

Section IV: Evidence for Meeting Assessment 6
Fitness Competence
Fall 2010

1. Description of the Assessment

- a. This assessment provides an indication of the Teacher Candidates' (TC) level of fitness as they progress through the program. It is important that TC model health enhancing behaviors for the students they will be teaching. Maintaining a physically active lifestyle shows TC value fitness benefits and will have an inclination toward advocacy and providing opportunities for others to enhance their level of fitness.

The physical education faculty administers the Fitnessgram Fitness Test at the beginning of the program in PED 140: Introduction to Movement Sciences. This course is a primary course taken in the first or second semester that a TC selects the physical education program as a major. The TC are then tested at the end of the program during the PED 420: Physiological Aspects of Exercise class, which is taken in the next to last or last semester prior to student teaching. The same physical education faculty administers the test as part of a semester long personal fitness program assignment in PED 420. The TC collect data (using Heart Rate Monitors and Pedometers) over a period of time tracking their fitness level as they continue with or add a new training regimen. The TC participate in a pre-test to show their initial level of fitness and post-test at the conclusion of the assignment to analyze their results.

The health-related fitness components (cardio respiratory endurance, muscular strength, muscular endurance, flexibility and body composition) are tested using the following Fitnessgram tests: One Mile Walk/Run, Curl Up, Push Up, Back Saver Sit and Reach, Shoulder Stretch, Trunk Lift and Body Mass Index. The Fitnessgram protocol is explicitly followed by the test Administrators, the exact same facility and equipment are used to administer the test in PED 140 and PED 420. The 17+ standardized results (adult norm-referenced scores) from the Fitnessgram are used to analyze the data.

- b. Alignment with the NASPE Standards:

- NASPE 1.1: TC apply physiological and biomechanical concepts to successfully complete health-related fitness components for cardio respiratory endurance, muscular strength, muscular endurance, flexibility and body composition.
- NASPE 1.2: TC apply motor learning and psychological/behavioral theory to successfully complete health-related fitness components for cardio respiratory endurance, muscular strength, muscular endurance, flexibility and body composition.
- NASPE 1.3: TC apply motor development theory and principles to successfully complete health-related fitness components for cardio respiratory endurance, muscular strength, muscular endurance, flexibility and body composition.
- NASPE 2.2: TC achieve and maintain a health-enhancing level of fitness throughout the program. TC are tested at the beginning and end of their coursework prior to student teaching.

- c. Brief Analysis of the Data Findings: A total of 78% (11) of the TC who are at the beginning of the physical education program (TCB) in the Spring Semester of 2010 earned an Exceed or Target status for scoring better than or within the acceptable range for all or up to two fitness tests. A total of 88% (7) of the TC who are at the end of the physical education program (TCE) achieved an Exceed or Target status.

When analyzing the fitness tests separately, the faculty determined a majority of TCB, (78%) and half of the TCE (50%) were within or better than the acceptable range for the One Mile Run test. Most of the TCB (71%) and all of the TCE (100%) were within or better than the acceptable range for the Body Mass Index test. The Majority of the TCB (78%) and TCE (75%) were within or better than the acceptable range for the Curl-Up test. All of the TC (100%) scored at the higher end of the acceptable range for the trunk lift test. The majority of TCB (78%) and all of the TCE (100%) scored within or better than the acceptable range for the Push-up test. None of the TCB and 25% of the TCE scored within or better than the acceptable range for the Back-Saver Sit and Reach test. Half of the TCB (50%) were successful with the Shoulder Stretch test (4 TC passed on the right and left side, while 3 TC passed on one side). Most of the TCE (88%) were successful with the Shoulder Stretch (6) TC passed on both sides, while 1 TC passed on one side). The faculty concludes that TC throughout the program achieve and maintain health-related fitness. The faculty recognizes the low performance of TC in the Back-Saver Sit and Reach test for lower body flexibility. This fitness component will be highlighted more during program courses; it appears that the TC exercise regimens may include cardio respiratory and strength components while flexibility may be neglected.

