

Student Assistance In Learning Applied Mathematics Entrepreneurship Concepts in The Creative Industries

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ABSTRACT

The low competence and power competitive graduates of college make Power absorb graduates in the field also low. As a result, many unemployed educated in various difficult areas get jobs. Importance of cultivating an entrepreneurial mentality for internalized students in frequent education called with edu-preneurship, Edupreneurship want to put concepts and attitudes entrepreneurship in the world of education. This thing took off from the reality trend of the graduate of College to look for work, not create field jobs. It's here thread red between education with entrepreneurship For change mindset and paradigm think students so that will appear to characteristics entrepreneurs like creativity, independence, and abstinence give up. Apart from believing in themselves, students must have a character that is task and result-oriented, that is attitude trustworthy in operating work so that the result will satisfying. Executed processes and tasks with good and full trust, will give good results and assessments too. Character entrepreneur The other is brave take risk love challenge, and have soul leadership. Mentality and attitude Leadership is very important to be able to communicate, capable make planning, management, and evaluation with OK, as well Like for suggestions and constructive criticism. This character will make students have attitudes future-oriented, which means visionary and has perceptions and methods good view for the future.

Keywords: *Entrepreneurship Mathematics Applied, Industry Creative, Students, Mentoring*

INTRODUCTION

Based education entrepreneurship (*edupreneurship*) has already Lots developed at various levels of education, at level School Intermediate Vocational (SMK), major / study program entrepreneurship in universities (Ismanto & Rahmi, 2020; Margahana, 2020; Samuji, 2019; Wijoyo & Utama, 2021). This is expected of graduates who have Power high competitiveness and innovative, creative and competitive competencies in the world of work. Entrepreneurial spirit forged and trained to equip students, students and graduates capable of independence with field the knowledge he has.

In the field of mathematics, lots developed various media, meaning studies to support teacher fluency in teaching (Jari et al., 2022; Saputro & Lumbantoruan, 2020; Yudela et al., 2020), unfortunately, teachers only become object/user consumptive to developments taking place in the world of education. This is because moment only taking teacher education struggling with aspects theoretical. Learning on campus is only done with hook contextual but only in aspect theory.

Problem students, right now it's the only learn-on aspects accepted theory moment is on the bench lectures. This will have an impact on *his stuttering* student in facing challenges in society later, especially in areas of mathematics applied in a way comprehensive. Just students who study a way theory tend to understand the problem in a way comprehensive (holistic) towards what you get will tend No permanent.

Mathematics is closely related to the world of entrepreneurship Because several drafts of the material related to draft entrepreneurship. For designing learning mathematics with Spirit entrepreneurship, teachers have to be very busy (Masduki & Kurniasih, 2019; Telaumbanua, 2021). Draft entrepreneurship is closely related to mathematics, such as linear programs that search point maximum. Linear Programming also teaches the theory of distribution from supply and demand goods and services.

Through accompaniment, students in a study about practical business creative students will understand aspect entrepreneurship from aspect mathematical. This is important for the learning process mathematics carried out by lecturers can integrated directly with the industrial world creative for students increasingly have enthusiasm and soul entrepreneurship in the field of Mathematics (*Math EduPreneurship*).

Researchers believe that characters taught in school, and mathematics can help students become entrepreneurs. As an example, when students are given assignments, teachers at least teach them to not easily separate hope and solve problems. To become a good entrepreneur, an entrepreneur must have an attitude that is not easy to separate hope (Supardi et al., 2018); (Masduki & Kurniasih, 2019). Additionally, graduates of education mathematics No everything will become a teacher; on the contrary, they are will used to the business world, where they are will implement entrepreneurs' principles in their careers.

Researcher as Head of the Study Program and Secretary at Tadris Mathematics making the *Math EduPreneurship* program devotion because orientation student mathematics need implanted soul and spirit entrepreneurship through learning based project in support material entrepreneurship Expected through activity this service, students will also get more understanding Good about the learning process carried out with combine element soul entrepreneurship in the learning process.

