

УДК 378(594)

**ASSESSING SOFT SKILLS OF UNDERGRADUATE STUDENTS:
FRAMEWORK FOR IMPROVING COMPETITIVENESS, INNOVATION
AND COMPETENCE OF HIGHER EDUCATION GRADUATES**

Ansar, Arifin S., Ikhfan H.

Research shows that soft skills, such as teamwork capability, creativity, time management, problem solving skills, communication skills, conflict management, leadership skills, cultural awareness, information management skills and work ethic, are the affective skills most demanded by industries/companies of today's entry-level employees. However, it is this same set of skills that industries claim are still not adequately teaching to the students in the higher education. The research was aimed at identifying life skill formation based teaching and learning model and concept by integrating and synergizing hard skills and soft skills. The research results in the mapped soft skill mastery profile of the students that was at the high category of 72,24%. The mapping will be used as the basic reference for the teaching and learning model developed in this research.

Keywords: competitiveness, innovation, competence, graduate, higher education, life skill formation.

**ОЦЕНКА СОЦИАЛЬНОЙ КОМПЕТЕНЦИИ СТУДЕНТОВ
БАКАЛАВРИАТА: ПРОЕКТ РОСТА КОНКУРЕНТОСПОСОБНОСТИ,
НОВАТОРСТВА И КОМПЕТЕНЦИЙ ВЫПУСКНИКОВ ВУЗОВ**

Ансар, Арифин С., Ихфан Х.

Исследование показывает, что социальные компетенции, такие как умение работать в команде, креативность, тайм-менеджмент, способность к решению проблем, навыки общения, урегулирование конфликтных ситуаций, лидерские качества, уважение к культуре и традициям других народов, информационный менеджмент, отношение к труду, являются эффективными навыками, которые работодатели ищут среди потенциальных начинающих сотрудников. Однако те же самые качества, которые требуют работодатели, не

в полной мере прививаются студентам бакалавриата. В статье определяется модель образования, основанная на формировании жизненных навыков, и способ внедрения и развития профессиональных навыков и социальных компетенций. Результаты исследования представлены в профилях студентов с высокими показателями социальных компетенций (72,24%). Данные результаты будут использованы в качестве основы описанной образовательной модели.

Ключевые слова: конкурентоспособность, инновации, компетенции, выпускники, высшее образование, формирование социальной компетенции.

Introduction

Competitiveness improvement of graduates is the main priority of every higher institution [21]. In Indonesia, even though various efforts of quality improvement of graduates have been undertaken, e.g. comprehensive, effective and transformative teaching and learning to provide the graduates with added values [7] their competence is still very low compared to the graduates from other countries. In South East Asian Region the competitiveness competence of Indonesian graduates is below Singapore, Malaysia, Thailand, and Philippine [4].

Higher education institutions have always encountered the issue of improving the quality of their graduates. In the context of competitive quality of graduates according to D. Skinner, N.K. Sauders, R. Beresford [19] and C. Smith, D. Bath [20] the core and supporting knowledge and skills are included as they have the bargaining power to equip the graduates with the power to get to the work field. Additional competence is really required to meet the needs for fresh graduates to have not only basic knowledge proved by high Grade Point Average but also other independent expertise such as soft skills [6]. They have a huge contribution towards success. Soft skill mastery is required to get jobs and to measure progress of a successful organization [1; 15; 18].

As teaching and learning methods at higher institutions prioritize hard skills without balancing them with soft skills, their curriculum should adjust, synergize, and integrate both skills into teaching and learning activities [11; 12]. Anticipating the

more complex competition in the work field, higher education institutions are required to get competitive, innovative, competent graduates who are able to satisfy the needs of the job market wherein mastery of new technology, creative-innovative thoughts, multi-tasking competencies and skills as well as combination and synergy between hard skills and soft skills become mandatory [25].

This paper is aimed at generating life skill formation based teaching and learning model and concept, which integrate and synergize hard skills and soft skills. It is expected that the concept and model can improve competitive skills as well as innovation and competence of the higher education graduates.

