PROSPECTIVE MATHEMATICS TEACHER STUDENT PERCEPTION OF CHEATING REVIEWED BY MULTIPLE INTELLIGENCE, MATHEMATICAL RESILIENCE AND GRADE POINT AVERAGE (GPA)

Wahidin,a) and Nanang Priatna22,b)

[1] Faculty of teacher Training and education, University of Muhammadiyah Prof. Dr. Hamka (UHAMKA), tanah merdeka,Kec. Pasar Rebo, East Jakarta.

[2]Universitas Pendidikan Indonesia

a)Coresponding author: [1]wahidinmtk@uhamka.ac

Abstract. This study aims to examine perceptions of prospective mathematics teacher (students) on cheating based on multiple intelegence, mathematical resilience and GPA. The sample of this study was conducted on 30 students at third semester in Faculty of Education and Teacher Training (FKIP), University of Muhammadiyah Prof.DR.Hamka (UHAMKA). This research used qualitative method which applied case study and phenomenology. The results of this research illustrates that students' cheating perception in high-medium-low category are at moderate level of multiple intelligences, mathematical resilience and GPA. There are eight reasons why student cheats, 10 ways that someone does cheating and 11 attempts to overcome cheating.

Keywords: *Cheating, Multiple Intelligence, Mathematical Resilience.*

INTRODUCTION

Research by Schussler, Greenberg, DeWeese, Rasheed, DeMauro, Jennings, & Brown, (2018) found that teacher's experiences in managing stress due to dealing with students can increase their resilience. According to Taderera, Nyikahadzoi, Matamande, & Mandimika, (2014) found that cheating can be indetified based on type of study program being learned or study period. Cheating in written examination are dominantly influenced by personal and situational factors. Cheating strategies use notes, writing on body parts and ordinary objects, copying identity and other students'work, exchanging books, and leaving notes in lavatory. Cheating reduction strategies are divided by two categories, namely, manual instruction, offenders' suspension and results'cancellation, improvement on supervisor training, supervisor's motivation, CCTV usage. Ottaway, Murrant, Ritchie, (2017), at physiology department, we have concens that students change written test and submit them back for higher scores; thus, it depleted integrity of our main assessment.

In this research, researchers extend previous research by paying attention to cheating ways by observing, interviewing why cheating, listing participant's suggestion on how to overcome cheating based on multiple intelligence, mathematical resilience and GPA of prospective mathematics teachers (students).

- **Cheating**

Cheating is a fraud in examination through information usage that comes from outside illegally (Sujana & Wulan, 1994; Indarto & Masrun, 2004; Kilian, 2006; Anderman & Murdock, 2006; KBBI, 2018). Cheating can be defined as all kinds of fraud that happened in the test by using

contradictive ways with regulation in obtaining a benefit, in this case, the benefit is that obtaining answers for getting higher scores than doing with own ability. The forms of cheating behavior : (1) giving or receiving information from outside; (2) Using tools that are allowed; and (3) Utilizing the weakness of other people, procedures or the process of conducting test to gain a benefit (Klausmeier, 1985; Ebel & Frisbie, 1986).

- **Multiple Intelligence**

Multiple Intelligence theory is the highest validation concept that individual differentitation is important, and in the theory, people was born with own intelligence, unless in one of specific levels (Jasmine, 2012). Multiple Intelligence is an individual's ability which shown as a an abstract skill/thinking in solving faced problems or creating something new (Alqatanani, 2017; Amir, 2013; Davis, Christodoulou, Seider, & Gardner, 2011; Rohmah, 2011; Samsudin, Haniza, Abdul-Talib, & Mhd Ibrahim, 2015).