METHOD

Partner Identity

The target you want to achieve in activity This community service is for students Current and future Umala Mathematics complete education for can have knowledge and skills in applying principles mathematical and becoming a businessman in the field of education (*edupreneur*) who has competence and power competitive high in society.

Research object of activity service to society in the form of training and learning-based projects. Students will share several groups (1 group consisting of 4-5 students) in different semester levels to placement in some creative industry businesses in society like business culinary, crafts hands, industries involving marketing online nearby students that come from/live.

Location of Service

this service research took place on campus Ma'arif Metro Lampung Islamic Religious Institute as place For do studies introduction initial, discussion of the service process and feedback on what has been done by students. The place for devotion students No take place in a way specifically, rather give opportunities for students in a way group For choose place or targets in industries creative location No Far from the place Where they currently live.

Type of Activity

Implementation activity accompaniment students in learning draft entrepreneurship mathematics applied mathematics (*applied mathematics preneurship*) in industry creative ie with using *the Participatory Action Research (PAR)* model. PAR method usually shares stages accompaniment to in cycle, which begins with stage observation and reflection and ends with stage plan action and program implementation.



Figure 1. Steps of PAR

Implementation method accompaniment student in learning draft entrepreneurship mathematics applied (*applied math preneurship*) in industry creative. First, stage planning started with speaking with the organizer about goals and profits mentoring, making seminar material, and speaking with team internal devotion. Stage second is the distribution of information whatever is needed in the field. For example, the theory of opportunity is used For determining base operation industry creativity; the Linear Program theory for optimizing results; the theory of opportunity For developing business; and the theory of distribution transportation For promoting strategy.

The third stage is discussing material that has been conveyed by the resource person about problems encountered in the field student. This can work as a solution problem so that the problem becomes a challenge for students to resolve based on discussion and feedback they give.

The final stage in this activity is mentoring students in writing and reporting results of subsequent field research will become a study involving devotion students To enter into mathematics-based education knowledge.

RESULT AND DISCUSSION

Tadris Mathematics study program, namely the Undergraduate Study Program of the Tarbiyah Faculty of the Ma'arif Islamic Religious Institute Metro Lampung consists of approximately 150 students divided into 4-semester levels, namely semesters 1, 3, 5 and 7. The Tadris Mathematics study program has 1 advantage course namely entrepreneurship where one of the achievement targets subjects is understanding and ability entrepreneurship in the fields of hard skills and soft skills.

1. Entrepreneurship Learning Process

Source power in learning entrepreneurship can be divided into two categories: source soft skill power and source hard skill power. Draft thinking critical, creative, ability to catch opportunities, ability to lead, courage to take action and bear risk, passion, and ability to work hard example Skills smooth. However, knowledge about marketing, production and operations, as well as analysis of finances and costs including material is a difficult skill. The research results show that 75% of students who took part course entrepreneurship consider lessons those be soft skills. This condition is very normal because material others, like management companies, provide very complicated material to several study programs. If studied more, soft skills are taught including brave start effort and thinking creatively and innovative (statement given by 98% of respondents).

Next, as the basis for the development of learning entrepreneurship, the discussed method of learning entrepreneurship was implemented at IAIMNU Metro Lampung in academic 2020-2021.

1) Student-Centered Learning (SCL).

SCL learning is student-centered. This method makes it possible for students to participate actively in the learning process. Read book texts, and digital books, searching for online information, and encouraging discussion about The selected materials are several methods this activity is carried out. The connection between teachers and students is active; the connection between teachers and students is similar to the connection between teachers and students. Students are happy learning, both in class and outside of class (Rosyada, 2015).

More than 90 percent of respondents say that material entrepreneurship at IAIMNU Metro Lampung is interesting for students, according to research results. More than 75% of people who answered show that material taught from studies cases and discussions in class during the learning process. The case study part done by students alone to find the material.

