectiveness of curricular changes that are currently in progress.
- 2. **Qualifying Exam:** We have recently implemented the use of a Qualifying Exam, administered to those students who want to move from our new premajor into the major. Therefore, we will use the CFS Qualifying Exam to test for foundational knowledge of students who have only been exposed to the most foundational coursework.
- 3. **Alumni Survey** We conducted an alumni survey only two years ago. It was a tremendous amount of work, and the yield was marginal due to difficulties with response rate. Frankly, we are not willing to tackle this every two years. We will plan to do this every five years instead of every two years.
- 4. **Core Competencies** We have modified the goals and objectives of our degree program to reflect a greater emphasis on the core competencies identified by WASC. We have added "critical thinking," "quantitative reasoning", and "information literacy" because we want to assess these competencies within the specific context of our discipline.

The revised SOAP lists two regular activities (Qualifying Exam, and Senior Survey) as well as one occasional activity (Writing Quality) for the 2017-18 academic year. We intend to abide by this schedule.

- 6. What progress have you made on items from your last program review action plan? Please provide a brief description of progress made on each item listed in the action plan. If no progress has been made on an action item, simply state "no progress."
- 1. Restructure the degrees such that BS is called "Child and Family Science" and has two options: 1) Child Development, and 2) Family Science, and such that the BA is called "Fashion Merchandising".
  - The request to change these degree names has, as of 9/26/2017, been approved by curriculum committees at the college and university levels, and by the Academic Senate. Dr. Xuanning Fu is now forwarding it to the Chancellor's Office for final approval at that level.

- 2. Design a mechanism for faculty to work on independent research with students.
  - The department is considering options for this, but it has not yet been resolved.
- 3. Hire tenure-track faculty in the area of early childhood education.
  - Progress on this action plan is dependent on having a search approved by the Dean's Office, which is dependent on funding being available for the position. Therefore, we are entirely at the mercy of circumstances outside of our control. We will submit a request for a hire during the 2017-18 year, hoping to be approved to conduct a search during the 2018-19 year.
- 4. Change the CFS curriculum by a) requiring a pre-major, b) managing enrollment in CFS classes, c) reducing electives, thereby requiring a more cohesive and stronger CFS core, d) include an introductory class to the discipline for career guidance, and e) require a sequence of courses such that expertise can build as students move through the curriculum.
  - These curricular changes were approved by curriculum committees at the college and university levels, and partially went into effect in fall 2016, with the rest going into effect in fall 2017. Therefore, we are currently in a time of transition, when most of our students are on the old curriculum, but a few are trickling in on the new one. We staggered the pre-major requirement, such that in 2016-17 we allowed transfer students to come directly into the major rather than going through the pre-major. It is just this current semester that we finally required transfers to enter on the pre-major. Therefore, we are currently working out the issues that are emerging with the new curriculum.
- 5. Prioritize the balance of support of research agendas of our tenured/tenure-track faculty with provision of required courses for students.
  - This is an item on which there has been little to no progress. Currently, the Dean has allowed us to hire part-time instructors to compensate for release time for our new hires and for release time (and then some) provided by grants. We have also been allowed to add sections of courses to accommodate the increased need during the transition between the old and new curricula. The support of the Dean's Office has been generous. But the need to teach required courses is pressing, and our faculty have been equally generous in the way they have accepted their teaching assignments, and worked collaboratively with one another, so as to provide our curriculum. I would probably have to say that balance has not been achieved....that curricular needs still override support for the research agendas of our faculty. Sore points include the lack of release time available for coordinating a graduate program and the necessity to work voluntary overload if faculty want to offer research labs.
- 6. Arrive at an agreement regarding the future of the Fashion Merchandising program.
  - Over summer 2017, the Fashion Merchandising program coordinator (Dr. Lizhu Davis) submitted a formal proposal for the program to be moved into the Department of Marketing and Logistics in the College of Business. This proposal has been accepted, the respective deans have agreed that the move will happen at the end of the current semester, and Provost Zelezny has approved this plan.

