C1_ Jaka Sunardi_GROWTH AND HEIGHT PREDICTION AS A BASIC ACHIEVEMENTS SINCE EARLY AGE

by Jaka Sunardi

GROWTH AND HEIGHT PREDICTION AS A BASIC ACHIEVEMENTS SINCE EARLY AGE

By:
Jaka Sunardi
Yogyakarta State University

ABSTRACT

This paper aims to reveal the importance of understanding and prediction tumbuhkembang height as the capital of achievement from an early age. Achievement can not be obtained within a relatively short time. Identification of giftedness will also need to be understood by parents, coaches and sports coaches. Development of the child become one of central concern to drive up to the level of achievement. In a particular sport requires a high importance weight. Related matter, the actual height can be known by parents from an early age. Besides this, there are things that are also important to know the characteristics of giftedness and age stages begin practicing until the age of achievement. if it is known early, it will appear more athletic talent and potential.

Keywords: growth and development, height, talent, age achievement

INTRODUCTION

The concept of sports coaching done from an early age. The phenomenon of the field often appearsthat performance in sports for most people say life is not promising for the future well-being. Meanwhile, to become the champion takes years to prepare. When we see the development of sports achievements abroad,it can be said that the champion sport can be likened to the world's leading artists, and even transfers from one club to another club to reach billions of rupiah.

Starting from this, we would need to do a reflection and a thorough evaluation. There is a saying that men in corpore Sano who understood that in a healthy body there is also a strong soul. Mental strength means a person who has character and fingers herself. To improve the mental strength required support good physical health. Physical for the better should be the optimization of physiological performance. That children have a high fitness level, the spbrt activity to be one alternative solution.

From the series description, indirectly also appear giftedness of these children. For more visible for giftednessis then necessary to increase and supervision related to child growth. Child's growth will also contribute to the sport that will digelutinya. Exemplified that in sports or basketball bolavoli required height is high enough. Actually, the maximum height was also predictable. Moreover, the jkuga need to know how we know the characteristics of children who have talent. And for clearer direction from the exercise developmentally age, entry age specification and age of sports achievement will be discussed in the study as follows.

DISCUSSION

Before long we talk about talent scouting, will be more concrete if we know little about child development first. Development of the child has a level of periodicity. Many references that reveal this problem. Here are the characteristic tendency of development of the child under a certain age period (adapted from Willis, Benjamin C, 1966; Harsono, 1969; Harsono, 1988; Kreamer, William J and Fleck, Steven J, 1991; and results temukarya Affairs, 1991). Growth period can be divided in age groups 5-8 years, 9-11 years, 12-13 years, 13-14 years and 14-16 years, who are described as follows below.

1. **Age period 5-8 years**
   a. Slow bone growth
   b. Easily occur abnormality posture
   c. Motor coordination is still/look ugly/pool disorganized

d. Very active, playing through fatigue, attention span/concentration narrow
e. Dramatic, imaginative, imitative, sensitive to sounds and rhythmic motion.
f. Creative, inquisitive (department/curiosity, curious). Glad to investigate, learn through activity.
g. Self-centered, happy to form small groups, men and women have similar interests.
h. Seeking approval from adults (parents, teachers, brothers and others).
i. Easily excited by praise, but easily upset by criticism.

2. **Age period 9-11 years**
   a. In a period of steady growth (steady), the muscles grow faster and require exercise, poor posture tends, therefore, required body shaping exercises.
   b. Full of energy, but tire easily
   c. Interest arises for good in a certain physical skill and games organized, but not yet ready to understand the complicated regulations, renytang attention longer
   d. Glad/dare challenge the activities of a rather harsh (rough)
   e. More fun hanging out with opponents like and peer
   f. Enjoys dramatic activity, creative, imaginative and rhythmic
   g. Enthusiasm for the achievement of individual, competitive, have idol
   h. This is a good time, for educate morals and good social behavior
   i. Formed groups, seeking approval of the group.

