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## A Proposed Model of Learning Community in Culinary Community

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### ABSTRACT

Tacit knowledge in the culinary field has been lost due to the death of the person concerned and that knowledge has not been passed down to others. The number of fast foods popping up every day is making culinary one of the most popular businesses and culinary lifestyle for some people. The learning community model for mobile-based culinary communities is needed so that chefs, entrepreneurs, students, teachers, and nutritionists can share knowledge in the culinary field. Three things that affect the quality of the cuisine are the ingredients used, the methods used to process food and individual tastes. Modeling is done by involving domain experts through co-design activities carried out to ensure the models are made according to user needs. The learning community model in the culinary field consists of four stages: explore, explain, practice and engage. Explore begins with searching and exploring tacit knowledge in the culinary field, followed by extracting through socialization, externalization, combination and internalization and a mobile-based learning model with features including content, forums, methods, technology, and trainers. Then proceed with practice activities ranging from selecting food ingredients, doing the cooking process, validating the cuisine and feedback to get involved that can arise from the interaction of community members, the existence of co-learning and self-reflection saw from three main factors namely taste, appearance and power hold food. This model can also help and create new entrepreneurs in the culinary field.

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## 1. Introduction

Knowledge is seen as an intellectual asset that has a major influence on the progress of organizational performance. Knowledge is information combined with experience. There are two types of knowledge, namely tacit knowledge and explicit knowledge [1]. Tacit knowledge has not been well documented because this knowledge is usually still in a person's mind and has not structured, and difficult to understand by others [2]. Tacit knowledge encompasses all elements and experiences that exist in a person where tacit knowledge requires additional understanding through acquisition and extraction to be clearer and easier to understand by others [3]. Tacit knowledge can be lost because the employee concerned resigned, left, retired and died [4]. Tacit knowledge can be inherited through collaboration with others, exposing tacit knowledge through certain media and

disseminating skills to the public, whether through social media, the website or other media, recording activities and assisting others [5]. The success of the tacit knowledge sharing process depends on the extent to which users are motivated to acquire new knowledge in a conducive learning community [6]. Conceptualizing and exploring tacit knowledge are done by incorporating that knowledge into online learning, as a learning system with an effective framework for individuals or communities [7]

Exploring tacit knowledge in learning communities is one form of learning that involves community participation both independently and in groups' collaboration [8]. Learning community is an appropriate alternative for some people, considering the community is seen as the most comfortable place to channel inspiration, share experiences and knowledge. The process of the learning community can start from the problems

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that befall a person. Then some of them begin to ask each other questions, exchange opinions, discuss, analyze the causes of problems, summarize solutions and take action on the problems encountered.

Community members learn through the four steps of the participatory learning process: (1) analyzing the problem, (2) planning, exploring, and voting, (3) implementing, and (4) evaluating [9]. The learning community component consists of a) community members, b) collaborative learning, c) problem learning, and d) learning exercises [8]. Community involvement is a major factor in stimulating a sense of community ownership & self-empowerment, which consequently creates a strong and sustainable community. In terms of sharing knowledge, learning communities utilize more network learning communities in tracing knowledge [10].

Network learning community is a learning community that uses information technology and networks, group members influence each other to spread knowledge and solve certain problems for the development of personal and team knowledge in the learning community [2]. Network learning community can be applied to the culinary community where the culinary world is currently a lot of people from various walks of life and for some people, the culinary world becomes a pleasure, a hobby and even a profession that is used as a daily livelihood so that learning community in the culinary community is needed as a place sharing knowledge between community members. Various types of cuisine every day are popping up with a variety of flavors, colors and aromas as well as unique and attractive shapes. For people who are experts in the culinary field of recipes, cooking methods and basic ingredients used are very important. The results of the FGD with expert domains resulted in the quality of the cuisine is influenced by three factors: first, the basic ingredients used were new/fresh or preserved to be the most important factor among the other factors. The longer the base material used is stored and preserved, the less quality of the item. The second factor is the method used among them such as fried, steamed, baked, sautéed, boiled, roasted, crushed and other methods. The third factor is the taste of each individual, where taste from one person to another must be different. Taste is also a factor that determines the taste and quality of dishes to be different.