**Additional Guidelines:** If you have not fully described the assignment then please attach a copy of the questions or assignment guidelines. If you are using a rubric and did not fully describe this rubric (or the criteria being used) than please attach a copy of the rubric. If you administered a survey please consider attaching a copy of the survey so that the Learning Assessment Team (LAT) can review the questions.

We have attached our Senior Survey.

We have NOT attached our CFS Qualifying Exam, for the obvious reason that the exam questions need to be carefully protected to prevent cheating. A committee of several department faculty conducted a careful review of the exam questions during the fall 2016 semester, and shares the opinion that it is a fair measure of foundational knowledge in the three areas specified (child development, family science, and research methods).

The card-sort activity and the measure of epistemically unwarranted beliefs are included in the text of this report.

# **CFCS Senior Survey**

# Spring 2017

This survey is being administered by the Department of Child, Family, and Consumer Sciences at California State University, Fresno for the purpose of evaluating the effectiveness of all of our programs. This includes majors of Child Development, Family Science, and Fashion Merchandising. Your cooperation in completing the survey will help to improve the educational programs for future students.

# Please make sure to start marking answers on **Side A** of the Scantron, and write your name and student ID on it.

# **Information About You**

- 1. What is your major?
  - a. Child Development
  - b. Child Development Pre-Credential
  - c. Family Science
  - d. Fashion Merchandising
- 2. Which capstone class are you taking this semester?
  - a. CFS 139
  - b. CFS 145b
  - c. CFS 193
  - d. FM 140
  - e. None
- 3. What is your current GPA, approximately?
  - a. Less than 2.0
  - b. 2.0-2.5
  - c. 2.6-3.0
  - d. 3.0 3.5
  - e. 3.6 4.0

- 4. When do you anticipate that you will graduate?
  - a. May 2017
  - b. August 2017
  - c. December 2017
  - d. May 2018
- 5. What is your gender?
  - a. Male
  - b. Female

Please identify your race/ethnicity, marking "no" or "yes" for each category.

- 6. White/European American a. no b. yes
- 7. Black/ African American a. no b. yes
- 8. Latino/Hispanic a. no b. yes
- 9. Asian: Hmong a. no b. yes
- 10. Asian: Other a. no b. yes
- 11. Native American a. no b. yes
- 12. Other a. no b. yes

# Reflecting on Your Degree Program

	Strongly Agree	Agree	Neutral	Disagree	Strong Disagree
13. My major coursework gave me a strong knowledge base in my field.	а	b	с	d	е
<ol> <li>I have learned how to conduct myself professionally in accordance with the ethics and standards of my discipline.</li> </ol>	а	b	с	d	е
15. I received adequate academic advising to help me navigate my educational path while in this major.	а	b	с	d	e
<ol> <li>My major coursework adequately prepared me for full-time work in my discipline.</li> </ol>	а	b	с	d	e
17. My major included classes that were a waste of my time.	а	b	с	d	е
18. Classes in my degree program were too difficult.	а	b	с	d	е
19. Classes in my degree program were too easy.	а	b	с	d	е
20. I received adequate guidance to help me choose a career path in my discipline.	а	b	с	d	е
21. I became a better writer because of the classes I took in my major.	а	b	с	d	е
22. Most coursework for my major was interesting and useful.	а	b	с	d	e
23. The classes in my major helped me to become a better human being.	а	b	с	d	е
24. My coursework inspired me to become an engaged citizen.	а	b	с	d	е
25. My classes in my major were intellectually stimulating, and excited me about my field.	а	b	с	d	е
26. The faculty in my program were responsive to my needs and interests.	а	b	с	d	е

We want to know your thoughts about your **major classes** during your time at Fresno State.

# **Your Plans After Graduation**

Are you planning to pursue any certificates or licenses after you graduate?

