

A descriptive study of the achievement timeline of volleyball athletes at the state university of Malang

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Abstract

This research aims to describe the career path of achievement of volleyball student-athletes from the State University of Malang based on the chronological timeline of achievements in the volleyball championship. This research uses visual research methods (VRM), where data is processed into visual form, namely a timeline graph of achievements. The participants are men's and women's volleyball athletes from the State University of Malang class of 2018-2020 from various faculties with active student status. The achievement data were collected using a questionnaire and given to athletes digitally through Google Forms, then their answers were visualized in timeline graphs. The timeline graphs show the record of athlete achievements chronologically from high school (or equivalent) to college. The graphs were produced and then analyzed using qualitative content analysis. The results showed three patterns in the timeline of athlete achievements: 1) progressive/increase pattern, 2) descending patterns, and 3) stagnation patterns. Implications of this study are: 1) beneficial to understand what factors affect changes in athlete achievements, 2) as reminders for athletes to keep tracking their achievements and develop strategies to improve them; 3) as input for coaches to develop future training programs to improve student-athlete achievement.

Keywords: volleyball, student-athlete, descriptive, timeline, visual research methods (VRM)

INTRODUCTION

According to the ([Undang-Undang Republik Indonesia Nomor 11 Tahun 2022 Tentang Keolahragaan, n.d.](#)) number 11 of 2022 concerning Sports, achievement sports is a sport that fosters and develops athletes in a planned, systematic, integrated, tiered and sustainable manner through competitions to achieve achievements with the support of sports science and technology. The mentoring and development process will be more measurable and directed towards the path of achievement through educational institutions ([Esser, 2019](#)) from elementary school to college ([Andara, M. S., Ratimiasih, Y., & Hudah, 2021](#)). In Indonesia, sports

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coaching and development are carried out systematically and continuously from the introduction stage to the stage of improving achievements. One of the sports that has gone through a series of stages of coaching and development is volleyball. The sport has been introduced gradually from elementary school to college, and competitions at all levels have been implemented in many areas of Indonesia.

At the collegial or university level, volleyball is regarded as one of the popular achievement sports. However, student-athletes or students who concurrently become athletes face several challenges at the university. In most cases, dividing time between education and exercise becomes challenging for student-athletes (Cosh & Tully, 2014; McElveen & Ibele, 2019). While focusing on academics, student-athletes must also maintain their performance quality to remain in the best condition to face championships at the college level, including the Student League, such as POMPROV (*Pekan Olahraga Mahasiswa Provinsi/Provincial student-athlete sports multievent*) to POMNAS (*Pekan Olahraga Mahasiswa Nasional/National student-athlete sports event*) and other championships. These championships can be important stepping stones for athletes to go to the next level, get recognition and be listed as talented, and lead to the chance of being recruited into the professional teams that play in the highest volleyball league and the national team. The Indonesian volleyball national team also has prominent achievements at the Southeast Asian level. The senior Indonesian men's national volleyball team themselves is ranked 85 out of 220 countries, while the women's team is ranked 76th out of 120 countries (FIVB, 2022). At the SEA Games in the Philippines 2019, Indonesia donated one gold medal for the men's team, while the women's team contributed a bronze medal.

The increasing proficiency of athletes will expose them athlete to a particular transition. Over time, the athlete's improved abilities will lead to a higher level or level, so there will be a process of transition or adjustment as they move up to a higher level. The study of how the adjustment process is when an athlete's career changes up or down to a certain level

is called a career transition ([Stambulova et al., 2009](#); [Wylleman & Lavallee, 2004](#)). The career transition of the athlete is the result of one or another event that brings a personal and social imbalance to the athlete. The type of transition often encountered is the transition from junior to senior teams, from one sporting organization to another, and from the initial education level to higher education. Smoothness adaptation through transitions at each stage is one factor that can affect athletes' achievements' ups and downs.

As a reminder or evaluation in improving the athlete's achievement, it is necessary to record their achievements in a competition he has experienced. The recording of the athlete's achievements can also be expressed as a visual representation of a diagram or drawing ([Rahayuni, 2021](#)), for example, by creating a timeline graph. A timeline graph presents a chronological sequence of interrelated events of an athlete's achievement in events. The goal is to see a visualization or a picture that shows changes in athletes' achievements over time. The timelines in the form of timelines can be used as an afterthought to explore the dimensions of continuity and change experienced by athletes through new perspectives ([Sheridan et al., 2011](#)).