According to Gardner (Hoerr, 2000; Ngermanto, 2008; Davis, Christodoulou, Seider & Gardner, 2011; Jasmine, 2012; English, 2012; Khodijah, 2014), human intelligence has ten dimensions, they are :

a) *Linguistic intelligence*, is sensitivity to the meaning and arrangement of words and variety of language usage
b) *Logical-mathematical intelligence*, is an ability to work with long sequence of logic and recognize pattern and arrangement of reality.
c) *Musical intellingence*, is sensitivity to music pattern, melody and tone.
d) *Spatial intelligence*, is an ability to feel visual world accurately and recreate, transform or modify realistics aspects based on perception
e) *Bodily-kinesthetic intelligence*, is an ability of using body parts well and handling objects
f) *Interpersonal intelligence*, is an ability to build good relationship with other people.
g) *Intrapersonal intelligence*, is an ability to access own internal life.
h) *Naturalis intelligence*, is ability to recognize and categorize species, flora and fauna in surrounding environment.
i) *Spiritual intelligence*, is an ability to actualize transcendent things or awareness of faith values and belief in the Greatness of God.
j) *Existensial intelligence*, is an ability in some life problems and existential human aspect and in-dept experience of life.

- **Mathematical Resilience**

Students experience obstacles, difficulties, fears, and anxiety in learning mathematics. Anxiety of mathematics leads to students' dislike of mathematics (Ashcraft, 2002; Anita, 2014; Astuti, 2016; Hartatik & Fitriyah, 2017; Puspitasari, Purwasih & Nurjaman, 2017; Ariyanto, Herman, Sumarmo, & Suryadi, 2017; Zanthy, 2018). In addition, students try to avoid learning and doing mathematics. Obstacle (Learning difficulties) can cause student get failure in reaching learning goals, so it requires more effort to overcome the problem. To overcome anxiety and fear in facing challenges and difficulties, it requires hard work and good language skills, students need to have a determined and tough attitude that is contained in mathematical resilience (Hendriana, Rohaeti, & Sumarmo, 2017).

Dweck reveals that mathematical resilience consist of diligent or persistent ability in dealing with difficulties, work or collaborative learning among students, having language skill to state mathematical understanding, and mastering mathematical learning theories (Johnston-Wilder & Lee, 2010). Mathematics resilience is a quality attitude in learning mathematics which includes; confidence of his success through hard effort; showing perseverance in solving problem; having a desire to discuss, reflect and research (Johnston-Wilder & Lee, 2013). Mathematical resilience helps students to overcome difficulties in mathematics problem solving (Maharani & Bernard, 2018). Mathematical resilience concept is a positive adaptive attitude towards mathematics that student has opportunities to continue learning mathematics despite problems (Kooken, Welsh, McCoach, Johnston-Wilder & Lee, 2013).

According to (Johnston-Wilder & Lee, 2013), There are four factors which is correlated with resilience, namely : (1) Value: the belief that mathematics is a valuable subject and should be learnt; (2) Struggle: Recognition that struggling in mathematics is universal even with people who have high level of mathematics ability; (3) Growth: the belief that everyone can develop their mathematics skills and distrust that some people are born with or without learning ability and (4) Resilience: Orientation to situation or negative difficulties in mathematics learning that produces positive responses.

- **Learning Achievement**

Synthesizing from the view of some experts, learning is a change in human beings after interacting with their environment (El Khuloqo, 2017). Is one who is devoutly obedient during periods of the night, prostrating and standing (in prayer), fearing the Hereafter and hoping for the mercy of his Lord, (like one who does not)? Say, "Are those who know equal to those who do not know?"Only they will remember (who are) people of understanding (QS. Az-Zumar: 9). Learning achievement in this research can be seen from GPA of students during lecture.

RESEARCH METHODS

This type of research design is a case study and phenomenology, this type is based on the desire of researchers to produce a picture of how cheating is, why cheating, and how efforts to overcome cheating which is associated with multiple intelligences, mathematical resilience, and GPA of prospective mathematics teacher students. Data was collected intensively in this research, the researchers will choose only one University, namely, UHAMKA. Sample choice strategy is done by choosing particular case and phenomenology, then sampling procedure in this research used purposive sampling technique. Data sources were obtained from questionnaires (perception of cheating-multiple intelligence-mathematical resillience) and GPA. Data was run using qualitative method with these steps (1) Explore common data definition, (2) Coding data and (3) Determine the followed theme (Creswell, 2012). Rechecking and confirmation obtained data in this research was validated by reserachers, expertises and participants.

