TECHNOLOGY READINESS OF ACCOUNTING TEACHERS AND STUDENTS

KESIAPAN TEKNOLOGI GURU DAN SISWA JURUSAN AKUNTANSI

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Abstract: Technology Readiness Of Accounting Teachers And Students. This study aims to determine: (1) Technology Readiness of Accounting teachers in SMK Negeri 2 Magelang and (2) Teachnology Readiness of Accounting students in SMK Negeri 2 Magelang. This study used mixed-method with data collection techniques were questionnaire and interview. The subjects of this study were Accounting teachers and students in SMK Negeri 2 Magelang. Data was analyzed by quantitative descriptive analysis technique and Miles & Huberman analysis technique. The results are: (1) Accounting teachers were ready for technology seen from Optimism, Innovativeness, Discomfort, and Insecurity. Technology Readiness of Accounting teachers was influenced by facilities, subjects taught, students taught, gender, age, work experience, and principal support. Technology integration in SMK Negeri 2 Magelang has been running smoothly by utilizing slide materials and video tutorials but still had problems such as technical difficulties, lack of training opportunities, low digital literacy, lack of understanding to integrate ICT into the learning process, and lack of computers. (2) Technology Readiness of Accounting students was in the moderate category with a score of 2.97. Students' Optimism and Insecurity were very high with mean scores of 3.74 and 4.10 respectively, high in Innovativeness with mean score of 2.90, and low in Discomfort with mean score of 2.65. Students had a positive view of technology and still had discomfort and insecurity about technology. Parent-child communication, peers, media, and economic ability influenced technology readiness of Accounting students.

Keywords: Technology Readiness, Accounting, Teachers and Students

Abstrak: Kesiapan Teknologi Guru dan Siswa Jurusan Akuntansi. *Penelitian ini bertujuan untuk mengetahui: (1) Kesiapan teknologi guru jurusan Akuntansi di SMK Negeri 2 Magelang dan (2) Kesiapan teknologi siswa jurusan Akuntansi di SMK Negeri 2 Magelang. Penelitian ini menggunakan metode campuran dengan teknik pengumpulan data kuesioner dan wawancara. Subjek penelitian ini adalah guru dan siswa jurusan Akuntansi di SMK Negeri 2 Magelang. Data dianalisis menggunakan teknik analisis deskriptif kuantitatif dan teknik analisis data model Miles & Huberman. Hasil penelitian menunjukkan bahwa: (1) guru tergolong siap terhadap teknologi dilihat dari* Optimism, Innovativeness, Discomfort, *dan* Insecurity. Technology Readiness *guru dipengaruhi oleh fasilitas, mata pelajaran, siswa yang diampu, jenis kelamin, usia, pengalaman bekerja, dan dukungan pemimpin. Pengintegrasian teknologi di SMK Negeri 2 Magelang berjalan lancar dengan memanfaatkan slide materi dan video tutorial tetapi masih memiliki permasalahan berupa kesulitan teknis, kurangnya pelatihan, rendahnya literasi digital, kurangnya pemahaman mengintegrasikan TIK, dan kurangnya computer. (2)* Technology Readiness *siswa pada kategori sedang dengan skor 2,97.* Optimism *dan* Insecurity siswa *sangat tinggi dengan skor rata-rata 3,74 dan 4,10,* Innovativeness *tinggi dengan skor rata-rata 2,90, dan* Discomfort *rendah dengan skor rata-rata 2,65. Siswa berpandangan positif terhadap teknologi, masih memiliki rasa tidak nyaman dan tidak aman terhadap teknologi. Hubungan siswa dan orang tua, teman sebaya, media, dan kemampuan ekonomi mempengaruhi* Technology Readiness *siswa.*

Kata kunci*: Kesiapan Teknologi, Akuntansi, Guru dan Siswa*

INTRODUCTION

Technology readiness is people's propensity to embrace and use new technologies for accomplishing goals in home life and work (Parasuraman: 2000). Recently technology readiness has become an interesting topic to discuss, considering the Industrial Revolution 4.0 era that is facing the world and demanding all fields activities to integrate technology. Education field is no exception.

Technology readiness in education field means readiness of educational components in adopting technology to achieve common goals in education. Technology readiness in the education field is indicated by a readiness to integrate information and communication technology (ICT) into the learning process. Through ICT integration, the learning process will not only turn out to be active and interesting, but also can expand the access to education and make education more relevant to nowadays (Rahamat, Shah, Din, & Aziz: 2017). The other ICT's urgency in the education field, especially for teachers, according to Wijayanti (2011) is that ICT can be used by teachers to help their administrative work, developing teaching materials, managing the learning process, technical support and increasing knowledge.

