

Research on University Lecturers' Intention to Mentor Students in Academic Competition: A literature Review

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Abstract: Academic competitions benefit university students by improving professional skills, innovative thinking and autonomous learning, with lecturers' mentoring which serves as a critical guarantee for these outcomes. However, few studies explore factors affecting lecturers' intention to mentor students in competitions. This paper develops a conceptual framework based on the Theory of Reasoned Action (TRA), identifying attitude toward mentoring and subjective norms as two core predictors. Positive attitudes and favorable subjective norms jointly promote their mentoring willingness. This study is limited to theoretical derivation without empirical tests. Future research can empirically verify the model and explore more influencing factors in higher education contexts.

Keywords: Education, Academic Competition, Theory of Reasoned Action.

1.0 Introduction

The academic competition mainly focuses on the main knowledge in various majors. The forms of competitions will be different depending on the different types and the different subjects of competitions. The source of academic competition derives from practical problem; The students in the competition need to formulate solutions and design works according to the scenario and requirements set by the competition. Now academic competition has experienced more than 30 years of development in university (Zhang Daliang, 2019), and has trained university students' critical thinking ability and cultivate their hardworking spirit significantly (Li Guo Feng etc. 2013).

In Addition, some scholars hold that academic competitions can integrate key knowledge and technical specifications into each contest event, and optimize the education system in alignment with the latest enterprise-level technologies, job competencies and practical operation standards; they believes thatby embedding real-world work projects and typical cases into competitions, the competitions should help the students realize job requirements, which can help them to prepare well when they graduate in the future (Chen, Zhu & Lv, 2026). Students' participating in academic competitions can improve their comprehensive quality and enhance their competitiveness in future career. The academic competition not only improves students' professional knowledge and skills, but also improves students' comprehensive abilities, such as innovation ability, practical ability, teamwork ability, and communication ability (Committee of Foreign Language Administration in College and University Ministry of Education China, 2023).

However, in fact the lecturers play important roles to perform the competition well. Wang YingTing & Yang Yuan (2023) argued that coaches of WorldSkills Competition winners not only motivate and reinforce contestants' participation motivation by building trust, but also exert a profound influence on contestants through their personal traits such as volitional quality, professional ethics and emotional engagement. Meanwhile Nokelainen's study (2018) on Finland's WorldSkills Competition team reveals that the "dual mentor" model, which combines skill trainers with psychological trainers as team trainers, can stimulate students' professional interest in the early stage of career development and thereby enhance their vocational proficiency. Yu Huigang & Dong Heifeng (2024) point out that the professional teaching strategies and psychological support from the coaching team constitute an important driving force to achieve the transformation from "students" to "skilled craftsmen" in academic competition

Besides that, Yin Zhiyang & Yan Binjian (2023) hold that through training students for the competition, the lecturers can strengthen students' self awareness, stimulate their intrinsic learning motivation, and cultivate their volitional self control, so as to improve students' autonomous learning competence. In detail, Lectures can select top performers from students through intensive training and recruitment to establish a small learning organization. Within this organization lies a positive learning atmosphere where students learn from each other and make progress together. Besides, the organization offers a sound communication platform. When confronted with problems, students can engage in in-depth discussions with their lecturers and peers, motivating them to think actively and pursue continuous improvement (Yin Zhiyang & Yan Binjian, 2023).

In the context, the participation of lecturers has shown its importance. However rare studies on how to improve rate of lecturers' intention to mentor students in academic competitions are found. Thus, assessing the situations on the participation of lecturers is quite vital. Therefore, a framework should be developed for an in-depth understanding.

2.0 Framework on University Lecturers' Intention to Mentor Students in Academic Competition

In developing an in-depth understanding of intention to mentor students in academic competition among the university lecturers, a framework (Figure 1) was built up based on previous research related to intention issues. The core construct of the framework underpins the Theory of Reasoned Action (TRA) by Ajzen and Fishbein (1975).

This theory has been applied by many scholars in many fields, and has successfully explained many manifestations of human behavior (Huang Yuxin, 2021). It explains why and how people make a certain behavior under its premise that people are rational. It means that before individuals perform a certain behavior, they need to comprehensively analyze the significance and results brought by taking action according to various information.

The model assumes that most behaviors are under volitional control. It means that the intention to perform a specific behavior is the best and immediate predictor on that behavior. According to TRA, the intention was determined by two basic determinants: attitude towards the behavior and subjective norm. Generally, people will have strong choices to perform a specific action when they evaluate that behavior positively and when they believe that important others think they should perform that behavior.

