Smart Learning Community at Culinary Community with SECI Model Adoption: Systematic Literature Review

Winanti
Information System Department, STMIK Insan Pembangunan Tangerang, 15810, Indonesia
Email: winanti12@ipem.ac.id

Abstract: The problem in the learning community in the culinary field is that there is still a lot of cooking knowledge that is lost because the person concerned dies before being inherited, the many types of dishes that are still separated in small groups, the emergence of various types of fast food that do not pay attention to the correct way of cooking with recipes, methods, and processes according to Health standards. Culinary is an alternative business that is very promising and supports the community's economy and a culinary tourism trend that is currently in great demand by all groups. From these problems, we need a learning community in the field of culture that can be a solution. The learning community components are seen from four perspectives, namely, explore where the author uses the SECI model, and explain where knowledge is disseminated through mobile learning with features tailored to user needs. The practice begins with selecting the recipe, the ingredients used, the cooking process, validation, and feedback from the participants. And the engage perspective obtained good interaction from participants and to produce new recipes requires learning that is done repeatedly by combining various recipes, ingredients, and methods so that new recipes are produced that have unique and interesting characteristics and have taste, aroma and deliciousness and good nutritional value. The number of references used were 72 papers sourced from journals as many as 54 papers (75%) and the remaining 18 papers (25%) sourced from conferences, websites & white papers, and research reports. There were 15 papers published in 1991 – 2010 and 2011 – 2021 as many as 57 papers. This research is still limited to the learning community component in the culinary field, seen from four perspectives, and has not discussed the model that has been validated by experts. Participant motivation and learning outcomes will be discussed in the next research

Index Terms: Smart Learning, Community, Culinary, SECI Model, Systematic Literature Review

1. Introduction

During the Covid-19 pandemic, almost all activities were carried out at home, opening hours and the number of visitors to restaurants and restaurants were very limited. Food orders that were initially made face-to-face had to be made online and on average they implemented delivery orders. Culinary learning must also be done online with a variety of methods and media. The features provided for culinary learning must also adjust to pandemic conditions, the features for accommodating participant opinions and reviews are interesting because of the many opinions and reviews received [1].

There has been a major change in food insecurity, especially for low-income people and those living in urban areas who are more vulnerable than those who live in rural areas [2] becomes something that cannot be denied. The massive layoffs due to Covid-19 triggered a lot of unemployment from the non-formal sector. So that in the post-Covid-19 pandemic era, internet and communication technology remains, blockchain in the food supply chain and innovation in the food sector cannot be avoided. [3]. Every company engaged in the culinary sector is competing to serve and offer types of healthy food to support immunity so that conditions stay healthy and fit. The healthy food business will become a business field for people who are involved in the culinary field [4, 5].

Learning community is collaborative learning that involves independent community participation and encourages collaboration between community members [6]. Community learning is an alternative for some people, considering that the community is seen as the most comfortable place to channel inspiration and share knowledge. Three main factors determine the success of a learning community, namely accessibility at an affordable cost, safe and conducive so that learning can attract and be of interest to community members. Socio-economic factors are very important in addressing gaps in learning in communities, especially in rural areas [7].

Lifestyle and health insurance for a person [8]. The emergence of various diseases due to diet, low levels of nutrition and nutrition, and processing of food ingredients that are not by health standards [9]. The quality of food circulating today is often below health standards, due to a lack of knowledge about how to process healthy and hygienic foods, especially for fast food [10]. So, the culinary business has become the most popular and cultivated business by the community, especially people in Indonesia, from starting as a hobby to business professionals in the culinary field. [11].

The development of various types of culinary is due to internal and external factors, including better infrastructure, especially in terms of network speed and capacity, increasingly sophisticated technology, software, and hardware that can disseminate information about various culinary delights. Integrated information system to obtain information quickly and accurately in decision making to determine the type of culinary that will be consumed and it is very important to understand what people eat and how to cook properly [12]. This can be done by sharing knowledge between individuals and communities through online learning with the hope that learning can still be done in various conditions to produce food processing methods, processing and serving quickly, precisely, and attractively.

Learning about culinary cannot be separated from the technology used, in the current pandemic conditions online learning, blended learning, social learning, virtual learning, and open learning are solutions in delivering learning material and content [13]. Everything is done online and learning is done anywhere regardless of distance and time [14]. This learning method is suitable for community-based learning which has the characteristics of relationships between community members who care for one another, productive inquiry (the process of finding out) in learning, and a flexible learning environment that can be done anywhere according to mutual agreement.

The formulation of the problem in this study is how the learning community in the culinary field is seen from 4 perspectives, namely explore, explain, practice dan engage. The four perspectives are further elaborated into several indicators that will become a reference in making community learning models in the culinary field in subsequent research. This paper is a literature review process that will be used as an initial reference in making initial models through 4 perspectives of community learning in the culinary field.

2. Literature Review

Pandemic Covid-19 caused many changes including new habits, norms, and very limited community interactions that impact the food sector, especially food security and security to improve human immunity and health. AI digitization and agricultural automation to deal with risks and climate change must be done. Education and training with new technology will change people's behavior regarding the importance of sustainable food security with a healthy lifestyle is the solution during the Covid-19 pandemic [3]. Learning during a pandemic or post-pandemic is inseparable from the internet network. Almost all activities are carried out online. Including food, orders can be made online without increasing the price, and quality is maintained.