Technology readiness problems that are often faced in the education field are lack of computers and time, technical difficulties, resistance to change, financial problems, low levels of digital literacy, misaligned with the curriculum, lack of incentives, poor training opportunities, misunderstanding to integrate ICT in the learning process, and the difficulties related teacher (Summak, Baglibel, & Samancioglu: 2010). The difficulties related teacher such as negative attitudes, distrust, and reluctance to engage with technology. Based on Paprzycki & Vidakovic's study in Summak, Baglibel, & Samancioglu (2010), teachers are more hesitant to adopt technology than other professionals. Teachers also have limited ways to combine ICT in their learning process (Aldunate & Nussbaum: 2013).

The current condition showed Indonesian teachers are not entirely ready with technology. Only 40% of non-ICT teachers are ready for technology (Khumaini: 2018). That is, there are still 60% of non-ICT teachers who are not ready for the technology, including the Accounting teachers. In contrast to the condition of the teacher, Indonesian students are technologically literate. This is evidenced by the results of Cambridge International research through the Global Education Census which shows Indonesian students are students with the highest technology literate in the world (*Siswa Indonesia*: 2018).

SMK Negeri 2 Magelang is a vocational high school that considered the importance of integrating ICT. SMK Negeri 2 Magelang strives to become an ICT based school by completing electronic facilities but there were still problems. The Accounting teachers at SMK Negeri 2 Magelang did not use ICT in the learning process more often. They were carrying out learning and utilizing ICT in limited variation, explaining school materials by lecturing and using learning media such as PowerPoint shows or slides. They were still not operating computers and other electronic equipment maximally.

Meanwhile, the Accounting students in SMK Negeri 2 Magelang were technology literate. They were operating ICT equipment fluently. But they used ICT more often to access social media than to help their learning process. This was shown when the teacher was explaining the school materials, there were students who accessed social media via their smartphone and made a video call. Students also used ICT to access entertainment that was shown when the learning process was taking place, students were playing games on their smartphones or computers, watching movies or videos online. Thus, a research on technology readiness of Accounting teachers and students is needed in SMK Negeri 2 Magelang.

The results of this study are reinforced by the research of Mishra, Maheswarappa, & Colby (2018) with the title "Technology Readiness of Teenagers: A Consumer Socialization Perspective". The results of this study indicate that: (1) Communication between parents and children has an influence on technology readiness of teenagers. (2) Peers, media, and self-construction influence the technology readiness of teenagers.

Based on Rahamat, Shah, Din, & Aziz (2017) research with the title "Students' Readiness and Perceptions Towards Using Mobile Technologies for Learning the English Language Literature Component", they found that: (1) Students have technology readiness evidenced by the technological tools possessed and how to use them, (2) Students are prepared economically related to students' willingness to use learning tools, (3) Students are ready both knowledge and skills to use technological equipment.

This study also supported by Hutkemri & Zamri (2017) research with the title "Mathematics Teachers' Readiness Toward Information and Communication Technology Application: A Comparative Study Between Malaysia and Indonesia". The results of this study indicate that: (1) Mathematics Teachers in Malaysia and Indonesia have the same level of ICT application. (2) Mathematics

teachers in Malaysia have higher ICT knowledge and skills than Mathematics teachers in Indonesia. (3) Mathematics teachers in Indonesia have a more positive attitude towards technology than Mathematics teachers in Malaysia. (4) ICT facility is a significant factor that influences teachers readiness in applying technology.

In addition, in a research compiled by Badri, Rashedi, Yang, et al. (2014) with the title "Technology Readiness of School Teachers: An Empirical Study of Measurement and Segmentation", they found that: (1) Teachers in Abu Dhabi, United Arab Emirates, have a high level of technology readiness which is at a score of 3.5767. (2) There is no significant difference in technology readiness between teachers who have different fields of study and classes taught. (3) There are significant differences in technology readiness between teachers who have differences in gender, national background, and the number of students who are the teachers' responsibility. (4) Age, experience, education, and location of teacher work have an influence on the level of teacher's technology readiness.

The other relevant research is a research by Summak, Baglibel, & Samancioglu (2010) with the title "Technology Readiness of Primary School Teachers: A Case Study in Turkey". The results of this study indicate that: (1) The technology readiness of teachers is a moderate level, which is at a score of 2.96. (2) The age and study field of teachers do not have a significant influence on teacher's technology readiness. (3) There is a significant difference in the technology readiness of teachers with the difference in gender.

RESEARCH METHOD

Research Design

This study used a Mixed Method. The mixed-method used in this study was the Sequential Explanatory that combines quantitative and qualitative research methods sequentially. The first stage was carried out using a quantitative method and the second stage was carried out using a qualitative method. In the first stage, the researcher collected quantitative data by a survey to Accounting students. Then in the second stage, the researcher collected qualitative data by in-depth interview to teachers and students.

Research Place and Time

This study was conducted in SMK Negeri 2 Magelang. SMK Negeri 2 Magelang is a school with a qualified ICT background and very concerned about ICT integration in its educational activities. It was interesting to explore the technology readiness of Accounting teachers and

students in SMK Negeri 2 Magelang. This study condected in July-August 2019.

