

# INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY: APPLIED BUSINESS AND EDUCATION RESEARCH

2026, Vol. 7, No. 10, 4439 – 4453

<http://dx.doi.org/10.11594/ijmaber.07.10.14>

---

## Research Article

### Slices of Care: Assessing the Impact of Baking and Entrepreneurship Training for Low-Income Women Through Kirkpatrick's Model

Syafiqah Eugene, Saleha Suhaidin, Mujip Munib, Syuaib Samijan, Sirhajwan Idek\*, Lumang Anak Lang

Bakery & Pastry Programme, Keningau Vocational College, Sabah, Malaysia

---

#### Article history:

Submission 30 September 2026

Revised 13 October 2026

Accepted 23 October 2026

#### \*Corresponding author:

E-mail:

[sirhaj87@gmail.com](mailto:sirhaj87@gmail.com)

#### ABSTRACT

This project was intended to examine the efficacy of a training programme that sought to empower financially struggling women by equipping them with the basic skills of baking and providing them the experience of running a sales event where they sold their own products. The community project known as 'Slices of Care' was conducted by the Bakery and Pastry Programme of Keningau Vocational College where the participants comprising women from pink-collar occupation, single mothers and housewives attended a series of workshop on baking cakes and pastries which was followed by a bake sale dedicated to them selling these products via a pop-up stall. The project was aligned with the four levels of Kirkpatrick's Model which was developed to evaluate training. Hence, the progress of the project was assessed through the four levels (reaction, learning, behavior and results) via rating scales, evaluation rubric, checklist and sales log. The findings suggested that this project had a viable method in providing a comprehensive training for target participants that could help them achieve the intended goals. The constructive feedback from the respondents called for more similar workshop classes to be conducted for more participants who can benefit from this project. Hence, Kirkpatrick's Model is an ideal framework that can be adopted to design and assess a training programme to ensure impactful outcomes.

**Keywords:** *Baking, Community project, Kirkpatrick's Model, Sales event*

---

#### Introduction

Slices of Care is a community service initiated by the Bakery and Pastry Programme of Keningau Vocational College that trains low-income women on baking cakes and pastries and provide them an avenue and support to run their own cake business by giving them basic toolkit as well as the access to bakery kitchen

and equipment and organize a sales event for them to sell their products and kickstart their own businesses.

#### Problem Statement

Many women in Sabah struggle to make ends meet despite having a full-time job and this can be attributed to several factors; low

---

#### How to cite:

Eugene, S., Suhaidin, S., Munib, M., Samijan, S., Idek, S., Lang, L. A. (2026). Slices Of Care: Assessing The Impact Of Baking And Entrepreneurship Training For Low-Income Women Through Kirkpatrick's Model. *International Journal of Multidisciplinary: Applied Business and Education Research*. 7(10), 4439 – 4453. doi: 10.11594/ijmaber.07.10.14

wages, job insecurity especially working in private sectors and the increasing cost of living. Other than that, their job security is also affected by personal factors such as their health, family commitment and conflicts at workplace environment. There are also women who are either single mothers or housewives whose home expenses were also affected by the rising cost of living. This may necessitate them to widen their family's source of livelihood. Hence, this project was launched to provide assistance to these women especially in the interior region of Sabah.

However, meeting the need of the target group via training is also necessary because if their training needs are not taken into account and properly addressed, the training might not be relevant or sufficient in helping them realize the outcome of the training. This training was intended to help them acquire the basics in baking certain cakes and provide them the field experience of selling these cakes via a pop-up stall.

### Research Questions

1. How well did the participants respond to the skill-based training workshop on cake baking through the assessment of their rating on the workshop as well as the products that they made?
2. How well did the participants apply what they learnt from the workshop in baking cakes on their own through self-evaluation checklist?
3. How successful the participants were in running their business at a preliminary

phase based of the records of their sales log?

### Community-Engaged Learning

According to Brackmann (2024), community-engaged learning (CEL) is an educational approach that merges student learning with community engagement with the goal of fostering active engagement, collaboration, and practical application of knowledge among the students which help them gain better understanding of what they learn while developing civic responsibility.

Watermark Insights (2023) categorizes community-based learning into four distinct types: direct, indirect, research-based and advocacy. Community project is considered direct when students work on projects that directly impact certain beneficiaries and it is indirect when it benefits the community as a whole. When it involves gathering information on some areas of interest that are relevant to a community, it is deemed as research-based. Raising awareness on certain issues that are crucial for a local community to know and possibly take action in falls under the fourth category, advocacy.

Slices of Care is a direct service since the students and teachers of Bakery and Pastry Programme work directly with these women as the instructors, mentors and assistants. The team organize the baking workshop and interact directly with them throughout the workshop and follow through their progress after the workshop.



