

Validating Ice Breaking Module in Learning to Increase Student's Pedagogical Academic Resilience in Universitas Negeri Medan

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Abstract:- This research aimed at validating and creating ice breaking module in valid learning in increasing pedagogic strip student's academic resilience in Universitas Negeri Medan. Pedagogical student will be next time to be teacher, more needing ice breaking experiences in learning than non pedagogical students. Research subjects as much as 6 classrooms numbers 240 students, module try out at learning group/small classroom was one classroom (40 students), try out at big classroom as much as 4 classrooms (160 students). The instrument try out of academic resilience scale was done at two classrooms (60 students). Module development used Four-D Model developed by Thiagarajan, with development process following phases of define, design, develop, and disseminate. Data analysis was done to validator's validation result module, lecturer's response, student's response. Facing this condition, it was needed learning applying ice breaking, which will loses or at least prevents boring and surfeited in learning. In turn, it grew comfortable and happy learning atmosphere, that impact on the appearance of student's interest, motivation, readiness to learn. The main contributions of this research were 1) True application of ice breaking by lecturer, will rise up student's academic resilience, 2) Lecturer had ice breaking implementing module in learning, 3) Enriching subject substances "Mata Kuliah Dasar-Dasar Kependidikan", and 4) Student had learning resources. Pedagogic stripe student who next to be going to be teacher, more needed ice breaking experiences in learning than student non pedagogic.

Keywords:- Validation, ice breaking module, learning, student's resilience.

I. INTRODUCTION

The goal of college according to RI law Number 2012 on high school proposed was to develop student's potentials, scientifically student. To achieve this goal, It is needed pleasure and comfortable and learning and interaction between learners and educator, melting. Those conditions can be created through *ice breaking* method. The appropriate *Ice breaking* will rise up learner's interest, motivation, learning readiness, and possibly the developing of optimal potential.

Creating learning in pleasure and comfortable atmosphere becomes more important because covid 19 pandemic that has caused learning was conducted in online although starting to be combined with direct face to face learning, according to writer's observation, can appear feelings of surfeited and boring, low learning motivation, and students rather hard to overcome the lecturing materials. The learning atmosphere as a result of this covid 2019 pandemic required students owning the high academic resilience, and from the lecturer/educator side, it is essential to apply the appropriate learning method, by using the creative *ice breaking* method.

Placing *ice breaking* on learning cannot be ignored because of the implied significant benefit, namely increasing the learning passion, losing bored and tired, increasing concentration, increasing familiarity and ability to interact, initiating passive learner, and promoting self-confidence. Departure from the importance of *ice breaking* method applied truly in online learning system that is going on long time, and pedagogical student in Medan State University that next to be skillfully teacher in applying his ice breaking to their students. That is why, writer was encouraged to research on ice breaking module development in learning to increase pedagogical in Universitas Negeri Medan. The other contributions were (1) to produce valid *ice breaking* module in learning increases student's academic resilience in pedagogical path in Universitas Negeri Medan; (2) to produce *ice breaking* module in effective learning for increasing student's academic resilience in pedagogical path in Universitas Negeri Medan.

The existence of ice breaking module will give some benefits that is able to be proposed as follows : (1) Lecturer has *ice breaking* implementation module in learning; (2) Enriching subject substance of "Mata Kuliah Dasar-Dasar Kependidikan" (MKDK), on the subject of Education Psychology; (3) Student has learning sources and find knowledge, skill of *ice breaking* implementation module in learning applied by lecturer; (4) Teachers in the school can use module as learning sources to be applied in the school.

II. FORMULATION OF THE PROBLEM

- What is *ice breaking* module in learning valid to be used increasing student's academic resilience at the pedagogical path in Universitas Negeri Medan?
- What is *ice breaking* module in learning effective to be used increasing pedagogic stripe student's academic resilience in Universitas Negeri Medan?