Research Subject

The population in this study were 9 Accounting teachers and 215 Accounting students in SMK Negeri 2 Magelang. A probability sampling technique with proportionate stratified random sampling was used to determine student samples. The number of student samples was calculated by Yamane's formula in Sugiyono (2018) and found 140 students for a survey.

A nonprobability sampling technique with purposive sampling type was used to conduct interview. The teacher informants were determined by the researcher considerations and student's informants were determined based on TRI score calculated. Teacher informants were the vice principal for curriculum, the chairperson of Accounting department, an Accounting teacher. Meanwhile the student informants were a student with low TRI score, a student with moderate TRI score, and a student with high TRI score.

Data Collection Technique and Research Instrument

Data Collection Technique

1) Questionnaire Method

   Questionnaire is a data collection technique by giving respondents a set of questions or written statements to answer (Sugiyono: 2018). This study used a questionnaire to obtain Technology Readiness data from respondents directly, especially from Accounting students.

2) Interview Method

   The interview is a data collection technique used by researchers to find out more in-depth things from participants (Sugiyono: 2018). This study used interviews to dig information deeper related to Technology Readiness.

Research Instrument

1) Questionnaire

   This study used a closed questionnaire to measure Technology Readiness. The questionnaire used in this study was a questionnaire adapted from Technology Readiness Index 2.0 The TRI 2.0 was translated from English into Bahasa.

2) Interview Guideline

   Interview guideline is research instruments to collect data using interview methods (Aminatun: 2013). Interview guidelines in this study were compiled and developed based on Technology Readiness Index 2.0, Technology Readiness factors, and technology integration.

Procedure

This study conducted by mixed method. The first stage was conducted by quantitative method and the second stage was qualitative method. The quantitative method was done using questionnaire. The questionnaire was tested its validity and reliability to 30 Accounting students. A valid and reliable instrument was used to obtain the quantitative data from 140 Accounting students. The quantitative data was calculated by following the steps based on Parasuraman & Colby (2014) to measure the students' TRI score.

Meanwhile the qualitative method was done by in-depth interviews. The interviews conducted by interview guideline that was compiled based on TRI 2.0., the factors, and the technology integration.

Data Analysis Technique

The quantitative data was analyzed by statistic descriptive technique and presented in descriptive form. The value or TRI score is compared to the Technology Readiness Category by Parasuraman & Colby (2014). Meanwhile the qualitative data was analyzed using Miles and Huberman model in Sugiyono (2018) with steps data reduction, data display, conclusion drawing and verification.

RESEARCH RESULT AND DISCUSSION

Technology Readiness of Accounting Teachers

Technology Readiness of Accounting teachers seen from various dimensions, factors, and technology integration. The research results are as follows.

a. Optimism

Based on interview result, there are 4 categories of teachers' optimism. The categories are as follows.

Table 1. Teachers' Optimism Category

Optimism	Teacher 1	Teacher 2	Teacher 3
Technology contribu-tion	Contributing personal life	Helping in delivering learning process	Get information
Freedom of activity	Travelling is not used to be	Activities are comfortable	Moving places easily
Control	Controlling family easily	Monitoring the learning process	Controlling family necessary
Productivi-ty	Complete tasks and pressure from principal	Deliver the learning process	Complete works related to Vice Principal

Table 1 shows that teachers have a not much different attitude that technology has a positive contribution to their personal life and work as a teacher. Technology makes them free and comfortable in doing activities. They are able to control their family, work, and activities easily. Technology can increase their productivity as a teacher.

The result above is in line with Optimism delivered by Parasuraman & Colby (2014), that Optimism is a positive view of technology and believes that technology can improve someone's control, flexibility, and efficiency in running life. Ngafifi (2014) states that technology development promises ease, efficiency, and increased productivity.

b. Innovativeness

The interviews conducted to 3 Accounting teachers found 4 categories of teachers' Innovativeness. The categories are shown below.

Table 2. Teachers' Innovativeness Category

Innovativeness	Teacher 1	Teacher 2	Teacher 3
Self-knowledge about technology	Ask and be asked 75:25, ask young people, practitioner, a young teacher	Ask IT guidance teachers or computer teachers	Ask IT officers or fellow expert
Pioneer in technology	Not a pioneer	Not a pioneer	A pioneer in Vice Principal
Independent in technological knowledge	Assisted by husband	Assisted by supplier	Browsing and assisted by family
Up-to-date in terms of technology	Interested in the education field, want to learn to upload questions	Interested in Accountin g, want to try Accurate application	Interested in religion and healthy, there was nothing to follow

In table 2, teachers have different tendencies to be a pioneer, adopt, and utilize technology. To obtain knowledge related to technology, teachers exchange opinions, ask the IT guidance teacher, and ask officers and colleagues who are expert in IT. Two teachers claimed not to be a pioneer, while a teacher became a pioneer when it is related to the Vice Principal for Curriculum activity. Teachers asked for family help, shop clerks, and suppliers to get a technology product. Each teacher has an interest in a field and tries to keep up with technological developments in that field.

