Selection Quiz Competition Participants With the Profile Matching Method (Case Study: Kesuma Bangsa Middle School , Padang Lawas)

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Revised: February 20, 2025; Accepted: May, 04,2025

Abstract

A quiz contest is a contest of intelligence and brevity in answering questions involving mathematics, civics, social science, Indonesian, and others. The candidates for this competition are carefully chosen based on the aspects and criteria held by the organization. This selection process aims to discern candidates who can accurately and efficiently answer the questions given. A reliable method to spot the merited candidates is highly necessary for the procedure. Due to that background, this research aspires to develop a decision support system by the Profile Matching method. Profile Matching method consists of three aspects: intelligence, attitude, target, and nine criteria: knowledge, commitment, innovation, diligence, teamwork, discipline, honesty, focus, and creativity. On the test result report of systemic count and current situation with 20 participants, there were 16 participants whose data were qualified (80%) and 4 participants whose data were not.

Keywords *: Quiz Contest, Design, Profile Matching, Decision Support System* **.**

1. Introduction

Enlightening the life of the nation is a noble goal of the establishment of a country called Indonesia. In this very advanced era supported by all technologies and their developments, there are many ways that can be taken to achieve the nation's goals, one of which is to participate in the quiz competition [1]. By enlightening the life of the nation, education is mandatory for the next generation, especially the current generation, namely the millennial generation [2]. Known as the millennial generation because they were born in an era that was already advanced in technology, for example, colored televisions, sophisticated cellphones , and super fast internet. So one of the characteristics of this generation is being technologically

proficient. Because the millennial generation is more adaptable to technology, therefore educational institutions should make more use of technology to support the learning process [3]. Although currently technology is quite expensive, it is better to do it gradually. The need to utilize technology in the learning process in order to adapt to the development of the times [4].

In junior high school level, there are many activities that are adjusted to the curriculum, one of which is we can get to know the quiz competition, which is one form of educational evaluation in Indonesia that is held every year. The competition that emphasizes the sharpness of thinking and speed of answering each question quickly and accurately. One of them is in junior high school Kesuma Bangsa , District Hutaraja Tinggi, Padang Lawas Regency , North Sumatra Province in conducting internal selection to get the best students according to the criteria of the quiz competition. The competition held at the sub-district level is held as part of the annual selection in the sub-district Hutaraja Tinggi, Padang Lawas Regency . The team that passes will be included in the competition again at the district level. Therefore, this Decision Support System was created as an alternative to manual calculations and to speed up the decision-making process. in the selection of participants in the quiz competition [5], [6]. Making a decision support system using software *MySQL* and *PHP* with *profile method matching [7], [8]*.

Profile Matching is a decision-making mechanism, especially in human resource management, to determine a position with the qualifications that have been set [9], but in this case the *profile method... Matching* will be applied to the decision-making mechanism for selecting participants in the quiz

competition. [10], [11]. In the process of *profiling Matching* begins with the selection of the required criteria and giving a Target Value to each Aspect [12], [13]. The next stage is a comparison between individual abilities and the qualifications that have been set, namely with assessment criteria taken from the selection test scores or from the semester exam report card scores for Mathematics, Science, English, Indonesian, the average grade report card score for class 5 and attendance so that a *Gap is obtained.* where the smaller the value obtained, the greater the value weight [14]. After determining the gap value weight for all aspects in the same way, each aspect is divided again into two groups, namely the *Core group Factor* (main factor) and *Secondary Factor* (supporting factors).

Research conducted by Entin Sutinah , namely the use of decision support systems with the profile method Matching can help management in determining the best sales who will later be promoted to become sales managers, and based on the calculation results using the steps in the profile method. Matching can be determined by the salesman who obtains the highest ranking value, from the highest ranking data obtained one of the sales with a score of 4.51 [11].

In the journal entitled " System Supporting Decisions for Candidate Participant Selection Flag Raising Team Karo Regency Using Profile Matching", Determination candidate participant flag bearer use Profile Matching method makes it easier committee take decision based on highest total value from calculation implementation influenced profile matching mark aspects and criteria that have been determined previously [15].