Methodology

This research is designed to be carried out within three stages. It is started by identifying and mapping soft skills of students from 3 faculties at State University of Gorontalo (Indonesia). It applies research and development approach [2].

This research is carried out at State University of Gorontalo and involves semester 6 and 7 students from 3 faculties, who are attending courses at the university. The developed teaching and learning model will be implemented at 5 faculties (2 in the first stage and 3 in the second stage).

The used data collection techniques are questionnaires/surveys, interviews and observations. The collected data is on soft skill mastery of the students. The 10 soft skill attributes measured in this research are: 1) responsibility/time management; 2) problem-solving; 3) efforts to success; 4) creativity; 5) adaptation/cultural awareness; 6) teamwork capability; 7) commitment/conflict management; 8) communication; 9) information management/presentation; and 10) discipline/work ethics [16; 17].

The collected data is analysed by using percentage analysis (mean, modus, median, variant, and deviation standard). It is also analysed by using frequency distribution table to improve quick comparison of values.

Results and Discussions

Soft skill mastery assessment of the students at this first stage is carried out at 3 faculties, i.e. Faculty of Literature and Culture (Tourism Department), Faculty of

Mathematics and Science (Biology and Chemistry Department) and Faculty of Education (Education Management Department).

The soft skills have been part of daily behaviours of students during practical and theoretical teaching and learning as well as when interacting in outdoor teaching and learning.

Responsibility/time management

Responsibility refers to the thoroughness to work without complaints or the readiness to work as required as shown by the attitude to obey and to be committed to the set work procedures. There are four soft skill behaviours reflecting the criteria of responsibility, i.e. work procedures as the guidelines, accomplishment to be committed, success to meet the work requirements of lecturers, and fulfilment of work and result standards [8]. The analysis results show the highest to the lowest level of soft skill mastery related to responsibility, i.e. work procedures as guidelines (88,75%) and fulfilment of work and result standards (84,57%). The lower ones are accomplishment to be committed (84,25%) and success to meet the work requirements of the lecturers (84,17%).

Problem-solving

Problem-solving is an intangible capability related to the capability to overcome technical and non-technical issues/challenges as required by individual or group tasks. Theoretically and practically students encounter challenging tasks when they engage their cognitive, affective and phycomotoric capabilities and soft skills [9].

There are three soft skill behaviours of problem-solving, i.e. good thinking/concentration when solving problems, enjoyable working with challenging topics, fine with problems and able to problem-solve them. The data analysis results show that the students are generally able to think and concentrate well when dealing with problems and trying to solve them (90,16%), enjoying working with challenges (80,42%) and are not feeling stressful with problems (76,25%). These indicate that most students of the Tourism Department have been able to encounter teaching and learning problems well and even like working with challenges.

Efforts to Success

Theoretically there are four soft skill behaviours that reflect efforts to success [6], i.e. perfection or perfect work, minimization of work failures by recognizing them, thorough work correction, and no repetition of similar failures. The analysis results show that soft skills to succeed through hard work is at fair category (63,19%) with the contribution of no repetition of the same failures (75,13%), perfect work (62.50%), thorough efforts to correct work failures (56,60%) and record tracking of work failures to minimize the failures (52,25%).

Creativity

There are four soft skills that reflect creativity criteria work performance, i.e. consistency of unique work results, focus on details, interesting work results, innovation and result/product improvement [22]. These are the results of the analysis: interesting work results (67,68%), unique work result display (63,33%), product innovation (61,67%) and attention to details (60,69%). These show that most of the Tourism Department students have made creativity part of their work even though it is not yet maximum.

Adaptation

Attributes related to adaptation of soft skills include the ability to do realistic self-assessment. Healthy students are able to self-assess themselves on their strengths and weaknesses of their physic and capabilities. Social acceptance refers to the students being assessed positive by others, active in participating in social environments, and friendly when connecting with others [3]. It also refers to the ability to satisfy all their needs without bothering their responsibilities as group members, to demonstrate pleasant attitudes and behaviours towards others, and to get agreement from other group or community members.