Community-based learning is an alternative for many people who do not all receive formal education. Currently, the curriculum must be adjusted to the demands of the industry, where problem-solving-based learning is a demand for high-level performance organizations. Collaboration between training institutions, education, and industry is a must in the new normal covid-19 era and the technology era [15]. It will be left behind for training institutions that do not want to collaborate with the industry. Reading the skills opportunities needed by the industry is the key to success in community learning.
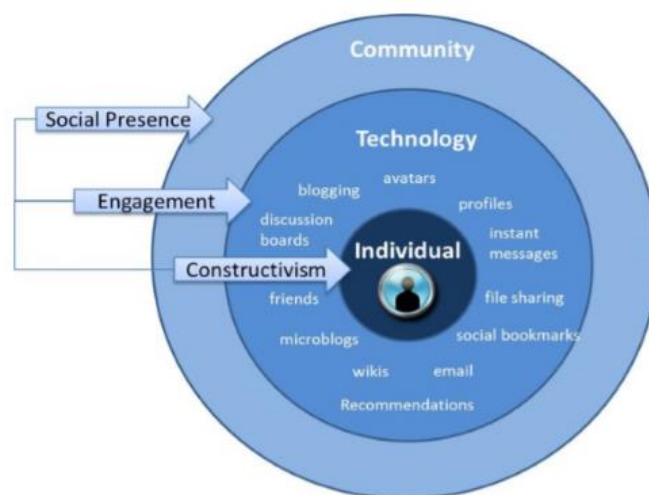

Fig. 1. Theoretical Model for Online Learning Communities [16]

The theoretical model for online learning communities in Fig. 1 above explains and considers 1) Individuals (Constructivism), which learns from the interactions and experiences of students who directly interact with technology. Constructivism provides a holistic view of individual learning and how individuals interact in larger groups, so constructivism encourages, utilizes, and values the unique and multidimensional characteristics of individuals throughout the learning process. 2) Technology (Engagement Theory), individual involvement in project activities through interaction with others facilitated by special technology, especially social software that provides a level of control and autonomy in the community to support a constructivist approach that results in cooperative learning in a learning community. 3) Community (Social Presence), the extent to which individual perceptions of interacting and exchanging information to engage with students' attendance levels are directly related to their perceptions of learning by utilizing technology that encourages higher learning levels through openness and collaboration [16]

The definition of a community is a collection of people who care for each other and there is a strong personal relationship between members of the community and they have common interests [17]. Characteristically, the learning community encourages the motivation of each member to achieve maximum learning outcomes [18]. There is very large participation from among community members in creating motivation among members because they have the same goal. Collaboration between members regardless of cultural backgrounds and different disciplines. The involvement of community members in creating motivation to effectively face a better future.

Creative and critical engagement to address gaps and problems by learning and sharing knowledge through a goal-based learning community to solve existing gaps and problems [19]. Participants build learning through interactive learning communities by conveying the ideas they have which result in new ideas to improve existing initial ideas [20].

Learning communities are defined as places where people learn from each other with group activities that influence each other to find solutions to problems and acquire new knowledge and skills both offline and online. [21]. Learning communities appear supported by the existence of information and communication technology that allows community members to interact all over the world to conduct online learning communities [22]. The community does not see a place where learning can be done anywhere, even places of worship can be used as a center for community learning activities that provide information services to attract and involve the community as the main factor for successful learning [7].

Exploring knowledge is an action to provide opportunities for students to seek and find various information they get, solve various problems and make innovations according to them. [23]. Exploration is also a stage in learning where participants actively examine and find information from knowledge into a new concept, new knowledge, new techniques, new methods, and formulas or patterns of relationships between science concepts through understanding knowledge [23, 24]. So that knowledge exploration activities always involve participants to seek information widely by exchanging ideas using a certain approach and there is an active interaction between members in solving finding solutions to the problems at hand. The responsibility of the members becomes strong with a sense of the same destiny and has the same interests among members of the community [16, 22]

Explain knowledge as one's strength to compete with others and knowledge becomes human strength [25] which does not depend on physical strength, so that knowledge provides benefits, leads to the path of truth, positive change, makes mental and moral progress in life. Knowledge can be peace in society and keep various conflicts and other crimes away.

The learning community model adopted by the journey through the Universe program says that the modalities and places of student learning in a community can be done through formal or informal education. Formal education takes place in the classroom, with gifted educators directing the school. Formal education programs also pay attention to the professional development of teachers to continue to develop relevant curricula so that students can deepen their knowledge through inquiry-based learning/scientific inquiry processes, while informal education is more common in a community, such as museums and science centers, field trip sites and even homes. There is a significant relationship between formal and informal education. Both can be combined through activities at school implemented at home and in the end learning can be done anywhere in a community [26].
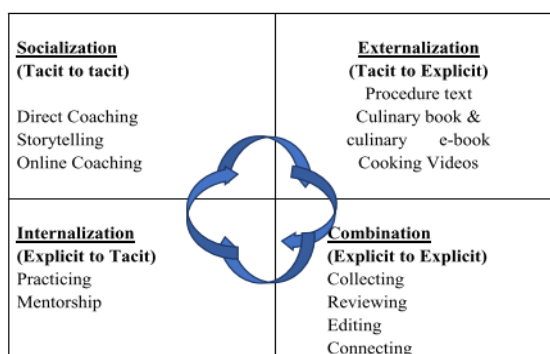

Fig. 2 Exploring the Knowledge for Learning of Culinary Community [27]

Based on Fig. 2, it is explained that exploring knowledge to learn to cook begins with: (1) Exploring tacit knowledge to tacit knowledge (Socialization) by learning to cook by direct coaching, storytelling, and online coaching, (2) Explore knowledge from tacit to explicit (Externalization) which can be done through procedure text about the cooking process, culinary books, e-books, and cooking videos, (3) Exploring cooking knowledge can also be done from explicit to explicit (Combination), namely knowledge obtained through collecting, reviewing, editing, and connecting, (4) Exploring knowledge from explicit to tacit (Internalization) can be done by practicing and mentorship [27].

3. Method

To find the important components of the learning community in the culinary field through 4 perspectives is carried out with the systematic literature review method, where the determination of the components is carried out strictly by presenting the form of the keyword determination process used from the selected articles. The researcher investigates the theory put forward by Webster and Watson where the concept determines the review framework or vice versa the researcher takes an approach by presenting a summary of the relevant article. A review should be able to identify knowledge gaps and seek information to fill these gaps [28]. From gaps and finding solutions, the authors provide added value from existing theories and ensure that the selected studies are truly solid, in-depth according to the facts. So that new themes, problems, and opportunities will emerge that have reciprocal relationships in certain areas that will lead to new, broader theories [29].

