

Educational Innovation to Elevate Community Products

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ABSTRACT

This paper presents findings from the third iteration of the Youth Volunteer Program. The Program is a pivotal strategy in the development of the nation and a critical initiative in the reform process of Thailand's economy in the 21st century. Universities have been key drivers of economic growth in Thailand by contributing to regional development, attracting talent and promoting entrepreneurship. The objectives of this research are to investigate the attitudes of students towards the project, and to examine the attitudes of the community enterprise group towards the project. Questionnaires and interview tools were developed to elucidate the participants' attitudes. The results indicate that this project can be considered as a starting point for driving change within the Thai education system, by providing students with opportunities to learn from real-life experiences and work in the field. Through such programs, students can develop and acquire new skills, which align with the concepts of upskilling and reskilling. Participants recognized the substantial value of this newfound knowledge and its potential applicability in their future endeavors, emphasizing its contribution to their overall success. Additionally, some participants suggested allocating more time for future studies to be dedicated to project involvement.

Keywords: Educational Innovation, University, Community Development, Sustainable Development.

1) INTRODUCTION:

Information Technology (IT) and Educational Innovation are two closely related aspects in enhancing the efficiency of teaching and learning. Information Technology has become an indispensable tool in the field of education. It has revolutionized the way students learn and teachers instruct, offering numerous advantages such as access to vast information resources, personalized learning experiences, and efficient management of educational processes through Learning Management Systems (LMS) [1,2]. The integration of IT in education has the potential to enhance student and teacher engagement, accessibility, and effectiveness, while contributing significantly to the advancement of educational practices and outcomes. The continued evolution and adaptation in education of integrated IT are essential for preparing students for a technology-driven world. Utilizing data for decision-making also plays a crucial role in enhancing teaching and learning through the collection and analysis of relevant data. Educators and institutions can make informed decisions to improve instructional strategies, identify areas for improvement, and tailor learning experiences to better meet the needs of students. This data-driven approach is instrumental in fostering continuous improvement in education and ultimately enhancing the overall quality of teaching and learning. New teaching methods represent a critical facet of educational innovation, reflecting the ongoing quest for more effective ways to facilitate learning. These innovations break away from traditional pedagogical approaches and introduce fresh paradigms that harness the potential of diverse instructional techniques. This approach empowers students to take ownership of their learning, fosters deeper understanding, and promotes critical thinking skills [3].

Interdisciplinary learning is another innovative approach that emphasizes the interconnectedness of different subject areas. It encourages students to draw knowledge and skills from various disciplines, promoting a holistic understanding of complex, real-world issues. By crossing disciplinary boundaries, students are better prepared

for a rapidly changing and interconnected world.

Furthermore, the integration of technology into education has led to adaptive learning solutions. These platforms and applications adjust the learning experience based on individual progress and capabilities. Adaptive learning personalizes education and addresses the diverse needs and learning styles of students, thereby increasing engagement and improving overall learning outcomes. Adaptive learning solutions may transform learning into an enjoyable and immersive experience, motivate students to actively participate, and to acquire knowledge and skills through interactive challenges. Innovative teaching methods represent a dynamic shift in education, and aim to improve learning outcomes, engagement, and the ability to adapt to a rapidly evolving world. These innovations also pave the way for a more learner-centric, interconnected, and adaptable educational landscape [4,5].

The Youth Volunteer Program is currently ongoing and has been successfully integrated into university units (Human Computer Interaction, Management Information Systems, and Digital Media and Design) to promote the utilization of local resources within rural communities for the past three years. As an extension of university research, projects of this nature can drive change by fostering self-development, leveraging the collective capabilities of group members (both students and local business groups), by tapping into the expertise of educational institutions to enhance skills through upskilling, reskilling, and the acquisition of new competencies [1,2,6]. Consequently, this paper aims to determine the level of satisfaction among the communities and students involved in the study, as well as to gather recommendations from all participants.