- d. Evidence of Meeting the Standards: The Fitnessgram provides TC with a formative assessment of their current level of fitness. The majority of TC scored in the Exceeds or Target category for their overall performance on the fitness test. The majority of TC also scored within or better than the accepted scores for their gender and age group for most of the fitness tests. The faculty interpreted the data and the TC are meeting NASPE Standard 1: Scientific and Theoretical Knowledge and NASPE Standard 2: Skill and Fitness Based Competence. By scoring well on the fitness test at the beginning and end of the program, TC show that they are applying the physiological, biomechanical, motor development and motor learning principles and theories to reach then maintain a high level of physical fitness.

2. Assessment Documentation

e. Assessment Tool:

Purpose: It is important for TC to achieve and maintain health related fitness to first hand value and model the benefits of leading a healthy lifestyle to your future students. You will participate in the Fitnessgram physical fitness test at the beginning of the program while taking PED 140: Introduction to Movement Sciences then again at the end of the program while taking PED 420: Physiological Aspects of Exercise. You will participate in tests that will measure your cardiovascular endurance, muscle strength and endurance, body composition and flexibility. A secondary purpose is for you to become familiar with the test protocol and administration of the standardized fitness tests.

Process: You will arrive at the Recreation Center on campus to begin a warm up consisting of three to five minutes of cardiovascular exercise to warm the muscles then individualized stretching to prepare for the one mile walk/run. After receiving your time for the run you will record the time on your score sheet. There will be four stations set up for you and a partner to complete the following tests: 1. determine your body composition (Body Mass Index); 2. Shoulder Stretch; 3. Trunk Lift; 4. Back Saver Sit and Reach. A physical education faculty member will be at the stations to be sure the protocol is followed precisely and data is accurate. You will receive verbal directions and a demonstration before going to the stations. Results of the tests will be recorded on your index card. The final two tests (push ups and curl ups) will be administered as a group. One partner will be the performer, the other partner will count and serve as the performance judge then roles will be reversed. Curl ups will be completed first, a physical education faculty member will be sure the performers are positioned correctly after the test protocol is read and demonstrated. The demonstration will show the proper form as well as what would constitute a fault (two faults will end the test). It is imperative that you honestly judge the performance for the data to be valid. A faculty member will start the test by having the TC listen to the Fitnessgram CD to become familiar with the test cadence then the test will begin and the performer will do as many proper curl ups s/he can before faulting twice. Record your results and switch roles with your partner. The push up test will follow the same protocol. Once all tests are complete, faculty members will collect the index cards and you will participate in a cool down consisting of light cardiovascular exercise and individualized stretching.

Product: The protocol for each test can be found on Blackboard for PED 140 and PED 420. (The test pages from the Fitnessgram Manual are in an attached file titled Fitnessgram Test Administration).

The TC must achieve a minimal level of competence of “Developing” for the overall assessment and can be outside the acceptable range of scores for up to three tests. If the TC does not reach the minimal level of competence, s/he will be allowed to retake the fitness exam up to two additional times.

Resource:

The Cooper Institute (1999). *Fitnessgram and Activitygram Test Administration Manual*. Champaign, IL: Human Kinetics.

f. Assessment Tool Scoring Guide:

Scoring Rubric for Physical Education
Fitness Competence

Element	Levels of Performance			
	Exceeds	Target	Developing	Weakness
<p>Health Related Fitness</p> <p>NASPE 1.1 , 1.2, 1,3, 2.2</p>	<p>The TC exceeds the age- and gender-specific levels for each of the seven health-related physical fitness tests for cardio respiratory endurance, muscular strength, muscular endurance, flexibility and body composition due to exceptional application of biomechanics, motor learning, motor development and behavioral theory. The TC scored better than or at the higher end of the acceptable range for most tests.</p> <p>The TC may be below the range of acceptable scores for one test <u>or</u> two tests if all other scores were better than or at the higher end of the acceptable range.</p>	<p>The TC meet s the age- and gender-specific levels for all seven health-related physical fitness tests for cardio respiratory endurance, muscular strength, muscular endurance, flexibility and body composition due to sound application of biomechanics, motor learning, motor development and behavioral theory. The TC scored within the accepted range for most tests.</p> <p>The TC may be outside the accepted range on up to two tests <u>or</u> three tests if all other scores were better than or at the higher end of the acceptable range.</p>	<p>The TC meets the age- and gender-specific levels for the seven health-related physical fitness tests for cardio respiratory endurance, muscular strength, muscular endurance, flexibility and body composition due to inconsistent application of biomechanics, motor learning, motor development and behavioral theory. The TC scored at the lower end of the accepted range for most tests.</p> <p>The TC may be outside the accepted range in up to three fitness tests.</p>	<p>The TC performs below the age- and gender-specific levels for more than four of the seven health-related physical fitness tests for cardio respiratory endurance, muscular strength, muscular endurance, flexibility and body composition due to sporadic application of biomechanics, motor learning, motor development and behavioral theory.</p>