3.1 Search Process

Systematic Literature Review is a means to evaluate and interpret all relevant theories in a particular field of science according to topics and phenomena that are considered interesting, with a methodology that is reliable, rigorous, solid, and auditable. There are three main guidelines, namely: (1) Planning a review, (2) Conducting a review, and (3) Reporting the results of the review. This systematic literature review does not consider the impact of the type of question nor the mechanism in detail on the meta-analysis required [30, 31],. The systematic literature review, identification, assessment, and interpretation of all findings of a research topic are carried out to answer predetermined research questions. [32]

The data collected was found in 102 studies, from the election results down to 82 candidate studies and 72 selected studies. The number comes from journals, conferences, white paper, and research report related to important components in the data collected is found as many as 72 studies the leaning community. The author looks for literature sources from journals, conferences, and papers by the topics sourced from a). Science Direct, b) IEEEXplore Digital library, c) Google Scholar, d) Springer Link, e) DOAJ (Directory Open Access Journal, f) Scopus.com, g) Sinta (Science and Technology Index).

The results of the literature review are obtained from papers originating from journals, proceedings/conferences, white papers, websites, and research reports. References that have been collected consist of 54 references sourced from journals and 10 references sourced from conference results, 7 references sourced from white papers result & website, and 1 reference from research report sources seen in table 2.

Making this systematic literature review uses Prisma (Preferred Reporting Item for Systematic Review and Meta-analysis) with the following steps: (1) The researcher determines the eligibility criteria for the papers the researcher has collected. (2) The researcher determines the sources of information that will be used. (3) The researcher selects literature based on predetermined and agreed keywords. (4) Researchers collect data. (5) The researcher selects data items based on the data that has been collected [33]. In making this literature review, several ways are carried out between looking for similarities, looking for inequalities, providing views of literature, comparing one literature with another, making a summary of the literature [34].

The scope of this paper is to determine the components of the learning community in the culinary field based on 4 perspectives, namely explore, explain, practice, and engage as a first step in making a learning community model in the culinary community to support formal and informal learning.

3.2 Data Extractions

In the search for literature sources based on predetermined keywords, namely ("Smart", OR "Agile" OR "brainy") AND ("Learning" OR "Sharing Knowledge" OR "Make a study" OR "Discussion") AND ("Community" OR "Society") AND ("Culinary" OR "Cooking") AND ("Explore" OR "Investigate" OR "Inquire") AND ("Pandemic" OR "Covid-19").

4. Results and Discussion

4.1 Publication trends

The total references collected from 1991 to 2021 are 72 papers. The most references in 2018 and 2019 were 10 papers (14%), references in 2020 as many as 9 papers (13%), in 2021 as many as 6 papers (8%), references in 2017 as many as 5 papers (7%), in 2014 and 2013 as many as 4 papers (6%), references in 2010 as many as 3 papers (4%), references in 2016, 2015, 2012, 2011, 2008, and 2004 each as many as 2 papers (3%), references in 2009, 2007, 2006, 2003, 2002, 2001, 2000 and 1991 each with 1 paper (1%).

4.2 Publishing outlets

The reference sources used in this study are 4 publishing outlets, namely journal, conferences, white papers, and research reports. References that have been collected consist of the four sources a total of 54 paper (75%) references from journal papers, references sources from conference papers a total of 10 paper (14%), references sources from website & white paper a total of 7 paper (10%), and references sources from research report a total of 1 paper (1%) as shown in table

Table 1. Number Selected Studies

Sources	Studies Found	Candidate studies	Selected studies
Google Scholar	23	20	19
DOAJ	3	1	1
Springer Link	9	7	5
Science Direct	43	37	32
IEEE-Explore.	8	5	6
Sinta	5	4	3
Scopus.com	11	8	6
Total	102	82	72

Table 2. Publishing outlets

No	Journal / Conference	#	%
1	Journal	54	75%
2	Conference	10	14%
3	Website & White Paper	7	10%
4	Research Report	1	1%
	Total	72	100%

Table 3. Frequency of publications

No	Year	#	%
1	2021	6	8%
2	2020	9	13%
3	2019	10	14%
4	2018	10	14%
5	2017	5	7%
6	2016	3	4%
7	2015	2	3%
8	2014	4	6%
9	2013	4	6%
10	2012	2	3%
11	2011	2	3%
12	2010	3	4%
13	2009	1	1%
14	2008	2	3%
15	2007	1	1%
16	2006	1	1%
17	2005	0	0%
18	2004	2	3%
19	2003	1	1%
20	2002	1	1%
21	2001	1	1%
22	2000	1	1%
23	1991	1	1%
	Total	72	100%