III. A REVIEW OF THE LITERATURE

A. Academic Resilience

Meaning of Resilience and Academic Resilience
Resilience was competence to rise up strong back successfully, although ratio exposure strong (Krovetz (1999). Benard (in Nasution, 2011) proposed that resilience was resilience owned by human to face life traumatic. Academic Resilience was individual's competence to be able to increase the educational success, although he is experiencing significantly difficulty (Cassidy, 2016). Academic resilience was student's competence to survive in a difficult condition, get up from terrifying, able to overcome trouble, and able to adapt positively to academical pressure and demand (Martin and Marsh, 2006). Academic resilience was success in adapting to problem in academic area. It can be concluded that academic resilience is individual's resilience in facing trouble related to academic process.

B. Academic Resilience Aspects

Academic resilience consisted of three aspects (Cassidy, 2016), namely *perseverance, reflecting and adaptive hepl-seeking, and negative affect and emotional response*. *Perseverance* was competence accommodating behavior that can describes endurance in facing every life process. *Reflecting and adaptive hepl-seeking* were competences to know self's strongness and weakness. These competences facilitate to let us know the effective strategy to face an academic problem with or without other's help, that makes opportunity achieving a big success. *Negative affect and emotional response* were competence to manage unpleasant feeling and negative emotion. Reivich and Shatté (2002) proposed seven factors forming resilience, namely 1) *Emotion regulation*, 2) *Impuls control*, 3) *Optimism*, 4) *Causal analysis*, 5) *Empathy*, 6) *Self efficacy*, and 7) *reaching out*.

C. Factors Affecting Academic Resilience

Academic resilience was influenced by internal and external factors. Henderson and Milstein (2003: 9) proposed that "Environmental protective factors: characteristics of families, schools, communities, and peer groups that foster resiliency". The milieu factors protecting the resilience were: 1) Promotes close bonds, 2) Values and encourages education, 3) Uses high-warmth, low-criticism style of interaction, 4) Sets and enforces clear boundaries (rules, norms, and laws), 5) Encourages supportive relationships with many caring others, 6) Promotes sharing of responsibilities, service to others, "required helpfulness", 7) Provides accesses to resources for meeting basic needs of housing, employment, health care, and recreation, 8) Expresses high and realistic expectations for success, 9) Encourages goal setting and mastery, 10) Encourages prosocial development of values (such as altruism) and life skills (such as cooperation), 11) Provides leadership, decision making, and other opportunities for meaningful participation, 12) Appreciates the unique talents of each individual.

There are three factors influencing individual's resilience, namely *I have, I am, I can*. *I have* was external source to increase resilience, *I am* was resilience

characteristic that has a internal source, and *I can* was characteristic having a source of what ever individu can do concerning to social and interpersonal skills (Grotberg, 1995 in Nasution, 2011). Herman, Stewart, Diaz-Granados, Berger, Jackson and Yuen (2011) told that resilience sources covered : 1) Personality factor (*meliputi self-efficacy, self-esteem, internal locus of control, optimism*, intellectual capacity, positive self-concept, demography factor (such as age, gender, ethnic), hope, strenght, emotion regulation, 2) Biology factor (neurobiologic system), 3) Millieu factor, covers social support from family and peer, confortable attachment toward mother (in Utami and Helmi, 2017).

D. Ice Breaking in learning

Meaning of *Ice Breaking* In English word, "*break*" berarti "mematahkan" (Advance Dictionary, 2007: 114). In Kamus Besar Bahasa Indonesia (2007: 1034) was meant as "keretakan, keadaan terpisah". Departure from the meaning word, *break*, so "*ice breaking*" meant breaking/ice melting from frozen to water. *Ice breaking* meant activities to melt, that means atmosfer, non rigid atmosfer.

E. Meaning of Ice Breaking in Learning

Ice breaking in learning means method used by educator to liquefy rigid atmosfer in learning teaching interaction in order to make confortable, relaxed and happy learning atmosfer.

