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From international governance to individualised learning: The complexity of contemporary higher education

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From international governance to individualised learning: The complexity of contemporary higher education

Editorial

Mary Gobbi
Editor

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Since the last edition of the Journal, six months ago, the world has experienced not only the first wave of COVID 19, but for many countries they are now in the grip of the second wave. Universities in both hemispheres have returned to new semesters, with students experiencing more 'online' learning, outbreaks of COVID in university or local residences. The psychological and mental health consequences of no longer being able to live life in 'close proximity' means that our students have missed social events that formerly were an integral part of university enculturation. The acceleration of distance, virtual and other forms of 'remote' learning has provided an overnight transformation of the academy, with Faculty staff learning new skills and a new vocabulary as the curricula are reformed and reframed out of necessity. We are now 'zoomed out', 'booked on teams', and 'ergonomically strained' through 'working from home' with 'unstable internet' connections. We get 'locked out of buildings' or 'locked in our homes' as we avoid physical proximity with anyone not in our household or 'bubble'. Masks of various shapes, sizes, materials and designs are de rigueur, and perhaps a vaccine may be ready for Christmas or the New Year. Work placements, travel and adventure seem a faint memory, and all this has happened in six months!

So where might we be for the next edition in May 2021? Who knows? Will we be emerging from the metaphorical winter of discontent[1] into the 'summer sun' armed with our jabs, swabs and test results? We can foresee a range of dilemmas that will follow the pandemic, not least of which is when and how will the 'ferryman' be paid?[2] Ever hopeful, as the summer sun approaches, the academy needs to be ready to analyse, question and raise the

[1] Adapted from: William Shakespeare, *Richard III*, Act 1, Scene 1.

[2] Reference to Charon the ferryman in Greek mythology.

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trumpet for equality of access to the vaccines and economic support across the world. How can the international Tuning family use its skills in programme design and competence development to promulgate existing or new generic competences[3] that will be sorely needed as we come out of the pandemic? Having just perused our Tuning generic competences, I note the omissions of some key survival qualities, namely physical and mental resilience, crisis management, the discernment to recognise fake news and having a sense of humour and the ridiculous! I offer, without prejudice and in no order of priority, my 'top 10' competences for being effective in the pandemic- perhaps this should be our next Tuning survey?

1. Capacity to learn and stay up-to-date with learning- health and COVID literacy
2. Capacity to generate new ideas (creativity)- science for COVID-19 solutions
3. Commitment to safety- infection control and population management
4. Ability to work in a team- collaboration not competition
5. Ability to act on the basis of ethical reasoning- how to ration without discrimination
6. Ability to act with social responsibility and civic awareness- compliance, volunteering and supporting others
7. Determination and perseverance in the tasks given and responsibilities taken- keep on carrying on
8. Ability to work autonomously- not to be swayed by the herd
9. Ability to adapt to and act in new situations- new pedagogies, new ways of working
10. Ability to motivate people and move towards a common goal- boosting morale and being collegial

And now to our Christmas/ end of year examination question suitable for scholars in any discipline. Based on the global experience of the 'winter of discontent', in no more than 150 words, explain how in the early days of the pandemic- despite there being no national shortages in the warehouses- some countries were overwhelmed by a shortage of basic hygiene and other necessary products like toilet paper, pasta and tinned goods and others were

[3] "Generic Competences," Tuning Education Structures in Europe (Tuning EU), University of Deusto and University of Groningen, https://www.unideusto.org/tuningeu/competences/generic.html, accessed 13th November 2020.

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not? Creative answers by 1st February 2021 please for a potential special article in the May edition of the Journal.

Indeed, a key question is whether some of our generic competences, if properly mastered, have or would have helped to deal with the shortage of such basics more effectively, with much less stress and panic?

Wishing all our readers a New Year of good health, hope and promise!

The editorial team

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Introduction

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Mary Gobbi
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When analysing the papers that comprise this edition of the Journal, I was struck by how they represented the many facets of Higher Education Institution (HEI) governance. This ranged from governance at the international level to the individualised self-governance of students with respect to their personal approach to learning. Focusing on the nuances of governance is most timely when the entire Higher Education system is engaged in the struggle to keep safe, educate, research, and innovate in a global pandemic.

First, we are introduced to the concepts of governance at the pan national level in Nabaho, Turyasingura, Aguti, and Andama's paper '*Understanding the governance dynamics of a supranational university: The African pioneering model*'. They adopted the OECD definition of university governance namely it is "the structures, relationships and processes through which, at both national and institutional levels, policies for tertiary education are developed, implemented [and reviewed]."[1] The authors draw attention to the post 2010 emergence of governance models for supranational universities supported by regional regulatory frameworks. In their document based case study of the Pan African University (PAU- launched in 2011), they address the question of how such governance models can operate successfully in what they call 'a multi-layered environment'. While voluntary agreements like the Bologna Process operate at pan national level, they do not have the hall marks of the more extensive governance architecture structure necessary for the success of the Pan African University model which is the outcome of political union. In their analysis, Nabaho et al. demonstrated that while the African Standards and Guidelines for Quality Assurance in Higher Education (ASG-QA) provide the minimum standards for effective governance, a wider

[1] OECD, "OECD thematic review of tertiary education" (2008), accessed 12th November 2020, http://www.oecd.org/education/skills-beyond-school/37524697.pdf.

infrastructure is required to support the Universities and Institutes which are each situated within their own nation state and democratic culture. They reveal the power of the national context upon governance and the overall aims of Supranational University mission(s). They show how the supranational documentary discourse may not be realised at the national level.

Nabaho et al., highlighted the tensions that can arise within and between the external governance levers (e.g. international legislation and national governance) –and the 'internal' governance drivers of the institution. In Cassar's paper '*Using the Internationally Recognized Frameworks of Nursing Competences to address the challenges of nurse refugees without documentation'*, we see the practical impact of these tensions upon the personal experiences and lives of individuals. Cassar points out the paradox of a global shortage of qualified nurses, yet the loss of skilled nurses who are refugees because they do not possess their documentary proof of their qualifications when they arrive in the host country. The refugee faces a bewildering number of governance structures/barriers which together can seem impenetrable. As Cassar illustrates, the nurse refugee without documents is at one level protected by international laws concerning refugee status and human rights, but at the same time, in Europe or other transnational regions, is subject to legislation concerning the recognition of qualifications which can exclude them from the nursing labour market. From a Higher education perspective, the refugee can be denied access to education, if they cannot evidence their academic credentials. While some mechanisms are in place to enable refugees to access Higher Education, (e.g. European Qualifications Passport for Refugees) there are few examples within the regulated professions. Cassar argues well for the use of the Tuning Reference Points for Nursing to be employed as a vehicle to enable the individual refugee to be evaluated against the relevant regional Tuning Competences for Registered Nurses. Such a review requires both the regulator and the Higher Education Institutions to have inter-related governance structures, policies and instruments that can include 'assessment or tests of competence', that may 'enable a homogenous transnational approach which is consistent across salient parameters'. While Cassar acknowledges other issues of critical concern, she argues that robust instruments of assessment may provide a solution to this challenge. From Cassar's analysis, we can see that any associated Governance structures would need to address (1) the rights of the refugee, (2) the safeguarding of patients and recipients of nursing care; and (3) the need to be fair with existing professionals/students.