The authors looked at 4 perspectives carried out to assess the learning community variable in the culinary field, namely explore, explain, practice, and engage. The technology used in each perspective is not discussed in detail. After searching, collecting, and selecting literature based on predetermined keywords and topics, the following results are obtained:
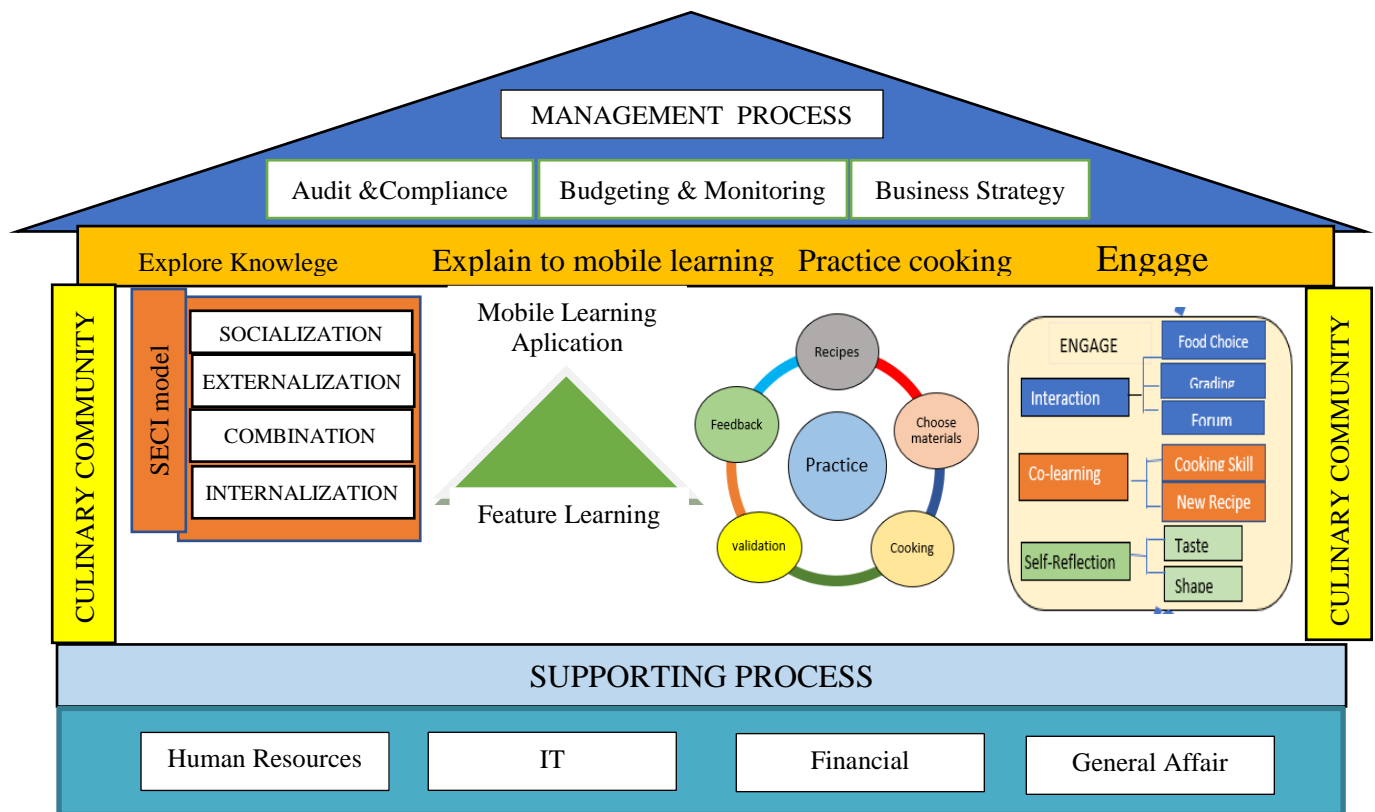

Fig. 3. Smart Learning Community of the Culinary Community

Fig. 3 above shows that this learning is from community for community, knowledge sharing is carried out by community members for community members. Based on the learning community business process in the culinary community, the business process consists of three main processes consisting of the management process, the main process (core process) and the supporting process. Process management consisting of audits & compliance must still be carried out so that the learning community remains in accordance with government regulations. Budget is a budget issued in the learning community process, while monitoring is carried out to ensure that the implementation of activities is in accordance with existing guidelines. Business strategy is an effort to take policies and guidelines that have integrated commitments and actions for excellence and achieve learning goals

The learning community has 4 important variables, namely explore, explain, practice, and engage. Each variable is divided into several important learning factors in the culinary community. Smart Learning communities are very important for the new normal condition of covid-19, where there is a sense of fate and sharing, the same goals and motivations among community members. Problem solving in the culinary field between community members is the hallmark of the smart learning culinary community. Community members gain knowledge through the SECI model and create a learning car with applications and features tailored to today's needs. The learning process begins with selecting recipes, selecting ingredients, cooking, validation, and feedback between community members. Learning is done to gain engagement among community members so that interaction between members remains, learning can be done repeatedly and self-reflection to create new menus. Learning will produce new entrepreneurs and repeat orders.

The supporting process consists of (1) Human resources, where good planning and skills in managing every human resource are needed. (2) The role of IT in the learning community through automation of a process, presenting information, restructuring, or changing a process, as an educational infrastructure, a source of teaching materials, as a tool and educational facility that supports management and decision support systems. (3) Finance is an important thing in the continuity of education, planning, accounting, spending, supervision, and financial accountability in education management are needed to increase the effectiveness and efficiency in the use and utilization of education finance. (4) General Affair in the learning community has important duties and functions that are responsible for managing various matters related to learning operational activities in the community.

a. Explore Knowledge

Viewed from the perspective of the Explore variable, the writer sees that there are 4 sub-variables, namely socialization, externalization, combination, internalization which refers to the SECI Model. [35]. Socialization is the basis because tacit knowledge can only be shared directly with others by sharing direct experiences through direct coaching where the knowledge is stored in one's mind. [36] shared with face to face [37], both by listening to lectures, discussions and frequently asked questions [38]. With pandemic conditions such as the current media used can zoom meetings, video calls, and chat. Storytelling by telling personal experiences [39] through the technical approach "pull and push knowledge" [40] and storytelling can be done through videos and podcasts such as YouTube, Instagram, and flagged. Externalization is a learning process from tacit knowledge to explicit knowledge [35, 41], which was triggered by a discussion to create the concept of tacit knowledge to be articulated into an explicit form so that the knowledge is easier to learn and translate. Knowledge is managed and documented in the codified form [42] according to the flow and intensity of knowledge [43] so that it can be reused by other people and organizations without changing the meaning [44]. Learning to cook can be learned through videos [45] including for beginners who want to learn the cooking process by watching videos [46] including for beginners who want to learn the cooking process by watching videos [44]. Knowledge can also be shared in the form of books and e-books [47] which can be searched online and downloaded easily and quickly and can even be obtained in various language versions [48]. 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 updated information is obtained [49]. Internalization from explicit to tacit, knowledge changes occur due to individuals learning by researching existing objects. Practicing is done by disseminating knowledge through practice [50] cook and prepare food in person through demonstrations either live or via video so there is interaction and feedback [51]. Students can consult to solve existing problems through consulting, discussing finding solutions and making decisions together, and dare to bear the risks that will occur [52]. Exploring both tacit upon explicit knowledge can be done by various methods and using various media. In the picture above, tacit knowledge is traced through direct coaching, online coaching, storytelling, mentoring, practicing, and counseling. Meanwhile, the explicit can be explored through websites, technology videos, books & e-books, blogs, reports, and standard operating procedures. From the picture above, it will make it easier and help the culinary community in finding and tracing both tacit and explicit knowledge. Methods and processes of direct coaching, storytelling, online coaching, mentoring, practicing, connecting. Meanwhile, to be explicit, it tends to be more towards the media used, starting from media websites, video technology, books & e-books, blogs, reports, SOPs, and other social media.

