

IMPLEMENTATION OF AHP METHOD IN THE DECISION SUPPORT OF SELECTION OF STUDENT ACHIEVEMENT CASE STUDY: SENIOR HIGH SCHOOL

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Abstrak

Penelitian ini bertujuan untuk mencari keunggulan yang dimiliki setiap siswa agar dapat mengetahui siswa yang berprestasi. Melalui prestasi dibidang akademik maupun dibidang non akademik dapat menjadi tolak ukur untuk mencari siswa terbaik. Metode penelitian yang digunakan dalam penelitian ini adalah dengan metode penelitian survei, dimana penulis akan menyebarkan kuesioner ke salah satu Sekolah Menengah Atas dengan target penelitiannya adalah siswa dan di obseravasi melalui kepala sekolah dan guru di Sekolah Menengah Atas tersebut. Penelitian ini menggunakan Metode AHP (*Analytical Hierarchy Process*) yang dibantu *Software Expert Choice* dalam mengambil keputusan mengenai siswa berprestasi di Sekolah Menengah Atas di daerah Tangerang. Proses AHP dengan membanding antara siswa satu dengan kandidat siswa lainnya berdasarkan kriteria-kriteria yang telah ditentukan, juga membandingkan antar kriteria, untuk menemukan kriteria mana yang lebih diunggulkan. Hasil dari pengolahan *Software Expert choice* ini berupa gambar grafik yang menunjukkan siswa yang lebih unggul dengan begitu dapat diputuskan oleh pengambil keputusan.

Kata kunci: **Survey, Analytical Hierarchy Process, Prestasi**

Abstract

The research to look for excellence that each student has in order to find out students who excel. Through academic and non-academic achievements can be a benchmark for finding the best students. The research method used in this study is the survey research method, in which the writer will distribute the questionnaire to one of the High Schools with the target of the research being students and observing through the principal and teachers at the High School. This study uses the AHP (Analytical Hierarchy Process) method which is assisted by Expert Choice Software in making decisions regarding high achieving students in high schools in the Tangerang area. AHP process by comparing one student with other student candidates based on predetermined criteria, also comparing between criteria, to find which criteria are more favored. The results of the processing of the Expert Choice Software in the form of graphic images that show superior students so can be decided by decision makers.

Keywords: **Survey, Analytical Hierarchy Process Method, Achievement**

PENDAHULUAN

The development of education undertaken so far is general in nature, by providing standardized or average treatment to all students, so as not to pay attention to the differences between students in their skills, interests and talents (Husna et al., 2014). So that with strategies like the above advantages will appear randomly (Dewi et al.,

2015). For that reason, the school needs to develop the advantages of each student in order to know the student's achievement.

The assessment of outstanding students can be seen from their academic and non-academic achievements. Good academic and non-academic achievements are benchmarks of student success.

Outstanding students do not only achieve achievements in one field (Husna et al., 2014), but

several others, such as academic, organizational, work, and social. Outstanding students must meet several criteria both academically and non-academically. The academic criteria in general include grades for students. Non-academic criteria for students include the achievements of the student, the activeness in organizing or extracurricular activities (Asfi & Sari, 2010).

The problem that exists in high school is that there are no methods and criteria that are good for stating these students are achieving, schools measure student success based solely on report cards and attendance. To make the process of selecting outstanding students, a decision support system is needed to speed up the decision process taken. One method used to create a decision support system is the AHP method.

The AHP method was chosen because the AHP method is a form of decision support model (Handayani, 2015) where the main component is a functional hierarchy with the main input being human perception (Sinaga & Zabua, 2014).

The AHP method was chosen because the AHP method is a form of decision support model (Handayani, 2015) where the main component is a functional hierarchy with the main input being human perception (Sinaga & Zabua, 2014). In this study, the AHP method will be used as a comparative test analysis model and Expert Choice 2000 software for pair comparison comparison tests (Fitriyani, 2012) to get good decision results to determine the assessment of high achieving students.

With this method the author makes a Decision Support System for the selection of high achieving students in schools which can later help decision makers in schools in deciding the best alternatives in the selection of high achieving students. audio / video tape, interactive TV, CD-ROM, and computer-based training (CBT). Basically, decision making is a systematic approach to the nature of a problem, gathering facts, a mature determination of the alternatives faced (Zhuhri et al., 2019), and taking actions which according to calculations are the most appropriate actions (Rijayana & Okirindho, 2006) The use of e-learning in an education such as high school is urgently needed (Bariah & Sidik, 2019) to assist teachers in improving the learning process.