F. Goals of Ice Breaking

Based on expert judgment, on this limited space, writer summarized goal of *ice breaking* in learning was to creat learning atmosfer implying one or more than the following things: 1) Happy learning atmosfer that will drive learning interest and motivation as well as under ready to learn condition, 2) Creating dynamic condition; 3) Turning focuss; 5) Losing limitation screens between learner and educator, and according to Ambiar (2022), appearing passionate to do activities as long as activities going on.

G. Benefits Applying Ice Breaking in Learning

Benefit obtained from learning that applies *ice breaking* truly is the achieved learning goal effectively and efficiently that covers cognition, affective, and behavioral domains at daily and yearly goal level up to certain education unit level, namely learning/education goal of pre-school, Primary School, Junior/Senior High School, High School.

H. Important Factors in Ice Breaking

There must be some factors watched in doing learning *ice breaking*, namely: 1) *Ice breaking* is served when learner seems tired, boring to learn, 2) It is done not wasting so much time so disturbing learning, 3) Implying educational values such as promoting team work cooperation, creativity, 4) Watching learner's age as well as physical and psychological development that accompanies her, 5) Watching time execution, what were done in the early, in the middle, in the end of activity, 6) According to Ambiar (2022), when applying *ice breaking*, we can detect (at least some learners) learner's initial potence, attitude, trait, and "special characteristic", 7) Able to use simple tools which is not dangerous and unused, and 8) It is proposed in the education world, educabest learning, best learning and Education Web (2022), in order to watch status difference,

age, job, income, function, and so on., because it can become separater screen, inhabitior (between learner and/or between learner and educator-writer).

I. Sample Ice Breaking

- **Focussing on concentration:** Educator slapped some learner’s shoulder alternately. When teacher slapped a learner’s shoulder, then those learners mention five digit and she told again with turned arrangement. For example pronouncing 5.7.2.4 3 --- 3.4.2.7.5. Hereby it is done concurrently.
- **Creating a happy climate:** Teacher says two syllables, then student turnly says the words completion. For example teacher says: When I was child.....Another student says: “I love milk”, again another student contineous saying “brand of Enfavro”, and so on.

IV. RESEARCH METHODS

This research is research and development (*Research & Development*), this method was purposed to produce *ice breaking* module in a valid learning to increase pedagogic stripe student’s academic resilience in UniversitasNegeri Medan. Development model was *Four-D Model*, developed

by Thiagarajan, purposed to develop, to validate product (Sugiyono, 2018: 407), in form of *ice breaking* module in learning increasing student’s academic resilience.

A. Research Phases

- **Phase Define (Definition):** Elaborating need in learning process, so it is obtained description for problem solving.
- **Phase Design (Designation):** On this phase, it purposes to develop pre-product design.
- **Phase Develop (Development):** Goal on this phase is to produce product of *ice breaking* module that has been revised and reasonable to develop.

Research subjects were MKDK students in UniversitasNegeri Medan on subject of Education Psychology even Semester 2022/2023. From 149 class/learning group, plan to be taken randomly one class for academic resilience instrument, 1 class (40 students) for module try out to small class, 4 class (160 students) for module try out to big class, and 6 class (240 students) for research subject analyzed for achieving this research goal. It was done directly face to face and through *onlinemedia*.

