

# An Investigation into College Students' Adaptive Behaviour in Sabah, Malaysia

<sup>1</sup>Fung Lan Yong, <sup>2</sup>Feona Albert

<sup>1</sup>Jesselton University College, Sabah, Malaysia

<sup>2</sup>Universiti Malaysia Sarawak, Sarawak, Malaysia

DOI: <https://doi.org/10.5281/zenodo.13903142>

Published Date: 08-October-2024

---

**Abstract:** The purpose of this study was to examine the adaptive behaviour among college students in Sabah, Malaysia. The sample consisted of 46 students who were asked to complete a questionnaire online. Data that were collected were automatically transferred onto a spreadsheet and subsequently analyzed using SPSS 26.0. Kruskal-Wallis H test revealed no significant differences in college students' adaptive behaviour by way of ethnicity and age, while Mann-Whitney U test showed no significant differences in terms of gender. Percentages of often/always for each item were collapsed to gain an overall impression of the level of college students' adaptive behaviour. Findings reflected that they exhibited low to average levels of adaptive behaviour. In light of the findings, recommendations were made on ways to enhance adaptive behaviour among college students.

**Keywords:** adaptive behaviour, college students, Kadazandusun, Malay, Murut, Sabah, Malaysia.

---

## I. INTRODUCTION

Crucial for overall functioning and wellbeing in one's life, adaptive behaviour can be conceptualized according to several distinct goal areas. According to the Florida Department of Education (2009), it refers to the attributes that individuals need to perform autonomously at home, at an educational setting or in the community. It includes independent living skills (shopping, budgeting and cleaning), communication and social skills (interacting and communicating with other people), personal care skills (eating, dressing and grooming), employment/work skills (following directions, completing tasks and going to work on time) and pragmatic academic skills (reading, computation and telling time). Further, Dymond (2008) postulated that the general community requires individuals to develop the adaptive skills needed to increase their involvement, participation and independence in it, which include travel, using services, community safety as well as socially and culturally acceptable behaviour in public.

Zhang et al. (2018) reiterated that adaptive behaviour, as one of the most critical capacities of human behaviour, is also a powerful variable in human motivation and basic need satisfaction. To successfully adapt to the academic environment and to meet new expectations and demands, students need to display a variety of competencies, including academic, social and behavioural. Academic competency equips them with the metacognitive skills for learning, while social competency enables them to establish positive interpersonal relationships with peers and significant others. Lastly, behavioural competency reinforces their emotional self-regulation in times of uncertainty and turmoil. Additionally, school adaptive behaviour is an aspect of acculturation that maximizes the fit between a student's attributes and expectations of the learning environment. Successful adaptation can only be attained when students respond appropriately to the environment, thus benefitting from it. Adaptive behaviour can also be regarded as human beings' active modification of their own behaviours to adjust themselves to meet the requirements of an unfamiliar environment. Generally, tertiary education exerts great demands on students to modify their own behaviours in terms of learning flexibility, stress-coping and interactions with others.

On the other hand, Logsdon (2020) defined adaptive behaviour as age-appropriate behaviours that individuals need to live autonomously and to function well in daily life, including social competence, adaptive behavioural functioning and independence or life skills. All children need to adopt these behaviours to become productive members of society as adults. Additionally, adaptive behaviour includes real-life skills, such as grooming, getting dressed, avoiding danger, safe food handling, following school rules, managing money, cleaning and making friends. It also includes the ability to work, practise social skills and take personal responsibility. Most children today have fewer responsibilities than those a century ago, when children performed household chores, laboured in factories, tended to farms and shouldered other heavy burdens. While they are more protected nowadays, young people should not be deprived of basic, age-appropriate duties that can enhance their adaptive behaviour.