b. Explain to Mobile Learning Application

Determining recipes from step by step supported by digital technology is proven to attract students' interest in learning and can increase students' self-confidence, and can even create new flavor variants. [53]. The use of smartphones can replace interactions that are carried out face-to-face [54]. Sharing through applications that can answer questions asked by participants quickly [55]. 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 corners of the world without knowing boundaries and distances [22]. The features used in the learning community in the culinary field are included in the mobile application. In the learning application there is a management of various activities that are used to upload lesson material, can manage trainers, participants, and trainers to determine the agreed learning time, participants can see the results of the assessment through interactive feedback. So that learning in the culinary community becomes more effective, efficient, and attractive [56]. Individual approach and control of participants in a community-based learning management system [57]. In addition, the features in the learning community system include additional calendars or additional learning time for participants. Given the current pandemic condition, additional material for participants is of added value and learning is done virtually together. The notification system is important in the learning community feature for trainers and participants. This feature helps as a reminder for trainers and participants. This feature is integrated with notifications, invitations, and reports. A feature that is no less important is graduation, where participants after learning and having taken the exam are given a certificate of graduation [56].

c. Practice Cooking Learning

Participants learn to predict the recipes and ingredients that will be used and then updated in the application [58]. After predicting the recipe, participants determine the appropriate and preferred recipe to become a priority for processing food [59]. Materials are selected and modified with the help of technology to obtain good and accurate results [60] even a combination of ingredients from two or more of the 5 main taste sensations namely salty, sweet, savory, bitter, and sour [61], and incorporating high protein plant ingredients is now a trend [62] to produce new flavors with unique and different flavors from existing variants. Processing food requires suitable media/equipment and the cooking temperature can create new compounds that have an impact on the quality of the food [51]. The use of modern technology in the cooking process can reduce the formation of harmful compounds and ensure the quality of cooking. The right method can help create delicious flavors and aromas, even if the correct cooking method is not used correctly,

it can increase the high number of harmful compounds and reduce the quality of the food. [63]. Control and monitoring through verification of results on the system starting from registration, login, recipe posting process, recipe search, recipe comments, query expansion changes, rating, reporting, and verification. the process of calculating the final result of a dish [64]. Once verified, it is followed by validation carried out by experts through validating the readability of the recipe and evaluating the overall cooking results. Feedback from participants can help participants to continue to improve, innovate and be creative [65]. Gives a score from the result of a dish according to the level or level. Scoring is done individually and in teams, but the final result is the decision of the team [37].

d. Engage

Participants can determine their choice of food through a questionnaire so that their tendency to one type of food can be identified [66]. So that participants are more active, Rubik's facilities are prepared [67]. The existence of a forum so that participants can discuss with each other, share ideas, and the learning forum will be more fun [68] through a networked learning community will motivate and provide recommendations for participants to discuss online discussion forums [69]. The availability of forums for discussions and sharing ideas in online discussions that are easily accessible and can build a wider network among them. Each trial and make a standard recipe by creating positive behavior to explore the creativity of participants to continue to create recipes with different variants [70]. Video technology can improve cooking skills among low-skilled individuals who wish to learn to cook with fresh ingredients [45]. To produce quality food, it needs to be done by soaking, boiling, roasting, steaming, and/or fermenting. [71]. 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 following the user's needs. Taste is the specialty of a dish considering the different tastes of each participant according to the region of origin and culture of each participant has the same opportunity to determine the taste according to taste [4]. Motivation is a strong foundation for the success of a learning community in the culinary field. Low motivation is seen from the relatively little participation of community members caused by several factors including the low interest and awareness of members in solving problems faced by community members. [72]

5. Conclusion

A learning community in the culinary field is seen from the perspective of exploring, explain, practice, and engage, exploring knowledge can be done through socialization, externalization, combination, and internalization which adopts the SECI model. To explore knowledge, features that are following user needs are needed where mobile learning is currently an alternative or solution in developing a learning community model in the culinary field because current conditions are still pandemic Covid-19 and distance and crowds become mobile learning. the right solution. In the perspective of practice, it begins with selecting the recipe to be used, selecting ingredients, carrying out the cooking process, validating the cooking experts, and providing feedback on the results of the dish so that a dish is produced according to the recipe, delicious, does not reduce nutritional value. and avoid substances that are harmful to health. This learning community can create interactions between community members so that a strong sense of togetherness and acceptance among them is established. Learning is carried out repeatedly to produce flavors, aromas, and tastes of new dishes that have unique characteristics that become self-reflections of each participant.

6. Limitation Dan Future Research

This study discusses community-based learning in the culinary field seen from four perspectives, namely explore knowledge at culinary community, explain to mobile learning application, practice cooking learning, and engage and has not yet discussed the extent of motivation and learning outcomes. The next research will discuss the learning community model that uses these four perspectives and is validated by the expert domain and the results will be used to create prototypes and learning community applications in the culinary field that can be widely implemented for the benefit of learning in the culinary field.

References

[1]   Y. Luo and X. Xu, "Comparative study of deep learning models for analyzing online restaurant reviews in the era of the COVID-19 pandemic," *Int. J. Hosp. Manag.*, vol. 94, p. 102849, Apr. 2021, doi: 10.1016/j.ijhm.2020.102849.

[2]   G. Serge, J. R. Bloem, and A. Sanoh, "The coronavirus pandemic and food security : Evidence from Mali ☆," *Food Policy*, no. February, p. 102050, 2021, doi: 10.1016/j.foodpol.2021.102050.