This result is in line with Innovativeness delivered by Parasuraman & Colby (2014), that Innovativeness is someone's tendency to be a pioneer in using technology. Innovativeness refers to someone's innovative attitude in adopting and utilizing technology. Someone's Innovativeness can be seen from their knowledge, the tendency to be a pioneer, independent, and follow the technology development in their interest.

c. Discomfort

Based on interviews to 3 Accounting teachers, the teachers' discomfort can be categorized into 4 categories as follows.

Table 3. Teachers' Discomfort Category

Discomfort	Teacher 1	Teacher 2	Teacher 3
Feel used by technology service providers	Not feel used, has another alternative to solve a problem	Never come to technical service, not feel used	Not feel used, feel helped
Distrust of technical support	Not providing personal data, afraid of misuse	Not providing personal data	Providing personal data, positive-thinking
The	Not all	Not all	Buy

complexity of technology	products must be tried	products can be reached	product as need
Difficulty reading ICT product instructions	There is Bahasa, easy to follow	There is Bahasa, easy to follow	Follow the manual if curious

Based on table 3, it is known that teachers have different discomforts in using technology. There is a teacher who feels that she was being used by technical service providers, and also there is teacher who has never used technical services, and there is teacher who feels helped. If personal data is requested, there are teachers who will not provide personal data because they were worried, but there is also a teacher who will provide personal data. Teachers felt there were technologies that were designed not for use by ordinary people so they felt that not all technology products should be tried. There are manual books in easy-to-understand language, but not all teachers follow the manual.

The result above is in line with Discomfort delivered by Parasuraman & Colby (2014), that Discomfort is overwhelmed, lacking mastery, and not confident in using technology. Someone's Discomfort is shown through feeling used by technical services, distrust of technical support, technological complexity, and difficulty reading instructions.

d. Insecurity

The interviews conducted to 3 Accounting teachers found 4 categories of teachers' Insecurity. The categories are shown below.

Table 4. Teachers' Insecurity Category

Insecurity	Teacher 1	Teacher 2	Teacher 3
Depending on the technology	Electricity	Matters related to work	Depending on needs
Technology is ruining real life	Social life	Being lazy and make someone loss	Economy and usefulness
Relationship quality decreases	Getting closer, give news	Getting closer	Helped, deliver quickly, less humanity
Insecurity of doing online business	Not feel worried	Feel worried but learn first	Don't like online activities

Table 4 shows that teachers have a different distrust of technology. Teachers feel dependent on certain technologies to carry out activities related to their personal life and work as teachers such as electricity and technology used for preparing teachers' works and administrations. Social life, personal life, and economy are three things that might get worse if they are excessive in using technology. Teachers' relationship is getting better and closer, but it gives a less sense of humanity. There is a teacher who does not feel worried about online activities, worry but can handle it, and there is a teacher who does not like online activities.

This result is in line with Insecurity delivered by Parasuraman & Colby (2014), that Insecurity is distrust because they feel unsure that technology can work well. Someone's Insecurity is shown by depending on technology, technology damaging real life, the quality of relationships, the insecurity of doing online activities. According to Martono (2012), technology brings changes in social relations. Technology brings changes in frequency, social distance, intermediaries, and interaction form so that technology can reduce the frequency of face to face, shift the face-to-face function, and bring up online interactions.

e. Factors

Based on interviews to 3 Accounting teachers, teacnology readiness factors can be seen below.

Table 5. Teachers' Technology Readiness Factors

Factor	Teacher 1	Teacher 2	Teacher 3
Facility	Adequate	Adequate	Helped
Subjects taught	MYOB	MYOB, Spreadsheet	MYOB, all subjects
Number of students taught	Embarrassed if students are smarter	In order not to lose to student	Motivated because she will deliver materials to students
Gender	A woman must learn technology	A woman must learn technology	A woman must learn technology
Age	Sometimes makes lazy	Affect because of health problem	Keep learning as long as can
Experience	Follow technology long ago	Follow technology long ago	Spread the relationship and get information
Principal support	Making policies that require teachers to learn technology	-	-

Based on the table 5 above, it is known that adequate technology facilities will help teachers in completing their works related to technology. This result is in line with the research results conducted by Hutkemri & Zamri (2017) that a significant factor influencing teachers readiness in implementing technology is ICT facilities. A study conducted by Inan & Lowther (2010) shows that factors at the school level such as computer availability, technical services availability, and other support have a positive influence on teachers confidence and readiness to integrate ICT.

Subjects related to technology or computers will motivate teachers to learn the technology because they will deliver the learning materials use technology. This result is quite different from the results of research conducted by Badri, Rashedi, Yang, et al. (2014). The previous research showed that the subjects or study areas taught did not have any significant difference in teachers' technology readiness.

Students taught motivate teachers to learn technology. This is because teachers feel ashamed if students are more

fluent in using technology. If the teachers feel ashamed and have a desire to be fluent as students, they will try to learn technology. This result is quite different from the research results conducted by Badri, Rashedi, Yang, et al. (2014). The previous research showed that the students taught did not have a significant difference in teachers' technology readiness.