Adaptive behaviour assessment is useful to identify students with special needs since the information can be incorporated into other evaluative data to determine if they are eligible for special services. Moreover, students' adaptive behaviour should be appraised to compare them to peers of the same age and cultural background to identify and address their special adaptive needs. Acquisition of adaptive behavioural skills can positively impact students' daily life and affect their capacity to respond to particular situations. In brief, adaptive behaviour is as important to students' scholastic achievement as are academic skills (Florida Department of Education, 2009). Moreover, a closer examination on students' adaptive behaviour helps determine if a plan is needed to help them strengthen the related skills. If necessary, measurable goals (including benchmarks and objectives) can be developed as part of their individual educational plan. Since adaptive behaviour is crucial in many different settings, educators should integrate it into their interactions with students and parents. Assessments of adaptive behaviour include surveys of students' behaviours and skills in a variety of settings, including their home, classroom, neighbourhood or community. Since it is not feasible for one person to observe a student in all the primary settings, assessment of adaptive behaviour often relies on the feedback from different sources, including teachers, social workers, school psychologists or guidance counsellors (Florida Department of Education, 2009).

Zheng, *et al.* (2021) examined the utility of measuring adaptive behaviour, in addition to IQ, in studies of children at risk for neurodevelopmental problems. Findings showed that a significantly higher percentage of children demonstrated adaptive behaviour skills at or above age level, while a much lower percentage exhibited average or above range IQ. Further, different sociodemographic correlates of adaptive behaviour were identified compared with IQ, implying the importance of measuring developmental outcomes and targeting modifiable factors to improve the outcomes. Lastly, findings implied that adaptive behaviour assessment offers the potential value in capturing additional capabilities that are not necessarily reflected by IQ scores.

Adaptive behaviour among tertiary students not only affects the classroom environment, but also the teaching and learning process; therefore, it should be facilitated in higher education to achieve a better level of comfort, self-esteem, wellbeing and academic performance among them. Tertiary students' adaptive behaviour often reflects their social and practical competence to overcome the challenges of everyday functioning. To fulfill the multifaceted requirements of their learning environment, they must continue to acquire new adaptive skills, particularly conceptual, psychosocial and practical skills needed to adequately function in their intellectual and interpersonal lives. Besides such conceptual skills as literacy, self-direction as well as concepts of number, money and time, they also need to develop such psychosocial attributes as interpersonal skills, problem-solving and social responsibility skills. Lastly, they need the practical skills for personal care, including safety, money usage, healthcare, schedules/routines and travel/transportation (American Association on Intellectual and Developmental Disabilities, 2023).

According to Walugembe *et al.* (2022), studies on adaptive behaviour in the educational context have primarily focused on a few specific variables, including adaptive behaviour associated with students with special needs, teachers, assessment systems and learning during the pandemic. Other studies have examined its impact on teaching and learning, coping strategies, educators as adaptive experts and student engagement. Nevertheless, the existing literature does not contain any empirical research on students' adaptive behaviour at tertiary settings in Sabah, Malaysia. To narrow the research gap and increase knowledge on the area of tertiary adaptation, this study aimed to examine the adaptive behaviour among indigenous (Kadazandusun, Malay and Murut) college students in Sabah, Malaysia, with the following research questions to guide the current research:

- Were there any significant differences in college students' adaptive behaviour by way of ethnicity, gender and age?
- What were the percentages of agreement on the questionnaire items among students with regards to their adaptive behaviour?

#### A. Significance of the study

According to Sparrow *et al.* (2005), adaptive behaviour encompasses the routine activities that allow individuals to thrive independently and display personal and social responsibility. Although it is essential for individuals to be able to perform adaptive functions, adaptive behaviour requires them to actually implement such daily tasks. Comprising three primary domains, namely, communication, daily living and socialization skills, adaptive behaviour is malleable to intervention, making it a useful aspect of tertiary research. It becomes critical for tertiary students who must leave home and act with increasing self-reliance. Despite their average intelligence and good academic indicators, deficits in communication, socialization or daily living skills may exist among some tertiary students, which have not been systematically assessed.

Moreover, tertiary administrators may have reservations about enrolling students with adaptive behaviour deficits for fear of negatively impacting retention rates; nevertheless, they can still offer support for students with greater delays in adaptive behaviour to improve retention rates. Additionally, they should be cognizant that even bright, capable students may need support to help them transition to a much more challenging learning environment. Currently, most tertiary institutions are more prepared to meet students' academic needs, but readiness to address their adaptive behaviour is less clearcut.