Entrepreneurship learning at IAIMNU Metro Lampung is lacking in using existing entrepreneurial mentors successfully. This also applies to learning directly and assignments to get experience directly in business or entrepreneurship. More

than 80 percent of people who answered stated that they had not been invited by Nara source from a successful entrepreneur to visit existing business units or had been given a task to do it. The data shows that SCL has been used For learning entrepreneurship in the Tadris Mathematics Study Program. However, less support For experienced work direct or business.

2) Arranged based on the level of education college.

After conducting the investigation, no documentation or guidelines specifically regulated the implementation of learning entrepreneurship at the level of college. Entrepreneurial learning is only found in the Tadris Mathematics Study Program. Nothing available references For material mandatory must be taught, including approach learning that should be applied in material entrepreneurship. Syllabus material Nor does entrepreneurship uniform throughout all study programs For Tadris Mathematics Study Program level. Information collected shows that the learning process material entrepreneurship is not yet arranged in levels college high.

3) Course Integration

Skill entrepreneurship needs skills in various working fields. Needed Skills technical and managerial, as well as soft skills and hard skills. Thus, material studying entrepreneurship consists of combined various eye college, as well knowledge more go ahead and practice directly from the world of entrepreneurship. Right now, eyes studying entrepreneurship is the material that must be independent after students obtain knowledge addition. It would be ideal if I were to study entrepreneurship in the final semester Because students already know of adequate managerial and operational.

Supporting courses learning entrepreneurship must entered into the study program or even outside IAIMNU Metro Lampung campus for support implementation of Entrepreneurship Mathematics Applied.

4) Industrial Center Creative

Most of the research participants said that the course Preneurship Applied Mathematics at IAIMNU Metro Lampung no Once Work The same with industry existing creativity. To develop learning entrepreneurship as well as use Mathematics Applied, esp for Tadris Mathematics study program.

5) Collaborate with industry creative partners.

Learner entrepreneurship needs experience field and experience directly with life entrepreneurship. The best way to get experience field is to work The same with industry creative. This study found that work with industry in learning entrepreneurship at IAIMNU Metro Lampung is very low. This shows that more than 80% of people who answered stated that they No Once do visit to industry or task survey industry for learning. Development learning entrepreneurship and implementation Mathematics Applied Mathematics Preneurship in the Tadris

Mathematics study program must improved. For field entrepreneurship, cooperation with industry or the business world must improved.

6) Accompaniment between Lecturers and Practitioners

After students are involved in activities entrepreneurship in industry creative or business, mentoring in learning draft entrepreneurship mathematics applied (*Applied Mathematics Preneurship*) is a step next. Questionnaire results show that the involvement of students in the grant program entrepreneurship is very low. Ninety percent of respondents say they have not once taken part in an entrepreneurship program, and eight tens percent say that their teacher has given them grants. Apart from that, the intensity of guidance practitioner entrepreneurs and lecturers is also low Because of lack of Work The same with the world of business and industry. Making a plan business is the only thing that still becomes the focus of the guidance lecturer. To develop learning entrepreneurship and implementation of *Applied Mathematics Preneurship* in the Tadris Mathematics study program, the enhancement intensity of this guidance is necessary.

2. Implementation Concept Learning Entrepreneurship Mathematics Applied (*Applied Mathematics Preneurship*) in Industry Creative

Compared to other courses that focus on hard skills, entrepreneurship courses need instruments or tools to measure more complexity to determine the success of the learning. This is because the focus on soft eye skills in studying entrepreneurship more big. As stated Previously, rubric evaluation is special for the material entrepreneurship required. Passing the material management company, brave pioneering, or becoming an entrepreneur is the way to know is learning entrepreneurship successfully.

Assistance results from a student in learning draft entrepreneurship mathematics applied in Industry Creative include:

a) Cracker Business Kemplang “Great Elephant” by Group 1

Industri rumahan kerupuk kerupuk Gajih Agung sudah berdiri kurang lebih sejak tahun 2000an yang mulai aktif sampai sekarang dikelola oleh Bapak Hidayat. Usaha ini dibantu sempat menjadi sumber pekerjaan bagi masyarakat sekitar yang dibantu oleh ibu dan teman kerupuk dengan jumlah pekerja sekitar dua puluh orang namun sekarang jumlah pekerjanya hanya berjumlah 3 orang saja dikarenakan berbagai macam faktor yang sudah dikaji.