The amount of tacit knowledge of a person is lost because it is not inherited to others [5] it is due to the related person resigned from his job, quit, retired and died [4]. Food has an important role for human life, becomes a lifestyle, basic needs and determinants of one's health [11]. Uncontrolled food quality, inadequate nutritional supplements, limited knowledge of correct and healthy food processing, low diet awareness, increased fast food, and loss of culinary knowledge [12]. Culinary business is the most popular business and cultivated by the people of Indonesia, amounting to 5,550,960 culinary businesses or reach 67.66% of the total types of businesses in Indonesia [13].

The learning community model is needed to accommodate and bequeath tacit knowledge, especially in the culinary field owned by someone so as not to just disappear and become a new science for the wider community. This learning community model can also be used as a place to exchange information and knowledge, especially information related to culinary. The model

can also be used by some people to find solutions to solve the problems they face, especially problems related to culinary knowledge. To facilitate knowledge sharing, a media that is suitable with the conditions of the times and mobile technology is needed by many people because the technology is easy to use, very practical and inexpensive. Mobile technology is an alternative for storing all information that can be accessed widely even in areas that do not have infrastructure, easy and fast network installations, lower development costs, easy and fast transfer and configuration changes.

This research aimed to create a learning community model the mobile technology in the culinary communities as a place to share culinary knowledge to support structured learning that has been implemented by the government. The research question in this research is how to create a learning community model the mobile technology to support structured learning? The research question is expected to produce a learning community model which could help the culinary community especially, government and the public.

## 2. Related Work

Tacit knowledge and explicit knowledge [1] there is an interaction between the two in creating new ideas to obtain new knowledge [14]. Knowledge is knowledge obtained by someone through the process of education/personal experience of a subject. Information and facts come from a subject that is observed, analyzed and learned into something that is remembered in a person's memory and used as a source of problem-solving in the future.

The success of knowledge transfer is influenced by two different factors. The first factor is the cognitive difference and the students' ability to absorb. The second factor is the difference in the purpose and application of knowledge. Cognitive differences and goal differences can be overcome by trust and communication. Intermediaries are needed to help reduce cognitive differences and experience helps resolve differences in goals. In connection with cognitive differences, there is an agreement that placement, employee exchange, and recruiting graduates are important ways to transfer aspects of tacit knowledge [15]. The similarity and background knowledge are very important for absorption, so it needs to be taken into account regarding the selection of friends/partners [16]. The use of prototypes and modules helps solve the problems they face and connects new knowledge. Absorptive capacity and trust are the most important factors to get quality knowledge so that the community is more open, interactive and communication is done in two directions.

Tacit knowledge is identified through skill, cause-effect, composite, cognitive, cultural, unlearning, human, more personal, derived from personal experience, usually more specific, dynamically made, difficult to understand and codified, difficult to share but have high value, difficult documented, difficult to share, involves many human interpretations and is more emotional. Various mechanisms are used to transfer tacit through a unique set of elements that become tacit. Tacit knowledge tends to be more personal and difficult to formalize [17,18]. Knowledge sourced from tacit knowledge is articulated, documented,



coordinated, organized, in the particular media (IT assistance) so that it is easily accessed & disseminated to those in need [19].

Managing tacit knowledge effectively and efficiently is the key to the success of organizational measurement factors by taking into account several measurement dimensions to gain competitive advantage by using tacit knowledge which must be well understood because it is not only difficult to understand but tacit knowledge is also one of the most challenging problems in knowledge management. The estimated comparison of explicit and tacit knowledge is as much as 10 percent (10%) for explicit knowledge and as much as 90 percent (90%) for tacit knowledge. Become a problem for organizations as data storage and analyzers. It is not easy to handle data from traditional knowledge and is carried out spontaneously in the form of tacit knowledge [20].

Tacit knowledge is a valuable strategic resource for a community and organization with sustainable potential and competitive advantage in the future. Verbal communication is the most important item in managerial knowledge. Task knowledge and collective knowledge have the same effect on tacit knowledge [14]. The ontological dimension is a dimension that can be formulated explicitly and starts from something concrete that is usually a person's experience. Tacit knowledge can be identified and stored in a database, making it easy for searching and rediscovering. Some general principles of ontology design generally consist of two phases of ontology development, namely limiting ontology domains and gathering information about domains. Epistemological dimensions are the factors that influence the process of tacit knowledge transfer between individuals in one division are (1) source characteristics, which consist of motivational factors, teaching ability, and reliability. The most influential factor is the ability to teach resources; (2) recipient characteristics consisting of motivational factors, absorption, and retention. The most influential factor is the recipient's absorption; (3) characteristics of tacit knowledge, which consists of causal ambiguity, evidence, distribution, ownership rights, and common knowledge. The most influential factor is evidence; (4) organizational context consisting of factors of trust, organizational culture, organizational structure, prior experience, personal and social characteristics, time availability, group identity, personal interaction, and know-who. The most influential factor is trust; and (5) media characteristics, which consist of formal and informal mechanisms and the most influential factors, are formal mechanisms [21,22].