Figure 1. The participants received direct guidance from the instructors in preparing the cakes and pastries

### Community Empowerment

Jean Mindana Foundation (2026) argued that vocational training can uplift communities

and transform lives because it enables communities to acquire skills and build their confidence while creating opportunities for them to

attain financial security. Vocational training offered by community colleges or technical schools is more accessible for marginalized communities who may not be able to pursue higher education due to certain barriers and it offers lifelong learning that encourages individuals to upskill which benefits their career advancement and job security. A practical example of such programme is Harlem Children's Zone in New York City, USA, which provides a range of vocational training, after-school programme and early childhood education to the communities which reduced poverty in the community while improving academic outcomes. Therefore, this Slices of Care was designed to uplift the local communities particularly the more marginalized and struggling group which is the women working in blue-collar industry where job security is not guaranteed and career advancement is barely available.

There are several strategies on how to implement effective vocational training as stipulated by Jean Mindana Foundation (2026); assessing community needs to identify specific vocational training need, collaborating with local businesses to ensure training meets industry's standards and need while receiving input for curriculum development and tapping on internship and job opportunities that local businesses can provide, offering flexible learning options through different modes and times since such flexibility is crucial to allow individual balance their commitment in their education, work and family, offering mentorship and support services that can help guide individuals in their educational pursuit and finally, continuously evaluating the effectiveness of vocational training to ensure success and this includes gathering feedback from participants and stakeholders for continual improvement. Slices of Care was tailored to meet the specific needs of the target group especially in determining the training days as well as enlisting the assistance of a local business owner whom they

could relate better to due to age proximity, experiences and background as mothers. The participants are given the access to the school's bakery kitchen and equipment while receiving support from their earlier participation to them testing the local market with products they themselves made.

Forgotten Children Worldwide (n.d.) extolled the benefits of vocational training as the goal goes beyond equipping individuals with skills for job placement, it empowers individuals by fostering independence and self-confidence, it contributes to local economies by producing skilled workers, it allows social inclusion especially for marginalized group to participate fully in society and it ensures sustainable livelihoods as individuals can support themselves and their families over the long term with the skills they gain and the income they are able to make through jobs or business opportunities. In Uganda, Kipindo Mpito is a successful example of vocational education that offers courses in trades such as tailoring and hairdressing as well as business management. The long-term goal of Slices of Care is to keep empowering communities to help them gain better confidence and capabilities in securing financial stability with income that they can independently generate on their own.

### ***Slices of Care***

Slices of Care is a project that trains low-income women namely housewives and single mothers in baking cakes, pastries and desserts and sell these baked goods to generate profit, allowing them to earn additional income and run their own baking businesses. This project received a grant worth MYR 3,000.00 from a charitable organization CHANGE and it was one of the projects chosen for a social entrepreneurship programme known as FUSE X SERI under Youth and Sports Ministry of Malaysia where it was given a microgrant of MYR 800.00. In 2026, the project was conducted several times involving two groups of participants.



Figure 2. The participants selling their products through a pop-up stall

### Kirkpatrick's Model

According to Anand (2024), Kirkpatrick's Model is a thorough approach created by Donald Kirkpatrick in 1959 to assess training programmes through four well-defined levels.

This approach enables training programmes such as workshops and courses to be studied for their impact from multifaceted perspectives.

Table 1. The Four Levels of Kirkpatrick's Model

| Levels           | Prompts                                                                                                                                                                  | Tools                                                                               |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Level 1 Reaction | Eliciting the participants' reaction to the training; Did they enjoy it? Did they find it useful? Did they feel satisfied with it?                                       | Survey, Questionnaire, Focus Group                                                  |
| Level 2 Learning | Measuring the increase in knowledge or skills as a result of training; what did they learn? How much did they understand? How well did they perform?                     | Pre and Post Test, skills demonstration                                             |
| Level 3 Behavior | Assessing participants' changes of behavior in related to what they learnt from the training. This typically requires a longer timeframe to identify behavioral changes. | Self-assessment questionnaires, peer and supervisor evaluation, performance metrics |
| Level 4 Results  | Measuring the impact of the training on goals and outcomes in the long run.                                                                                              | Performance metrics                                                                 |

This workshop was assessed based on these four levels of Kirkpatrick's Model in order to analyze its impact on the participants which could help determine how successful this training was and it also helped to restructure and revamp the training to suit the participants' needs and goals better in order to increase its success rate.

### Materials and Methods

A call for participants poster was circulated on social media and several working women from private sectors namely the school's gardeners, janitors and security guards were approached to draw their interest and subsequently participation in this project. The workshop was only limited to 10 participants for an effective class size for participants of such

background and it was held for two days, 11<sup>th</sup> and 12<sup>th</sup> April, which were followed by a pre-market day on 13<sup>th</sup> April 2026. The actual market day was on 20<sup>th</sup> May 2026. Out of 10 selected participants, only seven came in the first day of the workshop and eight took part in the second day. The participants learnt to bake three pastries and cakes; egg tarts, Pandan Gula Melaka cake and Kuih Kaswi. Each participant received a recipe booklet for the three types of baked goods as well as a basic toolkit containing measurement spoons, egg whisk, knife and an apron. They were expected to use the recipe booklet as their reference and the baking utensils as well as the apron throughout the workshop. This workshop was done in collaboration with Tielief Cakes Bakery in which the owner, Hariaty Azmi @ Egang, was the main instructor.