This connection between governance and graduate competence acquisition is evident in Zörner, Mahomed, Zulu, Bader, Tenthani, Cuamba,

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and Chingosho paper '*Meta-profile and competencies for harmonisation of higher education in sector-specific technology areas: A case study of Renewable Energy in Southern Africa'*. However in this paper we see the role of competences in 'enabling the harmonising of technology-based education programmes' which can 'further enhance enterprise nucleation potential due to intra-African industrialisation opportunities, which includes the extension of local country markets'. Here the competence movement is interfacing with the governance structures already present in the field of renewable energies, the regional economic sector, and the development of regional standards on technology and practice. Their stakeholder analysis revealed barriers to the proposed harmonisation process. These barriers included the absence of local development, state of the art technologies in the relevant field, and a lack of competent professionals. National and local governance is influenced negatively when there are insufficient competent professionals in a sector (in this case renewable energies). For example, this leads to sectoral skill gaps on national committees, government departments, agencies that deal with comparability of qualifications in the region, and workforce forecasting, particularly in the industrial sector. At a strategic level, especially in the developing country context, Zörner et al., have shown the crucial importance of having persons able to interact with industry and engage with stakeholders to predict the future employability needs of graduates. This in turn is necessary so the graduates can effectively contribute to the industrialisation strategies and economic plans of countries.

Departing from international and national dimensions of governance, the next two papers, both from Turkey, focus on aspects of self-governance and efficacy in individuals. As will be shown, the outcomes of their respective empirical studies have implications for the governance of individual universities, academic programmes, and academic staff development. First, Şahin and Kılıç in their paper '*Evaluation of the teaching practice course carried out with the Lesson Study Model'* employed action research strategies to evaluate the teaching practice process of trainee Turkish language and literature teachers before and after their placement. Şahin and Kılıç remind us that teachers need both subject matter and pedagogical competences to be effective teachers for school children and that the teaching academy is responsible for the quality of their education. The pre-intervention assessment identified that the trainees had low self-efficacy beliefs as well as worries about their skill levels. This detailed study, employing extensive qualitative data collection tools, provides significant insights into the changes in efficacy, skills and engagement of the trainee teachers that occur following the intervention of the 'lesson study model' which originated in Japan. From

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a governance perspective, national research by Çelik and Gül[2] had revealed weaknesses in the Turkish provision of teaching practice education and this study sought to address this gap. The findings of their study has significant implications for the governance of teacher education at both the subject, institutional and national level. In particular, the introduction of the lesson study model with its associated embedded dimensions of reflective practice has been shown to improve teacher self-efficacy and competence. The study has also revealed the anxieties and concerns of trainee teachers within the subject sector and strengthened the arguments concerning strategies that could be adopted at Ministerial level to improve national teacher training programmes. For readers unfamiliar with action research, the paper provides a useful introduction to this methodology.

Finally, in Durnali's paper '*Investigating self-leadership, self-directed learning, and online learning among university students*' we see an additional aspect of governance, namely the individual learner's ability to apply self-governance to their learning capacities and skills. One can see the connection with Şahin and Kılıç's study with its focus on self-efficacy of trainee teachers. Durnali's paper is most timely as it is concerned with distance learning in HEIs. As Durnali points out, 'the spread of the Coronavirus disease (COVID-19), which broke out in early 2020, has also played a significant role in the increased popularity of distance education'. The rapid and widespread introduction of distance learning education into Higher Education has been unprecedented with academics engaged in rapid adoption as the institutions strove to strengthen their technology structures and platforms to provide the necessary infrastructure. This study which predates the pandemic offers timely information for strategic and operational governance within the HEI sector.

The empirical work underpinning this paper, involved 835 students in Turkey. Durnali investigated the connections and relationships between university students' self-leadership (SL) behaviours, self-directed learning (SDL) skills, and online learning (OL) attitudes in distance learning environments. Methodologically, Durnali used data collected through the «Self-Directed Learning Scale (SDLS),» «Revised Self-Leadership Questionnaire (RSLQ),» and «Online Learning Attitude Scale (OLAS) and tested a specific conceptual model. Of interest here is the very critical role of self-directed learning 'in the relationship between self-leadership and online learning among university students'. The study raised issues concerning

[2] Yaşar Çelik and İbrahim Gül, "Evaluation of Teaching Practice Course According to Teacher Candidate's Opinions," *Asian Journal of Instruction* 6, no. 2 (2018): 82.

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student preparedness and support for distance learning. Durnali argued that Universities that 'provide online education especially in the Covid-19 period' should keep the concepts of SL, ODL and SDL on their agenda as one of their priority strategic issues. Underpinning these findings are implications across the various institutional governance levels, ranging from educational policies, resource allocation, staff development of the academic staff, student guidance and support processes. In addition, the theoretical framework of the study has a place in the teaching of educational theories and their relevance to distance education, including the support of online educational software/platforms that support Self leadership and self-directed learning.

This collection of papers have together invited us to reappraise the different aspects, roles and efficacies of higher education governance whether it be at the level of supernational structures, international legislation, national cultural aspects, institutional internal governance or the self-governance capacities of the individual academic or student. The papers have reminded us of the complexity and complicated nature of the Higher Education system and during these troubling times, the importance of evidence -based governance decisions at the strategic, operational, and individual level.

In the context of COVID 19, HE governance needs a degree of realistic flexibility in order to instigate rapid change, make safe compromises and conduct appropriate risk assessments. Crucially however, institutions must recognise that any such change ought to be accompanied by as much support as possible for both staff and students. The deployment of digital learning technologies when matched by remote/distance learning and accompanied by reduced social face to face interaction risks not only isolating students but diminishes the self-efficacy of students and staff alike. While the individual papers have illustrated aspects of governance, they have not addressed the new nuances of contemporary governance that includes the capacity not only for what Nabaho et al. refer to as institutional self-governance (the evaluative state) but drawing on Durnali and Zorner et al., for self-governance in the human persons who constitute the academy. A meta narrative could integrate or interface stakeholder governance systems with those of the academy and address gaps related to resource capacity, workforce composition and political influence: factors raised in debate, but not fully explored.

Papers in this edition have considered the role of existing or new Tuning competences in aspects of governance. We must now question the extent to which the multi -faceted nature of the evolving trends in contemporary governance and self -governance are sufficiently included in our Tuning

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competences. Indeed, will it be timely post COVID to reappraise the very concepts of Governance itself? How can 'evaluative' governance occur in times of crisis when finding the time for analytical reflection is itself the challenge? Indeed, is there something to be learnt from models of 'realistic/ pragmatic evaluation'?

In the context of corporate governance and written before the pandemic, Deloitte stated that, "In a crisis like that of COVID-19 when the stakes are high and scrutiny is intense, the board has a unique role. Stepping in may be uncomfortable but stepping aside is not an option."[3] This statement raises two questions: Stepping in to do what exactly? And should stepping aside be an option if there is a lack of competence at 'board' level?