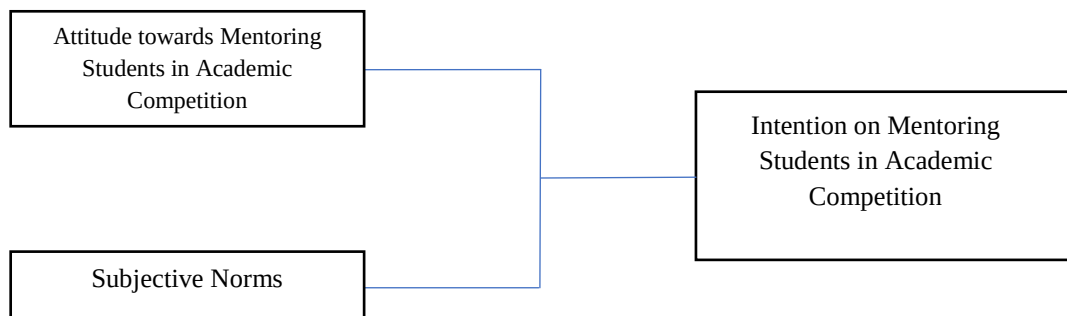


Figure 1: Research Framework

2.1 University Lecturers' Intention on Mentoring Students in Academic Competition

Lecturers' intention to mentor students in academic competition should be considered as self-interested behavior, since it can significantly affect the career development of the lecturers (Ministry of Education China, 2021). Thus, mentoring students' academic competition is in the scope of rational and reasoned activities and can be underpinned on the Theory of Reasoned Action (TRA). In detail, it holds that intention is influenced by (1) individual attitude towards performing a particular behavior, (2) subjective norms the individual perceives. The next two paragraphs will discuss on how these two factors will affect lecturers' intention to mentor students' academic competition.

2.2 Attitude towards Mentoring Students in Academic Competition

Attitude can refer to "good", "bad", "positive", "negative", "favorable," and "unfavorable" evaluation on consequences of performing the particular behavior (Chu and Chiu, 2003; Tang, Chen and Luo, 2011). Ajzen believed that an individual attitude toward behavior can be explained as a direct proportional to the sum of the salient belief toward the relevant attribute multiplied by the individual subjective evaluation of these attribute and consequences. So, the proportion of an attitude toward behavior is show in the equation below.

$$A\alpha \sum b_i e_i$$

In the above equation, b_i is the salient belief to perform the behavior which lead to the consequences i , and e_i is an individual subjective evaluation on the attribute and the consequences i . Many studies believed that a positive attitude towards behavior may cause a positive intention towards the behavior in a high possibility level (Sidique, Lupi, & Joshi, 2010; Latif & Omar, 2012; Wan et al., 2012; Ramayah et al., 2012; Botetzagias et al., 2014; Echegaray & Hansstein, 2017; Tang Ying, 2020). Thus, the authors also hold that attitude towards mentoring students in academic competition may positively affect lecturers' intention to mentor students in academic competition.

2.3 Subjective Norms

According to Ajzen (1975), Subjective norm related to social factors and social norms, and referred to the perceived social pressure by the individual to perform or not to perform the specific behavior. An individual subjective norm can be explained as a direct proportional to the sum of the normative belief (n_i) multiplied by the individual motivation (m_i) on following those referents (Ajzen, 1975). The proportion of subjective norm is showed in the below equation.

$$SN\alpha \sum n_i m_i$$

In the above equation, n_i presents the normative belief, which refers to related to likelihood or possibility (perceived by individual) that the other salient social referents or other important referents including individuals or groups such as family, friend, neighbors, etc. approve or disapprove a specific behavior, which will encourage or

discourage the particular individual perform that specific behavior; Meanwhile m_i presents an individual motivation to comply with those referents. Lots of studies prove that subjective norms have positive relationship with Intention (Ajzen, 1975; Conner & Armitage, 1998; Z. Tang et al., 2011; Moons & De Pelsmacker, 2015). Thus, the authors also hold that subjective norms may positively affect lecturers' intention to mentor students in academic competition.

3.0 Discussion

3.1 Implication for Researchers

This paper provides a framework that may help scholars understand the psychological factors which will affect lecturers' intention to mentor students' academic competition. Among those factors, two of them are from TRA which are attitude and subjective norms. Although TRA claims that attitude and subjective norms will have positive effect to the intention on different activities, some researches have some inconsistent comments on attitude (Aini et al., 2002; Mahmud and Osman, 2010), and subjective norms (Knussen et al., 2004; Rhodes et al., 2015). Since in different context, they will show different effects to individual intention for specific activities, further research thus should be needed to determine which the factors in this framework have the most significant effect on lecturers' intention to mentor students' academic competition. Indeed, there should not be a general answer to this question, since those different activities deals with different individuals from different cultural or economic context. However, an effort could be made to filter out the relatively less significant factors in different situations and to abstract a new conceptual framework.