RESULTS AND DISCUSSION

RESULT

- **Data Presentation**

Student perception questionnaire on cheating that was completed by 34 respondents and scored, so that results 4 students (R8, R19, R34, and R33) who had high perception which means that showing student's disagreement to cheating behavior, and 4 students (R4, R25, R5, dan R15) who had low perception which means that showing student's agreement to cheating behaviour. These eight respondents were further explored information about cheating based on 20 items of questionnaire statements and 5 items of open questions, on the aspects of cheating reasons, how to cheat, and overcoming cheating.

Table 1. Student's perception on cheating

	High	Medium	Low	Overall
N	4	26	4	34
Score	3.50	2.83	2.35	2.86
Persentage	87.50	70.87	58.75	71.40

The higher perception score shows the high rejection of cheating behavior. Students' perception on cheating obtained a score of 2.86 in medium level which means that their attitude refused cheating behavior by 71.40%, the remaining 28,60% were still able to accept cheating behavior.

Table 2. The average of student perception on cheating based on KM and RM

		Multiple Inteligence								
		Ling	Mat-Logis	Rg-Visual	Kinestetik	Musikal	Inter-P	Itra-P	Naturalis	
RM	T	-	2.75	-	3.00	-	-	2.60	-	2.78
	S	2.95	2.70	3.00	3.00	2.75	2.65	2.80	2.90	2.84
	R	2.60	3.15	-	-	2.95	3.05	3.20	2.45	2.90
		2.78	2.87	3.00	3.00	2.85	2.85	2.87	2.68	2.86

Student who had low mathematical resilience, had the best perception on cheating compared to student who had medium and high resilience. The same result for students who had visual-space and kinestetics intelligence, had the best perception on cheating. All of them are in the perception of cheating at medium level which means they show a normal attitude towards cheating behavior amaong students.

Table 3. Cheating perception category, KM, RM and GPA

Category	Cheating perception	Multiple Intelligence	Mathematical Resillience	GPA
High	> 3.19	> 3.19	> 3.43	> 3.77
Medium	2.52 < PM ≤ 3.19	2.54 < KM ≤ 3.19	2.91 < RM ≤ 3.43	3.18 < IPK ≤ 3.77
Low	≤ 2.52	≤ 2.54	≤ 2.91	≤ 3.18

Table 4. Cheating perception based on KM, RM, and GPA

Respondent	Cheating perception	Multiple Intelligence	Mathematical Resillience	GPA
High perception	3.50	2.97	3.12	3.55
Medium perception	2.83	2.87	3.19	3.48
Low perception	2.35	2.88	3.10	3.37

Based on Table, student perception on cheating in high-medium-low category is on medium of multiple intelligence, mathematical resilience and GPA level.

Explored Case: "The reason of cheating"

Questionnaire Statement

Table 5. Student perception on cheating, related to case "the reason of cheating".

No.	Statement	R8	R19	R34	R33	
		R4	R25	R5	R15	
6	Supports the adage that states "position determines achievement" because it makes easily work together	3	2	3	3	2.75
		2	1	2	2	1.75
7	Reasons for cheating is that student do not want to get low score of exam results	4	4	3	2	3.25
		2	1	2	2	1.75
8	The reason of cheating is that student are fear of cannot pass grade of school	4	4	4	4	4.00
		2	1	2	2	1.75
9	Are you satisfied with your cheating examination results?	4	4	4	4	4.00
		4	3	3	2	3.00
10	Do you feel unconfident with your answers then you ask your friend?	4	4	2	3	3.25
		2	2	1	2	1.75

		3.80	3.60	3.20	3.20	
	High perception	3.80	3.60	3.20	3.20	
	Low perception	2.40	1.60	2.00	2.00	

Open Question

a) Why did you or people cheat?