Three Accounting teachers expressed that a woman must learn technology to educate children and students, increase income, not to be cheated, not to depend on husbands (men), and female teachers are a role model for their students. This shows that gender has an influence on teachers' technology readiness. The result is in line with the research results conducted by Badri, Rashedi, Yang, et al. (2014). The previous research showed that gender gives a significant difference in teachers' technology readiness.

Sometimes teachers' age influenced them in learning technology. Teachers with old age are sometimes lazy to learn technology. Age is related to teachers' health, especially teachers' eyes health influence them in learning technology. This shows that age affects teachers' technology readiness. This is in line with the research results conducted by Badri, Rashedi, Yang, et al. (2014) that teachers' age has an influence on teachers' technology readiness. Restyandito & Kurniawan (2017) said that an older person has less knowledge and experience in using technology products. Barriers for older persons in using technology include a lack of knowledge, self-confidence and barriers related to health (Vaportzis, Clausen, & Gow: 2017).

Teachers' experience can motivate teachers to learn technology. Before becoming a teacher at SMK Negeri 2 Magelang, three teachers had followed technological developments and had the ability to use technology in their past time. Until now they follow technology development and use technology in their works. This result is in line with the research results conducted by Badri, Rashedi, Yang, et al. (2014) that teachers work experience influence teachers' technology readiness. Teachers' teaching experience is a significant factor for teachers to use or implement ICT in learning activities effectively. The higher of teachers' ICT experience, the higher their attitude towards technology (Singh & Chan: 2014).

Principal support factor that is thought to influence teachers' technology readiness. Teacher 1 explained that the Principal at SMK Negeri 2 Magelang is an IT expert. Since becoming as Principal at SMK Negeri 2 Magelang, there have been new policies relating to technology

implemented at schools. The Principal pressures the teachers to implement the policies properly. This condition makes teachers learn and follow technology. This finding is in line with the finding of Perkins-Jacobs (2015) research. If the principals have a vision and mission related to technology, they will encourage teachers to follow the changes and implement the policy. Teachers utilize technology and integrate it into the curriculum. Principals encourage teachers to share the subject materials via email or website and teachers are required to choose an interesting technology for academic activities. According to Grady (2011), the principals have a role as a technology leader, such as establishing a vision and mission related to technology in schools, modelling the technology use, supporting the technology use, and providing facilities to integrate technology. Principals who are comfortable with technology will set an example and showcase to use technology in schools.

f. Technology Integration

The interviews result to 3 Accounting teachers about technology integration can be categorized as follows.

Table 6. Technology Integration

Site	Technology Integration
Class	1. A teacher determines the rules of learning with students before carrying out the learning process. 2. She integrates technology in her classroom by utilizing ICT such as slides (PowerPoint) and video tutorials.
Depart-ment	1. The implementation of learning has been running smoothly with adequate facilities support. 2. Accounting teachers and students are ready for technology even though they were not 100% yet.
School	1. Technology integration in SMK Negeri 2 Magelang is good. Teachers are expected to improve digital skills or technology literacy and have personal responsibilities related to work involving technology. 2. Teachers and students are ready for technology because of a must. Add a computer laboratories for CBT is an effort to improve technology integration in SMK Negeri 2 Magelang.

The table above shows that a teacher determines and agrees to class rules before carrying out the learning process in class. The ICT types implemented by the teacher in the class are slides (PowerPoint) and video tutorials. This finding is not much different from findings Wibowo & Gundo (2017) findings, that the common thing that teachers do to implement ICT into their learning process is package teaching materials into Microsoft Office and display them in class. Strengthened by Anwar & Palekahelu (2016) research that Microsoft Office is the software most often used by teachers to package teaching materials. According to Ismaniati (2010), ICT-based learning media such as learning audio, learning videos, TV-education, social networking, and e-learning can still be utilized by teachers. The finding in SMK Negeri 2 Magelang showed that teacher

has used a learning media mentioned by Ismaniati, it is learning videos.

The learning implementation in Accounting department has run smoothly with adequate facilities support. Accounting teachers and students are ready for technology, although not 100% yet, so efforts are needed to improve their readiness. The effort made is the existence of an IT guidance teacher. This shows that schools are aware of technology readiness problems such as technical difficulties and lack of training opportunities that cause teachers and students are not fully ready for technology. So the school takes steps to provide IT guidance teachers to minimize these problems. The result is in line with 2 of the 11 Technology Readiness problems mentioned by Summak, Baglibel, & Samancioglu (2010). These problems are technical difficulties and lack of training opportunities.