In the journal entitled "Profile Matching For System Server and Network Maintenance Vendor Selection Decision Support ", Selecting the right vendor done with see the vendor's criteria so that expected can minimize the risk that will arise. Using the Profile Matching Method can make it easier party management in take A the right decision , so things that are not wanted can avoided , because the process of taking his decision Already use system , party management take one alternative vendors that will invited Work The same in Maintaining servers and networks at PT. GemaGrahaSarana with selecting a vendor, PT. Nusa Network Prakarsa with acquisition value 4.6 [12].

Quiz is a competition to test your thinking skills and ability to answer questions (such as language questions, math, physics and others) quickly and accurately. The quiz technique is also a type of technique that can improve a person's speaking activity, including students. The use of quiz techniques in speaking learning can improve the ability to express opinions and present positive responses from students [16].

2. Research methods

a. Method of collecting data

Data collection methods are techniques or ways that can be used by researchers to collect data. Data collection is very necessary in a study. There are many types of data collection, but in a study, data collection techniques are not all used, data collection is carried out according to research needs.

In doing data collection was carried out with :

1. Literature review
2. Observation
3. Interview
4. Documentation

b. Profile Method Matching

1. *Flow chart* Process Stages With *Profile Matching* Method

   Stages passed in take decisions on the selection process participant intelligent careful with method *profile matching* can seen in *the flowchart* for the process in the method *profile matching* in Figure 1

Figure 1. Flowchart with Profile Matching Method

2. Calculation Ranking With Profile Matching Method
   Samples taken For study This consists of from some participant intelligent carefully at Kesuma Bangsa Padang Lawas Middle School will rated in a way direct For applied into the stages method *profile math* .
   1) Determine aspect or criteria
      Determinants and grouping criteria based on aspects standards used as test material for participant intelligent careful , and in research This writer use grouping aspects that can seen in Table 1. which is also criteria standards used at Kesuma Bangsa Middle School , Padang Lawas.

Table 1. Determination aspects that become reject measuring evaluation

No	Criteria	Code	Sign Value Profile
1	Aspect Intelligence		
	Knowledge	A	4
	Creativity	B	4
	Innovative	C	3
2	Target Aspect		
	Commitment	D	4
	Focus	E	3
	Measurable	F	3
3	Aspect Attitude		
	Honesty	G	4
	Discipline	H	4
	Work The same	I	3

   2) Mapping *Gap* Profile
      After obtained mark from test results based on specified criteria consists of from a number of aspect : aspect intelligence , target aspect , aspect attitude , then obtained mark from the test results (Table 2.) which were then done Matching with mark standards set for each criteria from aspects the to every participant intelligent careful .

Gap = Profile Attributes – Standard Value Profile

Table 2. Profile Gap Mapping

NO	NAME	CRITERIA									Note
		A. INTELLIGENCE			A. TARGET			A. ATTITUDE			
		A	B	C	D	E	F	G	H	I	
1	Goddess	4	4	2	4	4	2	4	4	3	

NO	NAME	CRITERIA									Note
		A. INTELLIGENCE			A. TARGET			A. ATTITUDE			
		A	B	C	D	E	F	G	H	I	
2	The Sustainable	0	4	4	4	4	2	4	4	2	
3	Dwianti	4	0	3	0	4	3	4	4	2	
4	Suroso	0	4	1	4	4	2	0	0	1	
5	The Supervisor	4	4	1	0	0	2	0	0	5	
STANDARD VALUE		4	4	3	4	3	3	4	4	3	
1	Goddess	0	0	-1	0	-1	-1	0	0	0	
2	The Sustainable	-4	0	1	0	-1	-1	0	0	-1	
3	Dwianti	0	-4	0	-4	-1	0	0	0	-1	
4	Suroso	-4	0	-2	0	-1	-1	-4	-4	-2	
5	The Supervisor	0	0	-2	-4	3	-1	-4	-4	2	

3) Weighting

After do mapping *Gap* step furthermore do weighting with follow standard giving mark weight based on Table 2, then obtained mark weight on each participant as seen solid Table 3.