From the teacher's point of view, e-learning facilitates and facilitates communication between teachers and students (Purwaningtyas et al., 2016) through discussion forums and obtaining complete subject matter that can optimize the learning process in the classroom (Puspita et al., 2019).Assisting teachers in managing students,

giving assignments, discussions, and even giving assessments without having to face to face directly. This proves that e-learning is based on the background of the above problem; the authors identify the problem namely as follows:

1. How to make a decision support system at a school in order to determine students who excel at the school.
2. At the moment the decision making for determining high achieving students is only based on report cards and attendance.
3. Schools do not yet have an effective decision support system for selecting outstanding students.

The purpose of writing this research is:

1. With the AHP method can support the decision to choose high-achieving students.
2. Not only as information but as a decision support based on the criteria of report cards, scientific papers, extracurricular, personality, non-academic achievements and organizational activities that can help in determining student achievement.

RESEARCH METHODS

A. Research Type

Research by the author is a type of quantitative research and uses survey research methods by collecting data by distributing questionnaires.

B. Time and object of Research

The research site was conducted at senior high schools in the Tangerang area. Research time in April 2019.

C. Research Targets / Subjects

The research target in this study is students who attend school and observations through principals and teachers at high schools in the Tangerang area.

D. Research Stages

In this chapter explains the steps undertaken by researchers included in the quantitative research methods, namely:

1. Preparation Stage

At this stage it is a stage that prepares material related to the selection of high achieving students and decision support systems, formulation of problems by gathering preliminary information to find out the background of the problem, identification of problems, goals and objectives,

scope and hypotheses, and compiling a study of literature relating to research.

2. Collecting data stage

Data collection techniques used in this study were questionnaires, used data collection techniques through questionnaires in line with the methods used in this study. In addition, researchers also collected other data such as the organizational structure and their duties in high school. As well as conducting interviews and observations as a prelude to starting research.

3. Analysis Data Stage

In this study the authors use quantitative data, data analysis is an activity after data from respondents or other data sources are collected. Based on student achievement data from measurement of pair comparison rating scale or hierarchical rating scale and other data, an analysis was performed using the Analytical Hierarchy Process (AHP) method with the help of Expert Choice software to determine the priority or ranking of each criteria and alternatives to students the most achievers in high school.

4. Testing Phase

In the testing process, researchers have given questionnaires to expert respondents, then conducted data processing using the AHP (Analytic Hierarchy Process) method with the help of Expert Choice software.

5. Result and Suggestions Stage

In this section is the stage where the core of the overall description and discussion of research in the previous chapters and recommendations that are considered necessary for research.

A. Research Instrument

Research uses instruments to measure achievement, individual ability, observe behavior, develop individual behavior profiles, and as a tool for interviews. For furthermore stated that. Quantitative research in collecting data using instruments. Instrument is a tool for measuring, observing or documenting that can produce quantitative data.

This study also researchers used a questionnaire tool. This questionnaire will be distributed to expert respondents to get data related to the problem under study. Researchers also made observations to senior high schools to obtain primary data. As for secondary data, the authors conducted a literature study such as, literature books, journals, articles and from internet media. AHP method is used to make questions for the questionnaire. The theory has

been widely used by other researchers related to research discussions regarding decision support systems and student achievement.

B. Data Collection

Research data using available data (Amalia et al., 2017), to be processed is data in the form of primary data and secondary data. Primary data include direct observations at high schools, through principals and teachers who deal with research subjects. In addition, interviews, asking about the achievements of students in the school, and most importantly a questionnaire to obtain relevant data filled out by respondents who will later be processed as research results

Data, Instrument, and Data Collection Techniques

Data collection methods are important factors in the process and success of a study. This relates to how to collect data and who sources can provide data information that can be used in the study (Yuningsih, 2019):

1. Observation

The author makes direct observations of activities related to problems taken at high school

2. Interview

To get complete information, the authors conducted a question and answer method with the high school principal.

3. Research Study

The author looks for references in several journal publishers as material for comparison and references relating to issues related to writing this paper.

4. Questionnaire

This questionnaire was conducted by collecting data and written questions given to respondents to find out the response to the selection of high achieving students.

