Sample 8

#### **Cover Sheet**

Name of Institution: Winthrop University

State: South Carolina

SPA: NASPE

Name and Type of Assessment: Fitnessgram, Fundamental Movement

Rubrics; Standardized Criteria Reference Fitness test and Skill

**Competency Assessment** 

Cycle Submitted: Fall 2009

PLEASE NOTE: This assessment was chosen by the appropriate SPA as an example of a high quality assessment that meets some (but most likely not all) of the SPA Standards. The program has given NCATE permission to disseminate this assessment publicly. If the data submitted were derived from 10 or fewer candidates, the data were deleted from the report in order to ensure confidentiality. Faculty information has also been removed to ensure confidentiality.

If a program uses this without substantial modification, the program should provide attribution to the university that developed the assessment.

### ATTACHMENT 2 NARRATIVE FITNESSGRAM, FUNDAMENTAL MOVEMENT SKILLS, GRADES

Description of the assessment and its use in the program: For 1. undergraduate candidates, evidence for Standard 2 is provided by a "bundle" of skill and fitness based competence tests, which include four components of Fitnessgram (criterion reference health related fitness test), a series of movement competency requirements for the six fundamental movement skills modeled after the South Carolina Physical Education Assessment Program (SCPEAP), and final grades in PHED 234 - Teaching Invasion and Net Games, PHED 118 - Movement Education and Educational Gymnastics, and PHED 150 - Skill Themes, Concepts, and National Standards. Since the Standard requires candidates to achieve and maintain fitness throughout the program, the Fitnessgram test is given once a year and candidates must pass muscular strength, aerobic fitness, flexibility, and muscular endurance components before enrolling in PHED 348 - Elementary Methods. Candidates are tested again in PHED 348 - Elementary Methods and must have maintained the healthy zone in the four components before being allowed to enroll in EDUC 475 - Internship.

**MAT candidates:** Evidence for Standard 2 is provided by a "bundle" of skill and fitness based competence tests, which include Fitnessgram (criterion referenced health-related fitness test), a series of movement competency requirements for the six fundamental movement skills modeled after SCPEAP, and final grade in the required pre-requisite of PHED 234 — Teaching Invasion and Net Games, the final grades in PHED 621 — Skill and Fitness Based Competency and PHED 612 — Movement Concepts/Skill Themes. Since the Standard requires candidates to achieve and maintain fitness throughout the program, the Fitnessgram test is given once a semester and candidates must pass all four required components before enrolling in PHED 670 — Elementary Methods. Candidates are tested again in PHED 670 — Elementary Methods and must have maintained the healthy zone in the four components before being allowed to enroll in EDUC 690 — Internship.

2. Alignment of the assessment to the standards:
Undergraduate candidates: All three assessments identified as part of the Skill and Fitness Based Competency bundle align with Standard 2. Fitnessgram specifically aligns with 2.2. Course grades in PHED 234, 118, and 150 align with 2.1 and 2.3. The fundamental movement competency requirements align with 2.1. This battery of assessments provides evidence for the meeting of Standard 2.

**MAT Candidates:** All three assessments identified as part of the Skill and Fitness Based Competency bundle align with Standard 2. Fitnessgram aligns with 2.2. Course grades in PHED 234 (required pre-requisite), 621, and 612 provide evidence for 2.1 and 2.3. The fundamental movement competency requirement aligns with 2.1. This battery of assessments provides evidence for the meeting of Standard 2.

#### 3. Analysis of data:

Limited data are available since testing began in the 2008-2009 academic year. **Fitness testing (2.2)** was begun in PHED 112 – Movement Concepts (first year candidates) and PHED 150 – Skill Themes (second year candidates). Beginning next year, candidates will be tested in PHED 202 – Fitness Concepts (second year candidates), PHED 391- Secondary Methods (third year candidates), and PHED 348 – Elementary Methods (fourth year candidates). The criterion score on Fitnessgram was set at the healthy zone for the pacer, push-up, modified pull-up, curl up, and sit and reach. All candidates not meeting the criterion score were notified along with their advisor. Candidates will continue to be advised into specific activity courses in areas of their deficiency.