Table 3. Description *Gap* Value Weight

No	Difference *Gap*	Weight of Value	Information
1	0	5	Competence in accordance with what is needed
2	1	4.5	Competence individual excess 1 level /level
3	-1	4	Competence individual less than 1 level
4	2	3.5	Competence individual 2 level excess
5	-2	3	Competence individual less than 2 levels
6	3	2.5	Competence individual 3 level excess
7	-3	2	Competence individual less than 3 levels
8	4	1.5	Competence individual 4 level excess
9	-4	1	Competence individual less than 4 levels

After obtaining the *gap value* , it will be converted into the *gap value weight* that has been set in *the profile matching method* as shown in Table 4.

Table 4. Conversion to Weighted Values

NO	NAME	CRITERIA									Note
		A. INTELLIGENCE			A. TARGET			A. ATTITUDE			
		A(CF)	B(CF)	C(SF)	D(CF)	E(CF)	F(SF)	G(CF)	H(CF)	I(SF)	
1	Goddess	4	4	2	4	4	2	4	4	3	
2	The Sustainable	0	4	4	4	4	2	4	4	2	
3	Dwianti	4	0	3	0	4	3	4	4	2	
4	Suroso	0	4	1	4	4	2	0	0	1	
5	The Supervisor	4	4	1	0	0	2	0	0	5	
STANDARD VALUE		4	4	3	4	3	3	4	4	3	
1	Goddess	0	4	4	4	4	2	4	4	2	GAP
2	The Sustainable	4	0	3	0	4	3	4	4	2	
3	Dwianti	0	4	1	4	4	2	0	0	1	
4	Suroso	4	4	1	0	0	2	0	0	5	
5	The Supervisor	4	4	3	4	3	3	4	4	3	
GAP VALUE CONVERSION											
1	Goddess	5	5	4	5	4.5	4	5	5	5	

2	The Sustainable	1	5	4.5	5	4.5	4	5	5	4	
3	Dwianti	5	1	5	1	4.5	5	5	5	4	
4	Suroso	1	5	3	5	4.5	4	1	1	3	
5	The Supervisor	5	5	3	1	2	4	1	1	3.5	

4) Calculation *core factors* and *secondary factors*
For calculation *core factor* moreover formerly take a number of criteria from each of the most important aspects and later will made into as *core factor* For the rest will made into as *secondary factor* . Grouping criteria from aspects the into the group *core factors* and *secondary factors* can seen in Table 5.

Table 5. Grouping Criteria in *Core Factor* and *Secondary Factor*

No	Criteria	Code	Grouping
1	Aspect Intelligence		
	Knowledge	A	Core Factor
	Creativity	B	Core Factor
	Innovative	C	Secondary Factor
2	Target Aspect		
	Commitment	D	Core Factor
	Focus	E	Core Factor
	Measurable	F	Secondary Factor
3	Aspect Attitude		
	Honesty	G	Core Factor
	Discipline	H	Core Factor
	Work The same	I	Secondary Factor

c. System Development Methods

The system development method used by the author in this study is SDLC (System Development Life Cycle). This system development process is known as the system development life cycle which has several stages. SDLC is known as a classic model commonly called the waterfall model. The stages in system development using waterfall are as follows:

1. Design
   In order for the system to be created as desired, good planning is needed. For that, planning is the first step before a system is created or developed. In this stage, the author does planning by collecting accurate, valid and reliable data. For data collection, the author uses several methods, namely, observation, interviews and *literature studies* .
2. System analysis
   With the aim of designing and developing the system, a direct review is needed on the selection system for participants in the quiz competition at SMP Kesuma Bangsa Padang Lawas which has so far been carried out manually. So based on the review, SMP Kesuma Bangsa Padang Lawas requires a decision support system application that aims to help accelerate the process of distributing the selection process for participants in the quiz competition at SMP Kesuma Bangsa Padang Lawas.
3. System design
   After the needs are completely collected, the author changes the needs into a data structure using several tools such as DFD *(Data Flow Diagram)* and context diagram. In this stage, the author creates 2 designs, namely *database design* and *interface design* . Where in the database design consists of several tables, namely the admin table, registration table, gender table, religion table, district table and province table. While the *interface design* consists of *index page design* , admin *login page design* , registration page design, and others.
4. Program *code* generation
   At this stage the author carries out the display design process, to make it look user *friendly* and attractive. So that the application can be opened on all *platforms* or is commonly called *responsive* .

5. System testing (*testing)* .
   At this stage, the author performs software testing from a logical or functional perspective to ensure that all parts have been tested. The author does this to minimize errors *and* ensure that the output produced is as desired.