Table 6. Reasons why people cheat

Respondent		Response	Code
High Perception	R8	Have not understood yet towards tested material	am1
		Forget about the material	am2
	R19	Unconfident	am3
		Lack of preparation in facing test	am4
		Lack of character morals	am5
	R34	I am be able answering questions	am6
		Did not study	am7
	R33	I had lack of mastery the given material	am1
Low Perception	R4	Unconfident	am3
		I did not master the material	am1
	R25	The material that has been studied is not accordance with the exams that came out	am8
		Exam questions are difficult	am9
		Unconfident	am3
		I did not master the material	am1
	R5	I was afraid that the answer is not right	am10
		Unconfident	am3
		I did not master the material	am1
	R15	Lack of study	am7
		Lack of preparation	am4

There are ten categories in student responses towards "the reason of cheating" case, which coded from am1 to am10. If student's response is reduced based on similarty of intent, then;

Table 7. Data reduction of why student cheats

Reasons of cheating	Code	Result
Lack of preparation = do not study	am4 = am7	am1: have not understood yet the material
Cannot answer = incorrect answer = difficult question	am6 = am10 = am9	am2: Forget the material
Personality morals are replaced by the word of character	am5	am3: Lack of confidence
Incompatible material with the question can be removed, because clearly the question does not meet the content validity. This is very rare, if it happens, then this is a teacher negligence.	am8	am4: Lack of preparation am5: Character

		am6: Incorrect answer

Based on the data processing, there are 5 reasons why someone cheated during an exam, namely: (1) character problems; (2) lack of confidence in facing exams; (3) do not understand the material being tested; (4) lack of preparation before the exam; (5) forgetting the material being tested; and (6) not correctly answering exam questions

b) What did you or someone expect from cheating?

Table 8. Someone's cheating expectation

Respondent		Response	Code
High Perception	R8	Hopefully getting punishment	hm1
	R19	Getting good score in a bad way	hm2
	R34	Good score	hm2
	R33	Getting a good result Although cheating is not good and allowed to be applied	hm2
Low Perception	R4	Be able answering questions Then gaining a good score	hm3 hm2
	R25	Being able comparing between own answer and friend's answer	hm4
	R5	Gaining a good score	hm2
	R15	Getting answer easily without thinking	hm5

There are 5 categories of student's response on "cheating expectation" case, which is coded from hm1 to hm5. If student's response is reduced over equal meaning, then;

Table 9. Data reduction on someone's cheating expectation

Cheating expectations	Code	Result
Punishment is deleted since it is irrelevant	hm1	hm1: getting good score
Can answer the question = getting easily answer	hm3 = hm5	hm2: getting answer hm3: comparing answer

Explored phenomenon "the way of cheating"

1. Quetionnaire statement

Table 10. Student's perception on cheating, related to phenomenon of "the way of cheating".

No.	Statement	R8	R19	R34	R33	
		R4	R25	R5	R15	
11	You will use particular codes for sharing anwers among your friends in the examination	4	4	4	3	3.75
		2	2	2	2	2.00
12	You will Share your answer by using tissue in the examination	4	4	4	3	3.75
		3	3	3	2	2.75
13	Table and chair are tools for writing cheat sheet in the examination	4	4	4	3	3.75
		3	2	3	2	2.50
14	Choosing the rearmost position in the class is the way to see freely notes in the closed book examination	4	4	4	4	4.00
		3	3	3	2	2.75
15	Tossing paper is one of the cheating tricks that oftenly done	3	4	4	4	3.75
		3	3	3	2	2.75
	High perception	3.80	4.00	4.00	3.40	
	Low perception	2.80	2.60	2.80	2.00	

2. **Open question**
c) If you have cheated, how did you do it?

Table 11. someone's cheating way

Respondent		Response	Code
High perception	R8	Switching filled question	cm1
	R19	Just asking point, then I say it by myself	cm2
	R34	Do not know	
	R33	Making answers on paper	cm3
Low perception	R4	Poke a friend	cm4
	R25	Poke a friend to look at me	cm4
	R5	Poke a friend Asking	cm4 cm2
	R15	Asking friend's answer	cm5

d) If you have seen your friend who is cheating, What do you usually do?

