



Teacher Resilience in Facing Changes in Education Policy due to Covid-19 Pandemic

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Abstract: *This is a descriptive study aimed at investigating resilience among university teachers, especially in dealing with changes in education policies during the Covid-19 pandemic. The participants in this research were lecturers at the English education study programme at a state university in West Nusa Tenggara Province, Indonesia. The data were obtained through an online questionnaire which was distributed to all potential respondents. Among 39 teaching staff, 26 completed and returned the form. Based on the data analysis it was found that most of the teachers (86.6%) are classified as having high and very high resilience, with only 13.4% having moderate resilience, and none as low or very low resilience. Based on gender, the level of resilience for both male and female lecturers is within the same level of high resilience, with females having a slightly higher rate than males, at 63 and 59.5 respectively (within the range of 17-85). There is an interesting finding on how resilience relates to the length of tenure. Based on this final category, it was found that length of tenure negatively correlates with the level of resilience with tenure group of 1-6 years, 7-21 years and 21 years and above scoring 63.7, 61.7, and 56 respectively, although on average all groups are still categorised as having high resilience. The majority of these university professors also perceive the changing education policy as something inevitable. With regard to how they expect to be helped to better adapt to changes and maintain their resilience, for any new policies there should be clear planning of the policy, proof that they work well (not based on trial and error), early socialisation, adequate training and coaching, and evaluation of the effectiveness of policies being implemented.*

Keywords: *Educational policies, pandemic, teacher resilience*

INTRODUCTION

As one important component of teacher well-being (Holmes, 2005) resilience plays an important role in teacher professional performance (Amin & Saukah, 2016). In addition, teacher resilience is related to teacher self-efficacy, job satisfaction, teacher effectiveness, and motivation (Greenfield, 2015; Mansfield et al., 2016). It is also postulated that resilient teachers are not too dismayed by imperfect or unfinished conditions. Rather than blaming what is uncomfortable, this type of teacher tends to focus on what to do to withstand challenges and difficult situations (Drew & Sosnowski, 2019). This implies that if a teacher is resilient, despite ever-changing contexts and situations where he/she works, the teacher is likely to be able to maintain his/her quality teaching performance. However, the reverse is also true; if the teacher's resilience is too frequently

negatively affected, including by contexts of work, his/her teaching performance might not be optimum and, as a result, students learning cannot be optimum either. For that reason, there should be efforts to ensure that teachers are always resilient as a way to ensure they can perform their professional duties optimally.

Keeping teachers resilient is not easy. Many factors can affect this resilience, especially when dealing with resilience in relation to work. One of the frequently mentioned causes is change of policy at the workplace, which requires teachers to adapt to new situations and contexts. Teachers used to conducting their professional duties with particular approaches and practices now have to adjust to new ones, which in most, if not all, cases necessitates their learning new things. The sources of change can be purely local/institutional management, from a higher level of policymaking, or because of a force majeure circumstance such as a natural disaster or a pandemic like Covid-19. Something we need to remember is that resilience is not an innate quality in a person nor is it fixed (Leahy, 2012) but rather it is learnable and can be acquired (Higgins, 1994).

The impact of the Covid-19 outbreak has been immense throughout the globe (Indonesia is no exception) in every aspect of life, including education, and is likely to affect all professions, including teachers. In education, for example, the outbreak of Covid-19 brought closures to all education institutions, except in green zones, causing many domino effects (Joint Ministerial Regulation no. 1 the year 2020) – changes in modes of learning, school administration, and learning assessment, to mention just a few. For teachers, changes in education policies have required them to adapt to new contexts in their delivery of teaching materials, and assessment of learning, as well as communication with fellow teachers, students and staff in their institutions. The very evident change this pandemic has brought about is the movement towards distance schooling (Ferdig et al., 2020) from conventional, face-to-face learning.

In the higher education context, recent university closures have led to a policy that requires teachers (henceforth lecturers) NOT to teach onsite but rather online, and to use a particular learning management system (LMS). This has sparked different reactions among lecturers. This is not surprising as lecturers, in order to function appropriately in the new instructional contexts, have to learn to use new features of technology, new ways of dealing with students and their academic activities as well as new curriculum policy (such as MBKM). These two examples in the context of teaching are among the factors that can negatively affect teacher resilience (Drew & Sosnowski, 2019). If not managed well, they can result in teacher burnout and attrition (Johnson et al., 2014).