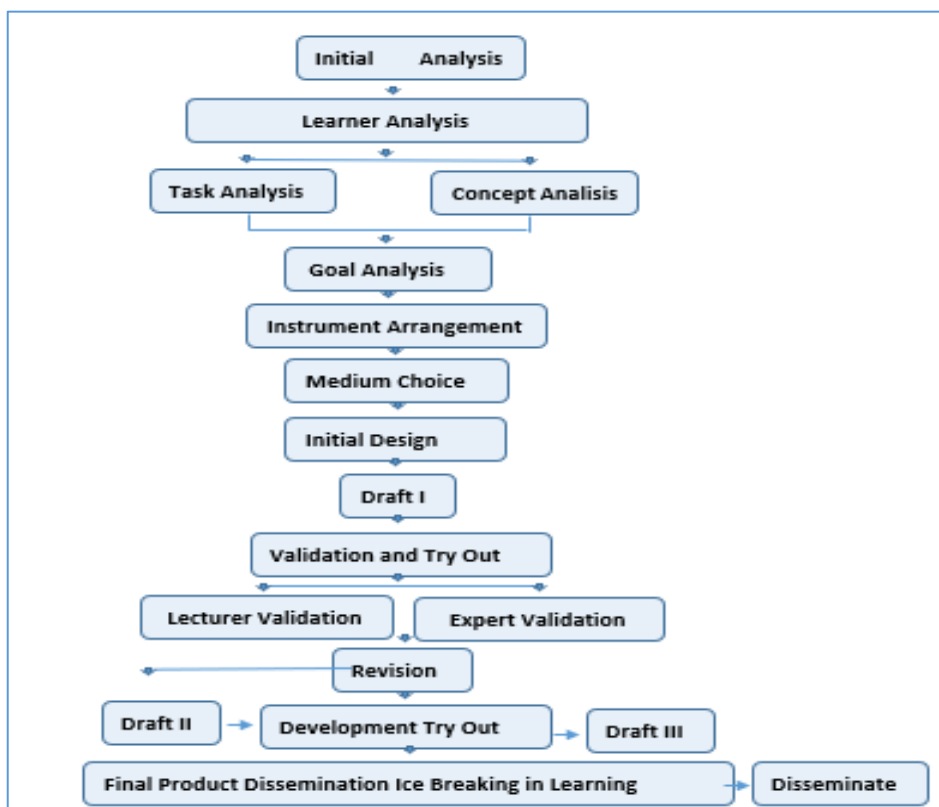


Fig. 1: Development Model 4-D

To unclose student’s academic resilience data, was used scale adapted from scale arranged by Cassidy (2016). Module validation scale: It was used to obtain validator’s assessment data about *ice breaking* module in learning, covering material validator (content and lay out reasonable, art validator and lay out (cover aspect, designin module, kindand fond seize, lay out, figure image).

B. Development Model

The model development was *Four-D Model*, developed by Thiagarajan, which aimed to develop, to validate product (Sugiyono, 2018: 407), like learning *ice breaking* module increasing student’s academic resilience.

C. Research Phases

➤ *Phase of Define: Explaining need in learning process, so there will be founded description in for problem solving. There are five activities on the following:*

- **Initial Analysis:** Identifying problem faced by student that makes them have low academic resilience, namely lecturer seldom stimulate so much with ice breaking. In this step, we used interview, observation.
- **Analysis of learner:** Studying student's characteristic in related to academic resilience, namely interest to lecturing material.
- **Task Analysis :** Identifying student's academic resilience achievement
- **Concept Analysis :** Identifying gap among achievement with academic resilience that should be owned by student
- **Goal Analysis ice breaking in learning:** Creating comfortable, secure learning interaction.

➤ *Phase of Design: To this step, it aims to develop the initial product design. This activity consisted of activities on the following:*

- **Instrument arrangement:** Module arranged on this step is to know student's academic resilience.
- **Module choice:** Module was arranged referring to the conceptual analysis product and student's characteristic in related to learning.
- **Initial design:** On this step, Designing ice breaking module in learning, that watches on student's academic resilience promotion, say as "draft I".

➤ *Phase Develop: The goal at this step is to produce ice breaking module product that has been revised and properly developed. Steps done:*

- **Observation** conducted by researcher team to be revised then. The revision result named "draft II".
- **Expert validation:** On this step, module as well as its softwares was validated by competent, media expert, and lay out art designer. Revision on expert validation, named as lay out modul (art design expert). Revision on validation expert, called as "draft III" (final product).
- **Module development try out of learning ice breaking in the field:** Try out used draft III to the small classroom, such as conducted to one student classroom by subject lecturer.
- **Try out result revision of small classroom.**

- **Module development try out of learning ice breaking in the field:** Try out used draft III to big classroom, such as done to 3 student classroom by subject lecturer.
- **Disseminate phase:** This phase disseminates product of ice breaking in learning to increase student's academic resilience, limited on whole of MKDK lecturer subject classroom of Education Psychology, to be developed by each lecturers toward students in the classroom.