Readers, perhaps you have some thought or research related to self-governance and that could be raised in the Journal. Your reflections are welcomed.

[3] Deloitte Global Center for Corporate Governance, "Stepping in: The board's role in the COVID-19 crisis" (2020), 1, accessed 13th November 2020, https://www2.deloitte.com/content/dam/Deloitte/global/Documents/About-Deloitte/COVID-19/COVID-19-The-boards-role-in-crisis.pdf.

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Articles

Understanding the governance dynamics of a supranational university: The African pioneering model

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Abstract: Since the 1990s, university governance has attracted the attention of scholars. However, most of the extant studies focus on the governance of national-level universities and use national regulatory frameworks. Therefore, there is a dearth of studies that hinge on the governance of supranational higher education institutions, such as the Pan African University (PAU), with the aid of regional regulatory frameworks. Consequently, little is known about the governance architecture of supranational universities, which are a post-2010 phenomenon. In view of the above, the article answers the following question: How is the Pan African University governed within a multi-layer environment? Using an interpretive lens, data was collected from the Revised Statute of the Pan African University, 2016. Content analysis was used to analyse the resultant data. The findings revealed that observance of the values of higher education, adoption of the steering-at-a-distance university governance model by the African Union Commission and of the shared governance arrangement, and merit-based selection of staff are the hallmarks of the PAU governance architecture. The governance model of the PAU resonates with the governance architecture of country-level universities in form rather than in substance. The notable variations in the substance include the partial adoption of the philosophy of 'letting the managers manage', the existence of multi-governance layers, lay

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domination of the University Senate, the presence of 'universities' in PAU governance arrangement, the existence of a 'quasi-governance' organ with external representation at the level of the Institute, and the continental outlook of the PAU Council. Therefore, it can be concluded that the missions of the universities and their context shape universities' governance architecture.

Keywords: Governance; university; supranational; organs; functions; Pan African University.

I. **Introduction**

University governance is top of the agenda of the stakeholders in higher education across the globe. The extant studies demonstrate that it is a *sine qua non* for the performance of universities[1] and, specifically, the "financial, research and teaching performances."[2] University governance, when viewed through the prism above, provides an enabling environment for the effective execution of the teaching, research and community engagement missions of the academe. The nexus between university governance and university effectiveness, coupled with the shifting roles of universities in society, has ignited the search for appropriate models of university governance.

Since the 1980s, as a result of the transnational ideas of New Public Management (NPM), university governance in both developed and developing countries has undergone an unprecedented wave of reforms. The first casualty of the NPM-inspired governance reforms was the collegial (or traditional) model of university governance. The model was considered inappropriate in the light of the post-1980 global higher education landscape, which dictated more flexible and external environment-responsive governance arrangements.[3] A central attribute of the collegial model of university governance was that the university Senate, which comprised the professoriate, was the pinnacle of power and authority in the university.[4] For

[1] Javier Núñez and Benjamin Leiva, "The effects of a tripartite 'participative' university senate on university governance: the case of the University of Chile," *Cambridge Journal of Education* 48, no.6 (2018): 749.

[2] Chitra Lokuwaduge and Anona Armstrong, "The impact of governance on the performance of the higher education sector in Australia," *Education Management, Administration and Leadership* 43, no.5 (2014): 822.

[3] Mark Taylor, "Shared governance in the modern university," *Higher Education Quarterly* 67, no.1 (2013): 91.

[4] Julie Rowlands, *Academic governance in the contemporary university: Perspectives from Anglophone nations* (Singapore: Springer, 2017): 27.

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example, in civic universities in the United Kingdom– prior to the 1980s– "no governing body would act in a major policy issue without consulting the Senate and most policy issues were in practice initiated at the senate level."[5] The status of the university Senate in governance was reinforced by the prevailing notion in universities that none other than the academics were "sufficiently qualified to regulate the public affairs of scholars." [6] One of the hallmarks of the collegial model of university governance was that the Vice Chancellors (or the Rectors) were elected by the Senate from among the professors– as the first among equals– to execute a range of ceremonial and administrative duties.[7] The collegial model was criticised, *inter alia*, for its inward-looking inclination and fascination with the *status quo*, the sluggishness in responding to the rapidly changing external environment owing to the consensus-building norm through committees,[8] as well as the perpetual obstructionist tendencies of academics.[9]

Therefore, the collegial model had to pave way for the emergence of a corporate model of governance that is common in the business world. The corporate model of governance – or the entrepreneurial model– is reinforced by the NPM ideas that regard business models as "superior in terms of assuring greater efficiency, accountability, and more effective in managing financial and human resources."[10] The adoption of the corporate model necessitated shifting power away from the senates to new structures (or University Councils) which are lay-dominated, strengthening the institutional leadership [11] as well as reconfiguring the role of the Senate from "decision

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[5] Michael Shattock, "The context of 'modernising' reforms in university governance," in *International trends in university governance,* ed. *Michael Shattock* (Oxford: Routledge, 2014).

[6] Graeme Moodie and Rowland Eustace. *Power and authority in British universities* (London: Allen and Unwin, 1974).

[7] William Saint, "*Guiding Universities: Governance and Management Arrangements Around the Globe*" (2009): 2.

[8] James J. Duderstadt, "*Governing the twenty-first century university: A view from the bridge*" (2002), accessed April 1, 2020, milproj.ummu.umich.edu/publications/view_from_bridge/.../view_from_bridge.pdf.

[9] Robert Birnbaum, "The end of shared governance: Looking ahead or looking back," *New Directions for Higher Education* 127(2004): 6.

[10] Kay Harman and Elaine Treadgold, "Changing patterns of governance for Australian universities," *Higher Education Research & Development* 26, no.1 (2007): 13.

[11] Michael Shattock, "University governance, leadership and management in a decade of diversification and uncertainty," *Higher Education Quarterly* 67, no.3 (2013): 221.

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making to advisory functions"[12] save on pure academic questions. Furthermore, the advent of the corporate model occasioned a shift in power from the academic community towards the executive leadership team headed by the Vice Chancellor [13] as the chief executive officer (CEO).

The NPM-inspired reforms equally induced a transformation from the direct methods of steering universities by governments to indirect methods of steering through the University Councils which are anchored in the maxim of less government and more governance. This migratory trend in university governance has been assigned the label 'steering at a distance' or 'self-governance' and is associated with the rise of the Evaluative State.[14] Steering universities, and, therefore, higher education, at a distance marks a departure from the classical State control to the State supervision model. Under steering higher education at a distance, the Evaluative State "steers higher education towards what it perceives the market needs"[15] with less reliance on legal procedures. Within the new steering mode, the Evaluative State employs contemporary instruments – such as "funding allocation, evaluation and accreditation procedures, human resources policy, and institutional governance structures"[16] – that shape the overall strategy of the university. The common elements of the post-1980 university governance reforms constellate around "the enhancement of institutional autonomy, the professionalization of institutional leadership and administration, and the introduction of more competitive, performance-oriented funding models."[17]

Since the 1990s, studies on university governance have burgeoned in both developed and developing countries. These studies hinge on country-level governance reforms that have impacted higher education institutions in the national higher education landscapes. Relatedly, the studies examine the governance arrangements in universities using the national policy and legal frameworks, regulations and guidelines. Other studies have examined

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[12] Ivar Bleiklie, "Collegiality and hierarchy: Coordinating principles in higher education," in *The global university: Past, present and future perspectives*, edited by A. R. Nelson and I. P. Wei (New York, NY: Palgrave Macmillan, 2012): 90.