RESEARCH RESULTS AND DISCUSSION

In the case of student achievement selection can be determined, this time there are six criteria, namely report cards, scientific papers, Extracurricular, good personality, non-academic achievements and organizational activities. The explanation of each criterion variable:

1. Report cards are the values obtained from the results of student academic activities. Underlying students can be seen their achievements.
2. Scientific papers are scientific papers or in the form of research reports made by students

sourced from library studies. Which underlies students to be creative in the field of writing.

3. Extracurricular activities are students outside of teaching and learning that can develop talents and abilities outside the academic.
4. Personality is a pattern of attitudes or behavior of students during teaching and learning takes place in school.
5. Non-Academic Achievement is an achievement obtained outside of the activity of teaching and learning, such as getting awards from events held by the community.
6. Organizational Activities are the extent to which students are active in the organization at school or outside the school, such as becoming student council members or youth at home.

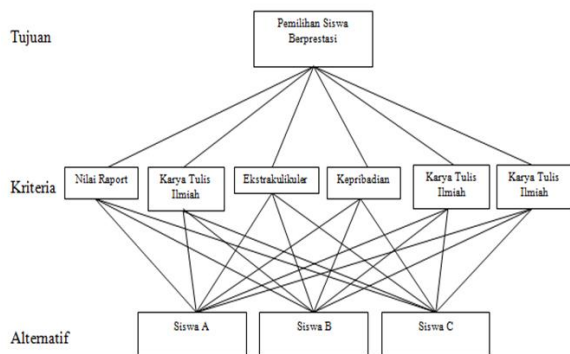


Figure 1. Hierarchy Structure for Student Achievement in High Schools

Figure 1 shows the selection hierarchy of high achieving students that contains alternatives to be compared with the criteria. Researchers can get answers from expert respondent; the answers were measured using a pairwise comparison rating scale which can be seen in Table 1, table 2, and table 3. Next, the researcher processes the questionnaire data using the Analytical Hierarchy Process (AHP) method which is assisted by Software Expert Choice 2000 and the results are combined.

A. Results of Data Processing with 2000 Expert Choice Software

	nilai raport	karya tulis	ekstrakulik	kepribadian	prestasi nc	kegiatan oi
nilai raport		5,0	5,0	5,0	2,0	4,0
karya tulis ilmiah			2,0	2,0	2,0	1,0
ekstrakurikuler				2,0	1,0	1,0
kepribadian					3,0	2,0
prestasi non akademik						1,0
kegiatan organisasi						
Incon: 0,09						

Figure 2. Pairwise Comparisons between Criteria (Respondent 1)

	nilai raport	karya tulis	ekstrakulik	kepribadian	prestasi nc	kegiatan oi
nilai raport		5,0	3,0	3,0	5,0	3,0
karya tulis ilmiah			3,0	2,0	2,0	3,0
ekstrakurikuler				3,0	3,0	2,0
kepribadian					3,0	3,0
prestasi non akademik						1,0
kegiatan organisasi						
Incon: 0,09						

Figure 3. Pairwise Comparison Between Criteria (Respondent 2)

	nilai raport	karya tulis	ekstrakulik	kepribadian	prestasi nc	kegiatan oi
nilai raport		3,0	4,0	4,0	5,0	4,0
karya tulis ilmiah			2,0	3,0	3,0	4,0
ekstrakurikuler				4,0	1,0	2,0
kepribadian					3,0	2,0
prestasi non akademik						1,0
kegiatan organisasi						
Incon: 0,07						

Figure 4. Pairwise Comparison between Criteria (Respondent 3)

Figure 2, Figure 3 and Figure 4 above are the results of a questionnaire from each respondent inputted into Expert Choice 2000 then the results of the questionnaire for each respondent must be made into one data for which AHP calculations are performed using Expert Choice 2000, each, comparing the same criteria in Third results Pairwise comparisons between the criteria in table 1, table 2 and table 3 will be calculated using the geometric mean formula:

$$\text{Geometric mean} = \sqrt[n]{x_1 \cdot x_2 \cdot \dots \cdot x_n}$$

* information

x = pairwise comparison results per criterion

n = total number of respondents

Example calculation of geometric mean pairwise comparison (pairwise comparison)

