

Readiness of lecturers in a technical course in teaching autism spectrum disorder (ASD) student

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Abstract: Students with Autism Spectrum Disorders (ASD) who have graduated from school may choose for higher education. The teaching staff at institute of higher education plays a significant role in helping the students in term of academic. The purpose of this researched is to study lecturer's readiness in teaching students with ASD. Interviews is conducted with six lecturers who had an experience in teaching ASD student. Findings revealed that the lecturers felt that autism awareness and the knowledge to handle ASD students in classroom is important for them. Lecturer with high readiness will be able to help the ASD student to overcome the difficulties in their studies, and hence they have higher chance of graduating from higher education.

Keywords: Autism; Higher Education; Lecturer.

INTRODUCTION

Autism Spectrum Disorder (ASD) is a neurological disorder that affects social, communication and behavioural functioning. Its broad spectrum means that individuals with autism spectrum disorders have different learning needs. Among their learning needs are to control repetitive behaviour, aggressive behaviour, anxiety, difficulty in following instructions and tendency to self-harm. Other important learning needs include sensory integration, fine motor skills and language problems. This causes them to have difficulty in learning and living independently. Usually these students have problems in interpersonal communication, interaction and social skills. (Ponomaryova, Guterman, Davidovitch, & Shapira, 2018)

Countries that have provided long-term special education services such as the United Kingdom, France and Spain have policies dedicated to the education of special needs students with autism spectrum disorders (Van Kessel, 2018). United Kingdom aims that with education, students with special needs with autism spectrum disorder can reach their full potential. Incheon Declaration and sustainable development goal 4 is aimed at ensuring quality inclusive education and promoting lifelong learning opportunities for all. Among the goals to be achieved by 2030 are that all women and men have equal access to technical, vocational and higher education. While there has been a lot of progress and improvement in services, studies show that most countries are still far from this goal (UNESCO 2019). The purpose of this study is to add to the experience of lecturers who teach ASD individuals in tertiary institutions.

In Malaysia, Persons with Disabilities Act 2008 (Act 685) , Easy Access to Education state that students with disabilities is eligible for education in public or private institutions of higher learning, including training and vocational. They are also encouraged to work at government agencies with the one percent policy mention in Pekeliling Perkhidmatan No. 16 in 2010.

ASD student is categorize as students with special education needs in Malaysia Education Blueprint (2013-2025). Special education needs student can choose from three different schooling option which is special education school, Special Education Integration Programme (SEIP) or Inclusive Education Programmes. Through Inclusive Education Programmes, ASD student is place in mainstream classes. ASD student will have

the chance to further their studies like their classmates. Institute of higher education need to be prepared to accept this student. The need of inclusive practices within higher education is increased when more ASD student has successfully completed their schooling. (Moriña, 2017). Learning in higher Education is tougher than school. Even though the ASD student has place themselves in an institute of higher education through qualified academic result, they still need support to ensure they are able to graduate. The needs of students with ASD in higher education are different from those at the school level. Studies related to special needs students found that good university experience for the disabled student is influenced by university support (Ponomaryova et al., 2018; Zhang et al., 2018), teaching approach of the teaching staff (Mangope et al, 2018; Morina et al., 2018), access to learning materials (Ngubane-Mokiwa, 2016), campus-friendly facilities for people with disabilities (Morina, 2018) and mentorship programs.

According to a study conducted by Wei (2014), students with autism spectrum disorder taking STEM-related streams (Science, Technology, Engineering and Mathematic) have higher percentages to pursue higher education. Studies in Malaysia shown the disabled student have been accepted into technical and vocational programs. Lokman mohd Tahir (2009) conducted a study involving hearing disabled students in three polytechnics offering technical programs. The technical areas selected are electrical engineering and civil engineering. The overall results from the data analysis show that at the technical and vocational higher education institutions the level of acceptance is high. A research by Intan shazila (2014) at community colleges which offer vocational programs found that although the teaching staff is ready to teach, there are some issues that need to be improved to increase their readiness. Among the aspects that need improvement are a specific learning and teaching approach for students with special needs and the provision of appropriate teaching materials for students with special needs. In a vocational and technical course, the lecturer skills in delivering their teaching to special education need students has an effect on the student academically. (Mohd Tahir et al 2009).

The purpose of this study is to explore the experience of lecturer in a technical course in teaching ASD student and to identify the factors that influence the readiness of lecturer in teaching ASD student.

METHOD

Six lecturers at a private higher education institution that offer technical programme has participated in this qualitative study. Semi-structured interviews are conducted to allow the participant to narrate their experiences without being influence by the interviewer.