3. **Age period 12-13 years**
   a. Entering a period of transition from child to pradewasa; women are usually more mature (mature) than men, but men have the endurance and strength more.
   b. Tunbuh rapid growth, but less regular, frequent menyebabkan body balance is disturbed, because the movements tend to be rigid/ugly (awkward), can be practicing until fatigue
   c. More concerned with the success of group/team, rather than individuals; more pleasure from the game, and game who using the official rules and more organized; want to be recognized and accepted as a member of the group
   d. The existence of interest in activities that can enhance the ability and skills; start of interest to physical exercise
   e. Glad to participate in active recreational activities; need ada bimbingan and supervision in her social with the opposite sex
   f. Self-awareness began to grow, so too emotional, though still inadequately controlled/ restrained; looking for adult approval
   g. Care about democratic procedures and group planning (planning team/group); increasingly less ableto accept the authority and autocratic attitude of others.

4. **Age period 13-14 years**
   a. Rapid body growth is still/still continue, women are generally taller and heavier than in males.
   b. The muscles begin to look to grow, but coordination is generally still not good movement
   c. Start da sexual tension; increasingly growing interest in physical activity; happy to be perfection in appearance; glad to experiment; creative
   d. Prioritize activities of groups (gangs), rather than individual; loyalty to the group stand out.
   e. This is the period, in which the child is difficult to adjust to the surounding environment (social adjustment); men and women are different interests.
   f. Less stable in solidarity; to have an idol, such as teachers or friends who are older, emotional change; want to be free/independent, tidak mau dictated/governed.

5. **Age period 14-16 years**
   a. Tend to approach biological maturity, physical growth is rapid, especially men.

b. Improved motor coordination, especially women; able to participate in activities that require skill/skill.
c. The more/more interested in other forms of active recreation; prefer male team sport, women are also menyenagi team sport, but nascent interest in individual activities.
d. Want to have a healthy and attractive body (attractive); fear losing that status, due to the growing body of less than perfect or less attractive, a man wants to be strong and sturdy.
e. Because at this age men and women happy group, so often formed gangs (groups); want the recognition (recognition) of the group.
f. Start da attention (interest) to the opposite sex (other sex).
g. Start there is interest in the activities of aesthetic and intellectual, creative, fun experimenting (trying), particularly in music and tari-menari/dansa.
From the above explanation of the concept of groMh and development, finally emerged sebuah question, how to get to knowthe maximum height prediction of these children. For more details about howto know the height prediction will be described as follows.

PREDICTION OF HEIGHT BODY

In certain sports, height is a critical element for achievement. Who benefit from sports such as rowing height, jumping, starting and throwing in athletics, volleyball, basketball and others. Measurement height definitive prediction can be done in several ways is by using the formula Havlicek (1971), Sramkova and colleagues (1978) by measuring the child's height, which is in children aged 5-17 years) and chronological age. Both ways will be described below.

1. Definitive prediction of a child's height (formula Havlicek (1971) in Siswantoyo (2010).

$$\text{Boy} = \frac{\text{height father's} + \text{height mother's} \times 1{,}08}{2}$$

$$\text{Girl} = \frac{\text{height father's} \times 0.923 + \text{height mother's}}{2}$$

$$\text{Male} = \frac{\text{father's height} + \text{mother's height} \times 1{,}08}{2}$$

$$\text{Female} = \frac{\text{father's height} \times 0.923 + \text{mother's height}}{2}$$