Volleyball athletes at the State University of Malang are students from various majors who are active in volleyball—also participating in volleyball competitions at various levels, either under the name of the State University of Malang or joining a team outside the university. The participation of UM volleyball athletes in competitions often gets proud achievements and brings the university's good name. Thus, volleyball athletes at the State University of Malang also experienced a career transition from the high school level and equivalent to college. The transition experienced can impact changes in athletes' achievements, which can increase or even decrease. These changes are recorded in the form of a timeline, to be analyzed and studied to describe changes in their achievements when entering college. However, a timeline study of the

achievements of volleyball athletes has not been carried out. In Indonesia, studies of career transitions are still rarely studied.

Meanwhile, visualizing career transition studies in graphs can benefit coaching, especially coaches and student-athletes. This study aims to analyze visual graph patterns of the career transitions of UM volleyball athletes through a timeline diagram of athletes' achievements. The results of this study can be used as material for future athlete planning or to be analyzed more deeply about the factors that cause athletes' achievements to change during the transition period from student-athletes to student-athletes.

METHOD

This study used a descriptive approach by visualizing the athlete's timeline diagram. This research is included in simple qualitative research; qualitative research is used to research natural conditions or investigate/interpret experiences that focus on meaning, subjectivity, context and process (Sparkes & Smith, 2014). This research used visual research methods (VRM). VRM is a method that uses several types of visual media to find answers to researchers' questions (Rose, 2014). Visual media that can be used include photos, film footage, drawings, and sketches (Rahayuni, 2021). In this study, the content or content of written or printed information was used as material for its analysis.

The data collection method used a questionnaire and was collected digitally in a Google Form. The questionnaire collected information on what achievements are achieved by athletes from high school/ vocational school to college/university. The answers were then arranged in the form of a timeline diagram to find out how their achievement improvement pattern when entering college.

The data analysis technique used in this study is content analysis (Sparkes & Smith, 2014) with the following stages.