[13] Marginson Simon and Considine Mark, *The enterprise university* (Melbourne: Cambridge University Press, 2000).

[14] Guy Neave, "The Evaluative State reconsidered," *European Journal of Education* 33, no.3 (1998): 274.

[15] Neave, "The Evaluative State reconsidered", 277.

[16] Davide Donina and Sandra Hasanefendic, "Higher Education institutional governance reforms in the Netherlands, Portugal and Italy: A policy translation perspective addressing the homogeneous/ heterogeneous dilemma, "Higher *Education Quarterly* 73 (2019):30.

[17] Åse Gornitzka, Peter Maassen, and Harry de Boer, "Change in university governance structures in continental Europe," *Higher Education Quarterly* 71(2017): 274.

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university governance from a supranational viewpoint and, specifically, in the European Higher Education Area – an outcome of the Bologna Declaration of 1999. Nevertheless, these studies boil down to the State level and interrogate how the Bologna Process has influenced the governance architecture at the national level. Consequently, there is a dearth of studies that lean towards the governance of supranational higher education institutions such as the Pan African University (PAU) using regional regulatory instruments. This shortage of scholarship is not unexpected because the concept of supranational universities is new in the global higher education landscape. While Africa actualised the vision of a continental university in 2010–the PAU –, the European Universities idea is already at the project stage.[18] A supranational university – by virtue of its collective ownership by independent States, configuration along thematic areas, the presence of their Institute in national higher education spaces, and its transnational mandate – may necessitate context-sensitive governance arrangements. Therefore, a one size-fits-all governance architecture may be inappropriate for the new genre of universities in the higher education landscape. The dearth of studies on this category of universities means that little is known about such governance architecture for supranational universities.

Against the above background, this article answers the following question: How is the PAU governed within a multi-layer environment? This article comprises five sections. The literature review section follows this introductory section. This is followed by the results section and the discussion and conclusions section, respectively.

II. **Literature review**

This section unpacks and examines university governance in general and further highlights the evolution, mandate and organisation of the PAU.

II.1. *Conceptualisation of university governance*

University governance defies a single definition and it is, therefore, not surprising that it has been assigned the tag of an ambiguous and highly

[18] Brendan O'Malley, "First 17 European universities' alliances announced," World News, 27th June 2019, accessed 3rd April 2020, https://www.universityworldnews.com/post.php?story=20190627085240 36.

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contested concept in higher education discourse. Generally, governance has been associated with basic terms such as 'steering', 'directing' and 'guiding'.[19] In a broad sense, "…governance is about power and authority, who has it and who does not and in whose interest it is used"[20] and also a matter of "responding to the question: who makes what decisions?"[21] Beyond the general conceptualisations, OECD defines university governance as "the structures, relationships and processes through which, at both national and institutional levels, policies for tertiary education are developed, implemented [and reviewed]."[22] University governance is also unravelled as "a conceptual shorthand for the way higher education…institutions are organised and managed."[23] From the above definitions, it can be argued that any attempt to arrive at a solitary definition of university governance is akin to attempting to hit a moving target. However, we find the definition by OECD more appealing because the alternative definitions are implied in it. For example, power, authority, and decision-making which feature in the other definitions are exercised within the structures, relationships and processes which are apparent in the OECD's definition. Finally, the structures and processes in OECD's definition are implied in Neave's definition. The absence of a unified definition notwithstanding, both practitioners and the academia concur that "[g]overnance has become a major leverage tool for improving quality in all aspects of higher education."[24]

The World Bank provides two broad categories of (university) governance: external governance and internal governance. Within this classification, external governance connotes "relations between institutions and their supervisors", whereas internal governance hinges on "lines of authority within institutions."[25] Despite the overlaps between governance

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[19] Bob Jessop, "The rise of governance and the risks of failure: The case of economic development," *International Social Science Journal* 155 (1998): 30.

[20] Kerry J. Kennedy, "Higher education governance as a key policy issue in the 21st century," *Educational Research for Policy and Practice* 2, no.1 (2003):67.

[21] Toma, J. Douglas, "Expanding peripheral activities, increasing accountability demands and reconsidering governance in US higher education," *Higher Education Research and Development* 26, no.1 (2007): 57.

[22] OECD, "*OECD thematic review of tertiary education,"* (2008), accessed 14th March 2020, http://www.oecd.org/education/skills-beyond-school/37524697.pdf.

[23] Guy Neave, "Governance, power and coordination," *IAU Horizons* 12, no.1 (2006): 4.

[24] Fabrice Hénard and Alexander Mitterle, *Governing and quality guidelines in higher education: A review of governance arrangements and quality assurance guidelines* (OECD, 2009): 15.

[25] World Bank, *Higher education in developing countries: Peril and promise* (Washington, DC: The World Bank, 2000).

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and management, attempts have been made to draw a dividing line between the two concepts. Whereas governance is concerned with the formulation of policies, management has to do with "the implementation and execution of policies."[26]

There has been a burgeoning in literature on university governance in Africa. However, as mentioned earlier, the extant literature is skewed towards the governance of public and private universities in national higher education spaces. There is a dearth of studies on the governance of supranational universities using international regulatory frameworks.

The African Standards and Guidelines for Quality Assurance in Higher Education (ASG-QA), which have been in operation since 2018, provide anecdotal insights into the minimum governance architecture of the PAU owing to its continent-wide application. The ASG-QA comprise "governance and management" as one of the 13 standards for African higher education.[27] The ASG-QA stipulate that every higher education institution in the African higher education landscape should have the "…[the] relevant governance and management bodies, such as the University [or Governing] Council, Senate, Management Board, Student Body; and various committees, each with a clear mandate, duties, responsibilities, powers, privileges and tenure"[28] The ASG-QA underscore the imperative to have a competent leadership and management and to provide for student representation in the governance organs.[29]

However, the ASG-QA do not portray the entire picture of the governance arrangements of universities, and especially for a supranational university such as the PAU. Rather, they provide the minimum standards rather than a common template. While the existence of the governance organs is mandatory, the assignment of responsibilities to the governance organs as well as the *modus operandi* of filling the organs are at the discretion of the African Union Commission (AUC) – in the case of the PAU– and the various national jurisdictions. Therefore, a plethora of pertinent questions regarding the governance of the PAU remain unanswered. For example, issues such as these remain unclear: whether the university functions under a unicameral,

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[26] World Bank, "Higher education in developing countries," 59.

[27] Lazarus Nabaho et al., "Quality Assurance of Higher Education Governance and Management: An Exploration of the Minimum Imperative for the Envisioned African Common Higher Education Space," *Higher Learning Research Communications* 10, no.2 (2020): 40.