## II. REVIEW OF LITERATURE

A literature review was conducted to identify the research gap and establish a theoretical framework for the study. Martin *et al.* (2012, 2013) posited that adaptability is the capacity to adjust behaviours, feelings and thoughts in response to novel, ambiguous and unexpected situations. It is therefore a tripartite perspective comprising behavioural, cognitive and emotional aspects. Additionally, the researchers asserted that adaptability tends to impact on scholastic achievement, responses to climate change, success/failure dynamics and school engagement among students. A recent study showed that adaptability tends to act as a powerful variable influencing student learning during times of great novelty, variability and ambiguity. Specifically, it is the principal psychological mediator that enables students to deal with unpredictable circumstances, thus reflecting its favourable impact on teaching and learning outcomes (Martin, Collie & Nagy, 2021).

Adibsereshki, Shaydaei and Movallali (2016) explored the impact of emotional intelligence (EI) training on the adaptive behaviour of 32 students with intellectual disability. The experimental group had 22 sessions of emotional intelligence (EI) training, while the control group just enrolled in the regular school program. Findings revealed that the intervention program had created a significant difference between the scores of the experimental and control groups, with the former group obtaining significantly higher scores for adaptive behaviour, communication skills and social skills. Findings implied that EI training is effective in enhancing adaptive behaviour and its components (communication and social skills) among students with special needs.

Parker *et al.* (2019) investigated how adaptive help seeking was related to academic self-efficacy, perfectionism (maladaptive and adaptive), attitudes toward help seeking (perceived benefits and perceived threats) and teacher emotional support among 311 students in advanced placement and international baccalaureate classes. Findings revealed significant bivariate links between adaptive help seeking and all six potential correlates. Teacher emotional support, adaptive perfectionism (high personal standards) and perceived benefits acted as significant, positive predictors of adaptive help seeking. Gender was also a significant predictor, as girls demonstrated higher levels of adaptive help seeking than boys. Furthermore, gender also moderated the relationship between perceived benefits and adaptive help seeking; perceived benefits were highly associated with boys' adaptive help seeking from teachers. Lastly, findings implied the role of specific strategies for explicating the benefits of adaptive help seeking, promoting adaptive perfectionism and fostering teacher emotional support.

Jowkar *et al.* (2020) summarized that students' adaptive behaviour tends to vary according to their levels of control over the environment. Students attending higher learning environments are typically from different disciplines and studying various topics since they are exposed to different classroom types with variable occupancy periods and different levels of freedom for adaptive behaviour. For instance, students in art-based subjects may spend four or five hours in studios, and

therefore experience greater freedom for adaptive behaviour in the classroom. In contrast, students in science-based subjects who spend only one to two hours in lecture rooms or labs tend to experience lower or medium levels of freedom for adaptive behaviour.

Müller, Cillessen and Hofmann (2021) investigated classroom-level peer effects on 1,125 students with intellectual disabilities. Findings showed that the general levels of adaptive behaviour were low, but heterogeneous. Additionally, significant increases in competence for the conceptual and social domains were found across the school year. Further, correlations were significant and large between individual adaptive behaviour, and between the classroom-level adaptive behaviour. These variables also correlated significantly with age, indicating that older students tend to exhibit higher levels of adaptive behaviour. Lastly, main models revealed a significant impact of classroom peer context for conceptual competences, indicating that higher levels of conceptual competences at the beginning of the academic year tend to yield greater individual increases in conceptual competences over the academic year.

Martin, Collie and Nagy (2021) examined the role of adaptability in helping 1,548 high school students to navigate their online learning during the pandemic by drawing on the job demands-resources theory. Findings revealed that adaptability was significantly related to higher levels of online learning self-efficacy and gains in later achievement, beyond the effects of online learning demands, online and parental learning support and background characteristics. Moreover, online learning self-efficacy was also significantly related to achievement, while significantly mediating the relationship between adaptability and achievement. Findings confirmed the role of adaptability as an important personal attribute that motivates students to learn online, particularly during times of distant instruction.

Jamaluddin, Mohd Ali Hanafiah and Sayuti (2022) examined the impact of adaptive behaviour empowerment among 137 children with disabilities at a community rehabilitation organization, focusing on their motor, social and communication, personal life and community life skills. Findings showed that different categories of children tended to demonstrate varying levels of motor, communicational, social and personal life skills, implying that adaptive behaviour among children with disabilities can be enhanced through formal training.