Report Card Value - Scientific Writing:

$$\begin{aligned} \text{Geometric mean} &= \sqrt[3]{x_1 \cdot x_2 \cdot \dots \cdot x_n} \\ &= \sqrt[3]{5 \cdot 5 \cdot 3} \\ &= \sqrt[3]{75} \end{aligned}$$

$$\text{Combined Result} = 4.21716$$

The calculation above can be proven the results in Figure 5 Comparison of the Report Score Value of Scientific Paper Reports with the results **4.21716**

	nilai raport	karya tulis	ekstrakulik	kepribadian	prestasi nc	kegiatan oi
nilai raport		4,21716	3,91487	3,91487	3,68403	3,63424
karya tulis ilmiah			1,44225	2,28943	1,44225	2,28943
ekstrakurikuler				1,81712	1,44225	1,5874
kepribadian					3,0	2,28943
prestasi non akademik						1,0
kegiatan organisasi						
Incon: 0,03						

Figure 5. Pairwise Comparison between Criteria (Combined)

Based on the results of the geometric calculations that have been calculated, the researcher did the calculation again using Ms. Excel with the same

formula. So we get results that are close to its value with the Software calculation *Expert Choice 2000* can see the results of the geometry calculations in table1

Table 1 Geometric Calculations Using Ms.Excel.

Criteria Comparison	Respon-den 1	Respon-den 2	Respon-den 3	Pembo-botan nilai
Value of work	5	5	3	4,2171633227
Extracurricular Value	5	3	4	3,914867641
Personality Value	5	3	4	3,914867641
Non-Presenting Value	2	5	5	3,684031499
Values of organization	4	3	4	3,634241186
Extracurricular works	2	3	2	1,44224957
Personality-work	2	2	3	2,289428485
Non-presenting works	2	2	3	1,44224957
Organizational work	1	3	4	2,289428485
Extracurricular-Personality	2	3	4	1,817120593
Non-extracurricular performance	1	3	1	1,44224957
Extracurricular-organization	1	2	2	1,587401052
Non-Achievement Personality	3	3	3	3
Personality-organization	2	3	2	2,289428485
Non-organizational achievements	1	1	1	1

1. Comparison of Alternative Factors for Student Selection Achievement for Each Criterion

After determining the criteria and conducting an assessment on a pairwise comparison (criteria), then an assessment is carried out for comparison of the existing (alternative) factors. An alternative consisting of 3 students was assessed based on these criteria. The following are the results of the 3 questionnaires that were filled in by respondents, combined and translated in the pairwise comparison matrix table using *Expert Choice 2000* in the field in Figure 6, Figure 7, Figure 8, Figure 9, Figure 10, and Figure 11:



Figure 6. Pairwise Comparison Based on Report Card Value Criteria

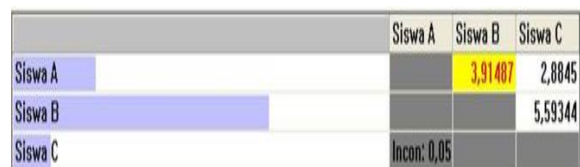


Figure 7. Pairwise Comparison Based on Scientific Writing Criteria

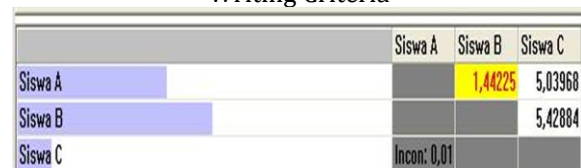


Figure 8. Pairwise Comparison Based on Extracurricular Criteria



Figure 9. Pairwise Comparison Based on Personality Criteria

	Siswa A	Siswa B	Siswa C
Siswa A		1,44225	1,81712
Siswa B			1,44225
Siswa C			
Incon: 0,04			

Figure 10. Pairwise Comparison Based on Non Academic Achievement Criteria

	Siswa A	Siswa B	Siswa C
Siswa A		1,14471	2,71442
Siswa B			2,0
Siswa C			
Incon: 0,00			

Figure 11 Pairwise Comparison Based on Organizational Activity Criteria

Based on the results of the Pairwise Comparison image, the researchers recalculated the evidence using Ms. Excel with the same formula, and get results in accordance with Expert Choice 2000 can be seen in Table 2, table 3, table 4, table 5, table 6 and table 7 below:

Table 2. Alternative Assessments Based on Report Card Value Criteria

Nilai Raport				
Perbandingan Faktor Promosi	Responden 1	Responden 2	Responden 3	Pembobotan nilai
Siswa A - Siswa B	5	3	3	1,216440399
Siswa A - Siswa C	9	5	3	5,12992784
Siswa B - Siswa C	4	7	5	5,192494102

Table 3. Alternative Assessments Based on Scientific Writing Criteria

Karya Tulis				
Perbandingan Faktor Promosi	Responden 1	Responden 2	Responden 3	Pembobotan nilai
Siswa A - Siswa B	4	3	5	3,9148
Siswa A - Siswa C	3	4	2	2,884499141
Siswa B - Siswa C	7	5	5	5,59344471

Table 4. Alternative Assessments Based on Extracurricular Criteria

Ekstra Kulikuler				
Perbandingan Faktor Promosi	Responden 1	Responden 2	Responden 3	Pembobotan nilai
Siswa A - Siswa B	5	3	5	1,44224957
Siswa A - Siswa C	8	4	4	5,0396824
Siswa B - Siswa C	4	5	8	5,428835233

Table 5. Alternative Assessments Based on Personality Criteria

Kepribadian				
Perbandingan Faktor Promosi	Responden 1	Responden 2	Responden 3	Pembobotan nilai
Siswa A - Siswa B	7	5	1	1,118688942
Siswa A - Siswa C	9	3	4	4,762203156
Siswa B - Siswa C	3	7	5	4,71769398

Table 6. Alternative Assessments Based on Non Academic Achievement Criteria

Prestasi Non Akademik				
Perbandingan Faktor Promosi	Responden 1	Responden 2	Responden 3	Pembobotan nilai
Siswa A - Siswa B	3	3	3	1,44224957
Siswa A - Siswa C	3	2	1	1,817120593
Siswa B - Siswa C	2	3	2	1,44224957

Table 7. Alternative Assessments Based on Organizational Activity Criteria

Prestasi Non Akademik				
Perbandingan Faktor Promosi	Responden 1	Responden 2	Responden 3	Pembobotan nilai
Siswa A - Siswa B	2	4	3	1,144714243
Siswa A - Siswa C	5	2	3	2,714417617
Siswa B - Siswa C	2	4	1	2

1. Determination of Pair Weight Comparison between Criteria

After inputting the pairwise comparison data between the criteria, the data processed by Expert Choice 2000 will be processed, it will produce a normalization matrix between the criteria which will determine the weight of each criterion described in Figure 12.

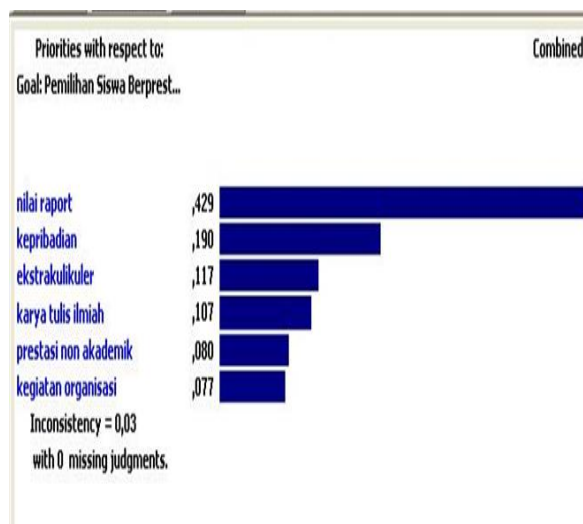


Figure 12. Normalization of Pairwise Comparison Matrices between Criteria

Next, the researcher re-verified the calculations using Ms. Excel and obtained results close to the Expert Choice 2000, which can be seen in Table 8 and Table 9 below:

Table 8. Normalization of Pairwise Comparative Matrices Between Criteria Using Ms. Excel

CRITERIA COMPARISON MATRIC						
	Report Card Value	Papers	Extracurricular	Personality	Non Academic Achievement	Organization activity
Report Card Value	1	4,22	3,92	3,92	3,68	3,63
Papers	0,24	1	0,69	0,44	1,44	2,29
Extracurricular	0,26	1,44	1	0,55	1,44	1,59
Personality	0,26	2,29	1,82	1	3	2,29
Non Academic Achievement	0,27	0,69	0,69	1	1	1
Organization activity	0,28	0,44	0,63	0,44	1	1
Amount	2,31	10,08	8,75	7,35	11,56	11,8