Explicit knowledge is readily accessible knowledge, has been documented in the form of formal knowledge that has been well organized or shared with others, documented, categorized, and disseminated to other parties as a complete form of information [1]. Explicit knowledge is the knowledge that can be shared with others, documented, categorized, and disseminated to other parties as a complete form of information [23]. Explicit knowledge is something that is realized in code or language so that it can be communicated, transmitted, and stored with relative ease [18]. Stated that learning is a system or process of learning learners who are planned, implemented and evaluated systematically so that learners can achieve learning goals effectively and efficiently. In general, the notion of learning is the process of interaction between students/students with educators/teachers and learning resources in a learning

environment that includes teachers and students exchanging information [24]

Learning Community works well depending on the objectives to be achieved, the design created the structure of each community member and the activities that will be carried out by each community member. The learning community will function properly depending on the objectives to be achieved, the design created, the structure of each community member and the activities that will be carried out by each community member [25]. Learning community is an approach to describe how a place responds to the challenges that arise by uniting organizations and people primarily to learn how to create new responses to the challenges they face [26].

The learning community is realized through strong collaboration, collaboration between members and partnerships that exist. The common goals which are the watchwords of the learning community can be achieved with strong collaboration by creating new knowledge [27]. The model above explains that an effective learning community has more specific community members with the aim of helping members who experience problems and encouraging knowledge sharing based on the experiences of community members. Develop continuous learning continuously so that the integration of learning is built according to group identity [28]. The learning community component becomes important for learning in the culinary community. Interesting content, according to people's daily habits and religious approaches, is very effective in attracting people to learn in the community [29].

Three important components in the learning community, namely learning activities, learning content containing ongoing case studies, and tools used for learning. The tools used are based on information and communication technology connected to the network [30]. The online forum is currently an excellent platform for learning and connecting students around the world. Creating strong partnerships and collaborations is to have the same knowledge, understanding, and goals among community members [31]. Online forums are highly sought after by community members because they can discuss and share knowledge at any time regardless of distance and time. Forums are useful for discussing and sharing ideas and knowledge and are more accessible. Forums can also be used to design learning strategies that are more creative so that learning can be done independently [32].

In addition to the technology used, learning in the culinary community requires the interaction of interesting content as a way to create participatory learning [32]. Interaction between community members influences community behavior in the context of activities and processes related to e-learning communities. The trainers and participants have the same role in determining the success factors of learning communities. Implementation of collaborative learning models through 3 P (Presage - Process - Product) by involving members' perceptions in the learning community [33] where the available system, learning content and the characteristics of educators/trainees become the main capital in the implementation of collaborative learning, especially in community-based learning. Utilizing the media for the learning process especially social media and online



media is highly recommended. The use of media is adapted to relevant conditions that develop in society and media that can inspire members [6].

Management focuses on human and computer interactions [34]. Learn by looking at the work of others then develop what is seen to be criteria based on the work and use these criteria to see other work to produce better learning. The more community members who participate in activities, the more roles, and responsibilities of the community group leaders [35]. Besides togetherness and motivation become important in learning both online and face to face. Community-based learning between members of each other has a sense of togetherness to meet all group needs. In addition to a sense of togetherness, the motivation of all components in the community can create independent learning and intrinsically motivated to be important to maximize the individual competencies of community members. While extrinsic motivation can be seen from the process of activities to achieve learning outcomes [36].

Students' motivation in cognitive learning involves the community through active and collaborative learning approaches with information technology media and resources, showing a very significant change in motivation by using cognitive strategies. Community member participation is very large in creating motivation among community members [37]. User motivation can come from individual internal and external individuals. In addition to motivation, each member of the community also collaborates with students from various countries and different cultural backgrounds and disciplines [30].

The success of sharing knowledge depends on the level of user motivation gained through member participation, ownership, trust, individual commitment and enthusiasm of the members is very important to develop an online learning community [7].