The lecturer is choose based on purposeful sampling. All lecturer had an experience in teaching ASD student and working in the same department. The lecturer is identify based on two ASD student. One student with excellent academic result, and another student with poor academic result. The semi-structured interviews were analysed using thematic analysis to identify relevant themes

FINDING AND DISCUSSION

FINDING(S)

Table 1 summarize participants demographic profiles. All the participants education background is in the field of engineering. Five of them, except Ms Amy have an industrial experience prior to teaching. None of them have an experience working with ASD individual. However, one of the participants, Mr Adam, have a 6 years old autistic niece. Five of the lecturer, Mr Adam, Ms Suri, Ms Ema , Mr Din and Mr Ady have an experience in teaching the ASD student with excellent academic result. While the ASD student with poor academic result has been taught by Ms Amy and Ms Suri. Ms Suri have taught both ASD student. Mr Din and Mr Ady have taught the same ASD student twice. Mr Ady taught both subject in the same semester. Mr Din did not realise the student is an ASD student when he taught him the first time.

Three main themes emerged from the semi-structure interview; awareness, knowledge and experience.

Theme: Autism Awareness

The answer given by the lecturer based on the question on what do they know about ASD shows that they lack awareness on ASD except for Mr Adam.

“I don’t know much about ASD” (Mr Ady)

Two subthemes were identified. The first subtheme is the behaviour toward the ASD student, while the second subtheme is impression.

Behaviour toward ASD student. In the lecturer opinion they need autism awareness in order to provide treatment that are in line with the ASD student disabilities.

“create a session to give a talk on autism. We're going to face it. We think of our students as our children, we need to know. Not many people know about autism. The spectrum is wide ... give awareness to lecturers for them to have concern on autism, how to treat this autism student, to facilitate our teaching and learning activities...Autism should have their own way that is different from typical student.” (Ms Ema)

Impression. Lecturer with autism awareness has better ability to identify ASD student in their class. Awareness of autism will prevent lecturers from misinterpreting student behaviour.

“At that time, I have no knowledge of autism, I didn't know if he had family problems or social problems. When I asked his classmate, they said he is usually like that...I request his classmate to guide him.”

(Ms Amy)

Table 1

Name*	Gender	Age	Education	Years teaching	Course taught
Amy	Female	32	Master	6	Engineering Fundamental
Adam	Male	35	Master	5	Programming Language
Suri	Female	37	Bachelor	8	Engineering Fundamental
Ema	Female	37	Bachelor	5	Engineering Fundamental
Din	Male	38	Master	9	Programming Language
Ady	Male	39	Doctoral	8	Programming Language

*Names have been changed to protect participants confidentiality.

Table 2 : Thematic Analysis Result from lecturer semi-structure interviews (n=6)

Themes	Subthemes	n	Examples quotes
Autism awareness	Behaviour towards ASD person	5	“We can give him extra need...we can't treat him like typical student”
	Impression	2	“I just think he's a lazy boy, not wanting to mix up with people. I didn't see that as something weird”
Knowledge	Behaviour modification	5	“...how to handle them....so we are not surprised by their action and to avoid things like tantrum”
	Teaching strategies and techniques	2	“...how do we teach them in term of teaching”
Experience	Role of peers	6	“...as an intermediary, he doesn't communicate directly with the lecturer, we have to use the technique of where he is close to someone, so we talk to that person.”
	ASD related issue	4	“I noticed that the student does not have eye contact with one of the accessors”

Theme: Knowledge

Two subthemes were identified. The first one is knowledge on behavior modification which is on how to handle the ASD student behavior. The second subtheme is knowledge on the teaching strategies and techniques which is on how to delivery lesson efficiently to the ASD student.

Behavior modification. Since the lecturer are not trained to work with special needs students, they are worried about the student reaction in class, and whether they are able to handle this student.

“...how to handle this student's behavior because we have no experience, so we cannot imagine how this student will behave” (Ms Suri)

“The important thing is we want to control his emotion because special student emotion is easily disturbed, even a slight pressure will disturb their emotion. If he feels disturbed, he may do something that is beyond our expectations” (Mr Din)

Teaching strategies and techniques. In the lecturer opinion, to help the ASD student academically they need to learn the teaching method for special needs student. They need to know how does the special needs student learned.

“I suggest to do a course specifically on how to address the problem of autism students from the perspective of the lecturer, because most of the lecturers here have technical knowledge, they have less knowledge on education for the autism. How do we deal with the student, how we deliver the lesson in the right way, maybe there are appropriate techniques or methods...” (Mr Ady)

Theme: Experience

Two subthemes were identified. The first subtheme is ASD related issue. The lecturer would avoid action that may cause ASD related issue. The second subtheme is role of peer. The lecturer could benefit from the peers of the ASD student.