Example 1:
Male child's name: Werkudara
High father: 172 cm; High mother: 156 cm

$$\text{Enter the formula} = \frac{172 + 156 \times 1.08}{2}$$

$$= \frac{354.24}{2}$$

$$= 177.12 \text{ cm}$$

So predictions Werkudara definitive height: 177.12 cm

Example 2:
Girl Names: Heroine
High father: 172 cm; High mother: 168 cm

$$\text{Enter the formula} = \frac{172 \times 0.923 + 156}{2}$$

$$= \frac{314.756}{2}$$

$$= 157.37 \text{ cm}$$

So predictions Heroine definitive height: 157.37 cm

A. Definitive prediction for the child's height According male Sramkova (1978)

AGE TB	5	6	7	8	9	10	11	12	13	14	15	16	17	18
121	189.1	181.7	175.2	170.4	165.8	161.6	158.8							
122	190.3	182.8	176.3	171.3	166.6	162.5	159.5							
123	191.4	183.3	177.5	172.2	167.5	163.3	160.3	158.9						
124	192.5	184.8	178.7	173.1	168.4	164.2	161.1	159.6						
125	193.6	185.8	179.9	173.9	169.3	165.0	161.9	160.3						
126	194.0	186.9	181.1	174.8	170.1	165.9	162.7	161.0						
127	195.9	187.9	182.3	175.7	171.0	166.7	163.5	161.7						
128	197.0	188.9	183.5	176.6	171.9	167.6	164.3	162.4	162.5					
129	198.1	188.9	184.6	177.5	172.8	168.5	165.1	163.1	163.0					
130	199.2	191.0	185.8	178.4	173.6	169.3	165.9	163.8	163.6					
131		192.0	187.8	179.3	174.5	170.2	166.7	164.5	164.1					
132		193.0	188.2	180.1	175.4	171.0	167.5	165.1	164.6	162.8				
133		194.0	189.4	181.0	176.3	171.9	168.3	165.8	165.2	163.3				
134		195.1	190.6	181.9	177.1	172.7	169.1	166.5	165.0	163.7				
135		196.1	191.8	182.8	178.0	173.6	169.9	167.2	166.2	164.2				
136			192.9	183.7	178.9	174.4	170.7	167.9	166.8	164.7				
137			194.3	184.6	179.8	175.3	171.5	168.6	167.3	165.1				
138			195.3	185.5	180.6	176.1	172.3	169.3	167.8	165.6				
139			196.5	186.3	181.5	177.0	173.1	170.0	168.4	166.1				
140			197.7	187.2	182.4	177.8	173.9	170.7	168.9	166.5	159.0			
141			198.9	188.1	183.3	178.7	174.7	171.4	169.4	167.0	160.5			
142			200.1	189.0	184.1	179.6	175.5	172.1	170.0	167.5	161.1			
143			201.2	189.9	185.0	180.4	176.3	172.8	170.5	167.9	161.6			
144			202.4	190.8	185.9	181.3	177.1	173.5	171.0	168.4	162.2	154.9		
145			203.6	191.6	186.8	182.1	177.9	174.2	171.5	168.9	162.8	155.7		
146				192.5	187.6	183.0	178.7	174.9	172.1	169.3	163.4	156.5		
147				193.4	188.5	183.8	179.5	175.6	172.6	169.8	164.0	157.2		
148				194.3	189.4	184.7	180.3	176.3	173.1	170.2	164.6	158.0		
149				195.2	190.3	185.5	181.1	176.9	173.7	170.7	165.2	158.7		
150				196.1	191.1	186.4	181.9	177.6	174.2	171.2	165.8	159.5	154.9	
151					192.0	187.2	182.0	178.9	174.7	171.6	166.4	160.2	155.8	
152					192.9	188.1	183.5	179.0	175.3	172.1	167.0	161.0	158.0	
153					193.8	188.9	184.3	179.7	175.8	172.6	167.6	161.7	157.5	153.4
154					194.6	189.8	185.1	180.4	176.3	173.0	168.1	162.5	158.4	154.4
155					195.5	190.7	185.9	181.1	176.9	173.5	168.7	163.3	159.3	155.5
156						191.5	186.7	181.8	177.4	174.0	169.3	164.0	160.2	156.4
157						192.4	187.5	182.5	177.9	174.4	169.9	164.8	161.0	157.4
158						193.2	188.3	183.2	178.4	174.9	170.5	165.5	161.9	158.4
159						194.4	189.1	183.9	179.0	175.3	171.1	166.3	162.8	159.4
160						194.9	189.9	184.6	179.5	175.8	171.7	167.0	163.7	160.4
161							190.0	185.3	180.0	176.3	172.3	167.8	164.6	161.4
162							191.5	186.0	180.6	176.7	172.9	168.5	165.4	162.4
163							192.3	186.7	181.1	177.2	173.5	169.3	166.3	163.4
164							193.1	187.4	181.6	177.7	174.1	170.1	167.2	164.4
165							193.9	188.0	182.2	178.1	174.6	170.8	168.1	165.4
166								188.7	182.7	178.6	175.2	171.6	169.0	166.4
167								189.4	183.2	179.1	175.8	172.3	169.8	167.4
168								190.1	183.8	179.5	176.4	173.1	170.7	168.4
169								190.8	184.3	180.0	177.0	173.8	171.6	169.4
170								191.5	184.8	180.5	177.6	174.6	172.5	170.4
171								192.2	185.3	180.9	178.2	175.4	173.3	171.5
172								192.9	185.9	181.4	178.8	176.2	174.2	172.5
173								193.6	186.4	181.8	179.4	176.9	175.1	173.5
174								194.3	186.9	182.3	180.0	177.6	176.0	174.5
175								195.0	187.5	182.8	180.6	178.4	176.9	175.5
176									188.0	183.2	181.2	179.1	177.7	176.5
177									188.5	183.7	181.7	179.9	178.6	177.5
178									189.1	184.2	182.3	180.6	179.5	178.5
179									189.6	184.6	182.9	181.4	180.4	179.5
180									190.1	185.1	183.5	182.2	181.3	180.5
181									190.7	185.6	184.1	182.9	182.1	181.5
182									191.2	186.0	184.7	183.7	183.0	182.5