[28] African Union Commission, *African Standards and Guidelines for Quality Assurance in Higher Education* (Addis Ababa: African Union, 2018).

[29] Nabaho et al., "*Quality Assurance*," 44-47.

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bicameral or tricameral model; whether the Senate has advisory or decision-making powers; and the composition of the governance organs.

II.2. *The Pan African University (PAU)*

The idea of a continental university was conceptualised in 2008 within the Plan of Action for the Second Decade of Education for Africa (2006-2015). The idea finally became a reality in 2010 when the PAU was established by the African Heads of State and Government. The PAU was launched by the AUC on 14 December 2011 as a flagship continental initiative. The headquarters of the PAU is in Yaoundé, Cameroon. The PAU is a continental postgraduate academic, research and innovation institution that was established to invigorate African higher education and research as well as to produce highly skilled knowledge workers to promote the region's knowledge-driven economic growth and development.

The PAU is not a completely new higher education institution but rather a network of existing African universities operating at graduate level in the different regions of the continent. The University comprises five thematic-based Institutes located in the five regions of Africa. The thematic areas are water and energy sciences (including climate change); basic sciences, technology and innovation; life and earth sciences; governance, humanities and social sciences; and space sciences. The thematic-based Institutes of the PAU are:

a. The PAU Institute for Water and Energy Sciences at the University of Tlemcen, Algeria, in the Northern Africa region;
b. The PAU Institute for Basic Sciences, Technology and Innovation at the Jomo Kenyatta University of Agriculture and Technology, Kenya, in Eastern Africa;
c. The PAU Institute for Life and Earth Sciences at the University of Ibadan (Nigeria) in Western Africa;
d. The PAU Institute for Governance, Humanities and Social Sciences at the University of Yaoundé 11 (Cameroon), in Central Africa; and
e. The PAU Institute for Space Sciences (South Africa) for Southern Africa, to be hosted by the Cape Peninsula University.

The African Virtual and E-University, which appears in Agenda 2063 as a flagship project of the African Union, "was realigned by the Executive Council in January 2018 to be operationalized as the open, distance and

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e-learning arm of PAU"[30] and was launched on 20 December 2019. It aims at "[i]ncreasing access to tertiary and continuing education in Africa by reaching large numbers of students and professionals in multiple sites simultaneously."[31]

III. **Methods**

The article explored a particular educational phenomenon – the governance of a supranational university that is characterised by sparse configuration of constituent Institutes. In line with exploratory enquiries, the article employed an interpretive lens. Document review was the sole data collection method. The data was extracted from the Revised Statute of the Pan African University, 2016. The Statute was adopted by the 26th Ordinary Session of the Assembly held on 31 January 2016 in Addis Ababa, Ethiopia. The Revised Statute articulates the collective thinking of the Heads of State and Government of the African Union (AU) or the Assembly in terms of how the PAU should be steered. Most of the Articles of the Statute hinge on governance and management. The following information was extracted from the Statute:

a) The principles that underpin the governance of the university
b) The governance organs
c) The responsibilities assigned to the governance organs
d) The mode of filling the governance organs
e) The relationship between the PAU, the AUC and the host universities of the PAU Institutes

Content analysis – "a research technique for making replicable and valid inferences from text (or other meaningful matter) to the contexts of their use"[32] – was employed to make sense of the data. The data analysis process commenced with writing headings and notes in the Revised Statute while reading it. The notes were used to identify categories from which the themes were developed.

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[30] Pan African University, *Strategic Plan (2020-2024)* (Yaoundé: PAU, 2020): 6.

[31] African Union Commission, *Agenda 2063: First Ten Year Implementation Plan 2014-2023* (Addis Ababa: AUC, 2015): 4.

[32] Klaus Krippendorff K., *Content analysis: An introduction to its methodology*, 2nd ed. (Thousand Oaks: Sage, 2004): 18-19.

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IV. **Results**

This section presents the findings on the governance arrangement of the PAU. The results are presented according to the themes that were extracted from the legal instrument that established the University. The salient and multi-faceted features of the University's governance are represented in the themes below.

IV.1. *Observance of the values of higher education*

Higher education, as a sub-sector of the education system(s), has a common set of values: academic freedom, autonomy and accountability. However, these values may not be entrenched in all the higher education systems. Some States– and even higher education institutions– can transgress the values of higher education. Similarly, the degree of observance of the values can vary from one higher education space to another and from one university to another, depending on the context.

The three values of higher education are part of the principles of the PAU in the Revised Statute, 2016. The Statute confers academic freedom upon the PAU. The Statute is cognisant of the potential of the PAU, the host countries and the host universities of the PAU (and its Institutes) to suffocate academic freedom. To militate against any likely assault on academic freedom, the regulatory framework stipulates that "[t]he PAU as well as its host countries and the host universities shall grant full academic freedom and self-governance in teaching and research to all members of the academic and research staff of the University." [33]

As far as institutional autonomy is concerned, the Statute categorises the PAU as "an autonomous institution of the African Union."[34] By implication, the PAU is a self-governing entity of the AU and, therefore, operates at armchair length from the AUC. The self-governing status accords the PAU the latitude, within the broad frameworks of the AUC, to do the following: formulate the staff regulations and rules; determine the university structure; recruit staff; discipline staff; manage finances; determine the research priorities; formulate and operationalise policies pertaining to teaching, research and innovation; and decide what to teach and who to teach it.

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[33] African Union Commission, *Revised Statute of the Pan African University* (Addis Ababa: AUC, 2016): 4.

[34] African Union Commission, "*Revised Statute*," 5.

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Accountability by the PAU is apparent in the Statute as a principle of the PAU – as an obligation of the PAU Council. As such, it has an implication for the governance organs as the substitute for AUC's control of the PAU. The Revised Statute is explicit on accountability as a guiding principle of the PAU. As a statutory obligation, the PAU Council is required under the Revised Statute to "[r]eport annually on the work of the PAU to the African Union Assembly."[35] In governance and management, reports constitute an accountability tool; they communicate what has been done, how it was done, and what has not been done and why it was not done. Structurally, the PAU Council is positioned between the Assembly at the helm and the University at the bottom. Using the scalar chain principle, it can be inferred that the Rectorate is responsible to the PAU Council which is, in turn, accountable to the Assembly.

The three values (academic freedom, autonomy and accountability) of the PAU are not an end in themselves and the AU Assembly did not entrench them in the Revised Statute in a vacuum. The legal framework stresses a direct nexus between these values and the realisation of the demanding objectives of the PAU. Therefore, the Statute considers these virtues a prerequisite for the supranational university to "function under the best attainable conditions and standards."[36]

IV.2. *Adoption of the steering-from-a-distance principle*

It is explicit that the AUC has granted operating space to the PAU. The granting of autonomy to the PAU under the Revised Statute is the first attestation to the AUC's resolve to steer the University from a distance. Therefore, attempts to micro-manage the University can be construed as observance of the virtue of institutional autonomy more in breach than in practice. However, steering the University from a distance ought to transcend mere articulation of the principles of the University in legislative instruments. The governance architecture should be sensitive to the espoused principles. A mismatch between the values and the structure would amount simply to political symbolism. The governance organs of the PAU depict the congruence between the value of institutional autonomy and the principle of steering at a distance. The Assembly of the African Union – a grouping of the Heads of State and Government– undertook to steer the PAU at a distance by

[35] African Union Commission, "*Revised Statute*," 8.
[36] African Union Commission, "*Revised Statute*," 5.

entrenching the PAU Council in the Revised Statute. Under the direct steering of the University– the opposite of steering from a distance– the PAU Council would be a misplaced governance organ. The PAU Council is an intermediate organ between the Assembly, which has the "supreme overall responsibility of overseeing the PAU",[37] and the PAU. Within the concept of institutional autonomy, the PAU Council is a buffer organ upon which falls the *de facto* onus to shield the senior management against excessive political interference.