3. Results and Discussion

This section discusses the results of the research and at the same time also provides a comprehensive discussion . The results of the research can be presented using images, graphs, tables, and others that make it easy for readers to understand the results of the research. The discussion can be made using several sub-chapters.

a. Implementation System

1. Home View
   Home page is the page that appears when user access application system Supporter decision this . On the page home page This served information general covers environment and profile of Kesuma Bangsa Padang Lawas Middle School, besides it's on the page homepage has also been menu links are provided for go to the page that will be targeted later . Form design Home Page view can seen in Figure 2..

Figure 2. Home Page View

2. User login view
   Login page is pages used For *logged in* by user into the system application For can access information of a nature closed For general . On this login page too set the process of identifying the username and password used , so that the information that will be used presented by the system in accordance with right access user in structure taking decision . The design form of the *Login* Page display can be seen in Figure 3 .

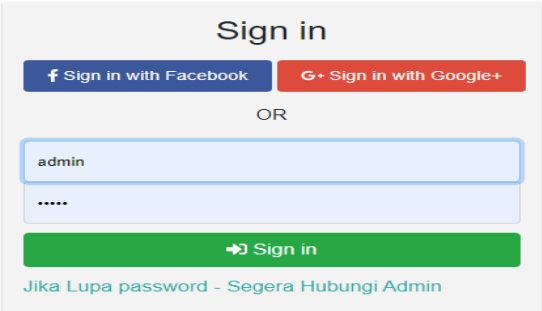

Figure 3. Login Page View

3. Information Page View
   Appearance page vacancy Work is page that presents information vacancy Work for public input into the system through *input form* advertisement / information selection participants by head school , where on the page This served information around selection participant race intelligent careful in the Kesuma Bangsa Padang Lawas Middle School. The next one user will directed from page information going to page filling in biodata as condition beginning For selection at SMP

Kesuma Bangsa Padang Lawas through the information portal . The form of the display design of the Advertisement / Information Page can be seen in Figure 4.

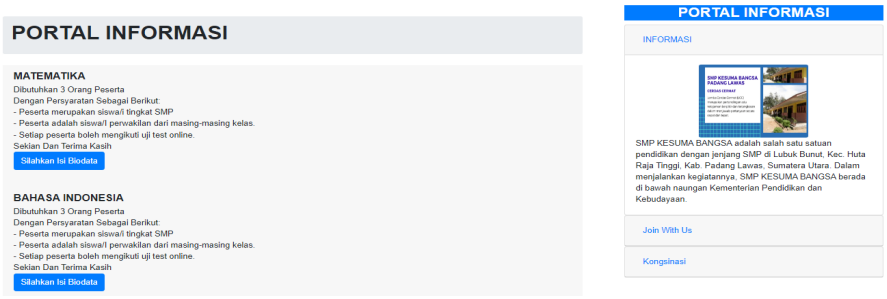

Figure 4. Information Page View

4. Online Test Page View

Page *input* test test on line is page Which used For input questions test along with key the answer Where question test Which input will be displayed for participant at the time of following test online . *Input* Page display design form *The online* t -test questions can be seen in Figure 5.

Figure 5. Online Test Page View

5. Participant Score Page View

Value page test applicant is page that presents table mark test results obtained participant namely online test. The design form of the Participant Score Page display can be seen in Figure 6.

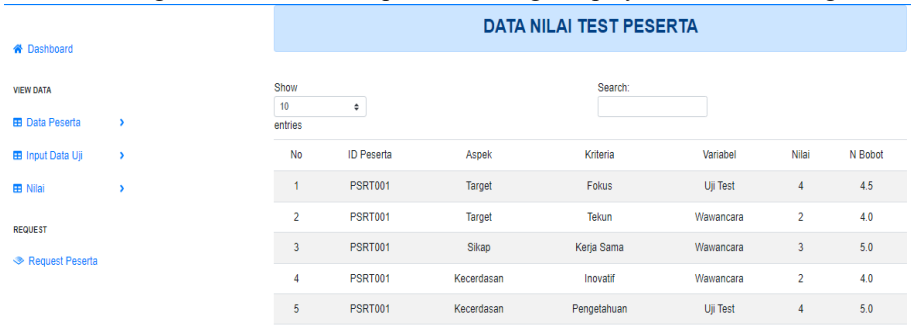

Figure 6 . Participant Score Page View

6. Ranking Page View

Page Ranking is page Which serve information decision end on selection participant race intelligent careful at Kesuma Middle School The Padang Lawas Nation . Where on page This serve table results calculation mark ranking with use method *profile matching* . *The design form of* the Ranking Page display can be seen in Figure 7.