The lecturer built up their experience with ASD individual when having this student in their class.

“...could not identify because he was the first autistic person I met. I wasn't clear about autism before. Never thought we would be teaching autism students.” (Ms Ema)

When answering question on explaining ASD based on their experience, the lecturers describe their ASD student as different from their peers. They used word such as different, weird.

“different from typical student in terms of their conversation, action or reaction, for example when we ask a question or we try to interact with him, there is something different about him, but we don't know what is the thing that make him difference, but he is not same as others” (Ms Amy).

ASD related issue. Only when incident happens in class, it will trigger the lecturer attention to this student. Since the lecturer does not have autism awareness and was not informed of an ASD student in their class they are unable to understand why the student react that way.

Some ASD students are unable to accept a sudden change in planning.

“one day i say 'today we are going to do this practical, tomorrow we will have practical test', he went back to his table and mumbling sadly 'why today, why today, tomorrow test ' he was talking to himself not to his friend. When i saw him like that, i call him 'what's wrong?' but he ignores me and continue with his mumbling. Then his friend says 'Ms he has a sickness'. the ASD student heard this, and says 'I am not sick' . since that, i start to notice, I can see there is something difference about this student.” (Ms Suri)

“If I tell in the class to do this task and submit it today, he will finish it. He will try to complete it even though the class is over. For him, he needs to follow the first instruction...if student is unable to complete the task when the class is over, they can do it on different day... he will keep on doing his job, and ignore what i said.” (Mr Adam)

Some ASD students have sensory overload.

“...I was angry at a student in my class...ASD student don't like the situation when we're angry...before that I didn't know he was autistic. I noticed he was stress, whereas I was not angry with him, but I was angry with the others.” (Ms Ema)

Role of peers. From the lecturer observation, the find that some ASD students are not open to lecturers. However, they seem to be more comfortable with their peers.

“he does not convey his idea directly, he will tell his friend, and this friend will deliver his idea” (Mr Ady)

The lecturer could reach to this ASD student through their peers.

“...he is rarely alone, he has close friends who understand his attitude, so the way for us to understand a student with ASD is to ask his friend. His close friend his most trustworthy friend...when his classmates joke around with this ASD student, he felt uncomfortable and give a negative reaction. His close friend will protect him, hold him back, otherwise he might take an action beyond our expectations.” (Mr Adam)

“Whenever I can’t get any information from him, I will asked his close friend.”
(Mr Ady)

They lecturer can asked their peers to assist them.

“In group work, need to ensure that he is in the same group as his best friend or else the work is not done” (Mr Adam)

“Maybe he's uncomfortable with the lecturer, at least he has friends. So, make sure he works in a group, with someone who get along well with him. He might not give an answer to our question when we asked them, we may refer to his friend. In consideration because they help us, we should give his friend extra needs as we give them.” (Ms Suri)

Discussion(s)

ASD student physically looks like any other student, it’s likely that lecturer are unaware that they are teaching an ASD student due to this student invisible disabilities (Zeedyk, Bolourian, & Blacher, 2019). It will be harder for the lecturer to detect ASD student if they don’t have autism awareness.

Some of the academic challenges face by ASD student are need for guide and clear instructions, not knowing how to pace, organization skills, processing time, group work and motivation (Gurbuz, Hanley, & Riby, 2019) . Autism awareness enable lecturer to understand their ASD student difficulties in class. Lecturer who are aware of the ASD student difficulties will be able to help them in their studies and the student will not be left out in class. ASD Student with weak academic functioning might give an impression they are not interested with the class or they plain lazy. Autism awareness able to avoid lecturer misconception towards ASD student. This study found that the lecturers felt that they have lack of knowledge regarding ASD. Lecturer plays a key role in helping special education needs student throughout their learning process (Molina et al, 2016). The lecturer concern is on the right teaching approach for the ASD student. Study by Zhang (2018) found that the lecturer give themselves low evaluation scores for their inclusive teaching practices. Lecturer would like to ensure they are using the appropriate teaching strategy for student with specials needs (Saadi & Mohd Ali, 2008).

Lecturers feel that their teaching can be improved by knowing the teaching approaches, teaching strategies, and teaching methods for ASD students. Therefore, the lecturer should attend related courses or training to improved their teaching, hence they are able to help student with ASD to reach their potential. In addition to problems of social functioning and academic functioning, some students with ASD have sensory integration problems and are sensitive to changes (Gurbuz et al., 2019). This study found that the lecturers are worried that they do not have knowledge on behaviour modification to handle the ASD student if they show unexpected behaviour. Lecturer felt the need to have an expert on this matter to advise them. Lecturer need a platform where they can seek reference, guidance and advice. Some of suggestion made by the lecturer are mentor-mentee program which involve the lecturer and a specialist and creating special needs student unit that can provide advice and solution regarding matter related to the special needs’ student. Lecturer need training and guidance to ensure that learning and teaching session with ASD students are managed properly.