[3]   C. M. Galanakis, M. Rizou, T. M. S. Aldawoud, I. Ucak, and N. J. Rowan, "Innovations and technology disruptions in the food sector within the COVID-19 pandemic and post-lockdown era," *Trends Food Sci. Technol.*, vol. 110, no. January, pp. 193–200, 2021, doi: 10.1016/j.tifs.2021.02.002.

[4]   E. Jarpe-Ratner, S. Folkens, S. Sharma, D. Daro, and N. K. Edens, "An Experiential Cooking and Nutrition Education Program Increases Cooking Self-Efficacy and Vegetable Consumption in Children in Grades 3–8," *J. Nutr. Educ. Behav.*, vol. 48, no. 10, pp. 697-705.e1, 2016, doi: 10.1016/j.jneb.2016.07.021.

[5] Winanti and Y. D. Pradipto, "Framework Decision Making System of Choice of Food Based on Chronic Type of Disease," *IOP Conf. Ser. Mater. Sci. Eng.*, vol. 453, no. 1, 2018, doi: 10.1088/1757-899X/453/1/012005.

[6] W. Techavijitsarn, M. Kovitaya, and A. Ratana-Ubol, "The Development of a Community Learning Model for Self-Management in Conserving Community Forests," *Procedia - Soc. Behav. Sci.*, vol. 191, pp. 2325–2328, 2015, doi: 10.1016/j.sbspro.2015.04.504.

[7] C. Boonaree and K. Tuamsuk, "Community Learning Resources Management Practices in Thai Buddhist Monasteries," *Procedia - Soc. Behav. Sci.*, vol. 73, pp. 175–180, 2013, doi: 10.1016/j.sbspro.2013.02.038.

[8] E. Aguilar, M. Bolaños, and P. Radeva, "Regularized uncertainty-based multi-task learning model for food analysis," *J. Vis. Commun. Image Represent.*, vol. 60, no. March, pp. 360–370, 2019, doi: 10.1016/j.jvcir.2019.03.011.

[9] E. Briones, L. Cockx, and J. Swinnen, "Culture and food security ☆," *Glob. Food Sec.*, no. July 2017, pp. 1–15, 2018, doi: 10.1016/j.gfs.2018.02.002.

[10] J. J. Metcalfe and D. Leonard, "The relationship between culinary skills and eating behaviors: Challenges and opportunities for parents and families," *Physiol. Behav.*, vol. 191, pp. 95–99, 2018, doi: 10.1016/j.physbeh.2018.04.013.

[11] Bekraf, "Data Statistik dan hasil survey Ekonomi Kreatif bekerjasama dengan Badan ekonomi kreatif dan Badan Pusat Statistik," *Badan Ekonomi Kreatif Republik Indonesia*, 2018. https://bisma.bekraf.go.id/info-kreatif (accessed Feb. 09, 2020).

[12] F. L. Gaol, Meyliana, Winanti, H. Prabowo, and F. Hutagalung, "The Implementation of Isolated Geothermal Grid on the Community Cuisine Learning in Rural Area in North Sumatera," 2020, doi: 10.1109/ICISS50791.2020.9307559.

[13] Winanti, F. L. Gaol, T. A. Napitupulu, H. Soeparno, and A. Trisetyarso, "Learning Framework in the Industrial Age 4.0 in Higher Education," 2019, doi: 10.1109/INAPR.2018.8627039.

[14] T. de A. G. Grangeia, B. de Jorge, D. Cec Iio-Fernandes, R. A. Tio, and M. A. de Carvalho-Filho, "Learn+Fun! Social Media and Gamification sum up to Foster a Community of Practice during an Emergency Medicine Rotation," *Heal. Prof. Educ.*, vol. 5, no. 4, pp. 321–335, 2019, doi: 10.1016/j.hpe.2018.11.001.

[15] M. F. R. Mohamed, A.W.W, Omar, B., Romli, "Developing Problem Solving Skills for Lifelong Learning Through Work-Based Learning Among Community College Students," *J. Tech. Educ. Train.*, vol. 2, no. 1, pp. 1–8, 2010.

[16] B. P. Thoms, "Online learning community software to support success in project teams," *Glob. J. Inf. Technol.*, vol. 5, no. 2, p. 71, 2016, doi: 10.18844/gjit.v5i2.197.

[17] "Arti kata komunitas - Kamus Besar Bahasa Indonesia (KBBI) Online." https://kbbi.web.id/komunitas (accessed Mar. 11, 2021).

[18] M. J. Wighting, J. Liu, A. P. Rovai, L. Jing, and A. P. Rovai, "Distinguishing sense of community and motivation characteristics between online and traditional college students," *Q. Rev. Distance Educ.*, vol. 9, no. 3, pp. 285–295, 2008, doi: Article.

[19] M. Snowden, "Learning Communities as Transformative Pedagogy: Centering Diversity in Introductory Sociology," *Teach. Sociol.*, vol. 32, no. 3, pp. 291–303, 2004, doi: 10.1177/0092055X0403200304.

[20] K. A. Theobald, C. A. Windsor, and E. M. Forster, "Engaging students in a community of learning: Renegotiating the learning environment," *Nurse Educ. Pract.*, 2018, doi: 10.1016/j.nepr.2017.12.008.

[21] M. Riel and L. Polin, *Online learning communities: Common ground and critical differences in designing technical environments*, no. March. 2004.

[22] K. Sue, M. Barrett, and T. Jones, "Defining Learning Communities," *Qualitative Research and Case Study Applications in Education*, no. March. pp. 27–43, 2012.

[23] A. NIA PRAMONO, "KEMAMPUAN GURU MELAKSANAKAN KEGIATAN EKSPLORASI, ELABORASI DAN KONFIRMASI DALAM PEMBELAJARAN SD NEGERI 182/I HUTAN LINDUNG," 2018.

[24] K. Septaria, "Mengeksplorasi Argumentasi dan Pengetahuan Pendidik Ilmu Pengetahuan Alam (IPA) Tentang Pemanasan Global [Exploring the Arguments and Knowledge of Natural Sciences (IPA) Educators on Global Warming]," vol. 8, no. 2, pp. 247–257, 2019, doi: 10.21070/pedagogia.v8i2.2369.