Comments posted on the study programme's WhatsApp Group, and conversations with teaching staff, both face-to-face and during online meetings, indicate diverse attitudes towards the new policy. So varied is this reaction that some have expressed negative emotions or even despair, even though others remain enthusiastic. Surely not all of them are able to express their true feelings openly, due to lack of opportunity through time constraints, or simply because of their personalities? For this reason, research should be conducted to investigate in more detail how university teachers perceive and react to the newly implemented policy, as well as to find out how they can best be facilitated to adjust to the new contexts of education. One thing not to forget is that organisational and institutional policies continue to change from time to time, which in turn affects lecturers' resilience. The following are three questions that this research is intended to answer:

1. How resilient are lecturers in dealing with the new education policy?

2. What are the lecturers' perceptions of the changing education policy?
3. How can they be assisted to better adapt to the new teaching contexts?

LITERATURE REVIEW

Definition of resilience

Resilience is not an easy word to define, although research on this topic has been around for more than six decades (Neenan, 2018). He describes resilience as intriguing and elusive to define in that it is "... intriguing because it can provide some kind of answer as to why one person crumbles in the face of tough times while another gains strength from them, but elusive in that the concept resists a definitive definition" (Neenan, 2018, p.4). An extensive study on how resilience has been defined (Beltman et al., 2011) indicates that authors and researchers have given different definitions to resilience. The difficulty in defining might be caused by the numerous fields where this concept has been and can be applied. Resilience was first used to refer to the time it takes for nature to bounce back to its previous condition after a natural disaster. In its later development, the term has been used to deal with other fields such as health and also social sciences, and in this last field resilience has been extensively used in various contexts (Daniilidou & Platsidou, 2018). Despite the complexity contained in the term, when we have to lend meaning to this concept of resilience, two things commonly come to mind: how to deal with adverse situations, and how to adapt to new contexts in life.

In the context of teaching, Daniilidou and Paltsidou (2018, p.17) define resilience as "the extent to which teachers are capable to maintain positive attributes in face of a range of challenges, pressures and demands associated to their work". To decide whether or not someone is resilient, however, our observation should not be limited only to one's reactions to a new adversity at the initial stage, but also at later stages of the adaptation process. Two people experiencing the same difficult life experience may have the same initial negative reaction (such as anger and sadness). As time passes, however, they might show very different follow-up reactions (attitudes and actions) to the problem, with one being able to come back to his/her stable emotional state (resilient), while the other is still occupied and overwhelmed by it. In the context of higher education, for example, lecturers might be unhappy with the inception of a new learning management system (LMS), as they will have to learn new things, such as new media of teaching, and extra work to redesign, rearrange and reupload their teaching materials. However, how they respond to this situation later might differ from one person to another, and this is the core of studying resilience. In short, resilience is about how people deal with difficult situations and how they adapt to a new reality in life.

Factors affecting teacher resilience

In their literature review of factors attributable to risk within the teaching profession, Daniilidou and Paltsidou (2018) identify two categories: individual and environmental factors. Among individual factors are low self-esteem, difficulties in seeking help, the conflict between personal beliefs and practices used, and anxiety, emotional exhaustion and inadequate preparation for the reality of work. The risk factors relating to environmental factors are difficulties that teachers face due to changes in the education workplace, the results of which are greater levels of anxiety, pressure and workload (Daniilidou & Platsidou, 2018,p.17).

Viewing teacher resilience from different perspectives, Drew and Sosnowski (2019) classify factors affecting teacher resilience into external and internal factors, each comprising risk (constraining) factors and protective (enabling) factors. In their research they found three propositions emerging to form a theory of teacher resilience. (1) Resilient teachers embed roots in their school communities in order to withstand challenges, pulling together with a sense of purpose to navigate constraining factors and to benefit from enabling factors. (2) Resilient teachers embrace uncertainty, reframing negative experiences into learning experiences. Reframing helps teachers to retain power, not cede it to situations, and this helps to balance constraining and enabling factors. (3) Teachers use relationships with colleagues, students and school leaders to endure challenges. The dynamic interaction between internal and external enabling and constraining factors is depicted on the situational map, which illustrates how factors counterbalance to predict either positive outcomes such as resilience and agency, or negative outcomes such as burnout or attrition.