She was chosen based on her experiences in baking business as well as her expertise. There

are five data collection techniques and they were as follows:

*Table 2. The Alignment of Data Collection Technique with the Levels of Kirkpatrick Model*

| Instrument                          | Kirkpatrick Model |
|-------------------------------------|-------------------|
| Survey                              | Reaction          |
| Assessment rubric                   | Learning          |
| Checklist                           | Behavior          |
| Mini sale log                       | Results           |
| Semi-structured interview questions | All four levels   |

The participants answered a survey eliciting their reactions towards the training through a scale-rating questions and this was followed by the instructors and mentors assessing the products that they made through a rubric that contained standard criteria for baked good evaluation. The participants who were expected to bake similar cakes and pastries on their own after the workshop intended

for sale and they assessed themselves through a checklist. The sales that they made from the sales event and the mini market were recorded through a sales log in order to determine how well they performed in the preliminary phase of their business. The rating questionnaire and the checklist contained several open-ended questions. They were also interviewed to obtain their opinions on their experiences.



*Figure 3. The participants received step-by-step instruction from the main instructor, an owner of a local bakery*

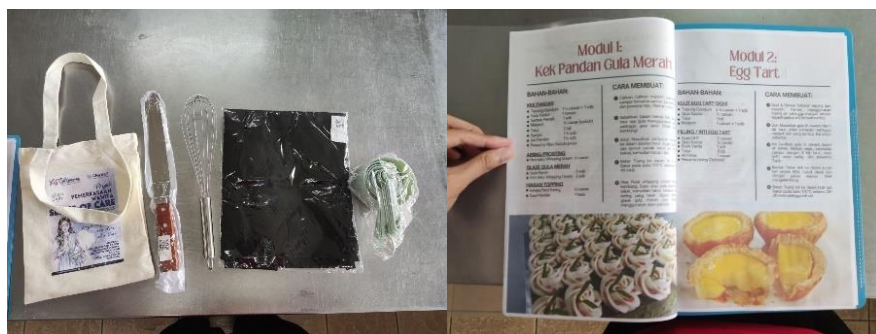


*Figure 4. Each participant received a recipe booklet and a kit containing basic baking utensils*



*Figure 5. The participants made Pandan Gula Merah cakes, egg tarts and Kuih Kaswi at the workshop*



Figure 6. The participants with their products and certificates from the two-day workshop

## Result and Discussion

The findings were presented in respect to the four levels of Kirkpatrick's Model: reaction, learning, behavior and results. The first data were their rating on the baking class followed by the evaluation of the product that they have made from the first day of the class. The third data type was their behavioral abilities obtained from a checklist administered on the second day and the last data were the sales that

they managed to make on the third day of the project which was the sales event.

### First Level: Reaction

The eight respondents rated the workshop based on several criteria through a five Likert-Scale questionnaire that inquired their take on the training content, delivery, facilities and management. This survey was given to them at the end of the two-day workshop.

Table 3. The Participants' Responses on the Two-Day Baking Class

| No                                            | Statement                                                              | N | Mean | Std. Deviation |
|-----------------------------------------------|------------------------------------------------------------------------|---|------|----------------|
| <b>Section A: Training Content</b>            |                                                                        |   |      |                |
| 1                                             | The training content is easy to understand                             | 8 | 4.63 | 0.52           |
| 2                                             | The training is relevant to my needs                                   | 8 | 4.75 | 0.46           |
| 3                                             | I learned new skills in cake/pastry making                             | 8 | 4.75 | 0.46           |
| 4                                             | The training content helps me understand basic small business concepts | 8 | 4.63 | 0.52           |
| <b>Section B: Training Delivery</b>           |                                                                        |   |      |                |
| 5                                             | The trainer's delivery is clear and easy to follow                     | 8 | 4.63 | 0.52           |
| 6                                             | The trainer provides sufficient guidance                               | 8 | 4.75 | 0.46           |
| 7                                             | The training activities are interesting and not boring                 | 8 | 4.75 | 0.46           |
| 8                                             | I am given the opportunity to try the tasks myself                     | 8 | 4.75 | 0.46           |
| <b>Section C: Facilities &amp; Management</b> |                                                                        |   |      |                |
| 9                                             | Equipment and materials are sufficient for the training                | 8 | 4.88 | 0.35           |
| 10                                            | The training venue is comfortable and suitable                         | 8 | 4.88 | 0.35           |
| 11                                            | The training duration is sufficient                                    | 8 | 4.75 | 0.46           |
| <b>Section D: Overall Satisfaction</b>        |                                                                        |   |      |                |
| 12                                            | Overall, I am satisfied with this training                             | 8 | 4.75 | 0.46           |
| 13                                            | This training benefits me                                              | 8 | 4.75 | 0.46           |
| 14                                            | I would recommend this training to others                              | 8 | 4.75 | 0.46           |