The technology integration in SMK Negeri 2 Magelang is already good. However, teachers are expected to improve their digital skills and be responsible for their works related to technology so that they do not depend on colleagues who expert in IT. This shows that there are technology readiness problems, they are low digital literacy and lack of understanding to integrate ICT into the learning process. Teachers and students are generally ready for technology because of a must. However, there is a problem such as a lack of computers, which is indicated by the statement that a computer laboratory is still needed for the CBT implementation. This finding is in line with 3 of the 11 Technology Readiness problems as mentioned by Summak, Baglibel, & Samancioglu (2010). These three problems are low digital literacy, the lack of understanding to integrate ICT into the learning process, and the lack of computers.

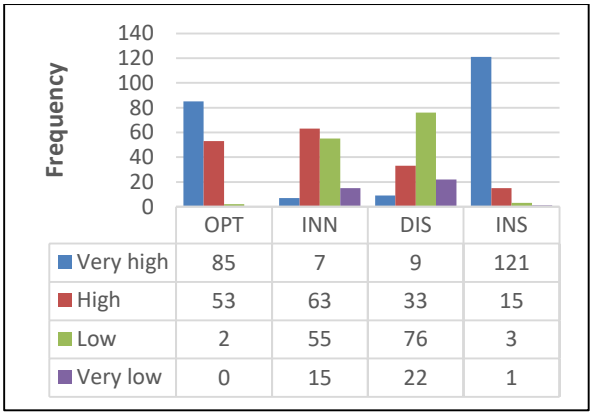
Technology Readiness of Accounting Students

A survey conducted to 140 Accounting students in SMK Negeri 2 Magelang obtained data below.

Table 7. Summary of Students' TRI Score

Dimension	Mean	Tendency
Optimism (OPT)	3,74	Very high
Innovativeness (INN)	2,90	High
Discomfort (DIS)	2,65	Low
Insecurity (INS)	4,10	Very high
TRI (Overall)	2,97	Moderate

Meanwhile the number of students who were at each tendecies are shown in the chart below.



	OPT	INN	DIS	INS
Very high	85	7	9	121
High	53	63	33	15
Low	2	55	76	3
Very low	0	15	22	1

Figure 1. Students' TR Dimension

Table 7 shows that the technology readiness of Accounting students is in the moderate category, with a score of 2.97. The result is in line with the results of Elliot, Hall, & Meng's (2008) study that Technology Readiness of Chinese and American business students are in the moderate category with scores for Chinese students of 2.95 and 3.24 for American students. Research conducted by Ling & Moi (2007) also shows that Technology Readiness of students in Malaysia is in the moderate category with a score of 2.96.

Table 7 shows that students' Optimism is in a very high tendency with a mean score of 3.74 greater than the mean score of Innovativeness, which is 2.90. This result is reinforced with the research conducted by Elliot, Hall, & Meng (2008) and Ling & Moi (2007) that American, Chinese, and Malaysia students' Optimism were higher than their Innovativeness.

In the table 7 also shows that students' Innovativeness is in a high tendency with a mean score of 2.90. This score is smaller than the Optimism mean score, which is 3.74. This result is consistent with the research by Elliot, Hall, & Meng (2008) and Ling & Moi (2007) that Innovativeness mean score of American, Chinese, and Malaysia students' were smaller than the mean score of their Optimism.

From table 7, it is known that students' Discomfort is in a low tendency with a mean score of 2.65. This score is smaller than the Insecurity mean score, which is 4.10. The result is in line with the research by Elliot, Hall, & Meng (2008) and Ling & Moi (2007) that the mean score of American, Chinese, and Malaysia students' Discomfort is smaller than the mean score of their Insecurity.

Table 7 shows that students' Insecurity is in a very high tendency with a mean score of 4.10. This score is greater than the Discomfort mean score, which is 2.65. This result is consistent with the results of research conducted by Elliot, Hall, & Meng (2008) and Ling & Moi (2007) that the mean score of American, Chinese, and Malaysia students Insecurity is greater than the Discomfort mean score.

Technology Readiness of Accounting students seen from various dimensions, and factors. The results are as follows.

a. Optimism

Based on interview result, there are 4 categories of students' optimism as follows.

Table 8. Students' Optimism Category

Optimism	Student 1	Student 2	Student 3
Technology contribution	Assist in learning MYOB & Tax	Access learning materials	Technology for learning
Freedom of activity	Go to school easily	Access the outside world news, book ticket	Help go to and come back from school easily
Control	Save time, energy, money, and travel	Control activity with alarm and reminder	Control sleep time with alarm
Productivity	Find learning materials easily	Help Entrepreneurship subject	Find learning materials easily

Based on the table 8, students have a positive attitude towards technology that technology has a contribution to their personal life and their student activities. Technology makes them free and comfortable in doing school activities and accessing information. They can control time, energy, costs, travel, and activities easily. Technology increases their productivity related to their school works and learning activities. The result is in line with Optimism delivered by Parasuraman & Colby (2014), that Optimism is a positive view of technology and believes that technology can improve someone's control, flexibility, and efficiency in running life. Ngafifi (2014) states that technology development promises ease, efficiency, and increased productivity.

b. Innovativeness

The interviews conducted to 3 Accounting students found 4 categories of students Innovativeness. The categories are shown below.

