

Enhancing Entrepreneurial Capacity among Students and Graduates through Dental Health Educational Media “The Denta Go Model”

Supriyana*, Rose Asni Latifah, Lanny Hapsari Winnursita, Nindita Enhar Satuti

Poltekkes Kemenkes Semarang, Indonesia

*Corresponding author: hastama99@yahoo.com

Abstract

Developing an entrepreneurial mindset from an early age is essential due to the high levels of creativity, innovation, and energy typically possessed by young individuals. However, entrepreneurial skills and motivation among dental health students and graduate alumni at Poltekkes Kemenkes Semarang remain limited due to inadequate mentorship and training. This community service program aimed to enhance entrepreneurial motivation and to strengthen knowledge and practical skills in developing dental health education media through the Denta Go model. The program was conducted on 13 August 2025 at the Graduate Building of Poltekkes Kemenkes Semarang and involved 20 participants, consisting of 10 dental health students and 10 graduate alumni. The intervention included entrepreneurship education, training on the development of Denta Go educational media, and hands-on simulation of the game. The results demonstrated increased participant motivation toward entrepreneurship, along with improved knowledge and skills in producing and implementing Denta Go media. The Denta Go model was perceived as easy to produce, attractive, and commercially viable, while also serving as an effective educational tool applicable in community settings. This program indicates that integrating entrepreneurship training with innovative dental health education media can support both skill development and entrepreneurial engagement among health students and graduates.

Keywords: Entrepreneurship, Education, Dental Health, Denta Go

INTRODUCTION

In Indonesia, the majority of senior high school graduates (61.88%) prefer employment as workers rather than pursuing entrepreneurship. This phenomenon highlights the need for entrepreneurship training among adolescents(Sumarlan et al., 2022). Adolescents, including university students who receive entrepreneurship training, have substantial opportunities to engage in entrepreneurial activities when these opportunities are effectively utilized, for example through regularly organized events. At such events, students can capitalize on business opportunities to generate additional income (Mardatilah & Hermanzoni, 2020). In response to this condition, the Health Polytechnic of the Ministry of Health in Semarang includes Entrepreneurship as one of the courses offered to students. This course aims to cultivate an entrepreneurial mindset and spirit, thereby fostering creativity and innovation. Through entrepreneurship education, students who initially lack entrepreneurial inclination can develop self-confidence, enhance creativity and innovation, and become more willing to take risks, enabling them to better face future challenges in the workforce(Mahfudiyanto, 2018).

Several factors contribute to students' low interest in entrepreneurship, including concerns related to social prestige, lack of self-confidence, and perceived inability to attract consumers or buyers, which may be associated with low motivation or complacency. External factors also play a significant role, such as limited access to capital, difficulties in time management, and fear of failure, often influenced by observing unsuccessful entrepreneurial experiences of others (Herawati et al., 2021). Therefore, students are encouraged not to fear entrepreneurship, particularly when they already possess business ideas, and to avoid delaying entrepreneurial initiatives by building confidence in their own capabilities.

From another perspective, the primary competencies of Dental and Oral Therapists lie in promotive and preventive health services, including the ability to innovate in developing educational media and outreach programs aimed at changing healthy lifestyle behaviors within the community. One such innovation is the “Denta Go” media, a student thesis product developed in the Applied Master’s Program of Dental and Oral Therapy at the Health Polytechnic of the Ministry of Health in Semarang. This media has been tested and proven effective in improving dental and oral health behaviors and is suitable for use in preschool educational settings. Consequently, efforts are required to produce and market the “Denta Go” media through an entrepreneurship-based training approach.

In this context, early entrepreneurship training is essential for both students and alumni. The target of this community service activity is to enhance entrepreneurial skills among dental health students and alumni of the postgraduate program at the Health Polytechnic of the Ministry of Health in Semarang. This training aims to support their ability to live independently within the community through their professional roles. However, independence cannot be achieved instantaneously; rather, it must be nurtured and developed continuously throughout both the student and post-graduation periods. To support this process, students and alumni must be equipped with self-development skills and entrepreneurial characteristics.

Currently, the entrepreneurial skills of dental health students and postgraduate program graduates at the Health Polytechnic of the Ministry of Health in Semarang remain limited, primarily due to insufficient mentoring from competent professionals in the field of entrepreneurship. Nevertheless, given their relatively productive age, they possess considerable potential to develop creative entrepreneurial activities aligned with the dynamic and innovative spirit of young dental health professionals. Another major challenge faced by these students and graduates is generally low entrepreneurial motivation.

The results of problem identification indicate several key issues that must be addressed by the implementation team from multiple perspectives. First, entrepreneurial skills remain limited. Second, participants lack clear targets and objectives for the businesses they intend to establish. Third, they have insufficient expertise in promotion and marketing. One strategic effort to address these challenges is to foster entrepreneurial skills among dental health students and postgraduate graduates through training focused on the development of “Denta Go” media, an educational tool designed to improve tooth-brushing skills and dental health status among preschool children. This training is expected to serve as a platform for enhancing soft skills and increasing motivation toward entrepreneurship.