The Revised Statute is implicit on the AUC's alternative instruments for steering the PAU at a distance. The first instrument is the Revised Statute itself. The Statute delineates what the University and the university governance organs can do and cannot do on matters relating to the operations of the University. For example, the teaching and research activities of the PAU should strictly align with the thematic areas which the AUC deems critical to Africa's development. Secondly, an Institute of the PAU is implicitly curtailed from designing and implementing programmes as well as conducting research that does not fall within the approved thematic area. As far as quality assurance is concerned, the steering instruments feature in the Revised Statute alongside other principles of the PAU. Within the quality assurance domain, the AUC is progressing towards establishing an African (Higher) Accreditation Agency.[38] As with the practice at national level where national accreditation agencies have been established, the agency will steer the PAU through, among others, *ex post* programme accreditation and external evaluation or quality audit. Specifically, accreditation will gauge the academic programmes of the PAU and other universities, and the extent to which they align with the theme which has been assigned to the Institute. Finally, as in national jurisdictions, the accreditation agency will be responsible for supervising the PAU. We should add a caveat here: the agency will have a continent-wide mandate over higher education in Africa and, by implication, all higher education institutions. Generally, these instruments are intended to influence the PAU to be sensitive to Africa's development priorities and to view herself as a means to an end– a tool for the realisation of the AU's long-term vision.

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[37] African Union Commission, "Revised *Statute*," 7.

[38] African Union Commission, *Agenda 2063: The Africa We Want* (Addis Ababa: AUC, 2015).

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IV.3. *Observance of the shared governance model*

The shared governance (and management) architecture of the PAU can be examined from two levels: the University-level governance arrangement and the Institute-level management arrangement.

IV.3.1. University-level governance architecture

Governance at the University level follows the tripartite model that assigns responsibilities to the triple governance organs of the academy: the University Council, the University Senate, and the Rectorate.

IV.3.1.1. The PAU Council

The PAU Council is the supreme governing organ of the PAU. Supremacy in this case suggests that it has the final say on all the affairs of the University save for purely academic questions. The legal framework for the PAU stipulates, *inter alia*, the functions and composition of the PAU Council. The primary responsibilities of the PAU relate to approving the recommendations from the PAU Senate and the Rectorate. The word "approval" appears in eight out of the 12 functions of the PAU Council. The matters for approval by the PAU Council can be nested into two categories: academic matters and administrative matters:

Table 1

Business for approval by the PAU Council

Business from Senate for approval by the PAU Council	**Business from the Rectorate for approval by the PAU Council**
• Recruitment, promotion and discipline of academic and research staff • General staff rules and regulations, taking into account the recommendations from the PAU Senate regarding regulations related to the recruitment and selection of academic staff • Code of conduct for PAU staff and students	• All other PAU regulations, rules, measures, directives, policies and procedures which shall govern the activities of the PAU • Work plans and budgets • Strategic development plans and operational plans • Agreements, contracts and other arrangements of a legal nature to be signed by the Rector on behalf of the PAU • Appointment of members of the PAU Senate nominated by the Rector

Three extrapolations can be made from the foregoing discourse. First, the PAU has been assigned a general supervisory role, as exemplified by most of its business originating from the lower-level governance organs. Second, decisions of the PAU Senate which have financial implications (e.g. recruitment, promotion and discipline of academic and research staff) and a regulatory component require approval by the PAU Council. The regulatory aspects include policies, rules and regulations, codes of conduct, and guidelines. Therefore, the PAU Senate functions as a committee of the PAU Council on matters that require approval by the latter. Despite functioning as a committee, the PAU Council cannot act on such matters without recommendations from the PAU Senate. Finally, in a few instances the PAU Council has jurisdiction to act in some matters without recommendations from the PAU Senate but is only required to consult it. A review of the functions of the PAU Council reveals that decisions of the PAU Council which have academic implications (e.g. designating new Centres of the PAU and Institutions affiliated to the PAU as well as Programme Departments within the Institutes and Centres of the PAU) require consultation with the Senate.

However, it should be borne in mind that the PAU Council does not have absolute powers over the approval of the staff rules and regulations. This is a case where 'approval' requires 'approval' by another authority. After approval by the PAU Council, the staff rules and regulations are submitted to the Executive Committee of the AU for final approval. This requirement that the PAU Staff rules and regulations should be approved by the Executive Council is precautionary in nature and a risk-prevention and management strategy. In other words, it is intended to guard against the PAU Council varying the staff rules and regulations from the Staff Rules and Regulations of the African Union, which equally apply to staff of the PAU. However, this does not mean that the PAU's role to develop staff rules and regulations is completely curtailed. The PAU can, in fact, develop staff rules and regulations on human resource management aspects which the Statute has declared in the AUC Staff Rules and Regulations as not applicable to the PAU academic staff. These include the provisions of the AU Staff Rules and Regulations on age and the quota system as well as "other exceptions as may be identified taking into account the unique nature of the PAU as an academic institution"[39] and which must be submitted "for the consideration and approval of the Executive Council."[40]

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[39] African Union Commission, "*Revised Statute*," 20.

[40] African Union Commission, "*Revised Statute*," 20.

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The PAU Council comprises:

- [The] President;
- [The] Vice President;
- The Commissioner for Human Resources, Science and Technology;
- The Vice Chancellors/Vice Rectors of all host universities of PAU Institutes;
- The Chairperson of the Specialised Technical Committee (STC) in charge of education or his/her representative;
- The PAU Rector (ex-officio);
- The Directors of all PAU Institutes;
- A representative of the United Nations Educational, Scientific and Cultural Organisation (UNESCO);
- A representative from each of the RECs [Regional Economic Communities];
- Two scholars from the African Diaspora appointed by the Chairperson of the Commission;
- A representative of the Association of African Universities (AAU);
- A representative of the African Academy of Sciences (AAS);
- A representative of the Key and Thematic Partners on a rotational basis;
- A representative of academic staff of the PAU;
- A representative of administrative staff of the PAU; and
- Two representatives of students of the PAU.