2) LITERATURE REVIEW:

A. Youth Volunteer Program

The Youth Volunteer Program is considered to be a pivotal strategy in the development of the nation and a critical initiative in the economic reform process of Thailand in the 21st century. This project harnesses the power of Thai youth as the primary driving force to propel the nation forward. Simultaneously, it aims to reform the education system by creating real-world experiential learning opportunities outside the classroom. It opens doors for young people to apply their knowledge, innovations, and technology to develop local business groups in rural areas. Furthermore, it supports and promotes a creative economy and a new generation of entrepreneurs. It can be considered as a starting point for driving change within the Thai education system. It places a strong emphasis on practical experience over theoretical knowledge, providing students with opportunities to learn from real-life experiences and work in the field. Through such programs, students can develop and acquire new skills, which align with the concepts of upskilling and reskilling [7].

When considering the transformation of educational curricula to meet the needs of communities, universities need to prioritize experiential learning [7]. Communities should also be actively involved in co-designing these curricula. The current focus of the Higher Education Commission is on creating a lifelong learning process that enhances the country's human resources, catering to both the private and public sectors, through mechanisms such as the Sandbox Curriculum, GenNX model, and the New Breed Graduates project (Ministry of Higher Education, Science, Research and Innovation, 2020). Therefore, universities need to have mechanisms in place to develop the country's workforce to meet the specific needs of different groups. This includes enhancing the quality of education and developing various skills to ensure accessibility to knowledge and skills for all [7].

B. Universities Engagement in Local Community Development

A significant and multi-faceted role of universities in Thailand is the inclusion of local community development. Universities serve as catalysts for education, research, and innovation, offering a range of educational opportunities and skill development programs. They conduct research that addresses local challenges, leading to innovative solutions, economic growth, and cultural enrichment. Universities engage with communities through outreach, partnerships and volunteer efforts, fostering collaboration among stakeholders. Their impact extends to environmental sustainability and plays a critical role in enhancing the overall well-being and prosperity of the local area [8]. Universities in Thailand have historically played a vital role in fostering societal progress through education, research, and innovation. They have provided access to knowledge, skills, and expertise, driving local and global development. Moreover, universities have been key drivers of economic growth, contributing to regional development by attracting talent and promoting entrepreneurship.

In the present context, universities need to adapt to the changing social landscape. This involves placing a stronger emphasis on community-centric approaches and fostering resilience at the local level. Universities need to actively engage with their communities, co-create knowledge, and address pressing local challenges through research and outreach initiatives. Furthermore, universities need to prioritize sustainability and social responsibility, considering the environmental and societal impact of their activities. By promoting sustainable practices, universities can contribute to the long-term well-being of their communities and the world at large (Ministry of Higher Education, Science, Research and Innovation, 2020). In summary, the role of universities in societal development has been and continues to be pivotal. To remain relevant, universities need to evolve and

align their curriculum with changing societal needs, focusing on community engagement, sustainability, and local empowerment at all levels. The Youth Volunteer Program is an example of the integration of university curricula with local small business groups.