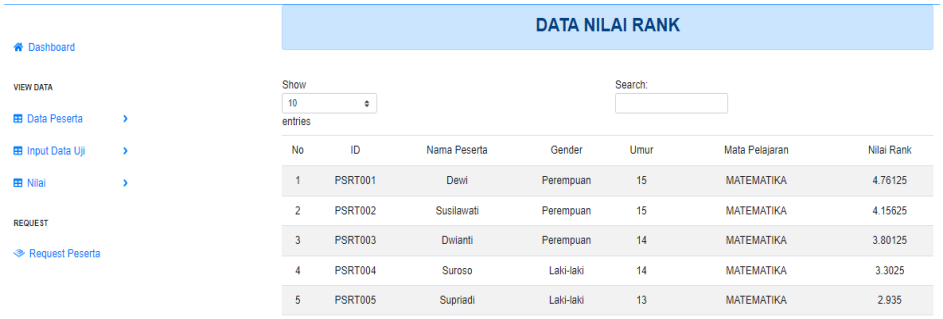

Figure 7. Ranking Page View

b. Discussion

1. Ranking Calculation Using Profile Method Matching

From 20 students candidate participant race intelligent careful 5 (five) participants were taken as example implementation profile matching method in determine participant race intelligent careful , who has mark the highest that will be chosen For follow race intelligent careful the .

Table 6. Participants of the Quiz Competition

NO	NAME	CRITERIA									Note
		A. INTELLIGENCE			A. TARGET			A. ATTITUDE			
		A	B	C	D	E	F	G	H	I	
1	Goddess	4	4	2	4	4	2	4	4	3	
2	The Sustainable	0	4	4	4	4	2	4	4	2	
3	Dwianti	4	0	3	0	4	3	4	4	2	
4	Suroso	0	4	1	4	4	2	0	0	1	
5	The Supervisor	4	4	1	0	0	2	0	0	5	

1. Determine aspects or criteria

Table 7. Determination aspects that become reject measuring evaluation

NO	CRITERIA	CODE	MARK
1	Aspect Intelligence		
	Knowledge	A	4
	Creativity	B	4
	Innovative	C	3
2	Target Aspect		
	Commitment	D	4
	Focus	E	3
	Persistent	F	3
3	Aspect Attitude		
	Honesty	G	4
	Discipline	H	4
	Work The same	I	3

2. Gap Mapping (Gap = Input value – Initial fixed value)

Table 8. Gap Mapping

NO	NAME	CRITERIA									Note
		A. INTELLIGENCE			A. TARGET			A. ATTITUDE			
		A(CF)	B(CF)	C(SF)	D(CF)	E(CF)	F(SF)	G(CF)	H(CF)	I(SF)	
1	Goddess	4	4	2	4	4	2	4	4	3	
2	The Sustainable	0	4	4	4	4	2	4	4	2	
3	Dwianti	4	0	3	0	4	3	4	4	2	
4	Suroso	0	4	1	4	4	2	0	0	1	
5	The Supervisor	4	4	1	0	0	2	0	0	5	
STANDARD VALUE		4	4	3	4	3	3	4	4	3	

1	Goddess	0	4	4	4	4	2	4	4	2	GAP
2	The Sustainable	4	0	3	0	4	3	4	4	2	
3	Dwianti	0	4	1	4	4	2	0	0	1	
4	Suroso	4	4	1	0	0	2	0	0	5	
5	The Supervisor	4	4	3	4	3	3	4	4	3	