AGE TB	5	6	7	8	9	10	11	12	13	14	15	16	17	18
183									191.7	186.5	185.3	184.4	183.9	183.5
184									192.3	186.9	185.9	185.2	184.8	184.5
185									192.8	187.4	186.5	185.9	185.7	185.5
186										187.8	187.1	186.7	186.5	186.5
187										188.3	187.0	187.4	187.4	187.6
188										188.8	188.2	188.2	188.3	188.6
189												189.3	189.2	189.6
190														190.6
191														191.6
192														192.6
193														193.6
194														194.6
195														195.6
196														196.6
197														197.6

B. Definitive prediction for the child's height Women According to Sramkova (1978) in Siswantoyo (2009)

AGE TB	5	6	7	8	9	10	11	12	13	14	15	16	17
121	180.6	171.9	163.8	157.3	151.5	150.2	149.4						
122	182.0	173.1	165.1	158.4	152.6	151.0	150.1						
123	183.3	174.4	166.4	159.6	153.7	151.8	150.7	147.8					
124	184.6	175.6	167.7	160.8	154.8	152.7	151.4	148.5					
125	185.9	176.9	169.0	161.9	155.9	153.5	152.1	149.1					
126	187.2	178.1	170.3	163.1	157.0	154.4	152.8	149.7					
127	188.6	179.3	171.6	164.3	158.1	155.2	153.4	150.4					
128	189.9	180.6	173.0	165.4	159.2	156.1	154.1	151.0					
129	191.2	181.8	174.3	166.6	160.3	156.9	154.8	151.6					
130	192.5	183.1	175.6	167.8	161.4	157.8	155.4	152.2	143.9				
131		184.3	176.9	168.9	162.5	158.6	156.1	152.9	144.0				
132		185.6	178.2	170.1	163.6	159.5	156.8	153.5	145.5				
133		186.8	179.5	171.3	164.7	160.3	157.5	154.1	146.3				
134		188.0	180.8	172.4	165.8	161.2	158.1	154.8	147.1				
135		189.3	182.1	173.6	166.9	162.0	158.8	155.4	147.9	139.6			
136		190.5	183.4	174.8	167.9	162.9	159.5	156.0	148.7	140.6			
137			184.7	176.0	169.0	163.7	160.1	156.6	149.5	141.6			
138			186.0	177.1	170.1	164.6	160.8	157.3	150.3	142.6			
139			187.3	178.3	171.2	165.4	161.5	157.9	151.1	143.6			
140			188.6	179.5	172.3	166.3	162.1	158.5	151.9	144.5	141.5		
141			189.9	180.6	173.4	167.1	162.8	159.2	152.7	145.5	142.5		
142			191.2	181.8	174.5	168.0	163.5	159.8	153.5	146.5	143.5		
143			192.5	183.0	175.6	168.8	164.1	160.4	154.3	147.5	144.5	143.6	
144			193.9	184.1	176.7	169.7	164.8	161.1	155.1	148.5	145.5	144.6	
145			195.2	185.3	177.8	170.5	165.5	161.7	155.9	149.4	146.5	145.6	145.2
146				186.5	178.9	171.4	166.2	162.3	156.6	150.4	147.5	146.6	146.2
147				187.6	180.0	172.2	166.8	162.9	157.4	151.4	148.5	147.6	147.2
148				188.8	181.1	173.0	167.5	163.6	158.2	152.4	149.5	148.7	148.2
149				190.0	182.2	173.9	168.2	164.2	159.0	153.4	150.5	149.7	149.2
150				191.1	183.3	174.7	168.8	164.8	159.8	154.4	151.5	150.7	150.2
151					184.4	175.6	169.5	165.5	160.6	155.3	152.5	151.7	151.3
152					185.5	176.4	10.2	166.1	161.4	156.3	153.5	152.7	152.3
153					186.5	177.3	170.9	166.7	162.2	157.3	154.5	153.7	153.3
154					187.6	178.1	171.5	167.3	163.0	158.3	155.5	154.8	154.3
155					188.7	179.0	172.2	168.0	163.8	159.3	156.5	155.8	155.3
156						179.8	172.9	168.6	164.6	160.2	157.5	156.8	156.3
157						180.7	173.5	169.2	165.4	161.2	158.5	157.8	157.3
158						181.5	174.2	169.9	166.2	162.2	159.5	158.8	158.3
159						182.4	174.9	170.5	167.0	163.2	160.5	159.9	159.3
160						183.2	175.5	171.1	167.8	164.2	161.5	160.9	160.3
161						184.1	176.2	171.0	168.6	165.1	162.5	161.9	161.3
162						184.9	176.9	172.4	169.4	166.1	163.5	162.9	162.3
163						185.8	177.5	173.0	170.1	167.1	164.5	163.9	163.3
164						186.6	178.2	173.6	170.9	168.1	165.5	164.9	164.3