Table 9. Normalization of Pairwise Comparative Matrices Between Criteria Using Ms. Excel

COMPARATIVE NORMALIZATION OF CRITERIA										
	Report Card Value	Paper	Extracurricular	Personality	Non Academic Achievement	Organization activity	Amount	PSTS	%	
Report Card Value	0,44	0,42	0,45	0,59	0,32	0,31	2,52	0,42	42	
Papers	0,10	0,09	0,08	0,07	0,13	0,19	0,67	0,11	11	
Extracurricular	0,11	0,14	0,11	0,18	0,12	0,13	0,71	0,12	12	
Personality	0,11	0,23	0,21	0,15	0,26	0,19	1,15	0,19	19	
Non Academic Achievement	0,12	0,07	0,08	0,05	0,09	0,08	0,49	0,08	8	
Organization activity	0,12	0,04	0,07	0,06	0,09	0,08	0,47	0,08	8	
Amount	1	1	1	1	1	1	6	1	100	

2. Final Results of AHP (Analytic Hierarchy Process) Data Processing

After getting the value of each weighting pairwise comparison between criteria. The final step that must be taken to select high

achieving students in high school is counting Based on the results of Aggregate calculations using a formula that has been calculated and get an average result that is close to, it can be seen in the Expert Choice 2000 display in Figure 3 below:

Level	Criteria	Weight	Sub-Criteria	Weight
Level 1	Percent nilai rapor (L: 0,429)	43,4	nilai rapor (L: 0,429)	185
			nilai rapor (L: 0,429)	211
			nilai rapor (L: 0,429)	038
Level 1	Percent karya tulis ilmiah (L: 0,107)	7,7	karya tulis ilmiah (L: 0,107)	017
			karya tulis ilmiah (L: 0,107)	065
			karya tulis ilmiah (L: 0,107)	007
Level 1	Percent ekstrakurikuler (L: 0,117)	11,2	ekstrakurikuler (L: 0,117)	044
			ekstrakurikuler (L: 0,117)	050
			ekstrakurikuler (L: 0,117)	010
Level 1	Percent kepihadian (L: 0,190)	19,0	kepihadian (L: 0,190)	093
			kepihadian (L: 0,190)	086
			kepihadian (L: 0,190)	019
Level 1	Percent prestasi non akademik (L: 0,000)	9,4	prestasi non akademik (L: 0,000)	003
			prestasi non akademik (L: 0,000)	009
			prestasi non akademik (L: 0,000)	022
Level 1	Percent kegiatan organisasi (L: 0,077)	9,4	kegiatan organisasi (L: 0,077)	008
			kegiatan organisasi (L: 0,077)	001
			kegiatan organisasi (L: 0,077)	015

Figure 13. Final Assessment Results of AHP (Analytic Hierarchy Process) Using Expert Choice 2000

Performed back verification of calculations using Ms. Excel and get results that approach

the Expert Choice 2000 are explained in table 10 below:

Table 10 Final AHP (Analytic Hierarchy Process) Assessment Results Using Ms. Excel.

Alternative	criteria	Weight per band. Factors and criteria	Weight per band. Factors and alternatives	Aggregate	Prty
Student A	Value	0,429	0,425	0,183	0,182
	Paper	0,107	0,22	0,023	0,023
	Extra	0,117	0,396	0,046	0,046
	Personal	0,19	0,47	0,089	0,089
	Achievement	0,08	0,35	0,028	0,028
	Organization	0,077	0,451	0,034	0,034
Student B	Value	0,429	0,487	0,208	0,208
	Paper	0,107	0,683	0,073	0,073
	Extra	0,117	0,518	0,06	0,06
	Personal	0,19	0,435	0,082	0,082
	Achievement	0,08	0,414	0,033	0,033
	Organization	0,077	0,373	0,028	0,028
Student C	Value	0,429	0,088	0,037	0,037
	Paper	0,107	0,097	0,01	0,01
	Extra	0,117	0,087	0,01	0,01
	Personal	0,19	0,095	0,018	0,018
	Achievement	0,08	0,235	0,018	0,018
	Organization	0,077	0,176	0,013	0,015

The aggregate value is obtained by multiplying the weighting value in pairwise comparison between criteria and each factor comparison between alternatives is based selection criteria for high achieving students with the same criteria.