Exploring the experience of the lecturers, they say this is their first-time teaching ASD student. As they have no knowledge regarding ASD student, they observe the student behaviour and adapt it to situation. They get to know the ASD student and understand them from this experience. Even without external support or training,

the lecturer creativity and ingenuity will lead them to learn their own techniques to handle the student (Khairuddin & Miles, 2019). The lecturer has not been informed by the administrator that one of the students in their class is an ASD student. Majority of the lecturer prefer to be informed, as they would like to prepare a suitable teaching plan. One lecturer does not want to be informed to avoid stigmatization or bias toward this student.

Lecturer of ASD student with high academic functioning has no worries regarding the student academic progress as the student has the ability to learn independently. In lecturer's opinion, the ASD student less interaction with lecturers and his peers does not make anyone feel uncomfortable. However, lecturer voice out concern about the ASD student communication skills when he entered the work field. Some ASD student have difficulty to accept changes, hence before lecturer make any decision, any action or give out any instruction, they need to consider the ASD student acceptance. Even though the ASD student shows behaviour when he is not able to accept sudden changes or when he is under stress, the lecturer does not find this disturbing as long as his action does not hurt himself or those around him. The lecturer realise that they need to give time to ASD student, time to calm down, time to absorb lesson or time for them to finish their task.

CONCLUSION

The intake of ASD student into institute of higher education is a new experience to lecturers from technical courses. The lecturer is an expert at their own field, however autism awareness among them are low and they lack the knowledge to handle the ASD student. Hence, the management of the institute of higher education, needs to provide autism awareness to every lecturer and help them to get the knowledge that they needed in teaching ASD student.

Central role of universities beside ensuring disabled friendly facilities is to create awareness (Yusof, Chan, Hillaluddin, Ahmad Ramli, & Mat Saad, 2019). Lecturer with readiness to teach ASD student will be more committed in their works. With readiness, the lecturer is able to ensure the smoothness of teaching and learning session in their classes. Lecturer will be able to help the ASD student to finish their studies and decrease the chance of ASD student withdrawal from institute of higher education.

REFERENCES

- Hasnah Toran, Mohd Yasin, Mohd Mokhtar Taha & Norasuzaini, Sujak. (2009). Sokongan dan halangan yang dihadapi pelajar-pelajar kurang upaya di sebuah institusi pengajian tinggi di malaysia. *ASEAN Journal of Teaching & Learning in Higher Education*. Vol1, No 2, 18-29
- Gurbuz, E., Hanley, M., & Riby, D. M. (2019). University Students with Autism: The Social and Academic Experiences of University in the UK. *Journal of Autism and Developmental Disorders*, 49(2), 617–631.
- Khairuddin, K. F., & Miles, S. (2019). School staff members' and parents' experiences of the inclusion of deaf children in Malaysian mainstream schools. *Education 3-13*, 0(0), 1–15.
- Molina, V. M., Perera Rodríguez, V. H., Melero Aguilar, N., Cotán Fernández, A., & Moriña, A. (2016). the Role of Lecturers and Inclusive Education. *Journal of Research in Special Educational Needs*, 16, 1046–1049.
- Moriña, A. (2017). Inclusive education in higher education: challenges and opportunities. *European Journal of Special Needs Education*, 32(1), 3–17.
- Saadi, Z., & Mohd Ali, M. (2008). Kesiediaan Dan Penerimaan Para Pengajar Terhadap Mahasiswa / Mahasiswi Berkeperluan Khas Di Institusi Pengajian Tinggi. *Fakulti Pendidikan, Universiti Kebangsaan Malaysia*.
- Yusof, Y., Chan, C. C., Hillaluddin, A. H., Ahmad Ramli, F. Z., & Mat Saad, Z. (2019). Improving inclusion of students with disabilities in Malaysian higher education. *Disability and Society*, 0(0), 1–26.
- Zeedyk, S. M., Bolourian, Y., & Blacher, J. (2019). University life with ASD: Faculty knowledge and student needs. *Autism*, 23(3), 726–736.
- Zhang, Y., Rosen, S., Cheng, L., & Li, J. (2018). Inclusive Higher Education for Students with Disabilities in China: What Do the University Teachers Think? *Higher Education Studies*, 8(4), 104