Resilience in the teaching profession during the pandemic

As stated earlier, resilience is distorted or negatively affected when adversity strikes one's life. In other words, one can remain resilient if one's life is not confronted with adversity that the person cannot manage well. On the other hand, there is a need to ensure that teachers are resilient, as this quality in teachers is central to "well-motivated, consistent, and effective teaching" (Gibbs & Miller, 2014, p.610), and there is a relationship between resilient teachers and effective teaching (Stuart et al., 2012). Furthermore, we should not take for granted teachers' ability to cope with unfavourable workplace situations, nor should we leave them to do so; it is unfair to ignore the negative effect on students' learning of teachers' lack of resilience (Gibbs & Miller, 2014).

A teacher's resilience in the workplace is likely not to decrease if the working conditions are ideal. According to (Holmes, 2005, p.60) conditions supportive of maintaining teachers' resilience include shared goals and high expectations to create strong communal identity, respectful and dignified treatment as professionals by superiors, parents and students, participation by teachers in decisions affecting their work, regular opportunities for interaction and sharing with colleagues that promote a collective identity, recognition and rewards for effort and achievement, opportunities for professional growth, and decent working conditions. In reality, however, teachers do not always have control of what is happening in the workplace. Most of the policies, if not all, involve top-down decisions.

Another reason why teachers and lecturers are prone to stress (one trigger of a lack of – or cause of a low level of – resilience) is the presence of stressors which can originate from the workplace itself. Neenan (2018) identifies some of these triggers: longer hours which adversely affect home life; job insecurity; tedious and tiring commuting; increased work demands with fewer staff to meet them; tight deadlines; too many meetings; email overload; difficult colleagues; uncaring and incompetent managers; meaningless targets; and rapid technological changes they have to keep up with, as well as the faster pace of work these technologies require.

As the long list above applies to the workplace in general, most points are still very relevant to the contexts of teaching in higher education institutions, especially those relating to leadership and institutional management, education policy changes, and technological development.

RESEARCH METHODS

Research approach and design

This is a mixed-method study (Creswell & Creswell, 2018) which is intended to investigate lecturers' resilience when faced with unfavourable changes in educational policies and management, as well as the introduction and induction of new technologies in their day-to-day work. It was quantitative in that it used a closed-ended questionnaire, but also qualitative because it gathered data in the form of words. This study was conducted during the implementation of online learning, and when much of the administrative work had to be carried out online.

Research participants

The participants in the research were 26 lecturers at the English department at a teacher training faculty in West Nusa Tenggara Province who were still actively involved in the implementation of new education policies during the pandemic. They were voluntarily recruited after the researchers informed all the lecturers in the programme's WhatsApp group about the study, and canvassed their willingness to participate. From 36 potential participants, 26 decided to voluntarily join the study. There were some differences among these lecturers: namely gender, length of teaching induction, age, the field of study, and familiarity with different learning management systems (LMS) and media of communication, all of which are considered relevant to investigating resilience.

Types of data and data collection procedures

The data collected in this research are verbal, collated into written form. They were taken from the questionnaires distributed to all potential respondents. Due to the Covid-19 pandemic, with most of the teaching staff allowed to teach from home, the mode for distributing the questionnaire was online through the use of Google Forms. As stated earlier, 67% (26 people) of the lecturers responded to the questionnaire items. The data were then saved in the shared Google drive for later analysis.

There were two types of questions formulated in the questionnaire: closed-ended and open-ended. The first type comprised 17 questions, which were aimed at measuring the level of resilience of the research subject, and the second (with open-ended questions) was aimed at obtaining more qualitative data relating to the respondents' perceptions of changing education policy, and how they could be better assisted to adapt to the new policies. The items in the questionnaires represent a translation of five aspects of resilience as proposed by Connor & Davidson (2003) These are being positive, focused, flexible, organised, and proactive. As a strategy to improve the reliability of data, the questionnaire items are divided into positive and negative questions, as these types of questions have the potential to reduce response bias and acquiescence bias. The open-ended questions were used to obtain data relating to the second and third research questions, lecturers' perception of the change, and how they could better be assisted and facilitated to deal with the change.