[25] "What is Knowledge?: Learning to Learn Online." https://learn.canvas.net/courses/2425/pages/what-is-knowledge (accessed Mar. 11, 2021).

[26] National Center for Earth and Space Science Education (NCESSE), "Learning Community Model." http://ncesse.org/about/learning-community-model/ (accessed Feb. 11, 2020).

[27] F. L. Gaol and H. Prabowo, "Exploring Cooking Knowledge through Community-Based Learning Based on SECI Model for Learning Studies in Indonesia," *Des. Eng.*, no. 01, pp. 1154–1163, 2022.

[28] J. Webster and R. T. Watson, "Analyzing the Past to Prepare for the Future: Writing a Literature Review.," *MIS Q.*, vol. 26, no. 2, pp. xiii–xxiii, 2002, doi: 10.1.1.104.6570.

[29] J. F. Wolfswinkel, "Using grounded theory as a method for rigorously reviewing literature," *Eruropean J. Inf. Syst.*, no. November 2013, pp. 1–11, 2014, doi: 10.1057/ejis.2011.51.

[30] B. Kitchenham, "Procedures for Performing Systematic Reviews," pp. 1–33, 2004.

[31] B. Kitchenham, O. Pearl Brereton, D. Budgen, M. Turner, J. Bailey, and S. Linkman, "Systematic literature reviews in software engineering - A systematic literature review," *Inf. Softw. Technol.*, vol. 51, no. 1, pp. 7–15, 2009, doi: 10.1016/j.infsof.2008.09.009.

[32] D. Budgen, B. Kitchenham, S. Charters, M. Turner, P. Brereton, and S. Linkman, "Preliminary results of a study of the completeness and clarity of structured abstracts," 2007, doi: 10.14236/ewic/ease2007.7.

[33] S. Review, "Comprehensive Adolescent Health Programs That Include Sexual and Reproductive Health Services : A Systematic Review," vol. 104, no. 12, pp. 23–36, 2014, doi: 10.2105/AJPH.2014.302246.

[34] "Pengertian, Manfaat, dan Langkah-Langkah Literatur Review - Jejaring." https://www.jejaring.web.id/pengertian-manfaat-dan-langkah-langkah-literatur-review/ (accessed Mar. 11, 2021).

[35] I. Nonaka, R. Toyama, and N. Konno, "SECI , Ba and Leadership : a Uni ® ed Model of Dynamic Knowledge Creation," *Long Range Plann.*, vol. 33, no. 1, pp. 5–34, 2000.

[36] S. Panahi, J. Watson, and H. Partridge, "Towards tacit knowledge sharing over social web tools," *J. Knowl. Manag.*, vol. 17, no. 3, pp. 379–397, 2013, doi: 10.1108/JKM-11-2012-0364.

[37] S. Ryan and R. V. O'Connor, "Acquiring and Sharing tacit knowledge in software development teams: An empirical study," *Inf. Softw. Technol.*, vol. 55, no. 9, pp. 1614–1624, 2013, doi: 10.1016/j.infsof.2013.02.013.

[38] S. Venkatraman and R. Venkatraman, "Communities of Practice Approach for Knowledge Management Systems," *Systems*, vol. 6, no. 4, p. 36, 2018, doi: 10.3390/systems6040036.

[39] J. Krátká, "Tacit Knowledge in Stories of Expert Teachers," *Procedia - Soc. Behav. Sci.*, vol. 171, pp. 837–846, 2015, doi: 10.1016/j.sbspro.2015.01.199.

[40] P. H. Christensen, "Knowledge sharing – time sensitiveness and push-pull strategies in a non-hype organisation."

[41] I. Nonaka, "The knowledge-creating firm," *Harv. Bus. Rev.*, no. August, pp. 162–171, 1991, [Online]. Available: https://memberfiles.freewebs.com/84/90/65819084/documents/The Knowledge-Creating Company.pdf.

[42] M. Schulz and L. A. Jobe, "Schulz and Jobe codification and tacitness strategy 2001.pdf," vol. 12, pp. 139–165, 2001.

[43] F. S. and M. H. S. Marzanah A. Jabar, "Tacit Knowledge Codification Department of Information System , Faculty of Science Computer and Information Technology ," *J. Comput. Sci.*, vol. 6, no. 10, pp. 1170–1176, 2010.

[44] W. Chergui, S. Zidat, and F. Marir, "An approach to the acquisition of tacit knowledge based on an ontological model," *J. King Saud Univ. - Comput. Inf. Sci.*, 2018, doi: 10.1016/j.jksuci.2018.09.012.

[45] D. Surgenor *et al.*, "The impact of video technology on learning: A cooking skills experiment," *Appetite*, vol. 114, pp. 306–312, Jul. 2017, doi: 10.1016/j.appet.2017.03.037.

[46] D. Cao, N. Han, H. Chen, X. Wei, and X. He, "Video-based recipe retrieval," *Inf. Sci. (Ny).*, vol. 514, pp. 302–318, 2020, doi: 10.1016/j.ins.2019.11.033.

[47] V. Sohmen, "Corruption As Tacit Knowledge Transfer Tacit Knowledge — What Is It ?," no. April, pp. 1–9, 2014.

[48] H. Zarzour, S. Bendjaballah, and H. Harirche, "Exploring the behavioral patterns of students learning with a Facebook-based e-book approach," *Comput. Educ.*, vol. 156, p. 103957, 2020, doi: 10.1016/j.compedu.2020.103957.

[49] L. Dong, L. Huang, J. (Jove) Hou, and Y. Liu, "Continuous content contribution in virtual community: The role of status-standing on motivational mechanisms," *Decis. Support Syst.*, vol. 132, no. September 2019, p. 113283, 2020, doi: 10.1016/j.dss.2020.113283.

[50] M. Oztok, "Tacit knowledge in online learning : community , identity , and social capital," *Technol. Pedagog. Educ.*, vol. 22, no. 1, pp. 21–36, 2012, doi: 10.1080/1475939X.2012.720414.