Research subjects were students as MKDK participant to subject of Education Psychology in even semester in Universitas Negeri Medan. From 149 classroom/learning groups, it will be taken randomly one classroom for academic resilience instrument try out, 1 classroom (40 students) for module try out to small classroom, 4 classrooms (160 students) for module try out to big classroom, and 6 classrooms (240 students) for research subject analyzed to achieve this research goal. It was done live face to face through media *online*.

- **Resilience data** was used scale adapted from scale arranged by Cassidy (2016).
- **Module validation scale:** it is used to obtain validator's research data about *ice breaking* module in learning, covering material validator (content and face feasibility, art and lay out validator (cover aspect, design in module, kind and font size, lay out order, picture image).
- **Evaluation sheet by student:** covers evaluation on module application by lecturer to: (1) Student's academic resilience, (2) Student's learning readiness, such as comfortable feeling, happy, not sleepy, less of tired, (3) Student's perception about lecturer's skill to do *ice breaking*.
- **Evaluation sheet by educator (lecturer):** Covers evaluation on module application conducted by lecturer on aspect: (1) Lecturer's interested in used module in learning, ease (2) Understanding the content of module, (3) ease to apply, (4) Positively influence of module application on student's learning readiness.

D. Data analysis: Data analysis of Ice Breaking module validator in learning, conducted by Validator

Evaluation given by validator on scale given, and then is given score ordinally 4, 3, 2, 1, and was done score percentage Categorization as follows:

$$PS = \frac{\text{Achieved score total}}{\text{Maximal score total}} \times 100\%$$

(Arikunto, 2010).

It was transformed on the following:

Table 1: Module Validity Criterium

Percentage Value Interval (%)	Criterium
85% - 100%	Best
70% - 84%	Good
60% - 69%	Middle
50% - 59%	Bad

(Arikunto, 2010)

Effectiveness data analysis in this research purposed was put on existed or not score increase significantly, obtained from before applied *ice breaking module in learning* with after applied by lecturer to student. The

difference was calculated using t-test, or if data did not meet parametric test requirement/ t-test, then using non parametric test The Wilcoxon Matched-pairs Signed-ranks Test (look Siegel, 1956, 1986).