Data analysis

The first step in analysing the data was to compile all the returned answers to the questionnaire. As they were distributed using the Google form and online, there was no problem with data compilation. The data from each respondent were then tabulated in a table to ease the process of getting scores for resilience. Care had to be taken in analysing

the data (giving a score to each answer) as items in the questionnaire are mixed – some are in positive and some others are in negative formulations. After passing this stage the score of each individual respondent was then calculated using Microsoft Excel. In addition to getting an overall score for each individual and also for the whole group, further analyses were conducted to calculate resilience scores based on gender, length of teaching induction, and age.

To decide the level of resilience, an interval-based grouping is used, employing 17 point difference (there are 17 items in the questionnaire and five levels of score, ranging from 1-5), as shown in the following table.

Table 1. *Level of resilience*

No	Score	Category
1	0-17	Very low
2	18-34	Low
3	35-51	Moderate
4	52-68	High
5	69-85	Very high

In contrast to the closed-ended items, data from the open-ended questions were analysed qualitatively, following procedures proposed by Miles and Huberman (2014). The first step was to collate all answers to each question, then group them based on emerging themes, which were further sorted based on more specific responses of respondents as individuals and as a group. All corresponding and relevant answers were then grouped to identify the general trends. The next stage was recording strong and supportive statements to support claims based on the findings. Extreme responses were also contrasted, compared, and taken into consideration.

FINDINGS

This part of the report presents the findings of the research study, starting with the answer to Research Question 1, which aims to measure the level of resilience among teaching staff at the department. The subsequent parts address the second and third research questions regarding how lecturers perceive the changing education policy and how they can be assisted to better adapt to the new policies.

Lecturers' level of resilience

Based on the quantitative data analysis it was found that as a whole the teaching staff at this department are grouped as having high resilience, with a means score of 60.19 (within the range of 17 to 85). As shown in Chart 1, only four participants (15.3%) are at the moderate level, whereas the majority, 18 participants (69.2%), are at high resilience, and the remaining four (15.3%) show very high resilience. In short, 84.5% of the respondents are resilient teaching staff.

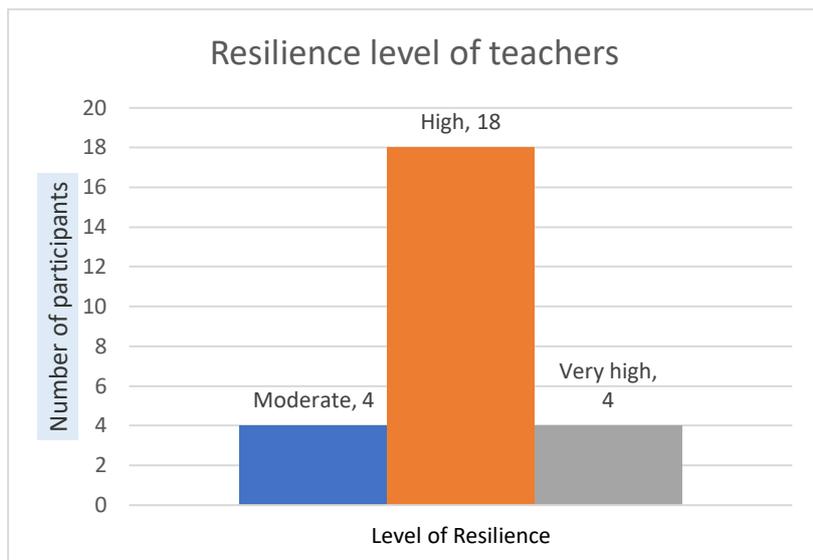


Figure 1. *Resilience level*

When viewed by gender, there emerges the surprising finding that female respondents show a higher level of resilience, with a score of 63 compared to 59.52 for males.