C. Conceptual Framework

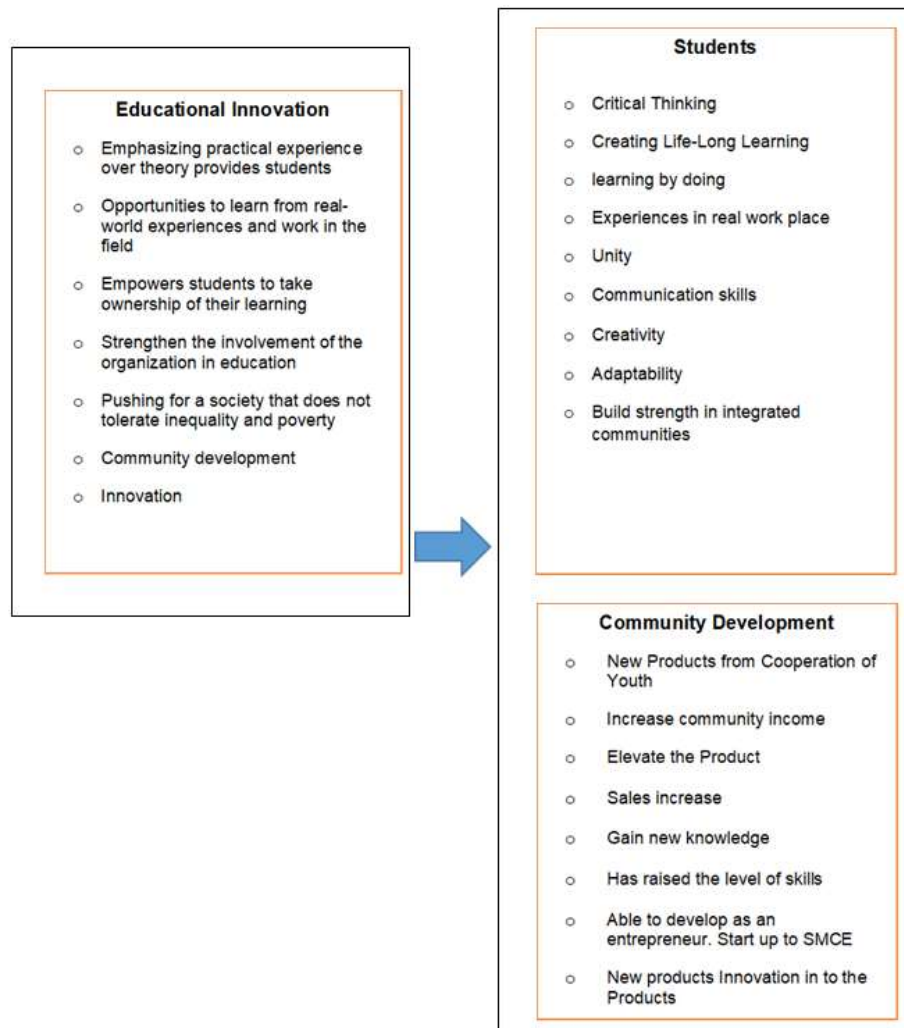


Figure 1 Conceptual Framework

3) METHODS AND METHODOLOGY:

There were 2 main groups of participants in this study, 20 students and 15 members of the Small Business Community Enterprises Group. All the student participants were fourth year students from the Faculty of Management and Information Technology. They included 75% female (15 students) and 25% male (5 students), with all of the student participants aged between 18-25 years. Purposive sampling was used to select the unit Design, User Experience and User Interface from which to draw the student participants. Purposive sampling is a technique used in qualitative research to select a specific group of individuals or units for analysis [9].

Participants from the Community Enterprises Group were all female (15) and aged between 51-70 years old. A majority of the participants in this group were aged 61 years and older (53.33%). The highest educational attainment reported by participants in this group was a bachelor's degree, with 60% of respondents falling into this category. 53.33% of respondents were retired civil servants. Those with a master's degree represented 20% of the respondents. Purposive sampling was also used to select participants of the Community Enterprises Group. The Human Research Ethics Committee of Nakhon Phanom University accredits research projects in accordance with international standards for research ethics in humans. Informed consent was obtained from all participants in this project.

This research seeks to determine:

- How student participants felt about their participation and what they had gained by joining the project.
- How the Community Enterprises Group felt about their participation and what they had gained by joining the project.

This research used both quantitative and qualitative methods to gather data. Using both types of approaches allows for the triangulation of findings, while using more than one method ensures a more complete description or picture of human behavior, feelings and attitudes [10, 11,12,13].

The questionnaire and the interview instruments were designed to obtain information about participants' attitudes and used a 5-point Likert scale. Part 1 of the questionnaire comprised general information, including data about gender, age, marital status, education, and occupation. Part 2 of the questionnaire was designed to inquire about individuals' personal attitudes and prior knowledge related to the project.

The in-depth interviews were conducted after the survey had taken place and explored the themes in the questionnaire in more depth. This research adopts a quasi-experimental design with the primary aim of conducting a comparative study on knowledge and attitudes. The quantitative and qualitative methods employed in this research were designed to elucidate participants' feelings and attitudes, which provided a comprehensive understanding of the sentiments of students regarding the project and the perceived benefits experienced by members of the Community Enterprise Group through their involvement in the project.

In this study, the research tool was subjected to a validation process, involving the assessment of content validity by three experts. The Index of Item Objective Congruence (IOC) was employed to determine the alignment of the survey questions with the study's objectives, definitions, conceptual framework, and terminology. Questions with an average IOC value of 0.5 or higher were selected for inclusion in the questionnaire. Questions with an IOC score of <0.5 were subject to revisions or removal before being retested by the same three experts. After testing, it was found that there were five questions out of 23 with IOC scores below 0.5. These questions were subsequently revised and retested until all questions achieved an IOC score of >0.5.