Oger *et al.* (2022) examined the adaptability among 470 middle and high school students by determining the predictive links between the different variables of the JD-R model. Findings showed globally significant predictive paths among school demands, resources and self-efficacy, while burnout predicted negative adaptation and life satisfaction. A significant covariance was also found between negative adaptation and life satisfaction. Moreover, self-efficacy and resources significantly predicted student engagement, while student engagement in turn significantly predicted life satisfaction and negative adaptation. Overall findings implied that the way in which students perceive the demands and resources at school tends to influence their overall wellbeing, either by adapting negatively or by increasing life satisfaction.

Parreira *et al.* (2023) examined the adaptive behaviour among 804 higher education students during the pandemic. Findings showed that higher education students were able to demonstrate adaptive responses in a reasonable timeframe and to minimize their impact on academic processes. While enthusiasts were active in seeking opportunities and benefiting for the future, even in the most overwhelming situations, positive thinkers were primarily motivated by expansion push factors, using online platforms as an opportunity to showcase their work. Moreover, the pandemic did not significantly affect students' daily practices; their adaptive behaviour reflected positive motivational factors in terms of self-discipline and self-efficacy in using digital technologies. The virtual environment and its maintenance tended to result in specific attitudes and behaviours, for instance, many students tended to capitalize on the school space for socializing and would like to recover the experience, while perceiving that it could continue for theoretical classes, oral presentations, examinations and tutoring classes.

She *et al.* (2023) examined the relationship between learning adaptability and self-regulated learning among 787 junior high school students; the chain mediating roles of academic motivation and self-management were also analyzed. Findings showed that learning adaptability had a significant positive impact on self-regulated learning, while academic motivation and self-management played independent and accumulative mediating roles in the relationship between learning adaptability and self-regulated learning. Findings implied the importance of supporting students to handle the fresh challenges posed by educational reform, as well as to demonstrate effective adjustment to challenging circumstances by focusing on their learning adaptability and self-regulated learning.

McLean, Taylor and Sandilos (2023) examined the impact of adaptability and school climate among 133 first-year teachers in relation to self-perceptions, classroom relationships and teaching career. Findings revealed positive main effects of adaptability on self-efficacy and perceived classroom relational climate as well as positive main effects of school climate on self-efficacy and career optimism. In addition, an interaction effect was found; relationships among adaptability and self-efficacy were strongest among teachers who perceived high and average levels of school climate, implying that school psychologists and other academic personnel can use teacher adaptability to provide interventions and scaffolding for new recruits.

Feraco, Casali and Meneghetti (2023) examined the impact of adaptability on the academic responses and post-pandemic growth among 435 students. Findings showed that students' capacity to adjust their thoughts, behaviours and emotions in novel and vague situations tended to sustain them in maintaining high academic engagement and finding innovative learning solutions. Students with high adaptability also tended to interpret pandemic-related novelty as an opportunity, thus demonstrating higher posttraumatic growth levels. Moreover, student adaptability, mediated by academic engagement and self-regulated learning, was found to be significantly and positively related to academic engagement, self-regulated learning and posttraumatic growth at the end of the school year, while indirectly promoting academic achievement. Lastly, findings implied that students' adaptability could be applied to support them during unexpected or stressful situations, besides augmenting their personal growth and academic performance.

### III. METHODOLOGY

#### A. Instrument

College students' level of adaptive behaviour was assessed by the Student Behaviours Questionnaire that was developed by Vaters (2015). Comprising 21 items, it utilizes a five-point Likert-type response scale ranging from 1 (never) to 5 (always). Higher scores reflect higher levels of adaptive student behaviours. The internal consistency for the complete measure is  $\alpha = .76$ .

#### Sample, data collection and analysis

A total of 46 students from a university college were invited to complete the questionnaire online and were told that its completion was their indication of consent to voluntarily participate in the study. All respondents remained anonymous, while their responses were kept strictly confidential. According to Parnell (2023), the rule of thumb for an acceptable sample size is a minimum of 30 data points for analyzing continuous data. The sample size of the current study might appear small, but 46 respondents should provide sufficient information to make a statistically sound conclusion about the college population in Kota Kinabalu, Sabah. By having a total of 46 data points, the authors could generate meaningful insights into their research objectives, with relatively high confidence in their results. Moreover, the central limit theorem states that a sample size of  $n \geq 30$  is sufficiently large to yield valid and reliable data for a basic descriptive study. Lastly, the sample came from diverse ethnic communities in Sabah, namely, Kadazandusun, Malay and Murut, and were fluent in both the Malay Language and English. They were enrolled in an early childhood education course of which the medium of instruction is English. Demographic information of the sample is shown in Table I.