Table 4. Overall Summary of The Participants' Responses

|    | N | Items | Mean | Std. Deviation | Minimum | Maximum |
|----|---|-------|------|----------------|---------|---------|
| 15 | 8 | 13    | 4.69 | 0.27           | 4.00    | 5.00    |

The descriptive results indicated that the two-day workshop was well-received by the participants. According to Kirkpatrick Partner

(n.d.), this level is essential in measuring whether the training was favorable, engaging, relevant and supportive of what they needed to

achieve. Relevancy of the training is its most important facet since behavior application or transfer would not occur if the participants did not find it relevant. Based on the ratings given by the workshop participants, they found the training to be relevant to their needs and they recognized that they acquired fundamental skills in baking and selling cakes. In their overall reaction, they perceived it to be beneficial to them. Hence, the analysis showed that this training was a plausible approach in engaging target participants and providing them the rel-

evant learning that meets their need in realizing their goals of being able to bake and start a cake business.

The participants also responded to several open-ended questions inquiring for their opinions on the workshop. The three questions specifically asked about what they liked about the workshop, what they felt that needed to be improved and lastly, their suggestions. The participants wrote their responses in the rating questionnaire where the questions were included in.

Table 5. Thematic Analysis on the Participants' Feedback on the Workshop

| Responses                                                                                                                | Code                                                                                                 | Theme                   |
|--------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|-------------------------|
| <i>"Saya mempelajari kemahiran baru dalam pembuatan kek/kuih.." (P1)</i>                                                 | Gaining new baking skills specifically the types of cakes and pastries that they were introduced to. | Skill Learning          |
| <i>"Dapat mengembangkan kemahiran dalam pembuatan kek/kuih...menambah ilmu baharu dalam pembuatan kek dan kuih" (P2)</i> |                                                                                                      |                         |
| <i>"Belajar buat egg tart/cake" (P4)</i>                                                                                 |                                                                                                      |                         |
| <i>"Dapat memperkembangkan pengetahuan dan kemahiran baru" (P5)</i>                                                      |                                                                                                      |                         |
| <i>"Saya belajar kemahiran baru dalam pembuatan kuih dan kek" (P7)</i>                                                   |                                                                                                      |                         |
| <i>"Dapat ilmu baru..." (P8)</i>                                                                                         |                                                                                                      |                         |
| <i>"dan jumpa kawan baru," (P1)</i>                                                                                      | Making new friends and widening their social circles that they found comfortable with                | Social Connection       |
| <i>"dan dapat kenalan yang baik2" (P8)</i>                                                                               |                                                                                                      |                         |
| <i>"Kerjasama antara sesama peserta (peserta) ketika membuat kuih walaupun ia adalah aktiviti secara individu" (P3)</i>  | Cooperation among participants in completing the task                                                | Communal Effort         |
| <i>"Cikgu yang sangat peramah dalam berkongsi ilmu" (P1)</i>                                                             | The guess instructor was friendly and helpful during the workshop                                    | Approachable Instructor |
| <i>"Dapat jumpa cikgu yang peramah dan baik hati" (P8)</i>                                                               |                                                                                                      |                         |
| Note: Cikgu is the term they used to address the guest instructor                                                        |                                                                                                      |                         |

Most of the participants acknowledged that they were able to acquire practical baking skills from the workshop. They were also delighted that they were able to get to know new

individuals and formed friendship with them and they praised the instructor for being friendly and kind in her teaching approach. Ul-

timately, these two elements might likely contribute to the communal atmosphere that made these participants feel comfortable, welcomed, safe and supported.