Following this process, the instrument was further evaluated to establish its reliability, yielding a Cronbach alpha coefficient value of 0.94, which is considered to be a very high level of reliability [14]. The data was analyzed using quantitative research methodology that included a questionnaire survey for both groups of participants to analyze the data to determine quantity (N), the sum (ΣX), the percentage (%), and the average (\bar{x}).

Qualitative methods were also employed, specifically utilizing a structured interview format. The choice of this format aimed to ensure consistency and maintain quality standards, especially for novice interviewers [15,16]. Interviews serve as valuable tools for obtaining immediate and rapid responses, making them well-suited for capturing real-time, direct feedback from participants. Furthermore, interviews offer insights into personal attitudes and reflections, allowing for in-depth responses that can lead to deeper exploration of research inquiries [17, 18,19]. Structured in-depth interviews, as a qualitative research technique, offer exceptional opportunities to pose open-ended, discovery-oriented questions that thoroughly investigate research objectives [20]. These interviews enable researchers to uncover information from the sample population that may not be directly observable, including feelings, thoughts, and intentions.

4| RESULTS:

The project was a component of the Design, User Experience, and User Interface class. Students participating in this project had a 10-week opportunity to acquire and apply the skills acquired in class to conduct research that addressed local business challenges. This research aimed to generate innovative solutions, promote economic growth, and enrich the local culture. The project lasted six weeks and involved active engagement with the Community through outreach, partnerships and volunteer activities, which facilitated collaboration among the various stakeholders. Their efforts had a broad impact, including contributions to environmental sustainability, as well as playing a significant role in enhancing the overall well-being and prosperity of the local area.

The students and the Community Enterprises Group were very satisfied with the entire project, as reflected in Table 1. The respondents' overall satisfaction with the project was notably high (\bar{x} =4.58). The results indicate that the respondents found the service providers/coordinators (of the organizing unit) to be of a very high standard in delivering their services (\bar{x} =4.61). The appearance and attire of the service providers/coordinators were considered as part of the assessment their, politeness (\bar{x} = 4.58), responsiveness in answering questions (\bar{x} = 4.63), and coordination with the respondents (\bar{x} = 4.63). The next aspect of satisfaction, as reported by the respondents, pertained to their satisfaction with the project's quality of participation. Specifically, we inquired whether they had gained new knowledge, ideas, skills, and experiences from this project/activity. (\bar{x} =4.47). Additionally, we asked if they could apply what they had learned to their studies or work (\bar{x} =5.8), if the

x

outcomes met their expectations ($\bar{x} = 4.58$), if the balance between theoretical and practical training was appropriate ($\bar{x} = 4.37$), and if they had realized benefits from the project/activity ($\bar{x} = 4.63$). The respondents expressed extremely high satisfaction with all these aspects ($\bar{x} = 4.53$).

In terms of the provision of documents ($\bar{x} = 4.37$), souvenirs and memorabilia ($\bar{x} = 4.47$), support staff ($\bar{x} = 4.47$), and the availability of food, beverages, and the venue ($\bar{x} = 4.63$) for the project, respondents reported a high satisfaction overall ($\bar{x} = 4.49$). The final two satisfaction aspects within the project were notably high, including service delivery processes ($\bar{x} = 4.39$) and the Invited Speaker ($M = 4.38$). The results indicate that the process and service delivery steps, which encompass project publicity ($\bar{x} = 4.26$), appropriateness of the location ($\bar{x} = 4.37$), suitability of the duration ($\bar{x} = 4.26$), timing for project participation ($\bar{x} = 4.42$), and appropriateness of activity scheduling steps ($\bar{x} = 4.63$), were rated highly. Furthermore, for the Invited Speaker who covered specific topics within the project, the satisfaction level was particularly high ($\bar{x} = 4.68$), reflecting the positive speaker experience and the effectiveness in transferring knowledge to the respondents.