3. Weighting

Table 9. Weighting

NO	GAP DIFFERENCE	WEIGHT VALUE	INFORMATION
1	0	5	Competence in accordance with what is needed
2	1	4.5	Competence individual excess 1 level /level
3	-1	4	Competence individual less than 1 level
4	2	3.5	Competence individual 2 level excess
5	-2	3	Competence individual less than 2 levels
6	3	2.5	Competence individual 3 level excess
7	-3	2	Competence individual less than 3 levels
8	4	1.5	Competence individual 4 level excess
9	-4	1	Competence individual less than 4 levels

4. Gap Value Conversion

Table 10. Gap Value Conversion

NO	NAME	CRITERIA									Note
		A. INTELLIGENCE			A. TARGET			A. ATTITUDE			
		A(CF)	B(CF)	C(SF)	D(CF)	E(CF)	F(SF)	G(CF)	H(CF)	I(SF)	
1	Goddess	4	4	2	4	4	2	4	4	3	
2	The Sustainable	0	4	4	4	4	2	4	4	2	
3	Dwianti	4	0	3	0	4	3	4	4	2	
4	Suroso	0	4	1	4	4	2	0	0	1	
5	The Supervisor	4	4	1	0	0	2	0	0	5	
STANDARD VALUE		4	4	3	4	3	3	4	4	3	
1	Goddess	0	4	4	4	4	2	4	4	2	GAP
2	The Sustainable	4	0	3	0	4	3	4	4	2	
3	Dwianti	0	4	1	4	4	2	0	0	1	
4	Suroso	4	4	1	0	0	2	0	0	5	
5	The Supervisor	4	4	3	4	3	3	4	4	3	
GAP VALUE CONVERSION											
1	Goddess	5	5	4	5	4.5	4	5	5	5	
2	The Sustainable	1	5	4.5	5	4.5	4	5	5	4	
3	Dwianti	5	1	5	1	4.5	5	5	5	4	
4	Suroso	1	5	3	5	4.5	4	1	1	3	
5	The Supervisor	5	5	3	1	2	4	1	1	3.5	

5. Calculation of Core Factor and Secondary Factor

Table 11. Grouping Criteria in *Core Factor* and *Secondary Factor*

No	Criteria	Code	Grouping
1	Aspect Intelligence		
	Knowledge	A	Core Factor
	Creativity	B	Core Factor
	Innovative	C	Secondary Factor
2	Target Aspect		
	Commitment	D	Core Factor
	Focus	E	Core Factor
	Measurable	F	Secondary Factor
3	Aspect Attitude		
	Honesty	G	Core Factor

No	Criteria	Code	Grouping
	Discipline	H	Core Factor
	Work The same	I	Secondary Factor

a. Core Factor

The criteria included in *the core factor* will be calculated using the following equation:

$$NCF = \frac{\sum NC}{\sum IC}$$

Information :

NCF = Average *Core Factor Value*

NC = Total number of *Core Factor* Values

IC = Number of *Core Factor* Items

b. Secondary Factor

Meanwhile, the calculation of *the secondary factor* can be seen in the following equation:

$$NCF = \frac{\sum NS}{\sum IS}$$

Information :

NSF = Average value of *Secondary factor*

NS = Total number of values *secondary factor*

IS = Number of *secondary factor* items

Calculating Core Factor and Secondary F actor each aspect of the criteria of each Participant .

Table 12. Core Factor (CF) and Secondary Factor (SF) of aspect criteria

NO	NAME	CRITERIA								
		A. INTELLIGENCE			A. TARGET			A. ATTITUDE		
		A(CF)	B(CF)	C(SF)	D(CF)	E(CF)	F(SF)	G(CF)	H(CF)	I(SF)
1	Goddess	5	5	4	5	4.5	4	5	5	5
2	The Sustainable	1	5	4.5	5	4.5	4	5	5	4
3	Dwianti	5	1	5	1	4.5	5	5	5	4
4	Suroso	1	5	3	5	4.5	4	1	1	3
5	The Supervisor	5	5	3	1	2	4	1	1	3.5

1. Aspect Intelligence

Table 13 . Calculation of CF and SF from aspect intelligence

NO	NAME	NCF= $\frac{\sum NC}{\sum IC}$	NSF=$\frac{\sum NS}{\sum IS}$
1	Goddess	$\frac{5+5}{2} = 5$	$\frac{4}{1} = 4$
2	The Sustainable	$\frac{1+5}{2} = 3$	$\frac{4,5}{1} = 4,5$
3	Dwianti	$\frac{5+1}{2} = 3$	$\frac{5}{1} = 5$
4	Suroso	$\frac{1+5}{2} = 3$	$\frac{3}{1} = 3$
5	The Supervisor	$\frac{5+5}{2} = 5$	$\frac{3}{1} = 3$