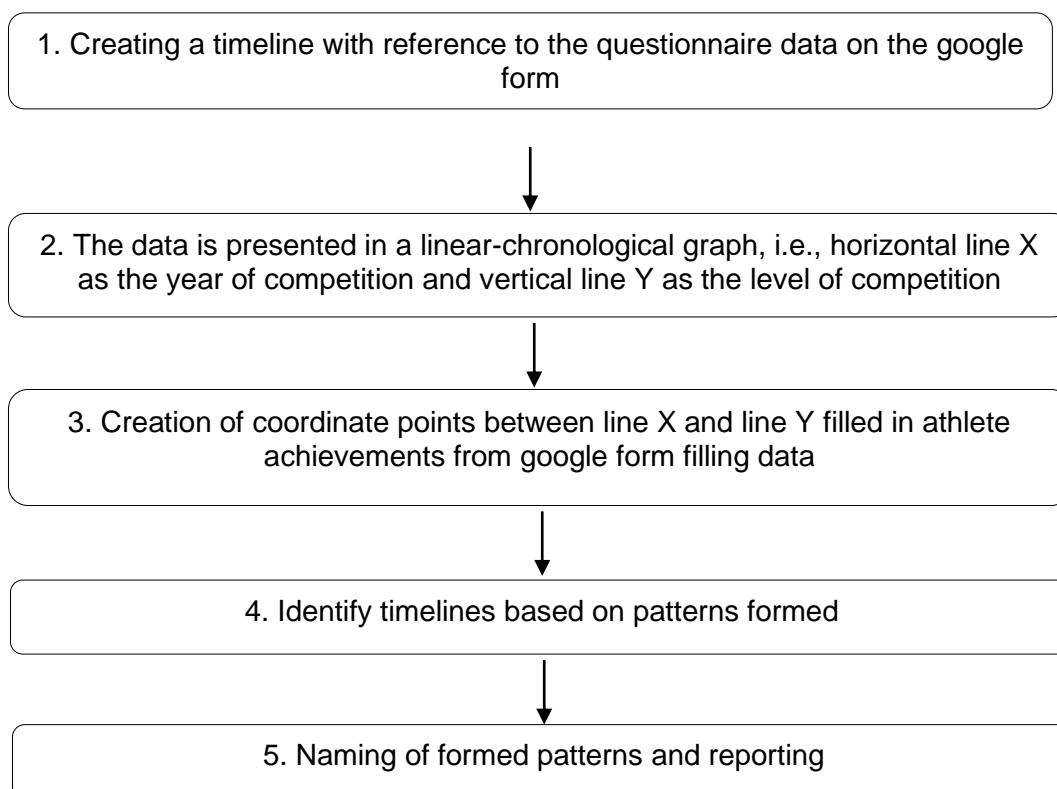


Figure 1. Data Analysis process

The participants are male and female volleyball athletes from the State University of Malang. The data collection technique in this study used purposive random sampling. Researchers set several criteria used to determine participants, including (1) male and female athletes from the 2018-2020 class, (2) having achievements in volleyball, and (3) filling out the questionnaire correctly. A total of 49 (forty-nine) athletes have filled out a questionnaire with the following details: (1) 5 class 2017, (2) 15 class 2018, (3) 8 class 2019, (4) 6 class 2020, (5) 7 class 2021, and (6) 8 people from the 2019 and 2020 batches filled out invalid questionnaires. The questionnaires were distributed from 1 December 2021 to 1 January 2022. Finally, 29 participants were obtained, consisting of 16 male and 13 female athletes from the 2018-2020 class.

RESULT

Researchers used questionnaires in the form of Google Forms distributed online through Whatsapp groups. Questionnaires were

distributed to male and female football athletes who were active students at the State University of Malang from various faculties. The number of participants who had given answers to the questionnaire was collected as many as 49 people. After the screening process, only data from 29 participants, 16 men and 13 women, will be further analyzed because the remaining 20 fill in incompletely, have never participated in the competition, or are no longer active in the volleyball competition.

A timeline diagram can help answer research on the achievements of volleyball athletes at the State University of Malang. This timeline analysis process follows research guidelines using chronological timelines in qualitative research, where a chronological review of activity patterns or achievements is carried out and visualized (Sheridan et al., 2011).

The analysis using the analysis content showed exciting results, namely the discovery of 3 (three) patterns obtained from the performance timeline as follows.

- a. **The progressive pattern of increasing:** this pattern shows that the achievements achieved by athletes from year to year are continuously increasing, from the city/district level to the provincial level or from the provincial to the national level. In addition, there is also uniqueness in this pattern; some athletes achieve achievements from the City/regency level directly to the national level, and others do not have achievements directly to the national level. At its core, athletes experience an increase in achievement from one level in up to a higher level.

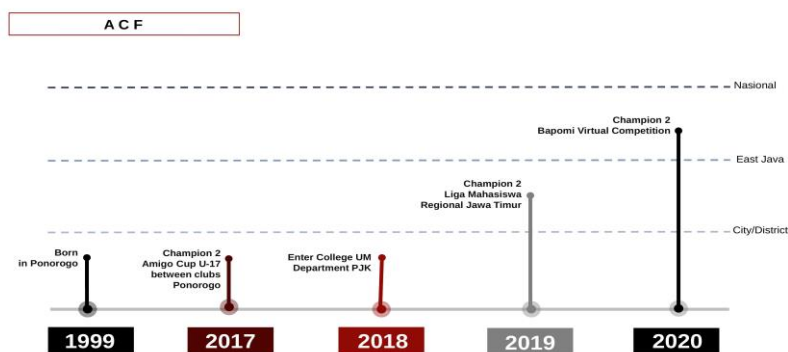


Figure 2. A timeline chart of athletes' achievements with progressively increasing patterns

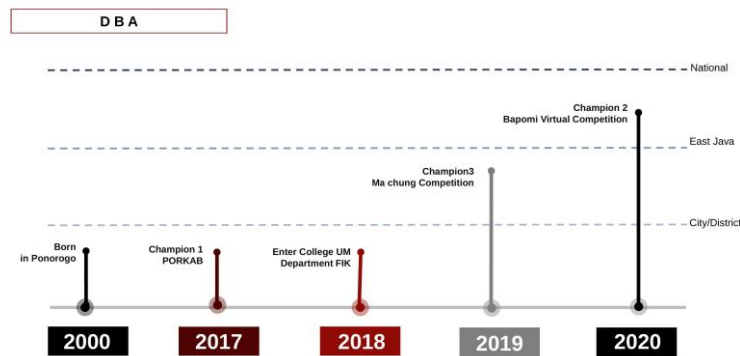


Figure 3. A timeline chart of athletes' achievements with progressively increasing patterns

Based on Figures 2 & 3, it can be interpreted that the number of athletes in the progressive category increased by 17 people, with details; as many as three people experienced an increase from the city/district level to the provincial level, eight people experienced an increase from the provincial level to the national level, two people experienced an increase at the city/district level to the national level, two people experienced a significant increase directly to the provincial level and two people directly to the national level.