Table 1: The Satisfaction with the project

No	Satisfaction with the project	\bar{x}	s.d.	Attitude
1.	The process and service delivery steps	4.39	0.64	High
2.	Invited Speaker	4.38	0.67	High
3.	Service providers/coordinators (of the organizing unit)	4.61	0.61	Very High
4.	Convenience provided	4.49	0.62	High
5.	Quality of participation	4.53	0.66	Very High
6.	Satisfactions for the overall project	4.58	0.69	Very High
	Total average	4.49	0.65	High

In our qualitative data analysis, we aimed to delve deeper into the advantages that participants could derive from their engagement in the project. As depicted in Table 2, the interviews with the student respondents revealed that the predominant benefit they highlighted was the acquisition of new knowledge beyond the confines of the classroom. Specifically, they mentioned gaining insights into the art of traditional textile pattern printing from the local enterprise community. This knowledge was characterized as a form of wisdom not typically attainable within the classroom setting. Participants viewed this learning experience as highly valuable, recognizing its potential applicability in their future endeavors. Moreover, they underscored the significance of this newfound knowledge in contributing to their overall success.

Furthermore, the qualitative data revealed another significant theme, namely 'unity.' Participants emphasized the development of collaborative skills and the ability to work effectively in groups. This encompassed various competencies, including communication proficiency, empathy, and the cultivation of leadership qualities. The students also mention that for future study they need to know more about Textile Patterning, more time to be involved in the project and more cross disciplinary participants in the project.

Table 2: Student interviews

Advantages and your involvement in the project	Advice for future projects
Acquired knowledge – traditional pattern making	Need to know more about textile pattern making
Unity – working collaboratively	Need more time – in depth involvement in the project
Developing new knowledge - skills	Need greater cross-disciplinary approach
Fun activities	

In Table 3 the Community Enterprise Group demonstrated a very positive attitude towards the project, asserting that their involvement will enable the creation of new products with the assistance of the youth participants. As a consequence, these products will be well-suited for both the youth demographic and diverse age groups. This marks a significant advancement for the Community Enterprise Group, as their previous product development ideas substantially differed in terms of concept and target audience. Youth and adults frequently bring distinct perspectives to the realm of product innovation. Youth, with their fresh and often unconventional outlook, tend to generate ideas that are more progressive and aligned with contemporary trends. Their approach is characterized by a willingness to challenge the status quo, think outside the box, and embrace emerging technologies and lifestyles. In contrast, older individuals tend to draw from their accumulated knowledge and experiences, resulting in ideas that may be more rooted in tradition and practicality. These age-related

differences in innovation contributed to a dynamic ecosystem of product development during the Project, where a blend of perspectives from various age groups lead to well-rounded and inclusive solutions.

Community Enterprise group # 9 - "It is indeed a great benefit to have professors and our students helping to conceptualize and develop new products for our community."

Community Enterprise group # 12 - "I really appreciate the new product. It is suitable for all ages."

Participants also mentioned that soft power initiatives serve as influential tools in helping communities bolster their revenue. Soft power initiatives are often rooted in cultural diplomacy, education, and international cooperation, and are designed to enhance a community's reputation and global standing [21]. By promoting cultural exchanges, language programs, and educational partnerships, communities can attract international students, tourists, and businesses. This, in turn, stimulates economic growth and encourages foreign investments, which are essential for increasing revenue streams. Soft power initiatives, through the cultivation of positive international perceptions and intercultural exchanges, play a pivotal role in attracting new opportunities and promoting economic development, thus allowing communities to prosper on the global stage.

Community Enterprise group # 15 - "This is highly commendable as it contributes to the community's development and provides an opportunity to increase the community's income."

Community Enterprise group # 8 - "The new products offer a diverse range of options, resulting in increased pricing."

The Community Enterprise Group found that the youth-led innovations proved instrumental in elevating the professionalism and value of packaging and logo design for the new products developed by the Group. With their fresh perspectives and innate familiarity with contemporary trends, the young participants brought a dynamic approach to these critical aspects of branding. Their ideas often reflected the latest design sensibilities, leveraged cutting-edge technologies and aesthetics, to create packaging and logos that resonate with modern consumers. Moreover, the infusion of youthful energy into this field fosters a culture of innovation and adaptability. This not only enhances the visual appeal of products and brands, but also ensures that they remain relevant and attractive to consumers.

Community Enterprise group # 2 - "The colors are beautiful and look very appealing. I really like them a lot. I like it very much."

Community Enterprise group # 12 - "It's excellent. The colors are exquisite, and the packaging has a natural appeal that complements the product exceptionally well."