**TABLE I: Demographic characteristics of respondents ( $n = 46$ )**

Characteristic	Category	Frequency	Percentage (%)
Age	18-20	35	75.09
	21-23	6	13.04
	24-26	5	10.87
Gender	Male	13	28.26
	Female	33	71.74
Ethnicity	Kadazandusun	24	52.17
	Malay	11	23.91
	Murut	7	15.22
	Other	4	8.70

Data that were collected were automatically transferred onto a spreadsheet and subsequently analyzed using SPSS 26.0. First, Kruskal-Wallis H was conducted to determine if there were any significant differences in students' adaptive behaviour in relation to ethnicity and age, while Mann-Whitney U was used to determine if there were any significant differences in terms of gender. Lastly, descriptive statistics were used to present the percentages of agreement on each adaptive behaviour item.

IV. FINDINGS

A. Non-parametric tests

Kruskal-Wallis H test revealed no significant differences in college students' adaptive behaviour by way of ethnicity and age, while Mann-Whitney U test showed no significant differences in terms of gender (see Table II).

Table II: Results of non-parametric tests

Variable	Non-parametric test	p value
Age	Kruskal-Wallis H test	0.500
Gender	Mann-Whitney U test	0.399
Ethnicity	Kruskal-Wallis H test	0.981

B. Percentages of agreement on adaptive behaviour

Percentages of often/always for each item were collapsed to gain an overall impression of the level of college students' adaptive behaviour. Findings reflected that college students had low to average levels of adaptive behaviour, for example, only 8.70 percent indicated that they often/always consulted with their lecturers during their office hours. Only 39.96 to 45.65 percent indicated that they often/always (1) developed a weekly study schedule, (2) did not daydream in class and (3) when they did not understand something in class, they would raise their hand and ask. Only 50.0 to 58.69 percent indicated that they often/always (1) did not study just one or two days before a test, (2) talked with family and friends about what they had learned in class, and (3) participated in student study groups (see Table III).

Additionally, only 63.9 to 69.56 percent indicated that they often/always (1) helped organize student study groups, (2) completed assignments well before the due date, (3) did not get annoyed when students asked questions about things that would not be on the test, (4) read assigned readings more than once, (5) prepared detailed notes on lectures and readings for their courses, (6) called or emailed their lecturers when they had questions about the course material and (7) did extra readings for their courses. About 71.38 to 73.92 percent indicated that they often/always (1) took notes/used a highlighter/underlined while doing their course readings, (2) tried to get clarification from the lecturers about what would and would not be covered on the test, (3) looked for more information outside of class if they heard about something interesting in class and (4) attended extra tutorial sessions offered by their lecturers (see Table III).

Table III: Percentages of agreement in students' adaptive behaviour

Items	1	2	3	4	5
I participate in student study groups	4.35%	6.52%	30.43%	41.30%	17.39%
When I don't understand something in class, I raise my hand and ask	0.00%	8.70%	45.65%	34.78%	10.87%
I don't skip classes	0.00%	2.17%	17.39%	45.65%	34.78%
I attend extra tutorial sessions offered by my lecturers	2.17%	2.17%	21.74%	58.70%	15.22%
If I hear about something interesting in class, I look for more information outside of class	0.00%	0.00%	26.09%	50.00%	23.91%
I try to get clarification from the lecturer about what will and will not be covered on the test	0.00%	0.00%	23.91%	63.04%	13.04%
I call or email my lecturer when I have questions about the course material	0.00%	8.70%	21.74%	52.17%	17.39%
I do extra readings for my courses	0.00%	10.87%	23.91%	50.00%	15.22%