AGE	5	6	7	8	9	10	11	12	13	14	15	16	17
TB													
165						187.5	178.9	174.3	171.7	169.1	166.5	166.0	165.3
166							179.6	174.9	172.5	170.0	167.5	167.0	166.3
167							180.2	175.5	173.3	171.0	168.5	168.0	167.4
168							180.9	176.1	174.1	172.0	169.5	169.0	168.4
169							181.6	176.8	174.9	173.0	170.5	170.0	169.4
170							182.2	177.4	175.7	174.0	171.5	171.0	170.4
171								178.0	176.5	175.0	172.5	172.1	171.4
172								178.0	177.3	175.9	173.5	173.1	172.4
173								179.3	178.1	176.9	174.6	174.1	173.4
174								179.9	178.9	177.9	175.6	175.1	174.4
175								180.6	179.7	178.9	177.6	176.1	175.4
176									180.5	179.9	177.6	177.1	176.4
177									181.3	180.8	178.6	178.2	177.4
178									182.1	181.8	179.6	179.2	178.4
179										182.8	180.6	180.2	179.4
180										183.8	181.6	181.2	180.4
181											182.6	182.2	181.4
182											183.6	183.2	182.4
183											184.6	184.3	183.4
184											185.6	185.3	184.5
185											186.6	186.3	185.5
186												187.3	186.5
187												188.3	187.5
188												189.3	188.5
189												190.4	189.5
190												191.4	190.5

From the description above, can be used to help direct the child's giftedness. According to Bloom (Reigner et al., 1993) described by KONI (2000) sports career of a gifted child is divided into three stages: early stage, developing stage and the perfect stage. In Handbook of research on sport pshycology (Singer, Murphey, Tennant, 1993) described the stages of Bloom's career model that discusses the characteristics of gifted children and their coaches and parents. More details, see the table below.

Table: Model Bloom about the characteristics of gifted children

INDIVIDU	TAHAPAN KARIR		
	AWAL	BERKEMBANG	SEMPURNA
Performance (Athletes/Child)	Happy, happy, excitement, feel special	"mad-crazy", dedication	Obsession, is responsible
Mentor (Coach)	friendly, cheerful, loving, strong process orientation	assertive, respect, skill, provide a positive challenge	Feared/respected, to bring success, bound by emotion
Parents	Sharing the joy and spirit, supportive, positive	Willing to sacrifice (including financial), limiting the child's activity	

Modified from: Handbook of research on sport pshychology (Singer, Murphey, Tennant, 1993)

By knowing the characteristics of gifted children are the most will facilitate the next step in directing the child's potential in accordance with keberbakatannya. In accordance with the stages of growth and development, the child who has talent in accordance with his age will go in which position and what the sport. To more clearly examine the corresponding table reference age and following sports.

REFERENCE AGE CHILD BEGINS TO EXERCISE, SPECIFICATTONS AND ACHIEVE PEAK PERFORMANCE

In accordance with the concept of physical education lessons always started with a low difficulty level to a higher or from the easier to the more difficult. It is also a kind of similarity in age distribution started to exercise, specifications and ultimate achievement. It would be more detail can be seen in the following table.