Finally, the group mentioned that collaborating with the young people within the community proved to be an enriching experience that contributed to the development of a diverse range of skills. The unique perspectives and innovative ideas brought by young individuals offered fresh approaches to problem-solving, creativity, and adaptability. Working in tandem with the younger generation not only imparted valuable technological and contemporary skills, but also fostered a culture of continuous learning and open-mindedness within the community. This collaborative effort encouraged the transfer of knowledge and expertise between generations, ultimately equipping the community with a broader skill set that is essential for its ongoing growth and progress. The intergenerational exchange of skills and knowledge created a harmonious synergy within the community, enhancing its capacity to address current challenges and seize new opportunities.

Community Enterprise group # 9 - "It possesses a sense of novelty and a natural quality that has the potential to elevate the product."

Community Enterprise group # 8 - "The product is designed with a multifunctional and versatile purpose, representing an elevation in the community's product offerings. Unlike conventional practices focused on items like shoulder wraps and scarves, this product is unique and offers diverse utility."

Advice from the Community Group for future research included the fact that they would like to have more projects similar to this one to help the community. They also felt they needed more time to do the project and that it fostered really good for community spirit. Time for the project was limited to just 4 months, while six months would have been better. A longer time period may also have generated momentum for the business group.

Table 3: Community Enterprises Group interview

Advantages and your involvement in the project	Advice for future projects
New product ideas	Need more projects

Increased revenue	Need more time for the project
More professional packaging, logos/branding	
Increased skill development	

In terms of advice provided for future research, the Community Enterprises Group offered limited input. Nonetheless, they expressed a strong desire for more projects of this nature that could benefit the community. The group members emphasized the need for a more extended project duration, as the four-month timeframe was perceived as too restrictive. They recommended that future initiatives of this kind span at least six months to allow for more comprehensive community development, sustained momentum and impact.

5] CONCLUSION:

The Ministry of Higher Education, Science, Research, and Innovation serves as the Ministry of Wisdom, Opportunities, and Future, with its primary mission being the cultivation and preparation of 'people' who are a critical resource for the nation [7]. research project was aimed at addressing the challenges of the 21st century, particularly for young individuals who are students, graduates and new professionals in need of 'spaces for intellectual growth' and 'opportunities' to unleash their potential. The goal was to nurture citizens with quality attributes, who are not only self-aware, but also altruistic and capable of applying their knowledge and skills to real-life scenarios. Research projects of this calibre aim to transform universities, with a particular focus on reshaping their theoretical and operational paradigms to emphasize the creation of strengths within higher education institutions by fostering local engagement. Additionally, this type of practical research endeavors to align universities with Sustainable Development Goals (SDGs) and to enhance their overall sustainability efforts in a more diverse manner. In this study, the project has been deemed highly successful, with all participants expressing their satisfaction with its outcomes.

In summary, the collaborative project involving both youth and the community has undeniably demonstrated its substantial value. By leveraging the creative and innovative capacities of the younger generation and amalgamating them with the collective experience and wisdom of the community members, this undertaking not only acted as a catalyst for the acquisition of fresh skill sets, but also engendered a profound sense of unity, community and empowerment. The collective endeavor yielded inventive solutions, heightened community involvement and a deepened sense of belonging.

However, despite the very positive affirmations of all participants, after three iterations of this research project a major failure has been the ongoing involvement of young graduates with the community business groups. While students were encouraged to continue their work with the business groups, this did not happen. This was a major criterion from the Government body that funded the three projects. Suggestions to ensure the longevity of this and similar projects might include the following. The university could provide opportunities to upskill members of the small business groups and provide ongoing opportunities for continued learning. This will promote closer ties with the university sector, ensure ongoing productivity and help to keep community business groups up to date with technology and marketing. It will assist in the creation of a sustainable synergy between the higher education sector and the business communities. Promoting pathways for youth from rural communities to enter university in the expectation that they will return and assist in ongoing local business development and growth is another possibility. Scholarships provided by the universities and government could be used to attract local youth.

As the project nears its conclusion, its enduring impact reverberates in the form of a more resilient and dynamic community, equipped to address its challenges and seize newfound opportunities. The accomplishments of this collaborative framework underscore the immense potential inherent in harnessing the unique strengths of different generations, and the collaboration of universities with real-world situations, thereby contributing to the holistic betterment of society as a whole.

6] CONFLICT OF INTEREST:

"None" or "The authors declare that there is no conflict of interest".

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