- b. **Declining pattern:** this pattern indicates a decrease in athlete performance from a high level to a lower level, for example, from the national level to the provincial or city/district level. This decrease in achievement can be caused by athletes' inability to adapt well from school to college.

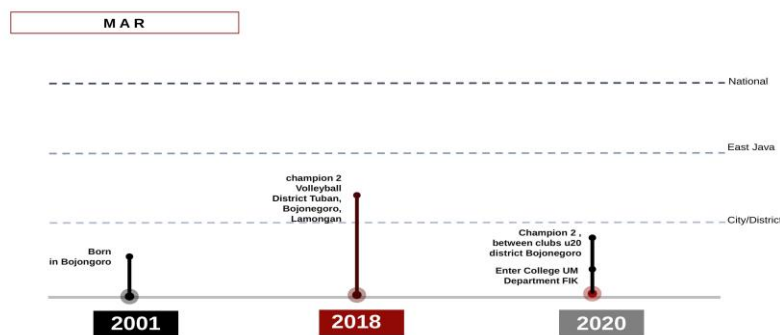


Figure 4. A timeline chart of athletes' achievements with a descending pattern

In the athletes' Figure 3 and Figure 4, only one person experienced a decrease in achievement from the provincial level to the city /district level.

c. **The stagnation pattern** describes the achievements achieved by the athlete not experiencing an increase or decrease, in other words, fixed. This pattern is divided into two types: i) linear stagnation patterns, where athletes achieve achievements at the same level from the first to the following year. The second pattern of stagnation occurs when the athlete in the first year achieves achievements at a certain level and in the following year does not achieve any more because there is no rolling competition. For example, in 2018, athletes managed to become competition champions at the provincial level and in 2019, athletes again won competitions at the provincial level. (ii) a pattern of stagnation due to the emptiness of competition. 11 UM volleyball athletes experienced stagnation, namely three stagnation people at the provincial level and eight stagnation people who had no achievements since entering college.

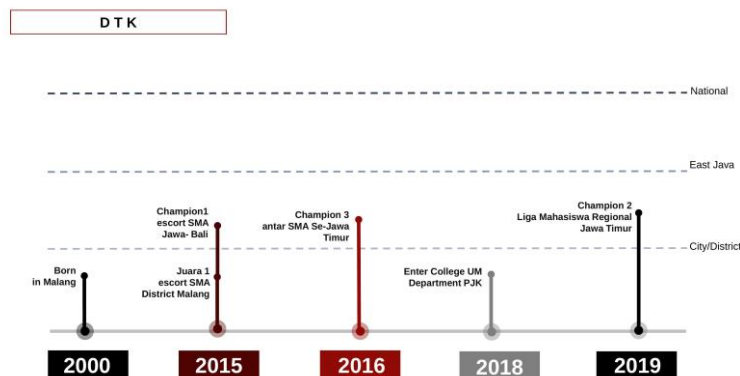


Figure 5. Timeline diagram of athlete achievement with linear stagnation pattern

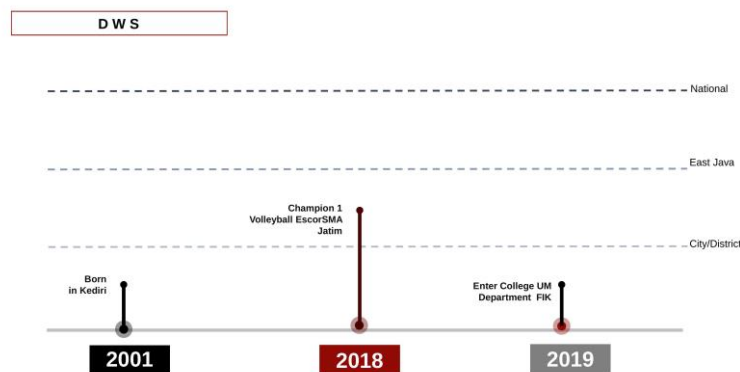


Figure 6. Timeline diagram of athletes' achievement Stagnation Pattern of achievement vacuum

Table 1 Presents the overall pattern achieved by athletes. From the timeline figure 5 and figure 6, researchers get an overview of the achievements achieved by volleyball athletes before and after studying at the State University of Malang. The fact found on the field is that there are athletes who have increased, decreased and not both (stagnation).