2. Target Aspect

Table 14 . Calculation of CF and SF from target aspect

NO	NAME	NCF= $\frac{\sum NC}{\sum IC}$	NSF=$\frac{\sum NS}{\sum IS}$
1	Goddess	$\frac{5+4,5}{2} = 4.75$	$\frac{4}{1} = 4$
2	The Sustainable	$\frac{5+4,5}{2} = 4.75$	$\frac{4}{1} = 4$
3	Dwianti	$\frac{1+4,5}{2} = 2.75$	$\frac{5}{1} = 5$
4	Suroso	$\frac{5+4,5}{2} = 4.75$	$\frac{4}{1} = 4$
5	The Supervisor	$\frac{1+2}{2} = 1.5$	$\frac{4}{1} = 4$

3. Aspect Attitude

Table 15 . Calculation of CF and SF from aspect attitude

NO	NAME	NCF= $\frac{\sum NC}{\sum IC}$	NSF=$\frac{\sum NS}{\sum IS}$
1	Goddess	$\frac{5+5}{2}=5$	$\frac{5}{1}=5$
2	The Sustainable	$\frac{5+5}{2}=5$	$\frac{4}{1}=4$
3	Dwianti	$\frac{5+5}{2}=5$	$\frac{4}{1}=4$
4	Suroso	$\frac{1+1}{2}=1$	$\frac{3}{1}=3$
5	The Supervisor	$\frac{1+1}{2}=1$	$\frac{3,5}{1}=3,5$

6. Calculating Total Value

In this sample test, 70% was used for the core factor percentage and 30% for the secondary factor percentage.

NT = (70)%*NCF + (30)%*NSF

1. Aspects of Intelligence

Table 16. Calculation of Total Aspect Value Intelligence

NO	NAME	TOTAL VALUE= (70)%*NCF + (30)%*NSF
1	Goddess	(70% X 5) + (30% X 4) = 4.7
2	The Sustainable	(70% X 3) + (30% X 4.5) = 3.45
3	Dwianti	(70% X 3) + (30% X 5) = 3.6
4	Suroso	(70% X 3) + (30% X 3) = 3
5	The Supervisor	(70% X 5) + (30% X 3) = 4.4

2. Target Aspect

Table 17. Calculation of Total Target Aspect Value

NO	NAME	TOTAL VALUE= (70)%*NCF + (30)%*NSF
1	Goddess	(70% X 4.75) + (30% X 4) = 4.525
2	The Sustainable	(70% X 4.75) + (30% X 4) = 4.525
3	Dwianti	(70% X 2.75) + (30% X 5) = 3.425
4	Suroso	(70% X 4.75) + (30% X 4) = 4.525
5	The Supervisor	(70% X 1.5) + (30% X 4) = 2.25

3. Attitude Aspect

Table 18. Calculation of Total Aspect Value Attitude

NO	NAME	TOTAL VALUE= (70)%*NCF + (30)%*NSF
1	Goddess	(70% X 5) + (30% X 5) = 5
2	The Sustainable	(70% X 5) + (30% X 4) = 4.7
3	Dwianti	(70% X 5) + (30% X 4) = 4.7
4	Suroso	(70% X 1) + (30% X 3) = 1.6
5	The Supervisor	(70% X 1) + (30% X 3.5) = 1.75

7. Ranking

In this sample test, 40% was used for the Intelligence Value percentage, 25% for the Target Value percentage and 35% for the Attitude Value percentage .

Rank = (x)%*NK + (x)%*NT + (x)%*NS

Table 19 . Ranking

NO	NAME	N1	N2	N3	RINGKING
1	Goddess	4.7	4,525	5	(40% X 4.7) + (25% X 4.525) + (35%
2	The Sustainable	3.45	4,525	4.7	(40% X 3.45) + (25% X 4.525) + (35%
3	Dwianti	3.6	3,425	4.7	(40% X 3.6) + (25% X 3.425) + (35%
4	Suroso	3	4,525	1.6	(40% X 3) + (25% X 4.525) + (35%
5	The Supervisor	4.4	2.25	1.75	(40% X 4.4) + (25% X 2.25) + (35%

ranking results obtained Dewi = 4.76125, Susilawati = 4.15625, Dwanti = 3.94125, Suroso = 2.89125 and Supriadi = 2.935. Based on these results, the participants with the highest scores will be selected. So the highest score goes to Dewi with a score of = 4.76125.