Based on the data, candidates in both the MAT and undergraduate program lack aerobic fitness. Out of 22 undergraduate candidates tested, only 4 (18%) achieved the healthy zone (acceptable level) on the Pacer test. The MAT candidates performed marginally better with 21% achieving the acceptable level on the Pacer test. The other area of concern with undergraduate candidates was on the modified pull-up test, where 31% of the candidates were at the unacceptable level. On the curl-up and push-up tests, 21% of the MAT candidates failed to achieve the acceptable level.

**Undergraduate candidates** were tested on the six fundamental movement skills in PHED 150– Skill themes. There was 100% pass rate on running and catching. A small minority of candidates (9%) were in the "emerging" category for jumping/landing. One surprise was the number of candidates (45%) that were in the emerging category for kicking. Two more areas where candidates did not consistently score at the target level (3.0) were on throwing (2.48) and striking (2.5). Based on development, all candidates should be at the target level for all fundamental movement skills. There was also a slight gender gap between male (2.58) and female (2.33) candidates on throwing. Candidates who did not meet the criterion levels were referred to their advisor and will be retested in PHED 348 – Elementary Methods.

**MAT:** On the six fundamental movement skills, 100% of the MAT candidates were evaluated at the mature level. MAT candidates participated in a formative assessment on the fundamental movement skills in PHED 612 and had two semesters to improve their movement patterns.

Based on grades in PHED 150, PHED 118, and PHED 234, undergraduate candidates are meeting element 2.3. Specific data on game play is kept in PHED 234 and 150 using the GPAI and is calculated as part of the final grade. MAT candidates are meeting Element 2.3 through the required pre-requisite of PHED 234 and grades in PHED 612 and 621.

#### 4. Interpretation of data:

Based on the physical competency data, the department has created a system to notify advisor on any area of physical competency that needs to be addressed for one of their advisees. Two areas of fitness are of concern: muscular strength/endurance and aerobic endurance. If a candidate fails to meet the criterion score on any area of the Fitnessgram components in his/her second year, s/he will be required to work with the exercise science faculty to create and implement an exercise prescription for improvement in those areas. PETE faculty was surprised by the lack of aerobic fitness at both the undergraduate and graduate levels. PHED 202 will be modified to include a fitness requirement based on a pre assessment. Candidates will plan and implement a personal fitness plan as part of the course requirement. Twenty-five percent of their final grade will be based on the progress they have made in achieving their personal fitness goals. MAT candidates are tested in the first semester in PHED 612. The testing usually occurs at the end of the semester. The testing will now be completed at the beginning of the semester so MAT candidates can immediately begin a fitness program designed to improve any area of weakness identified by Fitnessgram.

Candidates failing to score at the target level on any of the fundamental movement skills will be assigned specific activities classes for remedial work. Candidates failing to achieve a B- or better in PHED 234 will repeat the class. PHED 150 – Skill Themes has been modified so that additional time will be spent on improving movement competency of candidates on the six fundamental movement skills. MAT candidates are tested in PHED 612 and placed on an improvement program for any area of weakness. They are retested in PHED 621, which gives them two semesters to improve any identified area of weakness.

Generally, the data supports that a majority of candidates are physically competent, but there are major concerns with aerobic fitness levels.

#### ATTACHMENT 2a Description of the Assignments

#### Undergraduate Fitnessgram -

While enrolled in the Physical Education Teacher Education program (PETE), you will be tested in PHED 112, PHED 150, PHED 202, PHED 391, and PHED 348 for your health-related fitness in four areas using the criterion-referenced Fitnessgram standards for 17+ (defined by the Cooper Institute as individuals between 17-30 years of age). If you are beyond 30 years of age, a separate set of criterion standards will be used. All candidates must meet and maintain the healthy zone in aerobic capacity (Pacer Test), muscular strength and endurance (curl-up), flexibility (sit and reach), and upper body strength and endurance (push-up and modified pull-up).

Protocols for each of the Fitnessgram components are posted in the exercise physiology laboratory and a copy of the protocol for the testing station is posted at each station along with the healthy zone standard for that specific component. Attached to this note is a short summary of each of the test items along with the healthy zone standard. A copy of the protocols and this description of assignment are distributed each time you take the Fitnessgram test.