*Table 6. Thematic Analysis on the Participants' Suggestions*

| <b>Responses</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>Code</b>                                                                                                                                                                                           | <b>Theme</b>                                                      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| “Perbanyakkan program seperti ini dan memberi peluang kepada suri-rumah untuk menambah pendapatan” (P1)<br>“Perbanyakkan program seperti ini dan memberi peluang pada surirumah dan B40 untuk menambahkan penyertaan dan menjana pendapatan” (P5)<br>“Perbanyakkan atau memperluaskan aktiviti agar semua orang dapat berpeluang mengikuti” (P6)<br>“Perbanyakkan program seperti ini terutama kepada golongan B40 dan suri rumah” (P7)<br>“Kerap buat kelas untuk orang yang ingin menjana pendapatan” (P8) | The participants suggested that more programmes should be conducted in order to provide more opportunities for those who can benefit from this programme namely housewives and low-income households. | Conduct similar programmes for target beneficiaries               |
| “Menambah menu yang lain seperti bun/lain2 pastry/kuih” (P1)<br>“Memperbanyakkan lagi jenis makanan kuih dan kek” (P2)<br>“Memperbanyakkan lagi menu yang menarik untuk dipelajari oleh orang ramai” (P3)<br>“Penambahan masakan & kuih-muih” (P6)<br>“Lebihkan penyertaan lagi dan menu kuih2” (P8)                                                                                                                                                                                                         | To expand the variety of cakes and pastries that are taught at the workshop which can further attract more participants                                                                               | Expand the variety of cakes and pastries in the workshop teaching |
| “Memperbanyak lebih banyak aktiviti berkaitan masakan kek dan kuih” (P2)<br>“Perbanyakkan aktiviti” (P6)                                                                                                                                                                                                                                                                                                                                                                                                     | The participants proposed that more activities related to baking should be conducted                                                                                                                  | Widen the number of baking-related activities                     |
| “Menambah jumlah pernyataan (penyertaan) ahli” (P2)<br>“Lebihkan penyertaan lagi dan menu kuih2” (P8)                                                                                                                                                                                                                                                                                                                                                                                                        | The participants felt that more people should take part in the programme                                                                                                                              | Increase the number of participants                               |
| “Perkara yang boleh ditambahbaik ialah dari segi pengurusan masa” (P3)<br>“Tambah masa” (P4)                                                                                                                                                                                                                                                                                                                                                                                                                 | The participants recommended that time management can be further improved by better management and increased workshop duration                                                                        | Improve time management to ensure adequate learning experience    |

| Responses                                                                             | Code                                                                                                            | Theme                                                                     |
|---------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|
| “Perbaiki paip rosak agar memudahkan para peserta melakukan latihan dengan baik” (P5) | There was a suggestion that broken faucets should be fixed in order to ensure a more efficient baking training. | Improve repair and maintenance of kitchen facilities to ensure efficiency |

There were several positive suggestions from the participants and the most proposed suggestion was to increase the types of cakes and pastries that are taught in the workshop. This was followed by the need to increase the number of participants especially from those in need so that they can benefit from this workshop by being able to earn income from baking businesses. There were also suggestions on how to improve the delivery of the training which included time management, wider range

of activities and well-maintained functional facilities.

### **Level 2: Learning**

The product made in the day one of the workshop, Pandan Gula Merah cake, was evaluated by the instructors using a standard rubric which contained two main aspect, quality of the product as well as the technical execution of the cake.

*Table 7. Product Quality Evaluation by the Instructors*

| No                                 | Criterion                                           | N | Minimum  | Maximum        | Mean    | Std. Deviation |
|------------------------------------|-----------------------------------------------------|---|----------|----------------|---------|----------------|
| <b>Section A: Product Quality</b>  |                                                     |   |          |                |         |                |
| 1                                  | Taste (as it should be)                             | 7 | 3        | 4              | 3.71    | 0.49           |
| 2                                  | Texture (soft, fluffy, not hard)                    | 7 | 3        | 5              | 4.14    | 0.69           |
| 3                                  | Appearance (neat, attractive)                       | 7 | 3        | 5              | 3.86    | 0.69           |
| 4                                  | Product consistency (uniform outcome)               | 7 | 4        | 4              | 4.00    | 0.00           |
| <b>Section B: Technical Skills</b> |                                                     |   |          |                |         |                |
| 5                                  | Following the recipe correctly                      | 7 | 4        | 5              | 4.29    | 0.49           |
| 6                                  | Proper use of equipment                             | 7 | 3        | 5              | 4.14    | 0.69           |
| 7                                  | Preparation techniques (mixing, baking, decorating) | 7 | 3        | 5              | 4.00    | 0.82           |
| 8                                  | Hygiene and food safety practices                   | 7 | 3        | 5              | 4.29    | 0.76           |
| <b>Overall Product Quality</b>     |                                                     |   |          |                |         |                |
|                                    | Variable                                            | N | Mean     | Std. Deviation | Minimum | Maximum        |
| 9                                  | Total Product Quality Score                         | 7 | 32.43/40 | 2.15           | 29      | 36             |

The product evaluation data denoted the participants' ability in executing the procedure and produced the end results. It was apparent that the scores on the taste was the lowest although the participants generally followed the recipe correctly. This suggested that formative assessment and continuous monitoring on the participants during the workshop might need an improvement in order to ensure that the participants could produce cakes that meet the expected standards especially the taste. As asserted by Kirkpatrick Partners (n.d.), the learning level is pivotal in assessing participants' confidence and commitment which are the predictors of what may happen when they back to

their environment and replicate what they did during the training. Judging by the satisfactory quality of the participants' cakes, it is likely that they were able to commit in putting what they learnt into practice and were confident enough in doing it on their own.

Follow-up baking and cake selling activities were held as a second phase within a month and four of the participants returned to bake their own cakes and pastries on their own under the supervision of the trainers and marketed them through another sale kiosk that was open to the public. Unlike the previous phase where they started with demonstrative teach-

ing and direct feedback when they were preparing the baked goods, they were only supervised in this second phase and they successfully prepared a batch of products that met the basic

criteria. They were also able to promote them and sell them through a pop-up stall dedicated for them.