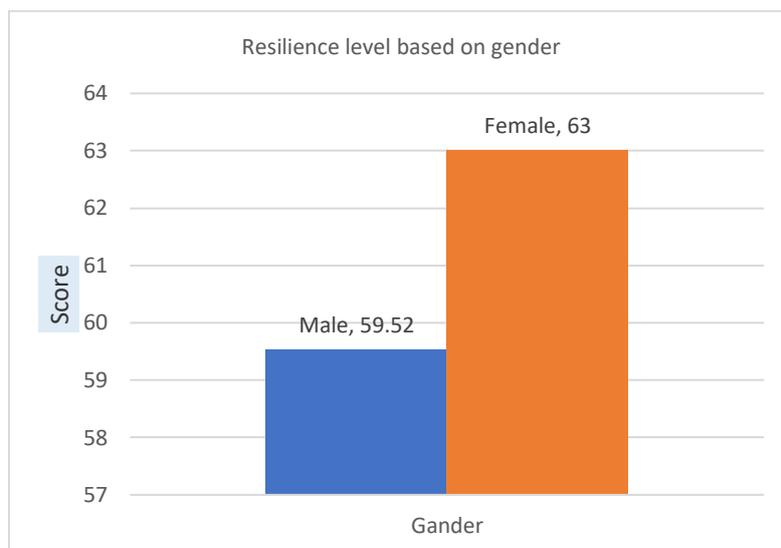


Figure 2. *Resilience level based on gender*

The third category of resilience is based on length of teaching induction. This is intended to discover whether teaching tenure has an impact on levels of resilience. The following chart describes how tenure relates to levels of resilience

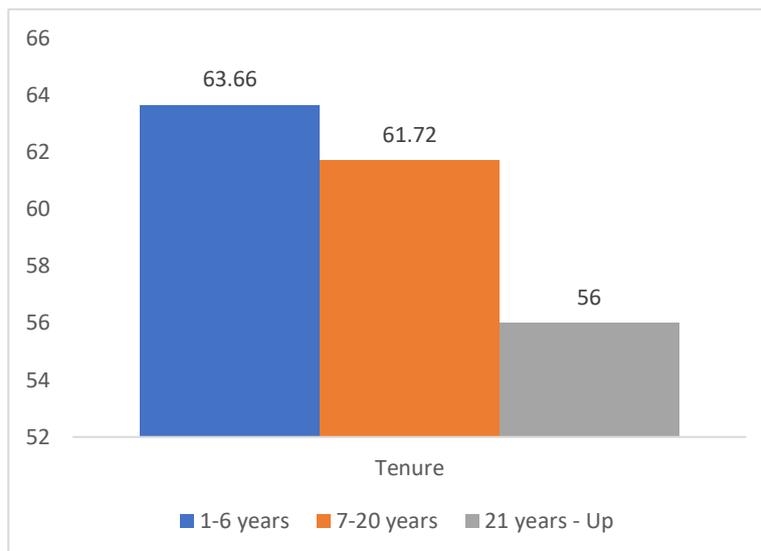


Figure 3. *Level of resilience based on tenure*

Based on the chart above it is evident that the longer the tenure the less resilient a teaching staff is. While the decrease is not so much from the first interval of induction (1-6 years) to the second (7-20 years) – from 63.66 to 61.72 – the fall from the second interval to the third is quite dramatic, by 5.5 points (from 61.72 to 56).

Lecturers' perception of change in education policies

Polarity among the respondents

Regarding how the lecturers perceive the frequent changes of education policy, data show a polarity among the teaching staff. Some agree and support the change while others oppose the change. Some who directly support the education changes reason that change is something common, unavoidable and part of development:

Change is a must otherwise we'll be left behind (R1).

Something natural (R16).

A wise and good policy from our management due to this pandemic situation (R25).

Another respondent commented on the need to adapt to any change in life, including through education policy. He asserts,

Changes in education policy such as curriculum and modes of learning caused by force majeure situation (as pandemic) are something unavoidable, especially when it deals with the safety of the public – in this case, teachers and students. Changes in curriculum and modes of learning are needed not only during force majeure like now but also at times when there is a need for the development of our nation (R5).

In contrast to those who agree with and support the changes, several teaching staff express their disagreement with the changes for several reasons. The first is that the change is simply too fast and just causes confusion among lecturers:

The change is startling as it is too fast (R21).

Policy change is just confusing (R4).