[51] F. Overcash *et al.*, "Positive Impacts of a Vegetable Cooking Skills Program Among Low-Income Parents and Children," *J. Nutr. Educ. Behav.*, vol. 50, no. 5, pp. 432–440, 2018, doi: 10.1016/j.jneb.2017.10.016.

[52] M. Y. Tee and D. Karney, "Sharing and cultivating tacit knowledge in an online learning environment," pp. 385–413, 2010, doi: 10.1007/s11412-010-9095-3.

[53] L. Buykx and H. Petrie, "What cooks needs from multimedia and textually enhanced recipes," *Proc. - 2011 IEEE Int. Multimedia, ISM 2011*, pp. 387–392, 2011, doi: 10.1109/ISM.2011.70.

[54] P. Verduyn, J. C. C. Schulte-Strathaus, E. Kross, and U. R. Hülsheger, "When do smartphones displace face-to-face interactions and what to do about it?," *Comput. Human Behav.*, vol. 114, no. September 2020, p. 106550, 2021, doi: 10.1016/j.chb.2020.106550.

[55] D. Jackson and E. Leo, "Knowledge Management in Networked Learning Communities," *Am. Educ. Res. Assoc.*, no. May 2014, 2003.

[56] "Fitur Utama Yang Ada Pada Sistem LMS - Sistem LMS Indonesia e-Learning Indonesia." https://www.akubelajar.id/blog/fitur-utama-yang-ada-pada-sistem-lms (accessed Mar. 12, 2021).

[57] D. Pavlenko, L. Barykin, S. Nemeshaev, and E. Bezverhny, "Individual approach to knowledge control in learning management system," *Procedia Comput. Sci.*, vol. 169, no. 2019, pp. 259–263, 2020, doi: 10.1016/j.procs.2020.02.162.

[58] C. Trattner, T. Kusmierczyk, and K. Nørvåg, "Investigating and predicting online food recipe upload behavior," *Inf. Process. Manag.*, vol. 56, no. 3, pp. 654–673, 2019, doi: 10.1016/j.ipm.2018.10.016.

[59] A. Frederic, "The CRWB RSbench: Towards a cooking recipe benchmark initiative," *Proc. - IEEE 34th Int. Conf. Data Eng. Work. ICDEW 2018*, pp. 154–156, 2018, doi: 10.1109/ICDEW.2018.00032.

[60] A. Y. Liu, J. Chen, S. Luo, and C. Li, "Physicochemical and structural properties of pregelatinized starch prepared by improved extrusion cooking technology," *Carbohydr. Polym.*, 2017, doi: 10.1016/j.carbpol.2017.07.084.

[61] C. Sum and A. Eggplant, "Choosing Ingredients," *B. Chapter 5*, pp. 1–10, 2013.

[62] A. Hoehnel, C. Axel, J. Bez, E. K. Arendt, and E. Zannini, "Comparative analysis of plant-based high-protein ingredients and their impact on quality of high-protein bread," *J. Cereal Sci.*, vol. 89, no. August, p. 102816, 2019, doi: 10.1016/j.jcs.2019.102816.

[63] R. Suleman, Z. Wang, R. Muhammad, T. Hui, and D. L. Hopkins, "E ff ect of cooking on the nutritive quality , sensory properties and safety of lamb meat : Current challenges and future prospects," *Meat Sci.*, vol. 167, no. 1, p. 108172, 2020, doi: 10.1016/j.meatsci.2020.108172.

[64] E. Indarto, "PEMBUATAN WEBSITE BERBAHASA INDONESIA UNTUK PENCARIAN RESEP MASAKAN DENGAN METODE COSINE SIMILARITY," *J. Ilm. Mhs. Univ. Surabaya*, vol. 8, no. 1, pp. 2301–2316, 2019.

[65] S. Carlile, S. Barnet, A. Sefton, and J. Uther, "Medical problem based learning supported by intranet technology : a natural student centred approach," vol. 50, no. 1998, pp. 225–233, 2006.

[66] D. Cabral, M. D. V. de Almeida, and L. M. Cunha, "Food Choice Questionnaire in an African country – Application and validation in Cape Verde," *Food Qual. Prefer.*, vol. 62, no. July, pp. 90–95, 2017, doi: 10.1016/j.foodqual.2017.06.020.

[67] P. A. Arling and M. W. S. Chun, "Facilitating new knowledge creation and obtaining KM maturity," vol. 15, no. 2, pp. 231–250, 2011, doi: 10.1108/13673271111119673.

[68] M. Biasutti, "A comparative analysis of forums and wikis as tools for online collaborative learning," *Comput. Educ.*, vol. 111, pp. 158–171, 2017, doi: 10.1016/j.compedu.2017.04.006.

[69] D. Xu *et al.*, "Content caching with virtual spatial locality in Cellular Network," *Pervasive Mob. Comput.*, vol. 41, pp. 365–380, 2017, doi: 10.1016/j.pmcj.2017.02.006.

[70] E. Kranias and H. Thesmar, "The Safe Recipe Style Guide: A New Tool to Improve Food Safety," *J. Acad. Nutr. Diet.*, vol. 120, no. 4, pp. 660–662, 2020, doi: 10.1016/j.jand.2020.02.003.

[71] S. C. Lin, I. J. Chen, W. R. Yu, S. Y. D. Lee, and T. I. Tsai, "Effect of a community-based participatory health literacy program on health behaviors and health empowerment among community-dwelling older adults: A quasi-experimental study," *Geriatr. Nurs. (Minneap).*, vol. 40, no. 5, pp. 494–501, 2019, doi: 10.1016/j.gerinurse.2019.03.013.

[72] B. M. Caffrey and P. J. Carew, *A limited engagement: A case study in using contextualised online learning environments to engage with marginalised communities*, vol. 45, no. 10. IFAC, 2012.

Author's Profile

Winanti: Every day the author works as a lecturer in the department of information systems at STMIK Insan Pembangunan and focuses on research in e-learning, Learning Community, Culinary community, education technology. The author has produced publications indexed by Scopus and indexed by Google Scholar according to his research field.