Figure 7. The participants returned for another baking and selling activity but they were only being supervised by the trainers in this second phase of the project

### Level 3: Behavior

The participants were required to evaluate their own compliance of the procedural steps in making the third recipe, Kuih Kaswi, through a

self-checklist. This was intended to measure to what degree that they were able to perform what they were taught.

Table 8. Self-Checklist of Procedure Steps

| No                          | Procedure Step                                             | Yes (n) | Yes (%)        | No (n)  | No (%)  |
|-----------------------------|------------------------------------------------------------|---------|----------------|---------|---------|
| 1                           | I follow the steps in the recipe provided                  | 8       | 100.0          | 0       | 0.0     |
| 2                           | I prepare all required ingredients before starting         | 8       | 100.0          | 0       | 0.0     |
| 3                           | I measure ingredients according to the correct proportions | 7       | 87.5           | 1       | 12.5    |
| 4                           | I use appropriate tools and equipment                      | 8       | 100.0          | 0       | 0.0     |
| 5                           | I ensure the cleanliness of the workspace before starting  | 8       | 100.0          | 0       | 0.0     |
| 6                           | I mix ingredients according to the correct method          | 8       | 100.0          | 0       | 0.0     |
| 7                           | I follow the correct baking time and temperature           | 8       | 100.0          | 0       | 0.0     |
| 8                           | I handle equipment safely during the process               | 8       | 100.0          | 0       | 0.0     |
| 9                           | I maintain cleanliness during the baking process           | 8       | 100.0          | 0       | 0.0     |
| 10                          | I present the final product neatly                         | 8       | 100.0          | 0       | 0.0     |
| 11                          | I store ingredients and tools properly after use           | 8       | 100.0          | 0       | 0.0     |
| 12                          | I manage time effectively during the baking process        | 8       | 100.0          | 0       | 0.0     |
| 13                          | I follow hygiene practices while preparing food            | 8       | 100.0          | 0       | 0.0     |
| 14                          | I complete all steps of the baking process                 | 8       | 100.0          | 0       | 0.0     |
| 15                          | I check the final product before finishing                 | 8       | 100.0          | 0       | 0.0     |
| Variable                    | N                                                          | Mean    | Std. Deviation | Minimum | Maximum |
| Total Procedural Compliance | 8                                                          | 14.88   | 0.35           | 14      | 15      |

The results of the analysis signified how the participants were able to follow every single step needed in producing a certain cake successfully. Their high level of compliance indicated that there were behavioral changes from their training experiences. Only one participant did not manage to perform one particular step

well which was measuring ingredients accurately and this could be due to a minor mistake made by the participant. Overall, the training helped these participants practice the proper procedural knowledge.

Kirkpatrick Partners (n.d.) stipulated that the behavior level is imperative to the evaluation of the training since the application of the

intended behavior by training participants indicates how successful the training is. Such evaluation should be done within a certain timeline after the training that is deemed ideal and it is done when the participants are in an environment where they are held accountable to perform the intended behavior. The self-checklist administered to them in the third stage of the workshop where they were making the third product which was Kuih Kaswi where they checked their compliance of the procedural steps that they were taught earlier. This

enabled the analysis of their behavioral changes as a result of the training they received in which they collectively succeeded in performing the taught process on their own.

The self-checklist also contained several open-ended questions that requested the participants' brief reflection particularly on what they would like to improve in relation to the baking procedure. Their answers were analyzed in a thematic manner.

*Table 9. Thematic Analysis on the Skills the Participants Wished to Improve*

| Responses                                                                                                                                                                                                         | Code                                                                                                                                         | Theme                                            |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|
| "teknik menyukai dan teknik membuat kek lebih halus lagi" (P8)<br>"Kemahiran teknik penyediaan lebih teliti dalam sukatan dan kecekapan" (P6)<br>"Teknik kemahiran dalam penyediaan bahan agar lebih teliti" (P2) | The participants sought to polish their techniques in getting correct measurements for ingredients                                           | Ingredient measurement techniques                |
| "Perbaiki cara untuk menyediakan peralatan/bahan2 pastry/cake" (P1)                                                                                                                                               | The participants planned to be more efficient in preparing the necessary tools and ingredients needed to make the specific cakes or pastries | Tools and ingredients preparation method         |
| "Saya akan lebih berhati-hati dan menepati masa yang telah ditetapkan agar dapat memaksimumkan hasil kuih yang dibuat" (P3)                                                                                       | The participants wanted to be more alert with time management in order to ensure the best quality and quantity of the target products        | Efficient time management for optimal production |
| "Fokus, kepantasan dan flexible" (P7)<br>"Fokus dan cuba lebih pantas serta fleksibel" (P5)                                                                                                                       | The participants aimed to improve their ability to concentrate and react accordingly throughout the baking process                           | Improved dexterity                               |

Based on the responses from the participants, they demonstrated great understanding of techniques and skills that they needed to master in order to be more adept at baking. They highlighted ingredient measurement as the most important facet of the process that they needed to be good at. They also cited time management, preparation method including tools as well as their personal competence as areas they must focus on improving. Their goal of producing cakes and pastries that meet the expected standards also served as their motivational reason to improve their skills.