Table 12. someone's cheating way

Respondent		Response	Code
High perception	R8	Using own code	cm6
	R19	Giving zero score	
	R34	I did, wrote on paper or tissue	cm3 cm7
	R33	Throwing paper Put a note book in the class Using finger to give answer of multiple choice question	cm3 cm8 cm9
Low perception	R4	Poke a friend	cm4
	R25	Whispering	cm10
	R5	Seeing friend's answer	
	R15	Asking answer Taking friend's answer sheet	cm5 cm11

There are 11 categories on student's response towards "cheating way" phenomenon, which is coded from cm1 to cm11. If student's response is reduced over equal meaning, then;

Table 13. Data reduction of someone's cheating expectation

Chetaing ways	Code	Result
Exchanging questions already filled = ask friend for answers = take a friend's answer sheet	cm1 = cm5 = cm11	cm1: Exchanging answers cm2: Asking answers cm3: Writing answers on paper cm4: Poke a frien cm5: Using code cm6: Writing answers on other objects cm7: Seeing a note book cm8: Whispering
Using own code = using finger	cm6 = cm9	
Writing the answer on tissue is replaced by writing answer on other objects	cm7	
Bringing a note book is replaced by seeing a note book	cm8	

Open question

e) In your opinion, How do overcome cheating? Then it is noMenurut Anda, bagaimana cara mengatasi menyontek? So that it is not entrenched among students.

Table 14. Solutions to overcome cheating

Respondent		Response	Code
Persepsi Tinggi	R8	Increase student's material understanding	mm1
	R19	Studying well Diligent Keeping integrity in the examination	mm2 mm3 mm4
	R34	Giving punishment Not getting score	mm5 mm5
	R33	Parents should actively contribute to their children when is studying	
Persepsi Rendah	R4	Teacher can explain the material clearly and correctly Giving clue of exam material	mm6 mm7
	R25	Increase teacher's capability to help students in understanding and mastering materials, therefore student will not cheat	mm6
	R5	Teacher should explain clearly material and ensure that students understand the explanation Giving the questions' overview	mm6 mm7
	R15	Building students' religious character Incresase supervision	mm4 mm8

There are 8 categories on student's response on "Overcoming cheating"phenomenon which is coded from mm1 to mm8. If student's response is reduced over equal meaning, then;

Table 15. Data reduction to overcome cheating

Cheating ways	Code	Result
Increase understanding = studying well = dilligent	mm1 = mm2 = mm3	mm1: Study diligently mm2: Integrity mm3: Giving punishment mm4: Learning quality mm5: Examination overview mm6: Examination supervision
Mandate and religious character can be complemented by integrity	mm4	
Teacher's capability and teaching ways are similar with learning quality	mm6	

- **Interview**

Interviews were conducted face-to-face directly to one student, one teacher and one lecturer. Meanwhile, online interview was done for three teachers and two lecturers by using whatsapp.

Table 16. Reduction results of interview on cheating perception

Student	Teacher	Lecturer	Reduction result
1) Why do people cheat in the exam?			
▪ Unconfidence with own ability ▪ Good teacher ▪ Teachers focus on their phone when supervising	▪ Gaining high score ▪ Lack of preparation prior to examination ▪ Being afraid of parents' anger when obtaining low score ▪ Knowing nothing the answer ▪ Not able answering the test question since the question is hard ▪ Forgetting the answer	▪ Passion, so that feeling missing something if ▪ Do not understand the subject ▪ Do not study ▪ Unconfident ▪ Habit	▪ Habit ▪ Unconfident ▪ Lack of strict supervisor ▪ Getting high score ▪ Not readt for examination ▪ Not able answering the questions ▪ Do not understand the subject
2) What ways commonly used in cheating during the test?			
▪ Searching all side of the desk ▪ Making notes on the table ▪ Making notes on small paper	▪ Exchanging paper ▪ Seeing a paper ▪ Asking a friend ▪ Seeing the phone ▪ Seeing students' answer ▪ Seeing the answer in toilet ▪ Using finger code or body language ▪ Writing the answer of multiple choice question on eraser	▪ Cooperation with internal person or supernatural person ▪ Using phone for searching in google ▪ Small notes ▪ Writing on strategic place ▪ Asking a close friend ▪ Looking at a friend's answer	▪ Making a small notes ▪ Exchanging a paper ▪ Seeing notes ▪ Seeing phone ▪ Asking a friend ▪ Glancing and seeing a friend's answer ▪ Writing the answers on other objects ▪ Seeing the answer in toilet ▪ Using finger code or body language
3) How to overcome someone from cheating?			