Furthermore, the training not only aims to develop technical and soft skills but also provides opportunities to generate additional income and achieve greater financial independence. Based on the above considerations, it is necessary to conduct entrepreneurship training centered on the development of “Denta Go” media as a dental health education tool for dental health students and graduates of the Health Polytechnic of the Ministry of Health in Semarang.

METHOD

This community service program was implemented through several structured stages.

Preparation Stage

The preparation stage constituted the initial phase prior to program implementation. Activities at this stage included:

- a. Pre-survey to identify partners’ problems and needs;
- b. Proposal development to formulate appropriate solutions addressing these identified needs;
- c. Preparation of training materials for the development of *Denta Go* dental health education media.

Training Implementation Stage

The training was conducted for dental health students and postgraduate alumni of the Health Polytechnic of the Ministry of Health in Semarang. The activities were held in a classroom setting at the Postgraduate Program of the Health Polytechnic. The training focused on the development of *Denta Go* dental health education media as a practical entrepreneurial product

Evaluation Stage

Program evaluation was carried out using question-and-answer sessions and structured questionnaires to assess participants’ levels of understanding and engagement with the training materials.

Final Reporting Stage

The final stage involved the preparation of a comprehensive report documenting the community service activities, focusing on the empowerment of dental health students and postgraduate alumni through enhanced entrepreneurial motivation and skills.

RESULTS AND DISCUSSION

The community service activity was conducted on August 13th 2025 at the Graduate Building of Poltekkes Kemenkes Semarang, involving 20 participants, including 10 Dental Health students and 10 alumni from the Graduate Program of Poltekkes Kemenkes Semarang.

The program began with a preparation phase that included coordination with the partner organization, Formatkes (Forum Komunikasi Alumni Magister Terapan), for participant recruitment, followed by obtaining permission for the venue and schedule. The main preparatory activity involved developing educational media in the form of the Denta Go model, which consisted of the following components (Ijazati et al., 2024):

“Denta Go” Game Media

The Denta Go game media is housed in a hexagonal prism-shaped box that serves as the main container for the game components. The inner surface of the lid displays the game rules, which must be understood by users prior to gameplay. The box has a volume of 20,264.4 cm³, with a base width of 30 cm and a height of 26 cm.



Figure 1. Denta Go” Game Media

Dice Construction

The dice were designed in the form of a pillow, made primarily of flannel fabric and filled with dacron to ensure safety and prevent injury if the dice accidentally hit a child. The dice measured 21 cm × 21 cm and consisted of six sides numbered from 1 to 6. These dice served as a guide for children to move from one square to another during the game.

Question and Action Cards

These cards contain questions related to dental health maintenance and challenges that children are required to perform to promote proper oral hygiene practices. A total of nine question cards and seven challenge cards were developed, covering topics such as toothbrushing techniques, cariogenic foods, and the tools and materials used for toothbrushing. During gameplay, each student receives either a question or a challenge card.

Denta Go Mat

The “Denta Go” game arena was designed in the form of a mat measuring 3 m × 3 m, allowing children to stand and actively participate within the game area.

Dental Phantom Model

A three-dimensional dental phantom was used to demonstrate proper toothbrushing techniques and to support action-based learning activities.

Star Stickers

Stars were awarded for correct responses and actions, with each star equivalent to 10 points. The points were accumulated, and the student with the highest score was declared the winner.



Figure 2. Media Denta Go Model

The implementation phase of the community service program began with a session on entrepreneurship delivered by the project leader. It was emphasized that entrepreneurship education should be provided across all levels of health professional training, as healthcare workers are expected to create added value from their existing potential. Following this session, participants demonstrated an improved understanding of entrepreneurial concepts and opportunities, particularly in generating additional income.

The next session focused on the Denta Go concept and the process of developing Denta Go educational media, delivered by team members Lanny Hapsari and Nindita Enhar. After the session, participants showed increased comprehension of both the concept and production of Denta Go media. The program concluded with a Denta Go game simulation, facilitated by Rose Asni Latifah, emphasizing that participants should not only be able to produce the media but also apply and operate the game effectively before introducing it to preschool children.



Figure 3. Participants practiced the Denta Go model game

Following the program, participants were motivated to explore entrepreneurial opportunities

through the production of educational game media. The Denta Go media were perceived as easy to produce, attractive, and marketable. Student participants also expressed interest in utilizing Denta Go as an educational tool in community settings to fulfill their learning outcome requirements. The Denta Go intervention was shown to improve children's toothbrushing skills, as it actively involved children as direct participants in a game-based learning process. The inclusion of quizzes during gameplay provided immediate feedback in a safe learning environment, as incorrect answers were directly corrected by teachers acting as facilitators (Ijazati, Khlofah Nur. Supriyana. Ningtyas, 2024).

In addition, participants' knowledge and skills in developing Denta Go media improved, as demonstrated by their ability to replicate the production process. After mastering the development stage, participants were also able to correctly and effectively implement the Denta Go game.



Figure 4. Implementation of the community service program

CONCLUSION

This community service program had a positive impact on both students and graduates. The activity effectively enhanced participants' knowledge and skills in developing dental health education media. In addition, participants' motivation increased, as reflected in their high level of enthusiasm during the program, particularly due to the opportunities and ideas it provided for entrepreneurship and their income.

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