In the following phases of the project, some participants were able to make their own baked goods at home and delivered them to a pop-up stall and they earned profit from the sales of their homemade products while juggling household duties and other responsibilities. This created a win-win situation between these women and the cake businesses that helped sell their products.



Figure 8. The participants delivered their homemade baked goods to a cake pop-up stall and received the profits from the sales

#### Level 4: Results

The last level of the Kirkpatrick's Model was assessed through the sales that these participants made from the sales event organized in the third day of the project where these

participants displayed their cakes for purchase at a designated kiosk. The sales that they made were used as the data to measure the results of this project.

Table 10. Sales Generated from the Products Made During the Training

| Product                | Quantity Sold            | Unit Type        | Revenue (MYR) |
|------------------------|--------------------------|------------------|---------------|
| Egg Tart               | 133 (27 boxes + 106 pcs) | Boxes and pieces | 231           |
| Kuih Kaswi             | 30                       | Boxes            | 60            |
| Pandan Gula Merah Cake | 44                       | Boxes            | 90            |
| Total                  | 207                      | —                | 381           |

The sales log showed that the participants were able to generate revenue from the sales of their product. Their sale of product amounting to 207 in quantity with MYR 381 revenue. This implied that the training was a resounding success as it impacted the participants' ability to run their own pilot business through a sale kiosk. According to Kirkpatrick Partners (n.d.), level 4 is the measurement of the impact of the training specifically in determining whether the training achieved the targeted organizational outcomes. The sales log from the market

day hosted as a part of this project signified the efficacy of the training as the participants were able to generate sales from the products that they made from the two-day practical classes.

Several pop-up stalls dedicated to selling the products made by the participants of this project were held within the year and each sale received positive responses from the target groups with all baked goods sold out in hours. This implied that there was a promising potential in this business model.



Figure 9. The customers choosing the types of baked products they would like to buy from the pop-up stall dedicated to selling homemade products from the project participants

## Conclusion

Community projects especially training can truly empower target beneficiaries if this project is designed and measured from the earlier stage of its implementation until the realization of the intended outcomes by focusing on the experiences, the abilities and the results achieved by the participants. Hence, Kirkpatrick's Model is a sound framework for training design and assessment.

## Implication

This study suggested that Kirkpatrick's Model is a viable approach used to design and deliver a comprehensive training programme for the community or for students and staff of an educational institution. This model offers a wide view on how a training programme is designed, executed and assessed by zeroing in the focus on the participants from their reaction to the training until their ability in achieving the target outcome after the training is over. This can be seen from the Slices of Care project that culminated in the sales event specifically for the participants to set up a kiosk for them to sell their cakes to the public within the compound of the institution. Training typically ends in mere tutorials and classes without real-life experience of putting the skills into the practice with actual impact on the participants or the beneficiaries. However, adopting Kirkpatrick's Model can help extend any training to reach the final intended goals so the long-term results can be measured.

The suggestions from the participants served as a mind-broadening motivational factor for this project to be continued and sustained for a long-term benefit to the community. The participants found the workshop to be effective in equipping them with practical baking skills and regarded it as a communal and welcoming environment that allowed them to socially connect with others. In fact, they strongly suggested that the classes to be regularly conducted and increased the number of beneficiaries especially housewives and low-income households as they recognized the workshop to be effective in helping such target groups earn income through cake businesses.

The participants' responses denoted the need for the participants to exercise certain skills or techniques better such as measuring

ingredients correctly and making accurate estimate of time as well as preparing the needed tools and ingredients accordingly. This calls for improvement in delivery particularly in enabling them to exercise certain skills better with supervision from instructors.

## Recommendation

In order to improve the data collection of this study, formative evaluation can be done in the reaction level which can help correct the training in real time in which necessary adjustments might be done to improve delivery of the training. Such evaluation does not need to be at the end of the training. In addition, pre-test can be also considered for the learning level which can be compared with the test conducted after the training to analyze changes resulting from the training.

It is also essential to take into account the suggestions and feedback from the participants which clearly extolled this project to be conducted more frequently with more types of cakes and pastries being taught on more beneficiaries. This may also lead to a stronger set of data that can be extrapolated with more conviction.

Other than that, the participants' responses revealed the need for them to practice more on their preparation skills which include their skills in measuring ingredients and managing their time meticulously. Hence, the teaching and learning process might need to zero in on certain preparation aspects and fundamental basics.

Due to work commitment, some women mostly gardeners and cleaners who work on certain Saturday could not participate in the workshop due to the company's rules that they work for. Hence, future effort can be adapted to accommodate the need of working women who are bound to certain job contracts.