2. Testing Validity

For the comparison results of the manual and system methods, both the highest and lowest values, can be seen in Table 20.

Table 20. Validation of Results

NO	NAME	N1	N2	N3	Calculation System	Subjects	School Ranking	Ranking System	Validation
1	Goddess	4.7	4,525	5	4.76125	MTK	Follow	Follow	In accordance
2	The Sustainable	3.45	4,525	4.7	4.15625	MTK	Follow	Not Following	It is not in accordance with
3	Dwianti	3.6	3,425	4.7	3.80125	MTK	Not Following	Not Following	In accordance
4	Suroso	3	4,525	1.6	3.3025	MTK	Not Following	Not Following	In accordance
5	The Supervisor	4.4	2.25	1.75	2.935	MTK	Not Following	Not Following	In accordance
6	Andika	5	4,825	4.85	4.90375	BIND	Follow	Follow	In accordance
7	Adrian	4.7	4,675	3.3	4.34375	BIND	Follow	Not Following	It is not in accordance with
8	Nabila	3.6	4,525	3	3.76125	BIND	Not Following	Not Following	In accordance
9	Salsabila	1.75	3.65	4.4	2.88125	BIND	Not Following	Not Following	In accordance
10	Salwa	2.2	3.65	3.45	2.86875	BIND	Not Following	Not Following	In accordance
11	Irwan	5	4,225	4.7	4.70125	IPS	Follow	Follow	In accordance
12	Siti	3.6	4,825	4.4	4.18625	IPS	Follow	Not Following	It is not in accordance with
13	Saputra	5	1.95	4.85	3.77375	IPS	Not Following	Not Following	In accordance
14	The Simanjuntak	3.6	2,825	3	3.19625	IPS	Not Following	Not Following	In accordance
15	Simamora	1.9	3.65	3.3	2.69625	IPS	Not Following	Not Following	In accordance
16	Marito	4.7	4,525	4.85	4.70875	PKN	Follow	Follow	In accordance
17	Kirana	4.85	4,225	3.6	4.25625	PKN	Follow	Not Following	It is not in accordance with
18	Ricky	3.6	4,825	3	3.9675	PKN	Not Following	Not Following	In accordance
19	Diana	3.6	2,825	3.6	3.40625	PKN	Not Following	Not Following	In accordance
20	Apriningsi	1.6	3.65	3.3	2.57625	PKN	Not Following	Not Following	In accordance

Based on Table 20., the percentage of system calculation results with running conditions from 20 data that have been tested, obtained as many as 16 participant data (80%) that are appropriate and 4 participant data (20%) that are not appropriate. Then taken 4 (participants), with the highest scores, namely: Dewi = 4.76125, Andika = 4.90375, Irwan = 4.70125 and Marito = 4.70875, who are entitled to take part in the quiz competition.

4. Conclusion

In this section, the author provides a statement starting from what is expected from the research, which is written in the "Introduction" section, to the results obtained in the "Results and Discussion" section, so that it becomes a unity that can be explained briefly, concisely, and clearly. In this section, the next research plan can also be added based on the results obtained. From the results of the discussion, the following conclusions can be drawn :

1. Evaluation candidate participant race intelligent careful done with using 3 aspects and 9 criteria namely : Aspects : Intelligence , Attitude , Target and Criteria : Knowledge , Discipline , Work same , Honesty , Commitment , Innovative , Diligent , Creativity , Focus .
2. The percentage of system calculation results with running conditions from 20 data that have been tested, obtained as many as 16 participant data (80%) that are appropriate and 4 participant data (20%) that are not appropriate. Then taken 4 (participants), with the highest scores, namely: Dewi = 4.76125, Andika = 4.90375, Irwan = 4.70125 and Marito = 4.70875, who are entitled to take part in the quiz competition .

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