Table 1. Overview of Athlete Achievements

No	Pattern	Level	Athlete's Initials	L/P	Admission class	Total number
1	Progressive Increase	City/District – Province	1. DHA	L	2018	3
			2. MEA	L	2018	
			3. SFD	L	2018	
		Provincial – National	1. AR	L	2018	8
			2. MZR	L	2018	
			3. ACF	L	2018	
			4. BTK	L	2018	
			5. SU	L	2019	
			6. YPA	L	2019	
			7. DB	P	2018	
			8. AD	P	2019	
		City/District – National	1. NDP	L	2018	2
			2. ZR	P	2019	
		Province	1. AD	P	2018	2
2. CJ	P		2018			
National	1. AD	P	2018	2		
	2. EMM	P	2019			
2	Decreased	Province-city/District	1. MAR	L	2020	1
3	Linear stagnation	Province	1. DTK	L	2018	3
			2. ADI	P	2018	
			3. AGI	P	2018	
	Stagnation, the emptiness of competition	1. AND	L	2019	8	
		2. DWS	P	2019		
		3. MUJ	P	2019		
		4. OLI	L	2020		
		5. BTG	L	2020		
		6. FIRZ	L	2020		
		7. NUR	P	2020		
		8. MIF	P	2020		

DISCUSSION

This study found three patterns in athlete achievement: progressive increase, decrease and stagnation. From this pattern can be seen the factors that influence the change in athletes' achievements, including how

they match or differ with the previous models or findings in the transition career. (Wylleman & Rosier, 2016) Developed a Holistic Athlete Career model, which shows the transition phases and stages faced by athletes from the athlete level, psychology, psycho-social, educational and financial. From this model, it can be seen how ideally athletes are in exploring a transition period. Referring to this model, volleyball athletes of the state university of Malang who are between the ages of 20-25 years should ideally be in the mastery stage, which is the stage where athletes reach the highest level for mastery of abilities (Wylleman & Lavallee, 2004). However, this achievement timeline data shows that not all UM volleyball athletes are at the mastery stage, some athletes have decreased, and there is no increase in achievements.

Through the detection of these three patterns, volleyball athletes can find out: 1) the track record of achievements that have been achieved at the high school and college levels, and 2) changes in achievement experienced both increase and decrease. This information about the achievement timeline can be helpful for volleyball coaching, especially in the student sphere. Meanwhile, the benefits of the results of this study for football coaches, especially within the university scope, are 1) as evaluation material, 2) as a reminder, and 3) as a reference in the preparation of exercise programs.

In general, research on how the situation of university lectures impacts student-athletes in Indonesia is still rare. This research can provide data that studying at universities has a variety of impacts on the achievements of student football athletes. Athletes' achievement could have been increased if there had been significant support provided from the campus, for instance, by the availability of training facilities that are more accessible and organized on campus; easiness in following training, competitions and lectures simultaneously, and counseling support to maintain their psychological readiness toward student-athletes demands. Athletes' quality of individual skills could increase above average, and vice versa, their achievement could decrease without support. Meanwhile,

athletes who do not experience an increase or decrease or stagnation could be caused by non-participation in the competitions. Suggestions for this research are expected to be continued and analyzed more deeply in an Indonesian context.

CONCLUSION

Based on the research timeline diagram results, three patterns of changes in athlete achievement were found: progressive increase, decrease and stagnation. These conditions show that the male and female volleyball athletes of the State University of Malang who have experienced the transition from high school/equivalent to college are not yet entirely in the mastery stage.

The implications of this study include knowing in outline the factors that affect changes in athlete achievements, reminders for athletes of achievements that have been achieved by athletes so that it is hoped that athletes can be motivated to improve achievements even better, as input for coaches to compile future training programs to improve athlete achievements.

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