Table 9. Students' Innovativeness Category

Innovativeness	Student 1	Student 2	Student 3
Self-knowledge about technology	Ask people who know better	Ask and be asked for opinions to friends	Search on the internet
Pioneer in technology	Sometimes being a pioneer	Not a pioneer	Not a pioneer
Independent in technological knowledge	Ask for help from parents	Buy it himself	Buy it herself
Up-to-date in terms of technology	Interested in make-up and follow technology development in it	Interested in music and writing, already tried music and writing applications	Interested in technology, but not follow technology development

Based on the table above, it is known that students have different tendencies to become pioneers in using technology. Students exchange opinions with friends, ask people who know better and search for information via the internet to get technology knowledge. They are not a pioneer. Students ask for help from families or directly buy their own to get a technology product. Students have an interest in a field and try to keep up to date in technology development in their interest. The result is in line with

Innovativeness delivered by Parasuraman & Colby (2014), that Innovativeness is someone's tendency to be a pioneer in using technology. Innovativeness refers to someone's innovative attitude in adopting and utilizing technology. Someone's Innovativeness can be seen from their technology knowledge, their tendency to be a pioneer, independent, and follow technology development in their interest.

c. Discomfort

Based on interviews to 3 Accounting students, the students' discomfort can be categorized into 4 categories.

Table 10. Students' Discomfort Category

Discomfort	Student 1	Student 2	Student 3
Feel used by technology service providers	Judged as a careless person	Never come to technical service, not feel used	No feel used
Distrust of technical support	Not providing personal data, afraid of misuse	Providing personal data if the product provider is trusted	Providing personal data if seems important
The complexity of technology	Laptop *gaming*	Products for people with disabilities	Want to know and try every latest product
Difficulty reading ICT product instructions	There is English, not read in details	There are Bahasa and English, not read the manual	There is Bahasa, easy to follow

Table 10 shows that students have different discomforts in using technology. There is a student who feels judged as a careless person by technology service providers, and there are students who feel they are not utilized by technology service providers. If personal data is requested, there is a student who will not provide personal data because of misused fear, but also there are students who will provide personal data with considerations. Not all technology products must be tried by students or there are technology products were designed not for use by ordinary people like them. There is a manual book in a language that is easy for them to understand, but not all students read the book. This is in line with Discomfort delivered by Parasuraman & Colby (2014), that Discomfort is overwhelmed, lacking mastery, and not confident in using technology. Discomfort can be seen through feeling utilized by technical services, distrust of technical support, technological complexity, and difficulty reading instructions.

d. Insecurity

The interviews conducted to 3 Accounting students found 4 categories of students' Insecurity. The categories are shown below.

Table 11. Students' Insecurity Category

Insecurity	Student 1	Student 2	Student 3
Depending on the technology	Depending on technology to complete MYOB	Depending on technology to complete Accounting	Depending on technology to complete

	assignments	tasks	school tasks
Technology is ruining real life	Health	Ability to count and remember	Time
Relationship quality decreases	Keep the far one get close and otherwise	Friends become busy themselves	Get closer
Insecurity of doing online business	Worry about negative impacts	Sometimes feel worried	Not feel worried

The table above shows that students have different distrust of technology. Students feel dependent on technologies to complete activities related to their learning activities and school assignments. Health, ability to count and remember, and time are things that might get worse if students overuse technology. According to students, technology keeps the fas one getting closer and otherwise, the relationship is getting closer but there are friends who become busy themselves with the technology products they have. There is a student who is worried about the negative impact of online activities, there is a student who sometimes feels worried, and there is a student who is not worried about doing online activities. The result is in line with Insecurity delivered by Parasuraman & Colby (2014), that Insecurity is distrust because they feel unsure that technology can work well. Someone's Insecurity can be seen through someone depending on technology, technology damaging real life, the quality of relationships, and the insecurity of conducting online activities.

e. Factors

Based on interviews to 3 Accounting students, teacnology readiness factors can be seen below.

Table 12. Students' Technology Readiness Factor

Factors	Student 1	Student 2	Student 3
Parent-child communi-cation	Close, not discuss technology in detail. JK is more up to date	Close, rarely discuss technology. AA is more up to date	Close, not discuss technology. KN is more up to date
Peers	Discuss technology with friends, feels jealous and wants to have the same product, friends' opinion as a consideration	Discuss technology with friends, feels jealous and wants to have the same product, friends' opinion as a consideration	Not discuss technology with friends, feels jealous and wants to have the same product, friends' opinion as a consideration
Media	Internet, store	Friends' opinion, online shop, internet	Internet
Economic ability	Buy if has the economic ability	Buy if has the economic ability	Buy if has the economic ability

Based on the table above, it is known that students have a close relationship with their parents. However, this close relationship is not commonly used by them to discuss technology in detail. Even though the close relationship between students and parents is not used to discuss technology, parents are still the first people students come ask for help when students need to get new technology

products. Among students and parents, the students remain a person who is more updated on technology. This shows that relationship or parent-child communication can influence students' technology readiness.