27.	Child Development Permit - Teach level	a. no	b. yes
28.	Child Development Permit - Master Teacher Level	a. no	b. yes
29.	Child Development Permit - Site Supervisor Level	a. no	b. yes
30.	Child Development Permit - Program Director Level	a. no	b. yes
31.	Multiple subject teaching credential (elementary school)	a. no	b. yes
32.	Single subject teaching credential (junior high or high school)	a. no	b. yes
33.	Behavior Analyst Certification	a. no	b. yes
34.	Certification as a family life educator	a. no	b. yes
35.	License in marriage and family therapy	a. no	b. yes
36.	Pupil Personnel Services credential	a. no	b. yes

37. What are your plans for employment after graduating?

- a. I've already got a job lined up for after graduation.
- b. I'm actively looking, but no job yet.
- c. I'm not looking for a job.

38. Whether or not you have a job, what is your INTENTION with regard to your eventual work?

- a. I would like to find a job directly related to my college major.
- b. I plan to work, but not in a field related to my college major.
- c. I am not seeking employment because I plan to be at home caring for my family.
- d. I just don't know yet.

If you are a Fashion Merchandising major, what career would you like to pursue? (If you are not a Fashion Merchandising major, just leave these questions blank.)

39.	Retail buyer	a. no	b. yes
40.	Store manager	a. no	b. yes
41.	Visual merchandiser	a. no	b. yes
42.	Show organizer	a. no	b. yes
43.	Fashion designer	a. no	b. yes
44.	Stylist	a. no	b. yes
45.	Small store owner	a. no	b. yes

# Turn over the scantron, and answer the rest of the questions on Side B.

If you are a Child Development or Family Science major, what career would you like to pursue? (If you are a Fashion Merchandising major, just leave these questions blank.)

1.	child care provider	a. no b. yes
2.	child care administrator	a. no b. yes
3.	elementary school teacher	a. no b. yes
4.	high school teacher	a. no b. yes
5.	college professor	a. no b. yes
6.	school psychologist	a. no b. yes
7.	after-school program administrator	a. no b. yes
8.	athletic coach	a. no b. yes
9.	therapist/counselor	a. no b. yes
10.	applied behavior analysis	a. no b. yes
11.	family life educator	a. no b. yes
12.	social worker	a. no b. yes
13.	probation or corrections officer	a. no b. yes
14.	child life specialist	a. no b. yes
15.	victim services advocate	a. no b. yes
16.	non-profit agency administrator	a. no b. yes

#### 17. Do you have plans to go to graduate school?

- a. No, it's not in my plans
- b. Not at this time, but I haven't ruled it out for the future.
- c. Yes, I'd like to get a graduate degree, but I don't have any firm plans yet.
- d. Yes, I'm actively exploring options for graduate school.
- e. Yes, I've been accepted into a graduate program and will start within the next year.

18. If you are considering graduate school, how far do you intend to go with your education?

- a. No plans for graduate school
- b. Teaching credential
- c. Master's degree
- d. Doctoral degree

If you are considering graduate school, what do you think you will study?

19. Teaching credentiala. no b. yes20. Child developmenta. no b. yes21. Family sciencea. no b. yes22. Marriage and Family Therapya. no b. yes23. Social worka. no b. yes24. Psychologya. no b. yes

25.	School counseling	a. no	b. yes
26.	Applied Behavior Analysis	a. no	b. yes
27.	Educational leadership	a. no	b. yes
28.	Fashion merchandising	a. no	b. yes
29.	Business	a. no	b. yes

- 30. How likely is it that you will be staying in the Central Valley after graduation?
  - a. I'm definitely staying in the area.
  - b. I'd like to stay, but it's not certain.
  - c. I just don't know.
  - d. I'd like to leave, but it's not certain.
  - e. I'm definitely leaving the area.

# **Contact Information**

If you have an email address other than your mail.fresnostate.edu one, please write it on the scantron in the area under your name.

# Thank you!

Thank you for completing this survey. Congratulations on your upcoming graduation, and we wish you the best of luck as you embark on the next phase of your life!

We hope that you will stay in touch with us. If you'd like to, please "like" our department Facebook page as a way of staying connected. <u>https://www.facebook.com/FresnoStateCFCS</u>

We will post photos from graduation after the ceremony, and hope that you will share yours too.