High motivation in sharing knowledge, problem-solving strategies have been proven as effective teaching strategies to improve learning outcomes and instill skills to adapt to real life. Students learn in groups to solve problems and the results show high motivation, solid teamwork and increased understanding of the problem solving they face [38]. The application of problem-solving in learning becomes a demand for all graduates, considering that the industry always wants recruitment to be ready for work. This can be done through learning that sets out the skills of students who are used to solving real problems that can be done through the learning community [39].

The learning community process includes exploring individual knowledge as a valuable source of competitive advantage in the form of tacit knowledge which has an important role in the development of knowledge. The importance of elicitation for the expansion and preservation of tacit knowledge through various human resource development training courses [40]. The process of learning community in the culinary community can be started with the process of collecting tacit knowledge that is owned by people who are experts in the culinary field or people who like culinary. Knowledge gathering is done in various ways or "Creating" [41].

Changing tacit knowledge into a knowledge base can be applied in a variety of other large projects that are broader in scope

and lead to ongoing learning. The importance of the factors depends on the purpose and quality of the network and the organizational context and political conditions in which the learning is carried out [42](Wheeler, 2004). The creation of effective partnerships requires considerable time, basic rules, classification of tasks to be carried out, identifying the support needed for successful implementation and ensuring shared vision and mission with partners [43]. The approach taken for evaluating learning focuses on the perspective of the participants with the experience they have. Exploring students' experiences effectively makes them professional and multi-skilled to face a better future [44].

Learning experience a service-learning course provides structured opportunities for students to reflect on experiences in their community. The experience is very effective in providing structured opportunities for the learning community. When students participate in learning in class and do work in communities related to learning material, they ask themselves what to do now and share what from experience and what will become in the future [45].

Task-based learning communities aim to produce products from community members who know each other. Each group is assigned to solve problems that have been determined and agreed. Small group interactions occur between group members. Second, knowledge-based learning communities that aim to organize knowledge based on specific areas. These members do not know each other personally; there is a long-term commitment to build a knowledge base. Third, practice-based learning communities, different from task-based communities, especially with voluntary participation, there are joint activities among community members to produce knowledge [46].

The involvement between educators and students is collaboration between them through the concepts of continuous learning and lifelong learning. The technological or content aspect cannot be a factor to attract students to be involved in the e-learning community, but a component of participatory involvement where integration between individuals or groups of students must exist [33].

A brief discussion on the need for development to monitor and evaluate whether the expected benefits are realized and need to be taken into account regarding the usual magnitude that must be issued and the potential co-design risks that arise. The benefits of co-design include user involvement being able to develop new services, better system quality, system compatibility with user needs, shorter development period, and increased user satisfaction [47], as well as long-term relationships between service providers and more users increased [48]. Co-design systematically can make it easier to determine and compare boundaries between products (learning community) and services (learning processes that take place in communities). This is intended to find out the constraints on the system earlier during the design process [49]. The co-design approach is very important in the design process because it allows parties (designers, community members, and chefs, domain experts) to communicate with each other and work together between community members in the culinary field [50].

Conversion of the form of knowledge from tacit to explicit can be done by documenting so that the knowledge that was



initially limited to thoughts, ideas, experiences can be converted into an easily understood document. Even the tacit stored in the knowledge management system can work optimally if the search method is done with an intelligent system. The integration of intelligent systems based on mobile technology makes knowledge sharing more effective and efficient in terms of time and cost. The mobile-based learning community model is an alternative in this learning, on the grounds that learning becomes easier, can be done anywhere, the community is more familiar, easy to use and according to current conditions.

Based on the foregoing, there is a lot of tacit knowledge in the culinary field lost before being passed on to others necessary to have a container to accommodate various kinds of tacit knowledge in the culinary field through a database and computerized storage system. This model will also make it easier to trace tacit knowledge in the culinary field, where new recipes appear every day. Sharing knowledge in the culinary field is still limited to small groups and its reach is still in certain groups. It takes a learning community model in the culinary field to make it easier to learn to cook easily and attractively because in this model it is explained that learning is carried out in full, starting from how to explore cooking knowledge with interesting features through mobile-based explanations and practice with the sequence of the cooking process, that is true up to the giving of feedback on the results of the cooking and engaging that the participants feel.