Dalam usaha produksi kerupuk Gajih Agung membutuhkan modal kurang lebih sekitar Rp. 2.500.000,00. Dengan bahan pokok ikan laut, tepung terigu, dan juga cabai sebagai kerupuk utama. Titiknya harga pasaran ikan dan cabai memiliki pengaruh yang sangat penting dalam produksi. Saat harga ikan dan cabai yang tidak terlalu signifikan, pembeli belum bisa membeli kerupuk. Berbeda saat harga ikan dan cabai yang stabil, saat produksi kerupuk jadi dapat dikalkulasikan 15% per bungkusnya. Dari yang semula Rp. 3.000,00 per bungkus menjadi Rp. 4.000,00 per bungkusnya.

Kemungkinan yang diperoleh dalam usaha produksi mencapai sekitar 15% dari modal awal. Meski dalam usaha produksi ini tidak secara khusus menggunakan proses distribusi, tetapi upaya pemasaran jika sama dengan hasil dari proses produksi bisa dimanfaatkan untuk kerupuk sebagai hasil. Kemudian produk dikumpulkan ke Pabean, tempat dimana kerupuk berbagai jenis kerupuk. Terkadang ada juga yang membeli langsung langsung tanpa proses produksi.




Produk siap disajikan

b) Home Business Production Kremes Mekar Sari By Group 2

3. Setelah telur ke dalam mangkuk maka seram sedikit telur dan ditata di atas meja agar tidak menggumpal.



Gambar 1.3 proses pecahkan telur ke dalam mangkuk yang telah diletakkan.

4. Lalu seram sedikit telur ke dalam mangkuk yang telah diletakkan.



Gambar 1.4 proses pengadukan telur ke dalam mangkuk.

1. Setelah telur seram maka ditata dengan gula (yang sudah ditata) ke dalam mangkuk yang seram.
2. Setelah gula dan telur seram maka ditata ke dalam mangkuk yang seram.
3. Seram telur yang sudah seram ke dalam mangkuk yang seram maka ditata ke dalam mangkuk yang seram.



Gambar 1.7 proses pecahkan telur ke dalam mangkuk.

Setelah telur ke dalam mangkuk maka seram sedikit telur dan ditata di atas meja agar tidak menggumpal. Setelah itu ditata ke dalam mangkuk yang seram. Setelah itu ditata ke dalam mangkuk yang seram. Setelah itu ditata ke dalam mangkuk yang seram. Setelah itu ditata ke dalam mangkuk yang seram.

5. Pele pembuatan kreme.

Pele yang sudah jadi dan ditata ke dalam mangkuk yang seram. Setelah itu ditata ke dalam mangkuk yang seram. Setelah itu ditata ke dalam mangkuk yang seram. Setelah itu ditata ke dalam mangkuk yang seram.

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c) Production House Business Kremes Mekar Sari By Group 3

Proses pengemasan dan peragaan

1. Konsep operasi dengan konsep pengemasan yaitu dalam perhitungan ukuran pengemasan ampas agar bisa lebih mengikatnya. Biasanya untuk sekali pengemasan jika perjualan ampas lancar 2 karung kacang kedelai yang masing-masing karung berisi 50 kg akan dibagi ke dalam 5 karung kecil, jadi untuk sekali pengemasan karung kecil menggunakan 20 karung kacang kedelai. Namun jika penjualan kurang lancar 1 karung kedelai yang berisi 50 kg akan dibagi ke dalam karung kecil, jadi untuk sekali pengemasan menggunakan 10 karung kacang kedelai. Konsep pertolongan waktu, yaitu menghitung lama waktu pengemasan, proses pengemasan ini bisa di lakukan sebanyak 12 jam atau hingga kadar air sudah habis dan jangan sampai kekelemban.
2. Konsep geometri ruang yaitu saat pengemasan berbentuk jengkol, jengkol yang sudah dibersihkan akan ampas lalu dan yg dibersihkan ini baru pembuat kerjanya.
3. Konsep perbandingan jumlah ragi(Aci) yang digunakan untuk ampas lalu yang akan di gendrat yaitu 1 karung ampas di beri aci 1 kg sedangkan 3 karung ampas di beri aci 1 kg.