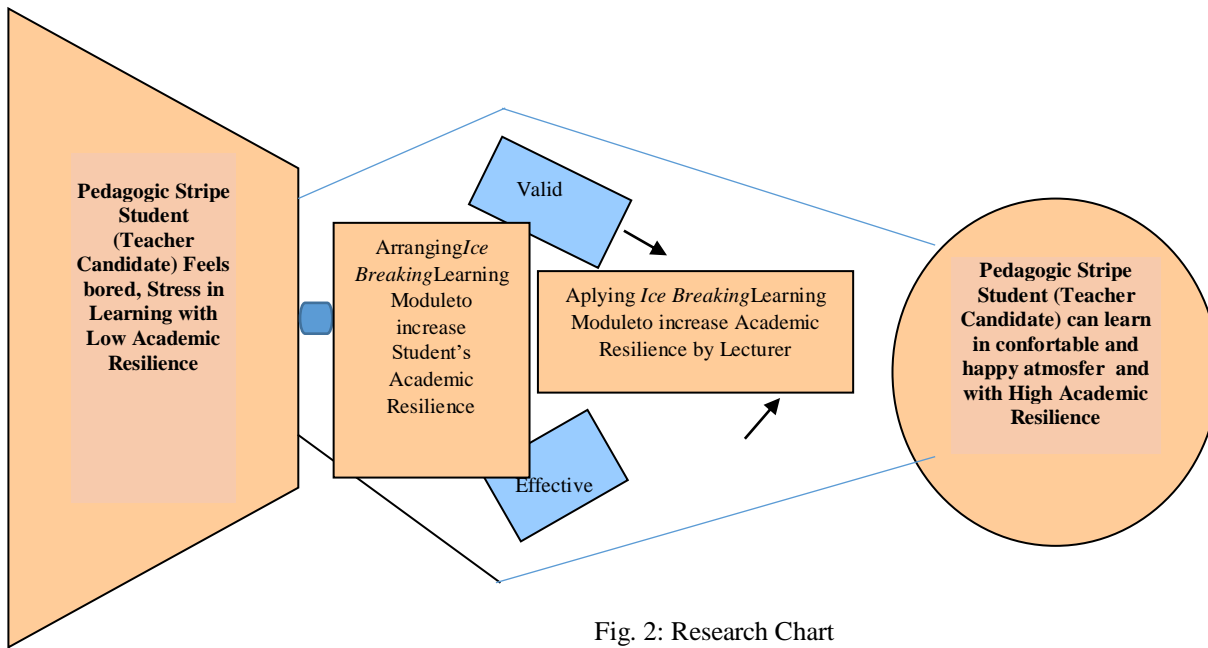


Fig. 2: Research Chart

Figure 2 showed that pedagogic stripe students at the beginning having low academic resilience and feeling bored and surfeited, stressed in following the lecture were expected to be going to be owning highly academic resilience, and to be feeling ready to follow learning

comfortably and happily, after lecturer had already applied *ice breaking* method in his learning. For this change, it was done research and development of valid and effective *ice breaking* module, as module requirement that will be applied.

V. RESULTS AND DISCUSSION

Table 2: Guidance and Counseling Expert's Validation in Guidance and Counseling Material (Academic Resilience)

Number	Material Aspects	Item Total	Obtained Score Total	Maximal Score Total	Count Result (%)	Category
1	Emotion regulation	3	9	12	0,75	High average
2	Impulse control	3	8	12	0,67	Average
3	Optimism	3	10	12	0,83	High average
4	Causal analysis	3	10	12	0,83	High average
5	Emphaty	3	11	12	0,92	Exellence
6	Self-efficacy	3	9	12	0,75	High average
7	Reaching Out	3	9	12	0,75	High average
	Average				5,5	-
					0,79	High average

Based on table 2 above, it was proposed that holistically, guidance and counseling material had been validated by guidance and counseling experts averagely to achieve rate 5,5 or 0,79 % in category, high average. In the meantime, if viewed from each academic resilience material aspects, like emotion regulation with score total obtained 9 of maximal score total 12 (0,75%) was classified high average. Impulse control aspect with score total obtained 8 of maximal score total 12 (0,67 %) was categorized average. Optimism aspect with score total obtained 10 of maximal score total 12 (0,83%) was categorized high average. Causal analysis aspect with score total obtained 10 of maximal score total 12 (0,83%) was categorized high average. Aspect of emphaty with score total obtained 11 of maximal score total 12 (0,92%) was categorized excellence. Aspect of self-efficacy with obtained score total 9 of maximal score total 12 (0,75 %) was categorized high average. The final

academic resilience aspect, reaching out with score total obtained 9 of maximal score total 12 (0,75 %) was categorized high average.

The data achievement above meant that guidance and counseling material that had been validated was declared to be able to be used for guidance and counseling learning material because it has already met or exceeded material worthiness standard which in this sense was achieved holistically on the level of high average.