The analysis results show that the student adaptation ability is at fair category (61,24%). The soft skill component related to this adaptation is the ability to self-assess themselves as they are (65,83%); social acceptance (60.83%); active participation in social environment (59.60%); and friendly attitude when interacting with others (57,50%).

Teamwork Collaboration

Teamwork collaboration is group work that identifies potentials or strengths of group members. This requires group members that are solid teamwork, independent work that maintains solid teamwork, mastery through teamwork, ability to work with anyone, understanding of the position in the group, ability to support other group members to work harder and contribute better for the success of the group [13]. These are the analysis results: group members that are solid teamwork (92,08%); ability to work with anyone and understanding of the position in the group (71,25% respectively); independent work that maintains solid teamwork, mastery through teamwork, and ability to support other group members to work harder and contribute better for the success of the group (45,83% respectively).

Commitment

Ability to be committed is the power to get the strength to maintain the required work quality and standards. It requires these attitudes: capability to maintain work quality, to achieve maximum results, to use and to keep result standards. These are the data results: commitment to achieve maximum results (70,38%); commitment to maintain work quality (69,17%); and commitment to achieve result standards and use the work standards (69,01%). These show that the commitment of the Tourism Department students is at fair category.

Communication

Communication ability refers to ability to accept messages during classroom teaching and learning or outside classroom [5]. This requires these attitudes: Complete lecture notes, explain information or tasks easily, write papers or tasks easily, understand conversations easily, become a good listener easily, talk as needed, do not talk much when doing practices. These are the analysis results: become good listeners (88,75%); understand conversations easily (83,75%); talk as needed, explain information or tasks easily (76,67% respectively); write papers or tasks easily (70,00%); and complete lecture notes (55%).

Presentation Skills

Presentation skills should be acquired by future leaders, which include students studying at higher education institutions. By the skills, they are able to improve self-confidence and credibility. Positive image of a professional is not only seen from education background but proved by real ability and knowledge.

Presentation skills are means to succeed as more opportunities are available to be delivered before public. Yet higher education institutions are required to work hard to be skilful to present a topic. Presentation components include: The ability to express ideas effectively in written form (75,00%); to talk in details clearly (72,08%); and to convince audience to believe in the presentation (70,12%).

Discipline

The concept of discipline relates to the seven attitudes reflecting discipline criteria: Work difficulties are perceived as the learning process, time punctuality, orderly maintained work environment, complete work awareness, fulfilment of group rules, good work performance maintained from beginning to end, and complete, maintained work tools and uniforms [10; 11]. The average soft skill score of the students is at high category (79,58%). These are the data results: Time punctuality, fulfilment of group rules, good work performance maintained from beginning to end (80,42% respectively); complete, maintained work tools and uniforms (79,01%); complete work awareness (79,38%); orderly maintained work environment (80,56%); and work difficulties perceived as the learning processes (79,30%).

Discussions

The results show that the soft skill level of the Tourism Department students is at high category with the 72,40% accumulation average.

Of the 10 soft skill attributes 5 are above 70%. They are: responsibility/time management (85,86%); problem-solving (85,83%); discipline/work ethics (79,58%); communication (74,83%); and information management/presentation (72,81%).

The soft skill mastery of the students that is at fair category includes: commitment/conflict management (69,17%); teamwork capability (67,49%); creativity (64,02%); efforts to success (63,19%); and adaptation/cultural awareness (61,24%).

The 10 soft skill attributes are required to be acquired by the students during their study time and when they work. The soft skill in the efforts to success, for instance, is an important skill related with the graduate professionalism [26]. If not oriented to success, they will be easy to get stressed and give up, to be less professional and not to work seriously. Therefore, supervision during practical classes should be improved. Perfect process and product should be part of the student mastery [24].