Table: Overview of Development of Age Related to the Development of Ability at Each Branch Sports

No	SPORT	Exercise starting	Age start specifications	Age achievement
1	Archery	12-14	16-18	23-30
2	Athletics			
	- Run a short distance	10-12	14-16	22-26
	• Middle distance	13-14	16-17	22-26
	• Running distance	14-16	17-19	25-28
	• High jump	12-14	16-18	22-25
	• Jump far	12-14	17-19	23-26
	• Jump three	12-14	17-19	23-26
	• Throw	14-15	17-19	23-27
3	Badminton	10-12	14-16	20-25
4	Baseball	10-12	15-16	22-28
5	Basketball	10-12	14-16	22-28
6	Boxing	13-15	16-17	22-26
7	Canoeing	12-14	15-17	22-26
8	Handball	10-12	14-14	22-26
9	Bicycles	12-15	16-18	22-28
10	Diving			
	• Woman	6-8	9-11	14-18
	• Man	8-10	14-13	18-22
11	Fencing	10-12	14-16	20-25
12	Field Hockey	11-13	14-16	20-25
13	Skating	7-9	11-13	18-25
14	Calisthenics			
	• Woman	6-8	9-10	14-18
	• Man	8-9	14-15	22-25
15	Judo	8-10	15-16	22-26
16	Dasa contest	11-13	14-16	21-25
17	Rowing	11-14	16-18	22-25
18	Layar	10-12	14-16	22-30
19	Shooting	12-15	17-18	24-30
20	Football	10-12	14-16	22-26
21	Squash	10-12	15-17	23-27
22	Swimming**			
	• Woman	7-9	11-13	18-22
	• Man	7-8	13-15	20-24
23	Tenis meja	8-9	13-14	22-25
24	Tenis			
	• Woman	7-8	11-13	17-25
	• Man	7-8	12-14	22-27

No	SPORT	Exercise starting	Age start specifications	Age achievement
25	Volleyball	10-12	15-16	22-26
26	Water Polo	10-12	16-17	23-26
27	Weightlifting	14-15	17-18	23-27
28	Wresting	11-13	17-19	24-27

Description: ** In the pool stages of starting exercise can be performed at the age of 3-7 years. Preview age is not something absolute, so that when small deviations occur between 1-2 years can only happen (Garuda Gold, 2000).

By doing intensive assistance related to development of the child and recognize the characteristics of giftedness of children who later provided facilitation special services for gifted children, the achievement would be the best performance can be expected. To further support the achievement tercapainya.

CONCLUSION

Achieving peak performance can not be achieved in an instant. In accordance with the phases of coaching sports, needs to be done since the age of the children. Inside there is a strong body of a healthy soul, so that the values of physical education needs to be invested at an early age. Efforts to select athteteswho realy potential in each sport requires a touch of sport science and technology, which among others, by follorving the development of the child, predicted height, coaching programs are targeted, structured and progranrmed. In order to obtain a child who has talent, it is necessary to understanding characteristic gifted children. Starting from this prediction, performance will be obtained by following the stages of development achievements from the age of starting practice, starting age and the age specification sport began performing in different sports they do. For long-term collaborative development is necessary between sport and physical education health education track with sports clubs or the other.

REFERENCES

Deborah Hoare. 1999. Talent identification: Australian-indonesian Sport Program. Surakarta: February 1999

Affairs Office. 1998. Sports talent scouting guide. London: Office of the Minister of Youth and Sports.

RN. Singer, M. Murphey & L.K. Tennant (eds.): Handbook of Research on Sport Pshychology. Newyork; Macmillan.

Koni centre. 2000. GARUDA EMAS National Movement 1997-2007. Jakarta.

Arnot RB & CL Gaines. 1986. Talent Sport. Penguin Book. Newzealand.

Corbin, C. B. 1980. A Textbook of Motor Development (2nd ed.). Iowa: Wm. C. Brown Company Publishers.

Ministry of Education. 2007. Act No. 20, 2003, on National Education System.

Jean Piaget. 1983. "Piaget's theory". In P. Mussen (ed). Handbook of Child Psychology. 4th edition. Vol. 1. New York: Wiley.

C1_ Jaka Sunardi_GROWTH AND HEIGHT PREDICTION AS A BASIC ACHIEVEMENTS SINCE EARLY AGE

C1_ Jaka Sunardi_GROWTH AND HEIGHT PREDICTION AS A BASIC ACHIEVEMENTS SINCE EARLY AGE