g. Data Charts

Assessment # 6
 Fitnessgram Scores Fall 2010
 Beginning of the Program Scores
 NASPE 1.1, 1.2, 1.3, 2.2

	Gender	1 Mile Run	Body Mass Index	Curl-Ups	Trunk Lift Inches	Push-Ups	Back Saver Sit & reach R/L inches	Shoulder Stretch R/L
STANDARD SCORES for 17+ Yr. Olds	Males	7:00-8:30	19-27.8	24-47	9-12	18-35	8	Fingers Touching
	Females	8:00-10:00	17-32	18-35	9-12	7-15	8-12	
Candidate 1	F	8:50	22.5	38	11.5	15	7/6	Y/Y
Candidate 2	M	6:50	22	29	12	18	3.5/2	Y/N
Candidate 3	M	6:27	24	53	12	48	4/3.5	N/N
Candidate 4	M	7:44	26	27	12	14	5/3	Y/Y
Candidate 5	M	7:36	25.5	23	12	25	2/0	N/N
Candidate 6	M	6:27	22	30	12	22	3/2.5	Y/N
Candidate 7	M	6:59	23	36	11	10	5/5.5	Y/Y
Candidate 8	M	7:17	24.5	75	10	23	4/1	N/N
Candidate 9	M	6:42	22	29	12	35	7/7	Y/N
Candidate 10	M	8:55	29	27	11	40	3.5/3.5	N/N
Candidate 11	M	9:12	30	10	12	6	6/4	Y/Y
Candidate 12	M	7:00	22	38	12	25	3.5/2.5	N/N
Candidate 13	M	8:32	28	45	12	30	4.5/3	N/Y
Candidate 14	M	8:14	33	10	12	20	2.5/4	N/N
MALE MEANS		7:37	25.5	33.2	11.7	24.3	4.1/3.2	

To convert seconds of time in order to average the male one mile run scores the seconds were divided by 60. The total times are then divided by 13 to create the average. The average score equaled 6.82. The .82 was then divided by 60 to complete the miles and second conversion.

The orange indicates the TC performed above the norm on a specific test.

The blue indicates the TC performed within the acceptable range of the norm on a specific test.

Assessment # 6
Fitnessgram Scores Fall 2010
End of the Program Scores

	Gender	1 Mile Run	Body Mass Index	Curl-Ups	Trunk Lift Inches	Push-Ups	Back Saver Sit & reach R/L inches	Shoulder Stretch R/L
STANDARD SCORES for 17+ Yr. Olds	Males	7:00-8:30	19-27.8	24-47	9-12	18-35	8	Fingers Touching
	Females	8:00-10:00	17-32	18-35	9-12	7-15	8-12	
Candidate 1	F	8:45	25	75	12	13	1.5 / 3.5	Y / Y
Candidate 2	F	10:00	27.5	18	12	15	6 / 6.5	Y / Y
Candidate 3	F	6:45	22	75	12	16	3 / 3	Y / N
Candidate 4	F	12:55	30	14	12	12	7.5 / 6	Y / N
Candidate 5	M	7:36	23	55	12	28	6 / 5	Y / Y
Candidate 6	M	9:30	26	23	12	24	8 / 7	Y / Y
Candidate 7	M	8:45	25	25	12	21	0 / 0	N / N
Candidate 8	M	8:36	25	75	12	30	9.5 / 9	Y / Y
FEMALE MEANS		10:00	26.1	45.5	12	14	4.5/4.8	
MALE MEANS		9:01	24.5	44.5	12	25.8	5.9/5.3	

The orange indicates the TC performed above the norm on a specific test.

The blue indicates the TC performed within the acceptable range of the norm on a specific test.