Proses pengukuran

- Ampas lalu yang akan bersih kemudian dibakar hingga matang lalu wangi. Etimologi yang dapat ditemukan dalam proses ini yaitu sebagai berikut:
1. Konsep pertolongan waktu, yaitu menghitung lama waktu pengukuran, proses pengukuran ini bisa dilakukan sebanyak 2 jam, namun jika kayu sebagai bahan bakar yang digunakan dalam keadaan lembab maka proses memasak bisa lebih lama yaitu sampai 2 jam 30 menit.
 2. Konsep geometri ruang yaitu bentuk berbentuk kerangka laung untuk pengukuran, yaitu mengukur bentuk parisi



Proses

Proses pencucian

- Ampas lalu yang telah matang di masak. Etimologi yang dapat ditemukan dalam proses ini yaitu sebagai berikut:
1. Konsep geometri yaitu saat saat berbentuk kerangka parisi panjang untuk memasak.
 2. Konsep pemadatan yaitu ampas yang telah di masak di usakan di dalam kyan hingga pati dan masak.



Proses pengemasan

- Proses ini juga dimulai dengan proses memental, ampas lalu yang telah di masak kemudian disimpan di dalam karung, disimpan dengan dibakar di atas papantamu. Etimologi yang dapat ditemukan dalam proses ini yaitu sebagai berikut:
1. Konsep pembagian waktu, yaitu menghitung lama waktu pengemasan, proses pengemasan ini bisa dilakukan selama 3 jam, namun jika pertama memula usara onon bisa 1-2 jam karena penyelesaian waktu sap, dan dalam penyimpanan ini harus diperhatikan udaranya laung.
 2. Konsep keajar dan tetapan yaitu onon yang sudah di masak di lakukan di lemari secara tetapan dan sejajar.



Proses pemasaran

- Sebaliknya yaitu proses pemasaran, onon ini diukanya diabaikan kepada pembeli-pembeli pedagang pasar biasanya di jual per kg dengan harga 20 ribu, adapun ada yang membeli dengan berbagai harga yaitu ada yg per kilogram bertu-rupiah dan ada juga yang 2 ribu rupiah.
- Dengan modal awal:
- ampas lalu 50 rasi karung, jadi 5 karung 150 rui.
 - 3 karung karung ampas menggunakan Aci 1 kg dengan harga 15 rui.
 - Basanya dengan bahan ampas 3 karung menjadi 21 loyang jadi 21 loyang x 21 ribu= 441000.

Kesimpulan

Etimologi yang terdapat dalam proses pembuatan onon dilaksanakan dalam enam tahapan yaitu proses pencucian, proses pengemasan dan peragaan, pencutan, proses memasak, proses pengukuran, proses pemadatan, proses penyimpanan, serta proses pemasaran konsep etimologi sosial, konsep pembagian, konsep perbandingan, serta

CONCLUSION

To fulfill learning draft entrepreneurship mathematics applied mathematics (*applied mathematics preneurship*) in industry creative, Tadris Mathematics course has applied learning entrepreneurship. The first is that the principal Student Learning Center (SCL) has applied in a way effective, with students participating actively in task presentations, study cases, and manufacturing plan business. The second is that the material entrepreneurship is Not yet designed or arranged in a way comprehensive throughout the study program. The third is that the material entrepreneurship Amount students involved in the entrepreneurship program and those who have operated businesses independently is very small, so there is no accompaniment intensive from teachers and practitioners of entrepreneurship.

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