The composition of the PAU Council, except for the President and Vice President, is both representational (constituency-based) and position-based. The majority of the members of the PAU Council represent a section of stakeholders while others qualify for membership by virtue of the positions they hold in the AUC, and in the host universities or the PAU. The President and Vice President of the PAU Council are not elected from among the members of the PAU Council. Rather, they are elected by the Executive Council from a list of five candidates presented by the Bureau of the Specialised Technical Committee (STC) of the AU. The Executive Council comprises the Ministers responsible for foreign affairs of the member States of the AU while an STC is a thematic committee on education, science and technology that is answerable to the Executive Committee. The STC on Education, Science and Technology brings together the Ministers in charge of education, and the Ministers in charge of science, technology and innovation. Therefore, the President and Vice President of the PAU are

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indirect representatives of the AU on the PAU Council. The mode of appointment of the leadership of the PAU could have been intended to provide the leaders with the authority to promote the continental interests as opposed to narrow constituency-based interests. Second, it could have been intended to forestall the risk of breeding incompetent leadership of the oversight organ, which can arise if the leadership is selected from among the members.

The composition of the PAU Council stresses two messages. First, the University should be viewed through the lens of a stakeholder organisation rather than a closed community of scholars. Within the stakeholder discourse, both internal and external stakeholders should be involved in university governance. Despite this, the PAU Council is lay-dominated. This is attested by the two-thirds (or 20) of the members of the PAU who are neither employees of the PAU nor students. The decision-making processes of the PAU can shed some light on what is beneath these numbers. Operationally, the decisions of the PAU Council are adopted by a two-thirds majority of the members present. Therefore, tilting the numerical strength of the PAU Council in favour of lay people could have been meant to avert the internal stakeholders' obstructionist tendencies as far as decision-making on matters that are diametrical to their interests is concerned. The second message is the imperative to strengthen linkages between the University and society.

The PAU Council has very high prospects of attracting over 50% of persons who have either toiled or are toiling in the vineyard of teaching and research. The obvious cases are the five Vice Chancellors of the host universities, the Rector of the PAU, the five Directors of the PAU Institutes, two scholars from the African Diaspora, the representative of the academic staff of the PAU, and a representative of the Association of African Universities. This brings the number to 15 out of the 30 members. This is arguably one strength of the PAU Council. Such an oversight body is likely to be predisposed towards matters of education policy rather than the general administrative matters and is likely to rely less on the strategic guidance of the Rector.

IV.3.1.2. The Senate

The PAU Senate is responsible for the "academic affairs, research and innovation activities of the PAU" [41] as well as the welfare of students. It is the principal academic body of the PAU. The PAU Senate has a broad range of

[41] African Union Commission, "*Revised Statute*," 12.

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advisory responsibilities to the PAU as well as a narrow scope of decision-making responsibilities. The advisory roles relate to making recommendations to the PAU Council on the matters that have been highlighted in the first column of **Table 1** above. The decision-making responsibilities of the PAU Senate hinge on purely academic matters such as "admission, assessment and examination of students, as well as award and revocation of degrees"[42] and the "welfare and discipline of students."[43] The PAU Senate also receives recommendations on academic matters from the Boards of Institute – a quasi-governance organs at the Institute level– for consideration and approval if such recommendations fall within the matters over which the Senate has decision-making powers. A review of the roles of the PAU Senate shows that it has no business involving itself in strategy and financial management matters.

The PAU Senate comprises:

- The Rector;
- A representative of the Department in charge of Education within the [African Union] Commission;
- [The] Vice Rector for Academic and Students Affairs;
- [The] Vice Rector for Research, Development and Cooperation;
- [The] Director of Administration and Finance;
- The Deputy Vice Chancellor/Vice Rectors responsible for academic affairs at all host universities of PAU Institutes;
- The Directors of all PAU Institutes;
- One representative of the academic and research staff of each PAU Institute appointed by the PAU Council on the recommendation of the Rector; and
- One student representative from each PAU Institute appointed by the PAU Council on the recommendation of the Rector.

The PAU Senate is dominated by the administrative staff of both the PAU and the host universities of the PAU Institutes. Academic staff and students constitute 40% of the membership of the PAU Senate, with each stakeholder group accounting for 20% of the membership.

[42] African Union Commission, "*Revised Statute*," 12.
[43] African Union Commission, "*Revised Statute*," 12.

IV.3.1.3. The Rectorate

The Rectorate of the PAU comprises the Rector, the Vice Rector for Academic and Students Affairs, and the Vice Rector for Research, Development and Cooperation. The Rectorate is headed by the Rector who is, at the same time, the CEO of the PAU. The Rector is directly responsible to the PAU Council. The executive leaders at the Rectorate are appointed by the Chairperson of the African Union Commission on the recommendation of the PAU Council following a competitive process. The appointments run for five years and renewable once.

The Revised Statute demonstrates an attempt to strengthen the steering core of the PAU. The Rector has been granted authority over human resource matters but subject to certain checks and balances. A case in point is where the Statute empowers the Rector to "appoint all other staff of the Rectorate [except the Vice Rectors and the Director Administration and Finance] with the approval of the PAU Council."[44] This resonates with the principle of letting the managers manage but also underscores the tension between empowerment and control.

The Statute assigns the performance management role of the Rector to the PAU Council. Therefore, the notion of performance contracting is explicit in the Statute. The executive leaders at the Rectorate are supposed to be evaluated annually by the PAU Council. The annual performance evaluations are preceded by annual performance contracts. The purpose of annual performance evaluations is to engender a high-performance culture and facilitate the achievement of the objectives of the PAU.

IV.3.2. Institute-level management

The thematic Institutes are the building blocks of the PAU. It is at the Institutes that teaching (and learning), research and innovation take place. Therefore, the Programme Departments and the Centres of the Institutes constitute the academic heartland of the PAU. Each Institute is headed by a Director who is responsible for the day-to-day management and administration of the Institute. The Director serves as a link between the Institute and the Rectorate. Each Institute is required to have a Board of the Institute comprising:

[44] African Union Commission, "*Revised Statute*,"11.

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- A Vice Rector (Chairperson);
- The Director of the Institute (Secretary);
- Two Coordinators or Programme Departments within the Institute (on a rotational basis);
- The Coordinators of all Centres of the Institute (on a rotational basis);
- All full-time academic staff of the Institute;
- Two representatives of the Senate of the host country; and
- A representative of the thematic partners of the Institute (on a rotational basis).

The Board-– which is required to meet at least twice a year– is a 'quasi-governance' organ which is responsible for "the supervision of the academic, financial and administrative management of the institute."[45] The Board is chaired by a Vice Rector, who is appointed by the Rector in consultation with the PAU Senate. The Board has no decision-making latitude but merely makes recommendations to the PAU Senate and the Rectorate depending on the body under whose jurisdiction the recommendation falls. The recommendations to the Rector are only in terms of appointment of non-professorial staff. On the other hand, the bulk of the work relates to making recommendations to the PAU Senate on matters such as the academic establishment of the Institute, student assessment reports, the promotion of teaching and research staff as well as programme-related matters.