If you do not meet a standard, a referral note will be sent to your advisor making a specific recommendation for improvement. Recommendations include the taking of a specific course (i.e. weight training if you did not meet the standard in upper body strength and endurance) or meeting with Dr. Bowers to develop a plan of action which will include an exercise prescription. You must score in the healthy zone on all components to be approved for enrollment in PHED 348 – Elementary Methods and for enrollment in EDUC 475- Internship. Results of your Fitnessgram test will only be shared with your advisor, you and Dr. Bowers.

Testing on your personal fitness level begins during your first year in the program and continues each year for three years. You will have three years to improve your fitness level, but you must pass all components by the time you complete PHED 391 — Secondary Methods in order to enroll in PHED 348 — Elementary Methods. You will be tested again in PHED 348 to ensure that you have maintained your fitness level before you can enroll in EDUC 475- Internship. If you do not meet the Fitnessgram standards, you will not be able to complete the PETE program.

If you cannot complete the test on the day it is scheduled in your class, make-up tests are given each semester on study day. Your instructor will provide you with the day and time of the make-up exam.

<sup>\*</sup>Accommodations will be made for candidates with a documented disability.

**MAT Candidates Fitnessgram -** While enrolled in the MAT Physical Education program, you will be tested in PHED 612, 621, 670, and 671 on health-related fitness in four areas using the criterion-referenced Fitnessgram standards for 17+ (defined by the Cooper Institute as individuals between 17-30 years of age). If you are beyond 30 years of age, a separate set of criterion standards will be used. All candidates must meet and maintain the healthy zone in aerobic capacity (Pacer Test), muscular strength and endurance (curl-up), flexibility (sit and reach), and upper body strength and endurance (push-up and modified pull-up).

Protocols for each of the Fitnessgram components are posted in the exercise physiology laboratory and a copy of the protocol for the testing station is posted at each station along with the healthy zone standard for that specific component. Attached to this note is a short summary of each of the test items along with the healthy zone standard. A copy of the protocols and this description of assignment are distributed each time you take the Fitnessgram test.

If you do not meet a standard, a referral note will be sent to your advisor making a specific recommendation for improvement. Recommendations include the taking of a specific course (i.e. weight training if you did not meet the standard in upper body strength and endurance) or meeting with Dr. Bowers to develop a plan of action which will include an exercise prescription. You must score in the healthy zone on all components to be approved for enrollment in PHED 670 – Elementary Methods and for enrollment in EDUC 475- Internship. Results of your Fitnessgram test will only be shared with your advisor, you and Dr. Bowers.

Testing on your personal fitness level begins during your first semester in the program and continues each year for two years. You will have three semesters to improve your fitness level, but you must pass all components by the time you complete PHED 671 — Secondary Methods in order to enroll in PHED 670 — Elementary Methods. You will be tested again in PHED 670 to ensure that you have maintained your fitness level before you can enroll in EDUC 475- Internship. If you do not meet the Fitnessgram standards, you will not be able to complete the MAT physical education program.

If you cannot complete the test on the day it is scheduled in your class, make-up tests are given each semester on study day. Your instructor will provide you with the day and time of the make-up exam.

\*Accommodations will be made for candidates with a documented disability.

#### **Summary of Fitnessgram Components**

**Pacer Test**: This is a test of your aerobic capacity. Run from the starting end line to the other line (20 meters) attempting to arrive at the other line just prior to the beep sounding. When the beep sounds, return to the beginning line attempting to arrive just prior to the beep sounding. Continue the test as long as possible. Each minute the beep will occur in a shorter time frame. Triple beeps at the end of each minute indicate the end of a level and an increase in speed. When a candidate does not reach the end line before the beep occurs, s/he must return and run to the other end line. This is counted as one error. A maximum of two (2) errors are allowed.

**Healthy Zone: Male – 72-106 Female – 41-72** 

**Modified Pull-up:** This is a test of your upper body strength and endurance. Lie on back with the shoulders directly under the bar of the modified pull-up stand. Bar is 1 to 2" above the candidate's reach. There is an elastic band 7 to 8" below and parallel to the bar. Candidate grasps the bar with an overhand grip. Pull-up begins in down position with arms and legs straight, buttocks off the floor, and only the heels touching the floor. Candidate pulls up until chin is above the elastic band. Use only the arms. Repeat the action as often as possible with no time limit.