### 3. Method

The design of an information system is the overall plan or model to be used in the system. System design is the stage of information system development that answers the question of how information systems can do the things needed to solve problems [51]. The system design stage determines how the system will operate in terms of the placement of hardware, software, network infrastructure, user interfaces, forms, and reports used and specific programs, databases, files needed [52]. This research was expected to provide solutions about the learning community to support structured learning in case studies in the culinary community so that it can be utilized by businesses and education.

The stages of the research were carried out by searching the components and characteristics of the learning community in the culinary community into an important variable in this research which was used as a variable in finding, collecting, and compiling data needed at the observation and interview stages to conclude the objectives of the research [53]. After the factors that determine the learning community component have been determined, the next step is to measure tacit knowledge in the culinary field by using existing dimensions, so that information obtained in the form of explicit knowledge can answer the problem. From explicit knowledge, a model will be validated by experts and entrepreneurs in the culinary field before being disseminated and disseminated to the business community and the world of education.

The process of making a model began by determining the learning community component of the culinary community by using the Systematic Literature Review (SLR) method. Five important components in the learning community were obtained content, forums, methods, technology, and trainers. Modeling was also done through the search for important characteristics of

learning communities in the culinary field by using the SLR method. Produced four important characteristics namely collaboration, motivation, problem-centered learning and engagement. Having discovered important components and characteristics of a learning community in a culinary community, a focus group discussion (FGD) was carried out to people who were experts in the culinary field. The FGD resulted in the quality of the cuisine being influenced by three things namely the quality of the ingredients, cooking methods and tastes of the individual.

Based on the systematic results of the SLR literature review and focus group discussion (FGD) above the model was made by referring to the components, characteristics and results of the FGD. The data collection method used in making models was literature the review according to Kitchenham which reviews systematic reviews, presents evaluation of research topics with a reliable, rigorous and accountable methodology through three stages, namely conducting a review review, conducting a review and making a review report [54]. Survey method to get data from a particular place and the observation method was done by directly observing the learning process in the culinary community, then conducted interviews and questionnaires [53].

Based on the model in Figure.1 above, it was made because of a gap analysis seen from several previous researches conducted by both the author and others. The gap analysis found in the previous paper in table 1:

Table 1: Gap Analysis of the learning communities in the culinary community

Gap Analysis			
Explore Knowledge	Explain	Practice	Engage
Knowledge sharing is still limited to small groups, so that a lot of tacit knowledge in the culinary field is lost before being passed on to others.	The use of media in the learning community process is still relatively small and there is no place to accommodate the ability of tacit knowledge in the culinary field specifically	Learning community is still limited to recipes and information has not been done seriously and in detail, so learning in the community often experiences boredom and failure	Not maximal interaction between members of the learning community and the co-learning process has not been able to create new business actors, so the development of learning in the community often experiences difficulties in sharing knowledge

Based on the Gap Analysis above, an application is needed to accommodate culinary-related knowledge so that it doesn't just disappear, namely a computerized learning system. It takes learning media that is easy to use, accessible and flexible and has specific features based on mobile learning where mobile learning is very suitable for current conditions. Needs to learn in detail starting from selecting recipes, determining ingredients, cooking process, validation and feedback from users. Good interaction

between community members and learning is carried out repeatedly by combining different recipes, ingredients and methods to get new recipes with the taste, aroma and uniqueness of food

#### 4. Result and discussion

Model development begins with qualitative research by searching for some pre-existing models and problems that occur in previous studies summarized in the significance of the study. Several issues were found in the community-based learning process, especially those involving tacit knowledge problems that were often lost or undocumented and hasn't been passed down to anyone else. Tacit knowledge will be explored is tacit knowledge related to the culinary field using the SECI model [1] that looks like Figure 1

The proposed model framework was the adoption of the use of the learning community model that has been applied in unstructured learning, where the community became a place for

sharing knowledge and between community members can solve problems together then merge the framework of Leavitt [55] which has divided the success factors industry becomes three factors namely People, Process and Technology, so the model created can be described as in Figure 1:

Figure 1 is a proposed model of learning community in culinary community field which consists of four main processes namely explore, explain, practice and engage. The culinary community itself consists of chefs, new entrepreneurs, students, teachers, and the public.

1. The first process of learning community was to explore (search and explore) knowledge in the form of tacit knowledge and explicit knowledge. Tacit knowledge could be sought and obtained through face to face with those who are experts in culinary, storytelling, mentoring and cooking demos, while explicit knowledge could be obtained through videos, blogs, reports, books, and Standard Operating Procedure (SOP).