The result above is in line with the research of Mishra, Maheswarappa, & Colby (2018) that relationship or parent-child communication influences the technology readiness of adolescent. Parents and families are social agents that greatly influence children's Technology Readiness. Communication and positive expectations from parents can increase children's opportunities to do online activities and digital skills.

Table 12 also shows that students discuss technology with peers, even though there was a student who did not discuss technology with peers. However, they have the same reaction if there are friends who have the latest technology products. They feel jealous and want to have the same product. Opinions and suggestions from peers are used by students as consideration for buying or using technology products.

The result above is in line with the results of research by Mishra, Maheswarappa, & Colby (2018) which shows that peers have an influence on the technology readiness of adolescent. Sharing technology information among peers can motivate subjects to use the same technology.

From table 12 it can be seen that students use media to search for technology product references. The media are internet, coming directly to shops, online shops, and their friends' opinions. The product review from the media influences students' decision to buy or use the product. So that the media has an influence on students' technology readiness.

The result above is in line with the research results by Mishra, Maheswarappa, & Colby (2018) that the media has an influence on the technology readiness of adolescent. The media has an influence on students to adopt technology that is popularly talked about.

Students stated that they will be pioneers in using technology if they have the economic ability to buy a product. The economic ability factor is thought to have an influence on the technology readiness of Accounting students in SMK Negeri 2 Magelang. This is consistent with the research results by Rahamat, Shah, Din, & Aziz (2017) that the students' readiness to use technology is related to their economic ability.

CONCLUSION AND SUGGESTION

Conclusion

Accounting teachers in SMK Negeri 2 Magelang are technology ready seen from various dimensions of Technology Readiness. Teachers have different views on Optimism, Innovativeness, Discomfort, and Insecurity. Teachers believe that technology has a positive contribution to their personal life and work. They have different tendencies to be a pioneer, adopt, and utilize technology. Teachers still have discomforts and feel insecure to use technology. Teachers had these different views due to various factors, the factors are technological facilities in schools, subjects taught, students taught, gender, age, and work experience. Principal support is thought to influence the Technology Readiness of Accounting teachers.

Accounting teachers at SMK Negeri 2 Magelang integrate technology in the classroom by utilizing ICT types such as slides (PowerPoint) and video tutorials. The implementation of learning in Accounting department goes smoothly by utilizing technological facilities but there were still problems. These problems are technical difficulties and lack of training opportunities so that Accounting teachers and students are not 100% ready for technology. While the technology integration in SMK Negeri 2 Magelang generally is good but still has problems such as low digital literacy, lack of understanding to integrate ICT into the learning process, and lack of computers. Efforts made by schools to minimize these problems are the presence of IT guidance teachers and need to add computer laboratories.

Technology Readiness of Accounting students in SMK Negeri 2 Magelang is in the moderate category with a score of 2.97. This score is obtained by students because they have very high tendencies for Optimism and Insecurity with a mean score of 3.74 and 4.10, respectively. Students have a high tendency for Innovativeness with a mean score of 2.90 and a low Discomfort tendency with a mean score of 2.65.

Accounting students could reach a moderate category in Technology Readiness because they have a positive attitude towards technology. They believe that their personal life and their student activities are contributed by technology. Students have an innovative attitude to adopt and utilize technology. Students still have discomfort and distrust of technology. The moderate category in Technology Readiness can be achieved by students because of various factors, including the relationship of students with parents or parent-child communication,

peers, and the media. Economic ability is thought to influence the Technology Readiness of Accounting students.

Suggestion

Based on the research results discussion, conclusions, and research implications above, suggestions can be given as follows.

a. For Future Research

It is expected that further research can identify the magnitude of the influence factors identified in the Technology Readiness of teachers and students, explore the influence of principal support, explore the effect of economic ability, can be carried out in a wider area, can be conducted with male and female teachers, both women and men, and classify respondents into one of five technology user segments.

b. For Students

1) Students should increase knowledge related to technology by having discussions with parents and peers, adding information about technology through media.
2) Students should use technology wisely so the negative effects of technology on personal life can be minimized.
3) Students should choose good friends that could give students positive things related to technology.

c. For Teachers

1) Teachers should increase knowledge related to technology by having discussions with colleagues.
2) Teachers should use technology wisely so the negative effects of technology on personal and work life can be minimized.
3) Teachers should utilize technology facilities provided by schools wisely so they can carry out learning activities well.

d. For Parents

Parents should balance their child's technological knowledge so they can supervise their children's technology use for wise matters to minimize the negative impact of using technology.

e. For School

Schools can improve Technology Readiness of teachers and students by paying attention to aspects that affect, especially in the school environment. Such as increasing the role of IT Guidance Teachers, creating positive policies to reduce Technology Readiness problems in schools, repairing and updating damaged and/or improper technology facilities.

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