I take notes/use a highlighter/underline while doing my course readings	2.17%	4.35%	21.74%	56.52%	15.22%
I don't study just one or two days before a test (I revise early)	2.17%	13.04%	34.78%	34.78%	15.22%
I consult with my lecturer during his/her office hours	0.00%	6.52%	50.00%	39.13%	4.35%
I talk with family and friends about what I have learned in class	2.17%	10.87%	28.26%	50.00%	8.70%
I don't daydream in class	4.35%	19.57%	34.78%	36.96%	4.35%
I don't get annoyed when students ask questions about things that won't be on the test	2.17%	8.70%	23.91%	54.35%	10.87%
I read assigned readings more than once	0.00%	0.00%	30.43%	52.17%	17.39%
I prepare detailed notes on lectures and readings for my courses	0.00%	0.00%	36.96%	43.48%	19.57%
It does not bother me when my lecturer talks about things that won't be on the test	0.00%	6.52%	28.26%	45.65%	19.57%
I don't text or email friends during class	0.00%	19.57%	39.13%	34.78%	6.52%
I complete assignments well before the due date	2.17%	0.00%	30.43%	47.83%	19.57%
I help organize student study groups	2.17%	8.70%	26.09%	52.17%	10.87%
I develop a weekly study schedule	2.17%	10.87%	50.00%	28.26%	8.70%

1 = never, 2 = rarely, 3 = sometimes, 4 = often, 5 = always

## V. DISCUSSION, IMPLICATIONS AND RECOMMENDATIONS

Findings indicated that college students in the current study had low to average levels of adaptive behaviour. For instance, barely 8.70 percent admitted that they often/always consulted with their lecturers during their office hours, while only 39.96 to 45.65 percent indicated that they had a weekly study schedule, could focus in class or would raise their hand and ask questions in class. To improve their adaptive behaviour, college students should live in a dormitory that can provide opportunities for increased socialization and independence. Since the world is constantly in a flux, they need to acquire the adaptive skills needed to adequately navigate their everchanging environment and grow in new and exciting ways (Tucson International Academy, 2020).

Teachers, on the other hand, need to encourage students to improve their resiliency to become more adaptable in the face of change and adversity in order to set them up for success. Learning how to change gears and overcome novel, uncertain challenges is an attribute that will serve them well into adulthood. Teachers should focus on three main types of student adaptability that will improve over time. First, behavioural adaptability enables students to adjust their actions in the face of changing circumstances; those with high behavioural adaptability will automatically know how to modify their behaviour when things change, for instance, shifting gears from playing videogames with friends to paying attention to a class discussion online. Second, cognitive adaptability allows them to direct their focus more easily to different types of tasks, for example, they need a very different mindset for tackling a math exam than solving a visual puzzle, or transitioning from one lesson to another smoothly. Lastly, emotional adaptability enables them to minimize disappointment, but maximize enjoyment. When confronted with a task that is not neither fun nor enjoyable, they should avoid developing a negative mindset that will ultimately hamper the experience. Encouraging them to learn how to adjust their emotional responses and see the positive side of new challenges can help instil emotional resiliency and adaptability, besides eventually helping them confront more profound emotional situations as adults (Tucson International Academy, 2020).

According to Viezel, Freer and Morgan (2022), many college students are able to live on campus and graduate despite their adaptive behaviour deficits. The semi-independent nature of dormitory living can be a pragmatic setting to practise advanced daily living and socialization skills. Additionally, college students can request residential advisors as roommates or suite-mates, while tertiary counselling centres should be established to help them overcome communication

and social deficits. Although they may adequately achieve in tertiary education despite their adaptive needs, they should continue to improve their adaptive skills long after graduation to successfully attain professional and personal outcomes.

Gaumer Erickson and Noonan (2022) suggested three practical ways for teachers to inculcate adaptive behaviour in school. First, they can encourage students to adopt a resilient mindset by asking them to put aside aspects of change that are out of their control, focusing on those areas that they can control instead, such as their outlook on the situation and strategies for dealing with it. Second, they can help students become more flexible and adaptable through “what if” situations that require them to deal with a change of plans as well as to discuss the importance of coping with changes in the context of adaptability. Third, they can change common routines, for example, by asking them to use the non-dominant hand for certain tasks, such as opening a door or turning pages of a book. Lastly, teachers can help them adapt to change by creating a dynamic environment within the classroom, for example, by requiring them to complete a task (narrating a story, composing a poem, writing an essay, finishing a drawing) that someone else has initiated.