## References

Watermark Insights. (2023). *How to improve student success with community-based learning*. Retrieved October 17, 2025, from <https://www.watermarkinsights.com/resources/blog/how-to-improve-student-success-with-community-based-learning/>

- Forgotten Children Worldwide. (n.d.). The role of vocational training in breaking the cycle of poverty. <https://forgottenchildren.org/blogs-and-resources/the-role-of-vocational-training-in-breaking-the-cycle-of-poverty>
- Kirkpatrick Partners. (n.d.). The Kirkpatrick model. Kirkpatrick Partners. <https://www.kirkpatrickpartners.com/the-kirkpatrick-model/>
- Brackmann, S. (2024, March 22). Brackmann leads community-based learning at Georgia Tech [News article]. McBee Institute of Higher Education, University of Georgia. Retrieved from <https://ihe.uga.edu/news/stories/2024/brackmann-leads-community-based-learning-georgia-tech>
- Anand, A. (2024, August 22). Mastering Kirkpatrick model: Effective training evaluation. Corporate HR Management Institute. <https://www.chrmp.com/kirkpatrick-model/>
- Jean Mindana Foundation. (2026, February 10). Empowering communities through education and vocational training

## Appendix

### News Coverage on the Project



The participants and the instructors with their workshop products.

#### Slices of Care empowers women in baking businesses

**KENINGAU:** A community-driven initiative under Keningau Vocational College (KVC) is helping women gain practical skills to start their own cake businesses through hands-on training and real-world selling experience.

The 'Slices of Care' project, organised by KVC's Bakery and Pastry programme, was held from April 11 to 13 with RM3,000 in funding from charitable organisation CHANGE.

The programme targets women in pink-collar jobs, as well as housewives and single mothers, equipping them with skills in producing traditional cakes while providing exposure

to basic entrepreneurship. Ten participants were selected to ensure effective training, which included workshops, sales activities and ongoing guidance. They learned to make Pandan Gula Merah, Kaswi and egg tarts, before applying their skills during a sales event on April 13.

The training was conducted in collaboration with Tielief Cake's Bakery owner Haryati Azmi @ Egang, who served as the main instructor, sharing her industry experience and business insights with participants.

The organising team comprised Nurul Fitriyani Izwani Abdul Mutalip, Nurul Nabillah Batrisyia Abd Karim,

Szusheny Larroza and Nur Aleysa Felix @ Mohd Fahmey, under the supervision of teacher Syafrizah Eugene.

The project featured a two-day hands-on baking workshop followed by a sales event, with a larger-scale sales activity planned for May 20.

KVC director Lumang Anak Lang commended the initiative, noting its positive impact on the local community. He added that the project was among seven nationwide selected to receive funding from CHANGE earlier this year, highlighting the role of vocational education in fostering skills and supporting community development.

#### 10 | Education



KVC's Bakery and Pastry Team receives the CHANGE grant for its community project alongside their teacher, Syafrizah Eugene.

### KVC Bakery team wins RM3,000 grant

**Johan Aziz**  
KENINGAU: The Bakery and Pastry team from Keningau Vocational College (KVC) has been selected as a recipient of a RM3,000 grant from CHANGE, a philanthropic initiative that supports educational and social programmes in Southeast Asia, particularly in Malaysia.

The grant will support the team's community project titled 'Slices of Care', which is intended to guide and assist low-income women in making and selling cakes and traditional pastries.

The list of grant recipients was announced on CHANGE's social media platforms last month.

The team consists of a teacher, Syafrizah Eugene, and three second-year students: Nur Aleysa Felix @ Mohd Fahmey, Nurul Fitriyani Izwani Abdul Mutalip, and Nurul Nabillah Batrisyia Abd Karim.

hands-on guidance through baking workshops and bake sales to help them earn additional income through their own small enterprises.

In support of this effort, the Bakery and Pastry training kitchen at the college will be used as a central training and production facility for the project participants.

Syafrizah Eugene expressed great excitement over the project being recognised by CHANGE, which was founded by Ai Goto, a philanthropist who has been running the programme since 2000.

In addition to the Bakery and Pastry team, another team from KVC, the Eureka Hub Club, also received a RM3,000 grant.

The college director, Lumang anak Lang, expressed pride in the grant awarded to the community projects led by the college's teachers and students, viewing it as recognition of their sincere efforts to elevate vocational education as a form of education that places strong emphasis on community well-being.

The full list of grant recipients can be accessed via the CHANGE Microgrant programme Instagram page.



#### Slices of Care perkasa wanita Keningau jana pendapatan melalui bakeri

MEDIA DI BAWAH BAYU

#### Pasukan KV Keningau terima geran CHANGE bantu komuniti

○ Februari 2, 2026, Isnin - 3:10pm



HEBAT: Pasukan bakeri dan pastri KV Keningau bersama guru pembimbing yang berjaya dipilih sebagai penerima geran Program CHANGE.

This project has been featured on the Daily Express, The Borneo Post, Utusan Borneo and TV Sabah.