Healthy Zone: Male – 14-30 Female – 4-13

**Push-up:** This is a test of your upper body strength and endurance. Prone position with hands placed under the shoulders, fingers stretched out, legs straight, parallel and slightly apart, and toes tucked under. After reaching 90 degree arm bend position, the candidate pushes up off the mat (on command) until arms are straight, keeping legs and back straight. The back should be kept in a straight line from head to toes throughout the action. Repeat the action as often as possible with no time limit.

Healthy Zone: Male – 18-35 Female – 7-15

**Curl Up:** This is a test of your muscular strength and endurance. The candidate lies in a supine position on the make with knees bend at an angle of approximately 140 degrees, feet flat on the floor, legs slightly apart, and arms straight and parallel to the trunk with the palms resting on the mat. Fingers should be stretched out and the head in contact with the partner's hands, resting on the mat. Place the measuring strip so that the strip is under the knees so that the fingertips are just resting on the edge of the measuring strip. From the down position, keeping the heels in contact with the mat, the candidate curls up slowly, sliding fingers across the measuring strip until the fingertips reach the other side of the strip. When the fingertips reach the opposite side of the strip, the candidate should curl back down until the head touches the partner's hand. Movement should be slow and controlled

and conform to the cadence on the curl up tape. Repeat the action as often as possible with no time limit.

Healthy Zone: Male - 24-47

Female - 18-35

**Back Saver Sit and Reach:** This is a test of your flexibility. Remove shoes and sit facing the box with one leg fully extended with the foot flat against the near side of the box. The other knee is bent with the sole of the foot flat on the floor and 2-3" to the side of the straight knee. Extend arms forward over the measuring scale with hands placed directly over one another – palms down. Reach slowly forward with both hands four times. Hold the fourth reach for 1 second. Repeat for other side. Record the number for each side.

Healthy Zone: Male - 8"

Female - 12"

#### **Referral Sheet**

Student Name:	Advisor:
	ommended for additional training on the displayment below. Please consult with the student and
Health Related Fitness Component:	
Pacer Test	Sit and Reach
Curl Up	Modified Pull-up
Push-up	
	e, please provide a short note on the plan of y of this report in the candidate's advising file.

#### ATTACHMENT 2b Scoring Guides

#### **Scoring Guide for Fitnessgram**

#### PACER Test - Aerobic Capacity

Test Objective: To run as long as possible back and forth across a 20 meter distance at a specified pace which gets faster each minute.

#### Criterion Standard for 17-30 old Males

Unacceptable - 71 and below laps

Healthy Zone – 72-106 laps (acceptable)

Target Zone - 107 and above

#### Criterion Standard for 17-30 old Females

Unacceptable – 40 and below laps

Healthy Zone – 41-72 laps (acceptable)

Target Zone – 73 and above

#### Push-up - Upper Body Strength & Endurance

Test Objective: Complete as many push ups as possible at a rhythmic pace and using correct form.

#### Criterion Standard for 17-30 old Males

Unacceptable - 17 and below

Healthy Zone – 18-35 (acceptable)

Target Zone – 36 and above

#### Criterion Standard for 17-30 old Females

Unacceptable - 6 and below

Healthy Zone – 7-15 (acceptable)

Target Zone - 16 and above

#### Curl Up - Muscular Strength & Endurance

Test Objective: Complete as many curl-ups as possible up to a maximum of 75 at a specified pace.

#### Criterion Standard for 17-30 old Males

Unacceptable - 23 and below

Healthy Zone – 24-47 (acceptable)

Target Zone – 48 and above

#### Criterion Standard for 17-30 old Females

Unacceptable - 17 and below

Healthy Zone – 18-35 (acceptable)

Target Zone - 36 and above

#### Modified Pull UP - Upper Body Strength & Endurance

Test Objective: Successfully complete as many modified pull-ups as possible.

#### Criterion Standard for 17-30 old Males

Unacceptable  $-\,13$  and below

Healthy Zone – 14-30 (acceptable)

Target – 31 and above

#### Criterion Standard for 17-30 old Females

Unacceptable – 3 and below

Healthy Zone – 4-13 (acceptable)

Target Zone - 14 and above

#### Sit and Reach - Flexibility

Test Objective: To reach the specified distance on the right and left sides of the body.

The Sit and Reach is a pass/fail element of the Fitnessgram with no identified healthy zone.