Darvell (2023) reiterated teachers can help students improve their adaptive behaviour in five ways. First, they should focus on interdisciplinary learning that encourages students to make connections between different areas and discern how they can be applied to resolve real-life problems. By taking an interdisciplinary approach, students can develop a deeper understanding of their world, while learning to think innovatively and to scrutinize problems from multiple perspectives. Second, teachers should teach resilience to augment students’ ability to adapt to different situations; it enables them to recover from, or adjust more easily, to adversity or change. A primary life skill, resilience can help students attain better academic performance, improve their social skills and increase their psychological wellbeing, besides helping them cope with stress, confront challenges and make successful life transitions.

Third, teachers should help students develop self-regulation skills to monitor their own emotions and behaviour in times of misfortune and stress. Additionally, such skills enable students to become more flexible and adaptable so that they can better adjust to changes. Fourth, teachers should strive to dispel the fear of failure among students. While success is often measured by numbers and test scores, mistakes are an essential part of learning. Student should be encouraged to regard mistakes as valuable opportunities to learn and grow. Instead of viewing failure as a sign of personal weakness, students should learn to regard it as an integral part of the learning process. Lastly, teachers should promote continuous learning among students to enhance their adaptive behaviour; it can be fostered through practice opportunities that encourage students to tackle new challenges; moreover, giving them time to reflect on their experiences will help them develop the skills needed for lifelong learning. As role models of continuous learning, teachers should emphasize that learning is a lifelong process as well as an exciting journey in an everchanging world (Darvell, 2023).

### Concluding word

The present study was one of the first to investigate the adaptive behaviour of college students in Sabah, Malaysia. To increase generalizability of findings, future researchers are encouraged to use larger sample sizes and more diverse measures of adaptive behaviour. Additionally, examination of how adaptive behaviour relates to college students’ emotional needs and academic achievement will be particularly useful. Due to the characteristics of the present sample (particularly dates of enrolment), meaningful graduation or post-college employment rates could not be determined; certainly, these metrics would be important in future research. Lastly, research on the efficacy of interventions designed to increase the adaptive behaviour among college students is also needed.

### REFERENCES

- [1] Adibsereshki, N., Shaydaei, M., & Movallali, G. (2016). The effectiveness of emotional intelligence training on the adaptive behaviors of students with intellectual disability. *International Journal of Developmental Disabilities*, 62(4), 245-252. doi: 10.1179/2047387715Y.0000000014
- [2] Darvell, B. (2023). 5 ways to make your students more adaptable. [online] Available at: <https://bsd.education/5-ways-to-make-your-students-more-adaptable/> [Accessed 6 December 2023]
- [3] Dymond, S. K. (2008). Chapter 5 - Adaptive behavior and skills important to community use.
- [4] Feraco, T., Casali, N., & Meneghetti, C. (2023). Adaptability favors positive academic responses and posttraumatic growth under Covid-19: A longitudinal study with adolescents. *European Journal of Psychology of Education*, 38, 1771-1789.