Take Finland, for example, the country with arguably the best education; [in this country] reconstruction of the curriculum focuses on improving students' skills in IT. This is a slight change from the previous concept. The aim was to prepare their young generation for global competition in the 21st century (R5).

However, a new policy to implement should be tried out beforehand [to ensure effectiveness]. This new policy should also be based on research, not simply trial and error (R1).

At times when change is caused by an unfavourable situation, everyone should accept it (R8).

Accepting change but with a condition

Some of those who do not mind the changes mention conditions for change. These are related to the need to have a careful and serious study and for initiatives to be trialled before the implementation of a new policy, followed with an assessment of the implementation of the new policy.

Change is unavoidable, or we'll be left behind, but it should be proven to work before being implemented (R1).

[Change] is a must but surely it needs good preparation? (R4).

Change is something natural, but change shouldn't be too quick for adaptation to take place (R16).

Another point raised by the respondents is the need to evaluate and monitor the newly implemented policy. This is considered important as it will produce ideas about how the policy has been implemented, its effectiveness, weakness, and how to improve in the future.

Curriculum and modes of learning keep changing but lack clear evaluation (R5).

For every new policy there should be socialisation and monitoring (R8).

How can the teaching staff be assisted to better adapt to the changes?

Regarding the third research question on how the teaching staff can be assisted, several ideas are emerging.

The new policy is ready and well planned and if possible simplified

Before a new policy is implemented, it should be well prepared, including clear guidelines for implementation.

The ministry and institution themselves have not got the readily used instruments to implement (R9).

An ideal situation is: (1) planning [the policy] well (R13).

Regarding the MBKM, what is needed first is a set of rules on how to implement it [the policy]. As of now, we try to implement the policy based on our own understanding (R24).

Adequate socialisation

The very first emerging theme was socialisation. The respondents assert that there should be socialisation and enough time to understand the new policy.

Adequate socialisation (R1).

In order for a new policy to be well implemented, it should be preceded by socialisation (R6).

For every new policy, there should be socialisation and monitoring (R8).

Need to provide training and coaching with supportive infrastructure

In addition to ensuring the quality of the policy to be implemented, there should be training and coaching on how to implement it.

[There is] a need for training and continuous support (R13).

While stressing the importance of socialisation, availability of personal and individualised assistance is required. This is seen as critical, as each staff member might have a different level of understanding and view of the complexity of the programme.

This type of assistance should be individualised and done the same way to all staff as some staff need extra help in order to be able to adjust to the new change (R1).

Support the implementation such as for teaching and learning process, with free Zoom application to have it run well (R20).

Standby staff for personal assistance.

The idea of employing staff to deal with much of the paperwork has been proposed, as well as employing admin staff available to answer staff questions relating to the implementation and execution of a new policy.

Lecturers have only three roles, not tetra (plus doing administrative work) (R4).

The campus should not burden lecturers with administrative work, which is not relevant to teaching tasks (R14).

DISCUSSION

In dealing with gender, the findings that women are more resilient than men are in line with a study by (Sun & Stewart, 2007) although the subjects in that study were children and adolescents. However, further investigations are needed to verify this result, as other studies returned different results. Erdogan et al. (2015), for example, find that males are more resilient than females – exactly the opposite result – whereas a study by Polat (2018) did not find any significant difference in resilience between male and female teachers. In short, it can be said that the results on the relationship between teacher resilience and gender are not yet conclusive.

Lecturers are still resilient, which means that there should not be too much worry about their commitment to their teaching. They are very likely to be able to adapt to the new teaching situation (see Gibbs & Miller, 2004). Surely, we can avoid the possible

learning loss because of the pandemic, as the changes have also brought about alterations in how teaching and learning have been conducted?

The findings in this study that the older a staff member is, the less resilient she/he will be is against what has been believed so far. This might be due to the type of adversity a teacher encounters. The situation causing education change now is getting more varied and complex because of the pandemic, which could not easily have been anticipated. In addition, the change has a lot to do with technology and internet use which are not part of the senior teachers' earlier lived experience (they were born before the 1980s). Borrowing Prensky's (2001) term relating to this issue, these senior teachers are 'digital immigrants'. This study also shows that the number of years of teaching does not positively affect resilience, and this result is in line with Arnup & Bowles' (2016), whose study indicates similar findings. The results even show that the longer the teaching tenure, the less resilient the teacher becomes (see findings on the relationship between resilience and tenure above).