3.2 Implication for Practitioners

The framework proposed in this article is of relevance to higher education system and governments, since it enables them to assess the features which finally can improve education performance and ultimately national competitiveness due that mentoring or training students academic competition can significantly have profound positive influence on students (Wang YingTing & Yang Yuan 2023; Yin Zhiyang & Yan Binjian, 2023; Yu Huigang & Dong Heifeng, 2024; Chen, Zhu & Lv, 2026). Understanding lecturers' intention to mentor students in academic competitions is of great importance for education authorities and governments to formulate sound strategic and promotional decisions, so as to raise the participation rate of lecturers in mentoring student academic competitions.

This framework shows that lecturers' intention to mentor students in academic competitions is influenced by attitude and subjective norms. Therefore, in perspective of attitude, the university should educate the lecturers to have strong belief on the advantages of mentoring students in academic competitions. Meanwhile the ministry on education and the university can promote aggressively mentoring students in academic competitions as the KPI performance. The lecturers will thus evaluate the importance of mentoring students in academic competitions. For the SN part, the university should try to create the atmosphere of mentoring students in academic competitions. Of course, it will be difficult to ask huge number of lecturers to mentor students in academic competitions at first; However, the universities should encourage a little amount lecturers to perform this activity first by giving huge rewards. Then it will affect the other lecturers to mentor students in academic competitions.

3.3 Limitations

As like any conceptual model, this model also has its limitations. First, authors have set up a conceptual framework that includes psychological factors considered to drive lecturers mentoring students' competitions. Although the current framework is on a combination of results from many different studies relating to different activities, there should always be psychological factors, which can affect lecturers' intention to mentor students in academic competition, and which are not included in the literature to date, or which is addressed in other literature studies the authors may not relate. However, authors are confident that an overview of the most relevant factors in this context has been showed up. A second limitation of current paper is that this framework is the result of a literature review and has never been tested by empirical evidence. This implies that the caution should be considered in applying the findings that derive from this framework. Finally, the number of previous researches, which were discussed in this paper, may be also limited.

4.0 Conclusions

To have better education quality in higher education, academic competition carries heavy weight and heavier lecturers' mentoring students in academic competition. Many scholars believe that mentoring or training students in academic competition can significantly have profound influence on students then improve the performance of higher education. However rare studies on how to improve rate of lecturers' intention to mentor students in academic competitions are found. Then the study on improving the rate of lecturers' intention to mentor students in academic competitions should be conducted. Therefore, this paper proposes a framework to increase researchers' understanding which psychological factors may increase the rate on mentoring students in academic competitions in perspectives of lecturers. The framework uses the constructs of TRA as a basis, and applies it to the education activities' context. The authors believe that intention to mentor students in academic competition among university lecturers are affected by attitude and subjective norms.

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Reference:

- [1] Zhang Dalang (2019), *Speech at Forum on Innovative Talent Cultivation in Chinese Higher Education in 2019*, China Higher Education Society, China. Retrieved at <http://edu.people.com.cn/n1/2019/0224/c1053-30898906.html>
- [2] Li Guofeng, Zhang Shiyang, Li Bin (2013). Model of Cultivating Students' Innovative Abilities Based on Discipline Competitions. *Experimental Technology and Management*, 2013, 30(3): 24–26.
- [3] Chen, S. Z., Zhu, M. L., Lü, W., et al. (2026). Constructing a professional skill competition system to improve the training quality of Chinese pharmacy talents in higher vocational colleges. *Technology Wind*, (18), 145-147. <https://doi.org/10.19392/j.cnki.1671-7341.202618048>
- [4] Committee of Foreign Language Administration in College and University Ministry of Education (2023), *The Introduction on the National English Competition for College and University Students in 2024*.
- [5] Wang, Y. T., & Yang, Y. (2023). How are WorldSkills Competition winners cultivated?--A study based on interviews with contestants and coaches. *Chinese Vocational and Technical Education*, (9), 42-49.
- [6] NOKELAINEN P. Modeling the characteristics of vocational excellence : a case study with Finnish WorldSkills competition competitors[J]. *Talent Development & Excellence*, 2018 (1): 15-30.
- [7] Yu, H. G., & Dong, H. F. (2024). Theoretical logic and practical strategies for vocational-college students to achieve skilled-talent development under the guidance of skill competitions. *Adult Education*, (4), 68-76.
- [8] Yin Zhiyang, & Yan Binjian (2023). An empirical study on the impact of skill competitions on higher-vocational students' self-directed learning ability: From the perspective of teachers' professionalism and students' participation. *Journal of Wuxi Vocational Institute of Commerce*, 23(1).
- [9] Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention, and behavior: An introduction to theory and research*. Reading, MA: Addison-Wesley.
- [10] Huang Yunxin (2021), *Research on Influencing Factors of Netizens' Opinion Expression Willingness from the Perspective of Theory of Reasoned Action*, Master Dissertation, Shanghai International Studies University.
- [11] Ministry of Education of the People's Republic of China. (2021, December 17). Tianjin University promotes the reform of teachers' professional title system through the "Four Emphases". *Ministry of Education Brief Report (No.27, 2021)*. https://www.moe.gov.cn/jyb_sjzl/s3165/202112/t20211217_587960.html
- [12] Chu, P.-Y., & Chiu, J.-F. (2003). Factors influencing household waste recycling behavior: Test of an integrated Model. *Journal of Applied Social Psychology*, 33(3), 604–626. <https://doi.org/10.1111/j.1559-1816.2003.tb01915.x>
- [13] Tang, Z., Chen, X., & Luo, J. (2011). Determining Socio-Psychological Drivers for Rural Household Recycling Behavior in Developing Countries. *Environment and Behavior*, 43(6), 848–877. <https://doi.org/10.1177/0013916510375681>
- [14] Sidique, S. F., Lupi, F., & Joshi, S. V. (2010). The effects of behavior and attitudes on drop-off recycling activities. *Resources, Conservation and Recycling*, 54(3), 163–170. <https://doi.org/10.1016/j.resconrec.2009.07.012>
- [15] Latif, S. A., & Omar, M. S. (2012). *Recycling behaviour in Tioman island: A case study*. *Procedia - Social and Behavioral Sciences*, 36(June 2011), 707–715. <https://doi.org/10.1016/j.sbspro.2012.03.077>
- [16] Wan, C., Cheung, R., & Shen, G. Q. (2012). Recycling attitude and behaviour in university campus: a case study in Hong Kong. *Facilities*, 30(13/14), 630–646. <https://doi.org/10.1108/02632771211270595>
- [17] Ramayah, T., Lee, J. W. C., & Lim, S. (2012). Sustaining the environment through recycling: An empirical study. *Journal of Environmental Management*, 102, 141–147. <https://doi.org/10.1016/j.jenvman.2012.02.025>
- [18] Botetzagias, I., Dima, A., & Malesios, C. (2014). Extending the Theory of Planned Behavior in the context of recycling : The role of moral norms and of demographic predictors. *Resources, Conservation & Recycling*, 95(2015), 58–67. <https://doi.org/10.1016/j.resconrec.2014.12.004>
- [19] Echegaray, F., & Hansstein, F. V. (2017). Assessing the intention-behavior gap in electronic waste recycling: the case of Brazil. *Journal of Cleaner Production*, 142, 180–190. <https://doi.org/10.1016/j.jclepro.2016.05.064>
- [20] Tang Ying (2020), *AN APPLICATION OF THEORY OF PLANNED BEHAVIOUR IN PREDICTING PAPER BOXES RETURNING INTENTION AMONG UNIVERSITY STUDENT IN CHINA*, Doctor Dissertation, University Utara Malaysia.
- [21] Conner, M., & Armitage, C. J. (1998). Extending the Theory of Planned Behavior: A review and avenues for

- further research. *Journal of Applied Social Psychology*, 28(15), 1429–1464. <https://doi.org/10.1111/j.1559-1816.1998.tb01685.x>
- [22] Moons, I., & De Pelsmacker, P. (2015). An extended decomposed theory of planned behaviour to predict the usage intention of the electric car: A multi-group comparison. *Sustainability (Switzerland)*, 7(5), 6212–6245. <https://doi.org/10.3390/su7056212>
- [23] Aini, M., Fakhru'l-Razi, A., Lad, S. M., & Hashim, A. (2002). Practices, attitudes and motives for domestic waste recycling. *International Journal of Sustainable Development & World Ecology*, 9(3), 232–238. <https://doi.org/10.1080/13504500209470119>
- [24] Mahmud, S. N. D., & Osman, K. (2010). *The determinants of recycling intention behavior among the Malaysian school students: an application of theory of planned behaviour*. *Procedia - Social and Behavioral Sciences*, 9, 119–124. <https://doi.org/10.1016/j.sbspro.2010.12.123>
- [25] Knussen, C., Yule, F., MacKenzie, J., & Wells, M. (2004). An analysis of intentions to recycle household waste: The roles of past behaviour, perceived habit, and perceived lack of facilities. *Journal of Environmental Psychology*, 24(2), 237–246. <https://doi.org/10.1016/j.jenvp.2003.12.001>
- [26] Rhodes, R. E., Beauchamp, M. R., Conner, M., de Bruijn, G.-J., Kaushal, N., & Latimer-Cheung, A. (2015). Prediction of depot-based specialty recycling behavior using an extended Theory of Planned Behavior. *Environment and Behavior*, 47(9), 1001–1023. <https://doi.org/10.1177/0013916514534066>