- [5] Florida Department of Education (2009). Measuring adaptive behaviour. [online] Available at: <https://mail.google.com/> [Accessed 5 December 2023]
- [6] Gaumer Erickson, A. S., & Noonan, P. M. (2022). Research guide: College and career competency: Adaptability. *College & Career Competency Framework*. [online] Available at: <https://www.cccframework.org/> [Accessed 8 December 2023]
- [7] Jamaluddin, Z., Mohd Ali Hanafiah, N. and Sayuti, R. (2022). Adaptive behaviour empowerment of children with disabilities in Pertubuhan Pemulihan Dalam Komuniti (PPDK). *Malaysian Journal of Social Sciences and Humanities*, 7(4), e001459. doi: 10.47405/mjssh.v7i4.1459
- [8] Jowkar, M., Rijal, H. B., Brusey, J., Montazami, A., Carlucci, S., & Lansdown, T. C. (2020). Comfort temperature and preferred adaptive behaviour in various classroom types in the UK higher learning environments. *Energy and Buildings*, 211, 109814.
- [9] Logsdon, A. (2020). Adaptive behavior for students with learning disabilities. [online] Available at: <https://www.verywellfamily.com/what-is-adaptive-behavior-2162501> [Accessed 4 December 2023]
- [10] Martin, A. J., Collie, R. J., & Nagy, R. P. (2021). Adaptability and high school students' online learning during Covid-19: A job demands-resources perspective. *Frontiers in Psychology*, 12, 702163. doi: 10.3389/fpsyg.2021.702163
- [11] Martin, A. J., Kennett, R., Pearson, J., Mansour, M., Papworth, B., & Malmberg, L.-E. (2021). Challenge and threat appraisals in high school science: Investigating the roles of psychological and physiological factors. *Educational Psychology*, 41, 618–639. doi: 10.1080/01443410.2021.1887456
- [12] Martin, A. J., Mansour, M., & Malmberg, L.-E. (2020). What factors influence students' real-time motivation and engagement? An experience sampling study of high school students using mobile technology. *Educational Psychology*, 40, 1113–1135. doi:10.1080/01443410.2018.1545997
- [13] McLean, L., Taylor, M., & Sandilos, L. (2023). The roles of adaptability and school climate in first-year teachers' developing perceptions of themselves, their classroom relationships, and the career. *Journal of School Psychology*, 99, 101213. doi: 10.1016/j.jsp.2023.04.003
- [14] Müller, C. M., Cillessen, A. H. N., & Hofmann, V. (2021). Classroom peer effects on adaptive behavior development of students with intellectual disabilities. *Journal of Applied Developmental Psychology*, 76, 101327. doi:10.1016/j.appdev.2021.101327
- [15] Oger, M., Broc, G., Martin-Krumm, C., Le Roux, F., Muller, A., & Tarquinio, C. (2022). Pupils' adaptability at school, a balance between demands and resources? *Frontiers in Education*, 7. doi 10.3389/educ.2022.814376
- [16] Pannell, R. (2023). The importance of identifying the right sample size for business improvement. [online] Available at: <https://leanscape.io/the-importance-of-identifying-the-right-sample-size-for-business-improvement/> [Accessed 30 November 2023]
- [17] Parker, J. S., Shum, K. Z., Suldo, S. M., Shaunessy-Dedrick, E., Ferron, J. M., Dedrick, R. F. (2019). Predictors of adaptive help seeking across ninth-grade students enrolled in advanced placement and international baccalaureate courses. *Psychology in the Schools*, 56(5), 652-669.
- [18] Parreira, A., Pestana, H., Brandão, M., & Moutinho, L. (2023). Students' adaptive behaviors to Covid-19 impacts: A multidimensional analysis. *Ensaio*, 31(120), 1-27.
- [19] She, C., Liang, Q., Jiang, W., & Xing, Q. (2023). Learning adaptability facilitates self-regulated learning at school: The chain mediating roles of academic motivation and self-management. *Frontiers in Psychology*, 14, 1162072. doi: 10.3389/fpsyg.2023.1162072
- [20] Tucson International Academy (2020). Teaching students adaptability in and out of the classroom. [online] Available at: <https://tucsoninternationalacademy.com/2020/09/01/teaching-students-adaptability-in-and-out-of-the-classroom/> [Accessed 9 December 2023]

- [21] Vaters, C. A. (2015). Motivation and well-being: A test of self-determination theory using a person-centered approach. Electronic Thesis and Dissertation Repository, 3013. <https://ir.lib.uwo.ca/etd/3013>
- [22] Viezel, K. D., Freer, B., & Morgan, C. D. (2022). Adaptive behavior of college students with autism. *Focus on Autism and Other Developmental Disabilities*, 37(1), 56-65.
- [23] Walugembe, A., Ntayi, J., Olupot, C., & Elasu, J. (2022). Adaptive behaviors in education institutions before and after Covid-19: A systematic literature review. *Frontiers in Psychology*, 13. doi: 10.3389/fpsyg.2022.1017321
- [24] Zhang, D., Cui, Y., Zhou, Y., Cai, M., & Liu, H. (2018). The role of school adaptation and self-concept in influencing Chinese high school students' growth in math achievement. *Frontiers in Psychology*, 29(9), 2356. doi: 10.3389/fpsyg.2018.02356
- [25] Zheng, S., LeWinn, K., Ceja, T., Hanna-Attisha, M., O'Connell, L., & Bishop, S. (2021). Adaptive behavior as an alternative outcome to intelligence quotient in studies of children at risk: A study of preschool-aged children in Flint, MI, USA. *Frontiers in Psychology*, 12, 692330. doi: 10.3389/fpsyg.2021.692330