• Supervisor said "I leave the supervision directly to God, if you try to cheat, the punishment is also directly from God" • At the top of the question there is written "by God I do not cheat in this test"	• Putting a book on the table, aoutomatically a student feels shy if he is the only one who cheating • Giving advice • Taking notes • Giving a punishment by not evaluating the answer • Remidial or retest • Saying "it is permitted to cheat as long as no one knows"	• Eliminating exam/test • Create various of question types (variety series of questions for each person) • Adjusting the sitting position (exchange row and column) and distance • Strict supervision • Increase test reliability • Providing many questions • Saying "If you are wathing supervisor menas that you are cheating" • Taking an answer sheet • Left from exam room • Providing four chairs which are near whiteboard, if there is a student cheat, the student will be asked to move to the front chair	• Using a sentence and sel-evaluation activity • Strict supervision • Arrangement sitting position • Giving punishment and warning • Providing variety question test • Increase the amount of questions • Increase test reliability

1.1. Discussion

According to research results, student's perception on cheating based on multiple intelligence and mathematical resilience, dividev into three categories, namely, cheating reasons, cheating ways, and the overcoming cheating.

Cheating reasons

Based on open questions that filled by respondent, interviewed to student-teacher-lecturer, it can be seen that why someone cheats in the exam, there are :

Table 17. Confirmation of cheating reasons

Open Questions	Interview	Confirmation
1) Character problems 2) Lack of confidence in dealing with exam 3) Do not understand yet examination contents 4) Lack of preparation before examination 5) Forgetting exam contents	1) Habit 2) Unconfident 3) Unstrict supervisor 4) Gaining a high score 5) Not ready facing the exam 6) Cannot answer the questions	Students continuously do plagiarism or cheating because of low punishment (Starovoytova & Namango, 2016). Cheating on written test tends to be influenced by personal and situational factors (Taderera,

6) Giving wrong answer in the test	7) Do not understand the exam contents	Nyikahadzoi, Matamande, & Mandimika, 2014). Students change written test and submit them back to gain a higher score; lack of integrity (Ottaway, Murrant, & Ritchie, 2017).

Based on the table, it can be seen that someone's cheating reasons are (1) habit, (2) Unconfident, (3) Do not understand the exam content (4) Forgetting the exam content (5) Not ready facing the exam, (6) Unable anwering the exam questions, (7) Gaining a high score, and (8) A light punishment.

Cheating ways

Based on open questions which filled by respondent and interviewd to student-teacher-lecturer, it can be concluded cheating ways in the examination are :

Table 18. Confirmation of cheating ways

Open Questions	Interview	Confirmation
1) Asking the answers (giving clues, asking the answers for all questions or half questions) 2) Writing the answers on paper (giving to the friends by throwing) 3) Switching the answer sheets 4) Poking a friend 5) Using codes (fingers) 6) Writing the answers on other objects 7) Opening note books (other refrences) 8) Whispering	1) Making notes on a small paper 2) Swithing papers 3) Looking at a paper 4) Looking at a phone 5) Asking to a friend 6) Glancing and seeing a friend 7) Writing the answers on other objects 8) Looking at the answers in the toilet 9) Using codes namely fingers or body parts	Strategi kecurangan utama diidentifikasi sebagai penggunaan catatan kecil menulis pada bagian tubuh dan benda-benda biasa, peniruan identitas, bertukar buku pemeriksaan, menyalin karya orang lain dan meninggalkan catatan di toilet (Taderera, Nyikahadzoi, Matamande, & Mandimika, 2014).