That most teachers view changes in education policy as something normal and unavoidable indicates that teachers are aware of the reality of education settings and contexts which are dynamic and ever-changing, a component with which teachers have to interact in order to exercise their resilience (Masten & Wright, 2010). This means that if teachers always try to adapt to the settings and contexts of their workplace, then they are building their resilience. On the other hand, teachers who want to stay in their comfort zone, unwilling to follow or adapt to change, will surely develop into non-resilient staff (see Conner's, 1992) resilience continuum, and this will later affect their overall well-being.

Regarding findings on how teachers can be helped to maintain their resilience, such as adequate socialisation, availability of training and infrastructure to implement the policy, as well as supportive staff to deal with problems during the implementation, are some of the protective factors outlined by Neenan (2018). There should also be solid and supportive colleagues because, as a study by Liang et al., (2020) proves, the professional learning community (PLC) is closely related to teacher well-being (TWB), one aspect of which is resilience.

CONCLUSION

As a whole, the teaching staff in the department are categorised as resilient teachers; the resilience mean score is 60.19, which is still within the range of high resilience. Also, no staff are identified as having moderate or low resilience, a fact that contradicts what is commonly believed (those digital immigrants are likely to become non-resilient when confronted with technological constraints).

Despite polarity in opinions among the participants, the majority of the teaching staff perceive education change as something normal and unavoidable, and even necessary for development. However, they also suggest that if there is a new policy to implement, there should be research (trialled) into the policy prior to implementation in order to ensure it is not based just on trial and error. Also, there should be an evaluation of the policy's effectiveness.

In relation to how staff can be assisted, several ideas are emerging: early socialisation, training, and support in the form of both personnel and facilities. It is then recommended that the faculty and all management personnel, prior to implementing a

new education policy, be prepared to better plan socialisation, support it with both staff and infrastructure – especially at the initial phase of implementation – to guide and assist the teaching staff in case of difficulties. This recommendation should also apply to teachers at different levels of education and different subjects, including ELT, as they have similar workplace contexts. While findings of this study indicate a conducive teaching and learning atmosphere, despite the unfavourable teaching conditions due to Covid-19, the data were only from the teachers’ perspectives. Other types of data such as those from the students and faculty management should also be considered in order to provide a more comprehensive view of the issue (Beltman et al., 2011).

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DISCLOSURE STATEMENT

The authors declare no conflict of interest associated with this research.

REFERENCES

- Amin, M., & Saukah, A. (2016). Factors Contributing to EFL Teachers’ Professional Development in Indonesia. *Excellence in Higher Education*, 6(1&2), 12–20. <https://doi.org/10.5195/ehe.2015.138>
- Arnup, J., & Bowles, T. (2016). Should i stay or should i go? Resilience as a protective factor for teachers’ intention to leave the teaching profession. *Australian Journal of Education*, 60(3), 229–244. <https://doi.org/10.1177/0004944116667620>
- Beltman, S., Mansfield, C. F., Price, A., & Teacher, (2011). Thriving not just surviving: A review of research on. (2011). Thriving not just surviving: A review of research on teacher. *Educational Research Review*, 6(3), 185–207. <https://doi.org/doi:10.1016/j.edurev.2011.09.001>
- Conner, (1992). *Managing at the speed of change: how resilient managers succeed and prosper where others fail*. Random House
- Connor, K. M., & Davidson, J. R. T. (2003). Development of a new Resilience scale: The Connor-Davidson Resilience scale (CD-RISC). *Depression and Anxiety*, 18(2), 76–82. <https://doi.org/10.1002/da.10113>
- Creswell, W. J., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative and mixed methods approaches*. SAGE Publications, Inc.
- Daniilidou, A., & Platsidou, M. (2018). Teachers’ resilience scale: An integrated instrument for assessing protective factors of teachers’ resilience. *Hellenic Journal of Psychology*, 15(1), 15–39. https://pseve.org/wp-content/uploads/2018/05/Volume15_Issue1_Daniilidou.pdf
- Drew, S. V., & Sosnowski, C. (2019). Emerging theory of teacher resilience: a situational analysis. *English Teaching*, 18(4), 492–507. <https://doi.org/10.1108/ETPC-12-2018-0118>