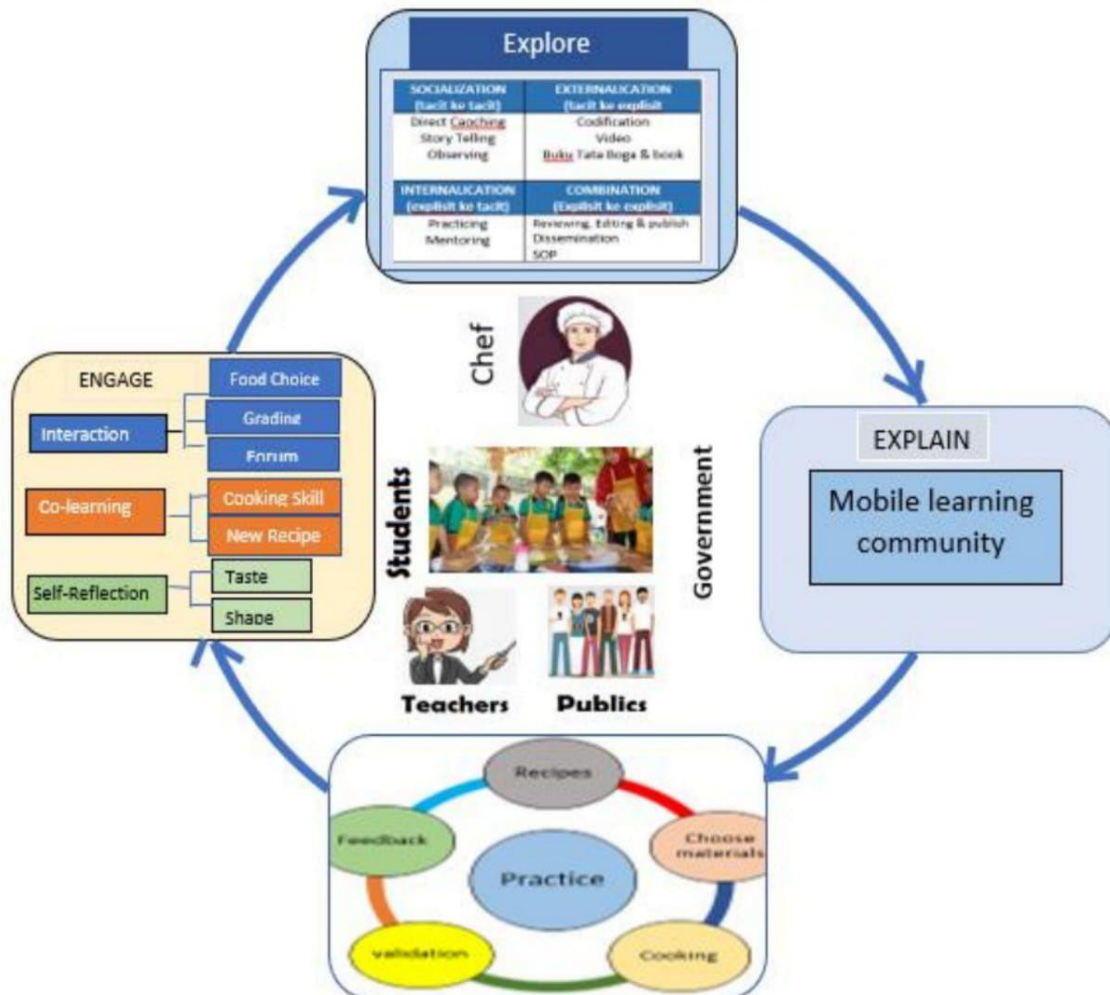


Figure.1: A Proposed Model of Learning Community in Culinary Community



2. After knowledge was found both through tacit and explicit, the next step was to explain where the explained process could be done through the first socialization in the form of training, social interaction and sharing experiences between community members and by observing someone and practicing. Second, through externalization, that is knowledge created through existing knowledge, then added to his knowledge and developed new ones and shared with others. Third, through a combination of creating the latest explicit knowledge by combining, categorizing, and gathering two or more explicit knowledge. Fourth, through the process of internalization, namely by utilizing the skills and experience possessed by someone to create new knowledge. The learning community uses mobile technology with the name "Masakkoe Suka" with mobile learning features in the form of forums, content, methods, technology, and trainers.
3. The third step, namely practice, was a learning process that could be done by practicing cooking skills where the location could be done anywhere, but there must be an audience who will act as an appraiser. The process of cooking practice would be videotaped and photographed as proof of practice. Videos, photos and assessment sheets are uploaded to the mobile learning application to get feedback from the trainer. The cooking practice itself was carried out starting from choosing the ingredients of the cooking, doing the cooking process, and doing the food validation process.
4. The fourth process was engaging from the learning community in the culinary field. The mobile learning application provides rubrics and assessment forms that can be filled directly by the audience cooking practice (as an appraiser), about self-reflection which has an assessment in the form of taste, appearance, and durability of cooking. The results of this assessment would be considered by trainers when giving feedback. The use of this mobile learning application allowed interaction between community members through the use of forums, video comments, and others. The results of this learning also result in co-learning where learning was done repeatedly with the same ingredients but different cooking methods so that it could produce new recipes that would ultimately create new entrepreneurs in the culinary field.

The model was based on the learning community component in the culinary field content which has a very important role, interactive content that can create engagement for community members to continue to follow learning on an on-going basis [16]. Forums made learning strategies more creative, independent [32], and interactive between community members [26]. Many alternative uses of technology in learning communities ranging from mobile-based technology with interesting features and content [56,57], online learning media form of Facebook [26], and utilizing collaborative software applications in virtual space [58]. The right method and competent trainers encouraged more interesting learning.

Based on the characteristics of the learning community in the culinary field, an innovative and collaborative learning platform could be concrete approaches and models in conceptually or technically realization [34]. Motivation has a positive impact on