In regards to the soft skills related to creativity not all students of the Tourism Department pay attention to details of product, performance or display of tasks or creations. Sometimes is the demand to be different that pays attention to details becomes the strength to move forward. Therefore teaching and learning on creativity in every practical learning should be provided. The students should be encouraged to have different, unique and perfect creativity, thoroughness and precision.

In regards to the soft skills related to teamwork, work independence of group members is not yet established in the Tourism Department students. Their role in the teamwork is only limited to be the supporters not the players, not to mention the givers of ideas or initiatives. They are comfortable in this position. This indicates that they are not supervised effectively by their lecturers. They are only engaged as group members. Their involvement should be improved.

Most of the students have been able to keep their work commitment independently and get them oriented on quality and standard. This awareness should be improved with teaching and learning focusing on process and result standards within intensive supervision.

Related to the soft skills related to communication, the Tourism Department students are not yet at their best achievement. They are more into passive than active communication. Therefore more challenging, intensive teaching and learning on empowering their communication potentials should be provided through practices on communication skills.

Discipline is the form of obedience to rules followed by awareness and comfort to rules. The analysis results show that most students have been able to fulfil the

physical required discipline such as attendance and obedience to rules and complete uniform wearing. However, teaching and learning on discipline should be improved and commitment of lecturers in supervision discipline should be explored [23]. The lecturers should have similar supervision views and approaches to improve student discipline.

Conclusion

The research results lead to the conclusion that the mastery of the Tourism Department students of the Faculty of Literature and Culture, State University of Gorontalo is at high category with the percentage of 72,24%. However, there are important soft skill attributes that should be mastered by the students, i.e. commitment/conflict management (69.17%); teamwork collaboration (67.49%); creativity (64.02%); efforts to success (63.19%); and adaptation/cultural understanding (61.24%). Therefore strategies to improve the mastery of the soft skill attributes through teaching and learning as well as academic and non-academic activities are required.

Bibliography:

1. Allan J., Clarke K. Nurturing supportive learning environments in higher education through the teaching of study skills: To embed or not to embed? // *International Journal of Teaching and Learning in Higher Education*. 2007. Vol. 19 (1). P. 64-76.
2. Borg W.R., Gall M.D. *Educational Research: An Introduction*. London: Longman, Inc., 1983.
3. Boud D., Middleton H. Learning from others at work; communities of practices and informal learning // *Journal of Workplace Learning*. 2003. Vol. 15 (5). P. 194-202.
4. Brodjonegoro S.S. *Panduan Penyusunan Proposal Pengembangan Soft Skill*. Kata Pengantar. Dirjen Dikti, 2007.
5. Cennamo K., Kalk D. *Real World Instructional Design*. Victoria: Thomson Learning, Inc., 2005.