- Erdogan, E., Ozdogan, O., & Erdogan, M. (2015). University Students' Resilience Level: The Effect of Gender and Faculty. *Procedia - Social and Behavioral Sciences*, 186, 1262–1267. <https://doi.org/10.1016/j.sbspro.2015.04.047>
- Ferdig, R. E., Baumgartner, E., Hartshorne, R., Kaplan-Rakowski, R., & Mouza, C. (2020). Teaching, technology, and teacher education during the COVID-19 pandemic: Stories from the Field. *Association for the Advancement of Computing in Education (AACE)*. <https://www.learntechlib.org/p/216903/>
- Gibbs, S., & Miller, A. (2014). Teachers resilience and well-being: A role for educational psychology. *Teachers and Teaching: Theory and Practice*, 20(5), 609–621. <https://doi.org/10.1080/13540602.2013.844408>
- Greenfield, B. (2015). How can teacher resilience be protected and promoted? *Educational and Child Psychology*, 32(4), 52-68. https://www.researchgate.net/publication/320858630_How_can_teacher_resilience_be_protected_and_promoted
- Higgins, G. (1994). *Resilient adults: Overcoming a cruel past*. Jossey-Bass.
- Holmes, E. (2005). *Teacher Well-being: Looking after yourself and your career in the classroom*. RoutledgeFalmer.
- Johnson, B., Down, B., Le Cornu, R., Peters, J., Sullivan, A., Pearce, J., & Hunter, J. (2014). Promoting early career teacher resilience: A framework for understanding and acting. *Teachers and Teaching: Theory and Practice*, 20(5), 530–546. <https://doi.org/10.1080/13540602.2014.937957>
- Leahy, T. (2012). How teachers develop and sustain resilience. Unpublished Dissertation. University of London. <https://core.ac.uk/download/pdf/111071592.pdf>
- Liang, W., Song, H., & Sun, R. (2020). Can a professional learning community facilitate teacher well-being in China? The mediating role of teaching self-efficacy. *Educational Studies*, 00(00), 1–20. <https://doi.org/10.1080/03055698.2020.1755953>
- Mansfield, C. F., Beltman, S., Broadley, T., & Weatherby-Fell, N. (2016). Building resilience in teacher education: An evidenced informed framework. *Teaching and Teacher Education*, 54, 77–87. <https://doi.org/10.1016/j.tate.2015.11.016>
- Masten, A. S., & Wright, M. O. (2010). Resilience over the Lifespan: Developmental Perspectives on Resistance, Recovery, and Transformation. In J. W. Reich, A. J. Zautra, & J. S. Hall (Eds.), *Handbook of Adult Resilience* (pp. 213-237). The Guilford Press.
- Miles, Matthew B., Huberman A. M., S. J. (2014). *Qualitative data analysis: a methods sourcebook* (3rd ed.). Sage Publication.
- Neenan, M. (2018). Developing Resilience: a cognitive-behavioral approach. *Paper Knowledge . Toward a Media History of Documents*. <https://www.readpbn.com/pdf/Developing-Resilience-A-Cognitive-Behavioural-Approach-Sample-Pages.pdf>
- Polat D. D., & Iskender, M. (2018). Exploring teachers' resilience in relation to job satisfaction, burnout, organisational commitment and perception of organizational

climate. *International Journal of Psychology and Educational Studies*, 5(3), 1-13.
<https://doi.org/10.17220/ijpes.2018.03.001>

Prensky, M. (2001). Digital natives, digital immigrants. *On the Horison*, 9(5), 1-6. <https://doi.org/10.1108/10748120110424816>

Sun, J., & Stewart, D. (2007). Age and Gender Effects on Resilience in Children and Adolescents. *International Journal of Mental Health Promotion*, 9(4), 16–25.
<https://doi.org/10.1080/14623730.2007.9721845>

Stuart, G., Carmichael, A., Cunningham, A., Esterson, B., Glass, P., Hinds, D., & Whittaker, C. (2012). Great teachers: Attracting, training and retaining the best. (HC 1515-I). The Stationery Office