#### Criterion Standard for 17-30 old Males

8 inches

#### Criterion Standard for 17-30 old Females

12 inches

# SKILL AND FITNESS BASED COMPETENCE ASSESSMENT 2

## ATTACHMENT 2c Data Charts

% of Can, at Level Table 1: Fitnessgram Scores - Undergraduate (male) % of Can, at Level

% of Can, at Level

% of Can. at Level

	<del></del>	T
*Sit and Reach %	100% 5/5	100%
TAR	40% 2/5	14%
AC	9/s 3/s	14%
S	0%0 0/5	72%
Mean Modif. Pull- up	28	21
TAR	40% 2/5	57% 4/7
AC	9/2 3/5	29%
UA	s/o %0	14%
Mean Curl- up	45.8	26.85
TAR	0%0	14%
AC	100% 5/5	72%
45	0%	14%
Mean Push- up	28.2	23.28
TAR	0/s 0/5	2/0 %0
	0/2	<i>L/</i> 0 %0
Ą	100% 5/5	100% 0
Mean Pacer Score	68.8	55.85
# of Male candidates	N=5	N=7
	РНЕБ 112 <b>Fall 09</b>	PHED <b>150 Spring 10</b>

% of Can. at Level Table 1: Fitnessgram Scores - Undergraduate (female) % of Can. at Level

% of Can. at Level

% of Can, at Level

Score	5 = 5 2	¥		A A	Mean Push -up	Š	AC.	TAR	Mean Curt-	S	2	TAR	Mean Modif. Pull- up	ž	AC	TAR	*Sit and Reach %
	40% 2/5		3/5 0	0%0	14.2#	20 % 1/5	40 % 2/5	20%	39,5	9/0	17%	93%	9.4#	0%	80%	20%	<b>Pass</b> 66% 4/6
30.5	3/4	<del> </del>	25% 0	0%	20.75	0%	0%	100 % 4/4	33	25 % 1/4	50 % 2/4	25 % 47	3.75	50%	50%	0%	50% 2/4

\*The criterion score for the Sit and Reach test is passed/failed with no healthy zone identified.

UA = Unacceptable AC = Acceptable TAR = Target

Table 1: Fitnessgram Scores - MAT (male)
% of Can. at Level % of Can. at Level

% of Can, at Level

% of Can. at Level

*Sit and Reach % Pass	100% 3/3	100% 5/5
TAR	33% 1/3	100%
AC	2/3	0/5
S	0/3	0/5
Mean Modi. Pull- up	26	37
	3/3	80% 4/5
Q Q	0/3	0/5
A D	0/3	20%
Mean Curl- up	64	65
TAR	0%	100%
2	100% 3/3	0/5
	0/3	0/2
	24	35
TAR	0/3	0/2
AC	33%	40%
5	66% 2/3	3/5
Mean UA Pacer Score	99	99
# of Male candidates	N = 3	N !! S
Class	PHED 612 <b>Fall</b> 09	PHED 621 <b>Fall</b>

Table 1: Fitnessgram Scores – MAT (female)

% of Can. at Level	
% of Can, at Level	
% of Can, at Level	
% of Can. at Level	

Class #	# Of	Mean	ă	AC	TAR	Mean	۲'n	AC	TAR	Mean	Υ	AC	TAR	Mean	5	AC	TAR	* 5:E
- Spine	Female	Pacer				-ysnd				Curl-		***************************************		Modi,		•		and
	candidates	Score				dn				dn				Pull-				Reach
														on on				%
																		Pass
	N = 1	15	100%	%0	%0	5	100%	%0	%0	20	%0	100%	%0	4	%0	100%	%0	100%
			1/1	0/1	0/1		1/1	0/1	0/1		0/1	1/1	0/1		0/1	1/1	0/1	1/1
																		,
-	N = 5	34	100%	%0	%0	9	40%	%0	%09	20	40%	%0	%09	5	20%	9%0	%08	100%
<del></del>			2/2	0/2	0/2		2/5	0/5	3/5		2/5	0/5	3/5		1/5	5/2	1/5	5/5
									-									
~												-						

<sup>\*</sup>The criterion score for the Sit and Reach test is passed/failed with no healthy zone identified.

UA = Unacceptable AC = Acceptable

TAR = Target