student achievement even though learning was done remotely [59]. Students' motivation increased even though the impact could not be transferred to a change in attitude [60]. Problem-based learning could improve student self-learning outcomes, interest in learning, team spirit, analytical skills, produced good communication, and student feedback was more leverage [61]. Whereas based on the FGD which strongly supports the making of models, especially practice, where choosing ingredients became the most important thing, cook used a certain method and produced a taste with a variety of flavors and the taste for getting feedback from community members was interesting.

Model making begins with determining the important components of the learning community in the culinary field where the components consist of 4 (four) perspectives:

#### A) Explore

Socialization, externalization, combination, internalization refers to the SECI Model [1]. Socialization is the basis because tacit knowledge can only be shared directly with others by sharing direct experiences through direct coaching where the knowledge stored in one's mind [62] is shared face to face [63], either by listening to lectures, discussions and questions and answers [64] with pandemic conditions such as currently the media used can be through zoom meetings, video calls and chat. Story telling by telling personal experiences [65] through the "pull and push knowledge" technique approach [64,66] which is packaged in an interesting story by utilizing digital media [67] and Story-telling can be done through videos and podcasts such as YouTube, Instagram, and Flipgrid.

Externalization is a learning process from tacit knowledge to explicit knowledge [1] which is triggered by discussions to create concepts from tacit knowledge to be articulated into an explicit form so that knowledge is easier to learn and translate [68]. Knowledge is managed and documented in codified form [69,70] in accordance with the flow and intensity of knowledge [71] so that it can be reused by other people and organizations without changing the meaning [72]. Learning to cook can be learned through videos [73] including for beginners who want to learn the cooking process by watching videos [74] existing good cooking practices on YouTube, television, and social media [72]. Knowledge can also be shared in the form of books and e-books [70] which can be searched online and downloaded easily and quickly and can even be obtained in various language versions [75].

Combination is the sharing of knowledge from the explicit to the explicit [1] where the use of existing explicit knowledge will be applied to other, more complete, explicit knowledge to improve capabilities and better productivity [76]. Participants learn and share knowledge from the results of improvements, edits and publications that have been disseminated in various kinds of books or e-books so that up-to-date information is obtained [77].

Internalization is the sharing of knowledge from explicit to tacit, knowledge changes occur due to individuals learning by researching existing objects. Practicing is carried out by disseminating knowledge through practice cooking and preparing food directly through demonstrations either live or via video so that interaction and feedback occur [78]. Students can consult to



solve existing problems through consulting, discussing finding solutions and making decisions together and have the courage to take the risks that will occur [79].