Based on table, the reason why someone cheat are (1) Asking the answers, (2) Writing the answers on the small paper, (3) Exchange the answer sheets (4) Poking a friend, (5) Using body parts as a code, (6) Writing the answers on the other objects, (7) Opening a note book, (8) Whispering, (9) Looking at a phone, and (10) Looking at the answers in the toilet

Solving a cheating problemMengatasi Menyontek

According to open questions data that filled by respondent, interviewed to students-teachers-lecturers, efforts to overcome cheating during exams are obtained, namely :

Table 19. Confirmation of overcoming cheating

Open Questions	Interview	Confirmation
1) Study hard 2) Integrity 3) Giving punishment 4) Learning quality 5) Overview of exam contents 6) Examination supervision	1) Use of sentences and self-evaluation activities 2) Restricted supervision 3) Seating arrangement 4) Giving warning and punishment 5) Making variety exam questions 6) Adding more question items 7) Increasing reliability of test	Opportunities to reduce the incidence of plagiarism by providing students with accurate information about plagiarism in their school are discussed in the context of social norm theory (Fish & Hura, 2013). The strategy to reduce cheating is divided into two categories, namely manual instruction, suspension of violators and cancellation of results, as well as improvements to supervisor training, motivation of monitoring staff, use of CCTV (Taderera, Nyikahadzoi, Matamande, Mandimika, 2014).

Based on the table, the reason obtained by someone cheating are (1) Integrity, (2) Study hard, (3) Giving advice and punishment (4) The quality of learning, (5) Overview of exams content, (6) Examination supervision, (7) The use of sentences and self-evaluation activities, (8) Seating arrangements, (9) Varying questions, and (10) Multiplying items, and (11) Incresing the realibility of the questions.

Data Validity Cheching

Discussion with colleagues

Discussion with colleagues that discuss scoring on perception scale of cheating. The need for other aspects such as multiple intelligences and GPA. Since this research is qualitative method, this research use everything that is interesting to study and support the research aims, namely students' perceptions of cheating.

Triangulation: Method, Refrence, Researcher

Triangulation is carried out on methods and sources, namely changes in data collection techniques using questionnaires, interviews, open questions, document review such as multiple intelligences and students' GPA. Researchers'limitations in expertise and time, then assisted by fellow researchers in terms of data collection both trough questionnaires, open questions manually and online, as well as scoring cheating perception scale.

Table 20. Data Triangulation

Respondent		Mathematical Resilience	Multiple Inteligence		GPA
High Perception	R8	Medium	Medium	Naturalist	Medium
	R19	Medium	High	Musical/Naturalist	Medium
	R34	Medium	Medium	Visual-space	Medium

	R3 3	Medium	Low	Intrapersonal	Medium
Low Perception	R4	Low	Low	Naturalist	Medium
	R2 5	High	Medium	Intrapersonal/Naturalist	Medium
	R5	Medium	Medium	Kinestetic/Interpersonal/ Naturalist	Rendah
	R1 5	Medium	Medium	Naturalist	Medium

Observing the table, there is an interesting phenomenon, that students who have high perceptions and low perceptions of cheating, most are in medium mathematical resilience, medium compound intelligence, and medium GPA. Therefore it is necessary to be explored more deeply on the phenomenon of student positions at a medium level that is associated with their perceptions of cheating.

Of course there are appropriate cases, namely R4 with low mathematical resilience and low compound intelligence in line with giving a low perception of cheating. R5 with a low GPA gives a low perception of cheating. R19 with high multiple intelligence gives a high perception of cheating. Also a contradictory case, namely R25 with high resilience, but gives a low perception of cheating.

With regard to multiple intelligence, most students who have a high response or a low response to cheating, are in naturalist intelligence. This phenomenon also needs to be examined more deeply on aspects of naturalist intelligence indicators that are associated with students' responses to cheating. Two cases for R34 and R33 which cannot be classified into naturalist intelligence.

CONCLUTIONS

This study examines the perceptions of mathematics teacher prospective students about cheating, which is associated with multiple intelligences, mathematical resilience, and their GPA. The results of the study illustrate that students' cheating perceptions in the high-medium-low category are at the level of multiple intelligences, mathematical resilience, and moderate GPA. There are 8 reasons someone cheats, 10 ways that someone does cheating, and 11 attempts to overcome cheating.

The findings of this short study cannot be generalized, because it is based on the number and involvement of respondents, validation of research instruments that have not been rigorous, data collection techniques, or referral processes that have not been strong. But at least it can provide an illustration for us about cheating and relevant issues in higher education. Another limitation of this study is the reliance on students' questionnaires and open-ended questions about their perceptions and behavior related to cheating. It is possible that some respondents were deliberately dishonest or they did not respond accurately to the instruments provided.

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