6. Col R.K., Zegwaard K.E. (2006). Perceptions of desirable graduate competencies for science and technology new graduate // *Research in Science & Technological Education*. 2006. Vol. 24 (1). P. 29-58.
7. Depdiknas RI. Pendidikan Kecakapan Hidup: Buku I. Edisi 2. Jakarta: Depdiknas RI, 2004.
8. Ganzel R. Hard Training for Soft Skills // *Training*. 2001. Vol. 38 (6). P. 56-59.
9. Hayward G., Fernandez R.M. From core skills to key skills: Fast forward or back to the future? // *Oxford Review of Education*. 2004. Vol. 30 (1). P 117-145.
10. Kemper C.L. EQ vs. IQ // *Communication World*. 1999. Vol. 16 (9). P. 15-19.
11. McMurchie L.L. Careers can rise or fall with EQ // *Computing Canada*. 1998. Vol. 1 (9). P. 18-21.
12. Mohd I.M.H., Juriah L., Khalid A., Zaini M., Hamidah Y., Zarin I., Jamalul L.A.W., Nor F., Rosima A. Analisis Keperluan Majikan Terhadap Kemahiran Generik Bagi Pembangunan Modal Insan, Dalam Transformasi dan Inovasi dalam Penyelidikan, Zamri Mahamod, Jamalul Lail Abdul Wahab & Mohammed Sani Ibrahim (Pnyt.). Bangi: Penerbit UKM, 2011.
13. Nussbaum P. (2009). Which “soft skill” do you think is most important? [Web resource] // Toolbox. 2018. URL: <https://goo.gl/1bWXrK> (reference date: 19.03.2018).
14. Putra I.S., Pratiwi A. Sukses dengan Soft Skills. Bandung: Direktorat Pendidikan Institut Teknologi Bandung, 2005.
15. Sailah I. Pengembangan Soft Skills di Perguruan Tinggi. Tim Kerja Pengembangan Soft Skills Direktorat Jenderal Pendidikan Tinggi, 2008.
16. Schulz B. The Importance of Soft Skills: Education beyond academic knowledge // *NAWA: Journal of Language and Communication*. 2008. Vol. 2 (1). P. 146-154.
17. Shakir R. Soft skills at the Malaysian institutes of higher learning // *Asia Pacific Education Review*. 2009. Vol. 10 (3). P. 309-315.

18. Shivpuri S., Kim B. Do employers and colleges see eye-to-eye? // *National Association of Colleges and Employers Journal*. 2004. Vol. 65 (1). P. 37-44.
19. Skinner D., Sauders N.K., Beresford R. Towards a shared understanding of skill shortages: differing perceptions of training and development needs // *Education + Training*. 2004. Vol. 46 (4). P. 182-193.
20. Smith C., Bath D. (2006). The role of the learning community in the development of discipline knowledge and generic graduate outcomes // *Higher Education*. 2006. Vol. 51 (2). P. 259-286.
21. Spencer L.M., Spencer S.M. *Competence at work*. New York: Wiley, 1993.
22. Strebler M. Soft skills and hard questions // *People Management*. 1997. Vol. 3 (11). P. 20-24.
23. Sudjimat D.A. Pengembangan Model Pendidikan Soft Skill melalui Pembelajaran pada Program Studi Pendidikan Teknik Mesin FT UM // *Jurnal Teknologi dan Kejuruan*. 2010. Vol. 33 (2). P. 133-142.
24. Syed H. Meeting the needs of employers // *Proceedings of National Seminar on the Development of Technology and Technical-Vocational Education and Training in an Era of Globalization: Trend and Issues*. Kuala Lumpur, 2005.
25. Turner R., Lowry G. (1999). The complete graduate: What students think employers want and what employers say they want in new graduates // *Sixteenth Pan-Pacific Business Conference: Nadi, Fiji, Pan-Pacific Business Association*, 1999. P. 272-274.
26. Zhang A. Peer Assessment of Soft Skills and Hard Skills // *Journal of Information Technology Education*. 2012. Vol. 11. P. 155-168.

Data about the authors:

Ansar – Doctor of Education, Professor of Education Faculty, State University of Gorontalo (Gorontalo, Indonesia).

Arifin Sukung – Doctor of Education, Head of Management Education Department of Education Faculty, State University of Gorontalo (Gorontalo, Indonesia).

Ikhfan Haris – Doctor of Education, Professor of Education Faculty, State University of Gorontalo (Gorontalo, Indonesia).

Сведения об авторах:

Ансар – доктор педагогических наук, профессор педагогического факультета Государственного университета Горонтало (Горонтало, Индонезия).

Арифин Сукинг – доктор педагогических наук, профессор, заведующий кафедрой управления образованием педагогического факультета Государственного университета Горонтало (Горонтало, Индонезия).

Икхфан Харис – доктор педагогических наук, профессор педагогического факультета Государственного университета Горонтало (Горонтало, Индонезия).

E-mail: ansar@ung.ac.id.

E-mail: arifin_suking@ung.ac.id.

E-mail: ikhfanharis@ung.ac.id.