## B) Explain

The explanation contains the features used for the learning community in the culinary field that uses mobile learning to make it easier for participants in learning. Besides being flexible and easy to use, mobile learning is very popular with all people, including children, adolescents and parents. Learning to determine recipes step by step through interesting multimedia is proven to increase self-confidence and make the taste of dishes more delicious and varied [80]. The use of smartphones can replace interactions that are carried out face-to-face [81]. Sharing through applications that can answer questions asked by participants quickly [82]. Learning supported by information and communication technology has an impact on the development of a learning community where members interact with each other virtually from all over the world without knowing boundaries and distances [27].

## C) Practice

Verification of cooking results is carried out to ensure the system is error free and that the process results are carried out appropriately. Verification of results in the system starts from the process of registering, logging in, post recipe processing, searching for recipes, commenting recipes, changing query expansion, giving ratings, providing reports and verifying the process of calculating the final result of a dish [83]. Once verified, it is followed by validation carried out by experts through validating the readability of recipes and evaluating the overall cooking results.

Feedback from participants can help participants to continue to improve, innovate and be creative. Learning participants can provide feedback through the "feedback button" which is designed to facilitate participants in providing opinions / comments [84]. The response results produce the same understanding of a recipe and can motivate participants to continue to improve the quality of cooking. Gives a score from the final result of a dish according to the level or level. The score is done individually and in teams, but the final result is the team's decision [63].

## D) Engage

The system is equipped with a food choice questionnaire (FCQ) to classify users based on their motivation to choose the type of food. Participants can determine their choice of dishes through questionnaires so that their tendency to one type of cuisine can be known [85]. The rubric facility for users to become more active is the basis for new and old knowledge management initiatives [86]. Each practice result is assessed by giving weighting / ranking to determine the best result and as an evaluation of learning outcomes.

The existence of a forum so that participants can discuss with each other, share ideas, and learning forums will be more fun [32] through a networked learning community that will motivate and provide recommendations for participants to discuss in online discussion forums [87]. The availability of forums for discussions

and sharing ideas in online discussions that are easily accessible and can build a wider network among them.

The co-learning process where learning is repeated by combining various recipes, ingredients and processes to create new recipes. Each trial and make standard recipes by creating positive behavior to explore the creativity of participants to continue to create recipes with different variants [88]. Video technology is able to improve cooking skills among low-skilled individuals who want to learn to cook with fresh ingredients [73].

Self-reflection in learning in the culinary community whether it is done by soaking, boiling, roasting, steaming, and / or fermenting to increase its taste and delicacy without reducing the quality of the food [89]. Identifying and selecting healthy types of food according to health standards, participants are asked to try and enjoy these dishes whether the taste, aroma, color, and texture are in accordance with user needs. Taste is the specialty of a dish considering the different taste of each participant according to the region of origin and culture of each participant and each participant has the same opportunity to determine the taste according to taste [90].

## 5. Conclusion

From the discussion above, it can be concluded that this model was created to provide solutions to the problems and gaps that have occurred so far, namely that the number of tacit in the culinary field just disappeared before being documented, food became a lifestyle and human life necessity, the culinary business became a very supportive business. and Learning in the culinary field is still carried out in the form of a small community which has not been carried out on a large scale. The initial model became a reference for creating a community learning model in the culinary field so that it could be widely used.

In the initial model of learning community in the culinary field there are 4 processes carried out, namely explore knowledge which refers to the SECI model, namely socialization, externalization, combination and internalization. In an explanation, where the learning features used are an indicator of the success of learning, the mobile learning community will make it easier for users to participate in this learning community. For practice, the emphasis is on the learning process itself, where activities start from determining recipes, selecting ingredients, cooking processes, validation to feedback. Engage is obtained after the learning process is complete and it is hoped that this learning community can produce new recipes through interaction, co-learning and self-reflection so that learning in the community in the culinary field can be obtained maximum results.

## 6. Limitation and Future Research

This research discussed the framework of the learning community model for the culinary community to support structured learning. Learning was done from community to community. Culinary community consisting of chefs, new entrepreneurs, students, and teachers who as learning material in the field of catering, nutritionists, and the general public who want to pursue the culinary field. Model validation would be carried out after the process of co-design, pre-test and post-test to the domain expert.



The next research model development will be carried out and model validation is ready to be accessed and implemented by the culinary community for learning which has been carried out separately and unstructured. The model that will be built in the next research is create a learning community model in the culinary field with mobile technology, where the technology as a technology that is currently developing, and the condition of the people who are more familiar with using mobile applications compared to desktop and web-based applications.

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