Table 3: Guidance And Counseling Expert Validationin Verbal-Non Verbal Communicationin Guidance And Counseling

Number	Material Aspect	Item Total	Obtained Score Total	Maximal Score Total	Count Result	Category
1	Language information clarity	3	11	12	0,92	Exellence
2	Succinctness	3	10	12	0,83	High average
3	Ease to understand language	3	10	12	0,83	High average
4	Language enrichment	3	10	12	0,83	High average
	Total				3,41	-
	Average				0,85	

Based on table3 above, holistically verbal –non verbal communications in guidance and counseling, after validated by guidance and counseling experts, achieved 0,85 % to be classified high average. If viewed based on material aspect in verbal-non verbal communication in guidance and counseling then it can be proposed that material aspect, language information clarity had achieved score total 11 of maximal score total 12 (0,92 %) categorized on excellence. Material aspect, succinctness had achieved score total 10 of maximal score total 12 (0,83 %) categorized on high average. Material aspect, ease to understand language had achieved score total 10 of maximal score total 12 (0,83 %)

categorized on high average. Material aspect, language enrichment had achieved score total 10 of maximal score total 12 (0,83 %) categorized on high average.

From data above, it could be interpreted that verbal-non verbal communication in guidance and counseling, after validated by guidance and counseling expert holistically were classified on high average (0,85). This meant that ice breaking module in learning, especially in aspect of verbal – non verbal communication worthiness in guidance and counseling was classified high average.

Table 4: Guidance And Counselingexpert’s Validationin Module Appearance

Number	Material Aspect	ItemTotal	Obtained Score Total	Maximal Score Total	Count Result (%)	Category
1	Lay out	3	9	12	0,75	High average
2	Simplicity	3	12	12	1,00	Exellence
3	Stressing	3	11	12	0,92	Exellence
4	Harmony	3	9	12	0,75	High average
	Total				3,42	-
	Average				0,86	Exellence

Based on table4 above, it can be proposed that module lay out after validated by guidance and counseling expert holistically or averagely was classified excellence (reaching score 0,86 %). If viewed based on its material aspects, material aspect of lay out achieves obtained score total 9 of maximal score total 12 (0,75 %) categorized on high average. Material aspect of simplicity had already achieved

the obtained score total 12 of maximal score total 12 (1.00 %) categorized on excellence. Aspect of stressing had already achieved the obtained score total 11 of maximal score total 12 (0,92 %) categorized on excellence. The last one aspect, harmony reached the obtained score total 9 of maximal score total 12 (0,75 %) categorized on high average.

Table 5: Guidance and Counseling Expert’s Validationin Guidanceand Counseling Media

Number	Material Aspect	ItemTotal	Obtained Score Total	Maximal Score Total	Count Result (%)	Category
1	Events/cases clarity	3	9	12	0,75	High average
2	Succinctness	2	7	8	0,88	Exellence
3	Ease to understand language	2	8	8	1,00	Exellence
4	Language enrichment	2	7	8	0,88	High average
	Total				3,51	
	Average				0,88	Exellence

Based on table 5 above, it can be proposed that guidance and counseling media after validated by guidance and counseling expert holistically or averagely achieves score 0,88 % classified on high average. If viewed from each material aspects of guidance and counseling media, then material aspect of events/cases clarity achieves obtained score 9 of maximal score total 12 (0,75 %) classified on high average. Material aspect of succinctness achieves obtained scora total 7 of maximal score total 8 (0,88 %) classified on excellence. Material aspect of ease to understand language

achieves obtained score total 8 of maximal score total 8 (1.00 %) classified on excellence. Then material aspect of language enrichment achieves obtained score total 7 of maximal score total 8 (0,88 %) classified on high average. From finding data on each material aspects of guidance and counseling media above, guidance and counseling media as reasonably of ice breakingmodule that had been reasonably to use as guidance counseling media.*Data Analysis on Ice Breaking Module Validity inLearning, Conducted by Validator*

VI. CONCLUSION

Pedagogic student's academic resilience problem needed the existence of ice breaking module in motivated and happy learning. To produce *ice breaking* module in learning was done ice breaking module validation in order to make module accountable to use and to apply in lecturer's learning in their own classroom. Hereby, validation was conducted by guidance and counseling experts to provide their judgments to guidance and counseling material, verbal – non verbal communication in guidance and counseling, module lay outandin term of guidance and counseling media.

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