Example calculation calculation Weight Pairwise Between Criteria Value Report Card x Weight Comparison between Student Alternative Factors A.

$$= 0,429 \times 0,425$$

$$= 0,0182325 \rightarrow 0,182$$

This 0.182 result is from Aggregate or Prty in the Expert Choice 2000 Application.

3. Pembahasan Hasil Akhir dari Pengolahan Data After processing data with Expert Choice 2000. Researchers can check the inconsistency ratio of the respondent's data. If the CR value is $\leq 0,1$, it will be considered good. The following shows the inconsistency ratio values for each comparison in table 11:

Table 11. Comparison of CR Elements and Values

No.	Element Comparison Matrix	Value CR
1	Comparison of elements between criteria based on student achievement	0,03
2	Comparison of report card value criteria elements	0,00
3	Comparison of written criteria	0,05
4	Comparison of extracurricular writer elements	0,01

No.	Element Comparison Matrix	Value CR
5	Comparison of Elements of Personality Achievement Criteria	0,00
6	Comparison of elements of Academic Non criteria	0,04
7	Comparison of Organizational Activity Criteria Elements	0,00

Based on table 11 above, it can be concluded that the pairwise calculation provided by expert respondents has an inconsistency ratio that is smaller than 0.1. as the maximum inconsistency limit, the results of the respondents' calculation data are quite consistent.

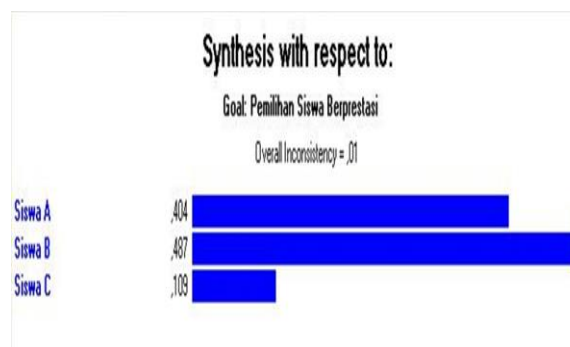


Figure 14. Global Priority Weight Value of Alternative Priorities Based on the Selection of Outstanding Students (Combined)

Figure 14 above is the final result of the calculation of expert choice 2000 software in graphical form. So that obtained students with the

highest or highest priority is Student B with a weight value of 0.487 or equivalent to 48.7%. Next rank is Student A with a weight value of 0.404 or equivalent to 40.4%. The last rank is Student C with a weight value of 0.109 or equivalent to 10.9%. Furthermore, researchers conducted calculations using Ms. Excel:

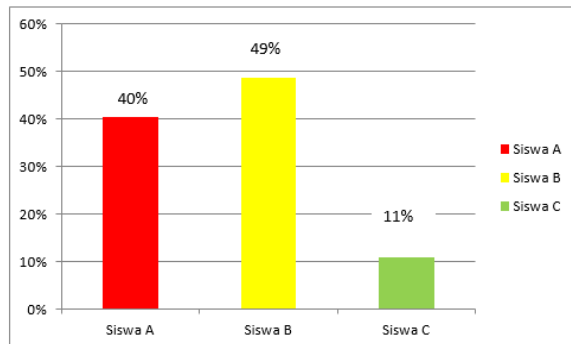


Figure 15. Final Results and Final Chart Using Ms. Excel.

The results of this calculation on Figure 15 also show that Student B more fulfills the criteria that have been determined in the selection of high achieving students in High Schools.

CONCLUSIONS AND SUGGESTIONS

Conclusion

Based on the final results or the goal of achieving high-achieving students in high schools in the Tangerang area globally, students who excel are "Student B" who get 48.7% of the two best candidates. Namely student A who got 40.4% and student C who received 10.9%.

Suggestion

The suggestions from the authors are as follows:

1. Based on Managerial Aspects: Training needs to be held for decision makers in schools in order to be able to use and operate this expert choice software well so that it is useful in deciding on a choice.
2. Based on the System Aspect: Because the system is in the form of software, maintenance and care on the computer is done regularly, such as updating anti-virus so that the expert choice software system can be maintained properly.
3. Based on Research Aspects: In further research it is expected to develop by adding criteria in order to get better decisions and tools other than expert choice with methods other than Analytical Hierarchy Process (AHP).

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