IV.4. *Involvement of the host universities*

The Revised Statute describes the PAU as "a unitary academic, research and innovation Institution comprising thematic Institutes hosted in the five different geographical regions of Africa by existing academic institutions operating at graduate level."[46] The essential elements in the description are theme, region and institutions. This begs the question: Do these attributes of the PAU have implications for the governance of the supranational university? A glimpse into the composition of the PAU Council, the PAU Senate and the Boards of Institutes depicts how the three attributes have been infused in varying degrees into some of the governance and management organs of the PAU. The only organ in which they have not been entrenched is the Rectorate

[45] African Union Commission, "*Revised Statute*," 17.
[46] African Union Commission, "*Revised Statute*," 6.

owing to the imperative to create a dividing line between governance and management.

Unlike the regional economic communities and the thematic partners, the host universities are represented on the PAU Senate. Again, the host institutions and the thematic partners converge on the Boards of Institutes. However, the point to note is that the host universities have *de jure* representation in the unicameral model which assign the PAU Council the oversight and the PAU Senate a heavily advisory role to the PAU Council. Similarly, the host university is represented on the Boards of Institutes which exercise a supervisory role over the PAU Institutes in the different geographical locations. Therefore, the host universities are involved in governance at the PAU Council, the PAU Senate and at Boards of Institute. At the Council level, the Vice Chancellors/Rectors of the host universities of the PAU Institutes are members of the PAU Council. On the other hand, the Deputy Vice Chancellors/Deputy Rectors responsible for academic affairs at all the host universities are members of the PAU Senate.

The presence of the host universities at all the levels can be explained by the convergence in the missions of the PAU and the host universities, and the imperative to strengthen synergy between the two universities. Another explanatory factor is the nature of the academic awards. The Statute states that "[d]egrees shall be jointly awarded by the PAU and the host institutions" [47] and this necessitates participation of the host universities in the oversight organs.

IV.5. *Merit-based selection*

Merit is the guiding principle for appointment to academic, administrative, technical and support positions at the PAU. The Revised Statute stipulates that "the basic criteria for selection [of staff] shall be the highest standards of qualification, competence, efficiency and integrity."[48] In addition to the statutory provision above, there are other explicit indicators of the merit principle. First, appointments to executive leadership positions are effected after a competitive selection process. Therefore, election by the Council, open competitive electioneering, election by the peers and handpicking by certain actors are unacceptable means of assumption of office at the PAU. Even for positions for which the Rector is empowered to appoint staff, there

[47] African Union Commission, "*Revised Statute*," 24.
[48] African Union Commission, "*Revised Statute*," 20.

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is provision for consulting the PAU Council before such appointments are effected. This indirectly assigns veto powers to the PAU in instances where merit might have been compromised during the recruitment and selection processes.

There is a nexus between merit and the performance of an institution. Viewed from the perspective of education, the quality of education can rise above the quality of the teachers. Within the open system thinking, the quality of staff – especially the quality of academic staff– influences the quality of the outputs in terms of the graduates, research and innovations. Considering the demanding objectives of the PAU in the domain of research, teaching and innovation, it is unlikely that merit would take a backseat during recruitment and selection. Similarly, the PAU has set out to nurture quality and exemplify excellence as well as become a world-class University. These aspirations demand that attention is paid to the quality of staff.

V. **Discussion and conclusions**

The article has described the governance architecture of the PAU within the context of a supranational higher education institution. The PAU is a brainchild of a political grouping– the African Union – to achieve the political, social and economic ends of the Union. It exemplifies the commitment of the political leadership at the highest echelons to address the endemic challenges confronting the continent through higher education. Therefore, the governance and management of the PAU cannot be insulated from the politics of the time. The Assembly, both directly and through other political organs, such as the Executive Committee and the AUC, remotely steer the University. Despite being at a distance, these remote actors wield considerable power over important decisions save for purely academic questions and matters at the student-academic interface. The leadership of the PAU Council is appointed by the supranational body and is, therefore, likely to steer the activities of the PAU towards the AU agenda.

The principal governance organs of the PAU are the University Council, the Senate and the Rectorate or the executive leadership arm. There is a convergence in the governance organs of the PAU with the principal governance organs of universities in African countries,[49] similar to those in

[49] Ebrima Sall and Ibrahim Oanda, "Revitalising higher education for Africa's future," *JHEA/RESA* 12, no.2 (2014): 102-104.

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the United Kingdom,[50] Australia, [51] and Uganda.[52] The parallel in the main governance organs can be rationalised by the convergence in the missions of universities. There is another convergence of the findings with the governance trends in continental Europe, Australia and the United States. Specifically, the subordination of the Senate to the Rector, relegation of the Senate to an advisory role and strengthening the executive arm of the university are in sync with the higher education developments in continental Europe and in Australia.[53] In terms of strengthening the Rectorate, the Rector of the PAU has been empowered to appoint all staff in the Rectorate, save the Vice Rectors, in consultation with the University Council. This is consistent with the private sector practices which emphasise accountability for results and advocate the delegation of staffing authority to the chief executives. This is intended to guard against the tendency by the CEOs to attribute the non-achievement of results to the quality of staff appointed by other organs.

In some cases, the findings deviate from the findings in the previous studies on university governance. The previous studies point to the idea that the university senates are dominated by academics. The findings in this study point to the contrary. The Senate of the PAU is lay-dominated. The small number of academics in the Senate could be as a result of the representational mode of membership by the Directors of the PAU Institutes. Secondly, it could be due to the desire not to involve academics in academic governance beyond their thematic area around which the Institute is organised. Therefore, academics can participate in academic governance at Institute level. Secondly, reforms in university governance, and the practices in Australia and continental Europe, point to a shift to small and lay-dominated University Councils. Whereas the PAU Council is lay-dominated, the number of members is 30 compared to a maximum of 15 members that was reported by studies in continental Europe and Australia. The huge number can be explained by the nature of the PAU. As a continental university, the PAU should take care of the huge number of stakeholders for it to have a continental outlook.

A noteworthy finding is that, in addition to the principal governance organs of the PAU, the Institutes have 'quasi-governance bodies'– or Boards of Institutes–which are charged with oversight of the academic, administrative

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[50] Shattock, "*University governance, leadership and management,*" 222-228.

[51] Rowlands, *Academic governance*.

[52] Lazarus Nabaho, "Shared governance in public universities in Uganda: Current concerns and directions for reform," *International Journal of African Higher Education* 5, no.1 (2019): 61.

[53] Rowland, "*Academic governance*."

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and management affairs of the Institutes. The Boards comprise both internal and lay stakeholders. This organ is a variant and does not exist in universities at national level. As already stated, the Board is chaired by a Vice Rector who is appointed by the Rector. The purpose of this organ could have been to bring the Rectorate's oversight role closer to the Institutes and to place the oversight role of the Institutes in the hands of the stakeholders who are based within the region. Finally, it could have been intended to compensate for the limited participation of academics in governance at the macro- or university-level organs such as the PAU Council and the PAU Senate. As we have noted earlier, the PAU Senate is lay-dominated in contrast to the composition of the senates at national level. It is, therefore, not surprising that the oversight functions which have an academic element outnumber those with an administrative and managerial component.

In view of the findings, it can be inferred that the governance landscape of a university is influenced by the context. Therefore, while there is a convergence in the form of governance organs, the substance of these governance organs varies considerably across contexts. The PAU has revealed governance dynamics which are unique to its nature as a supranational institution. Therefore, a common template or a one size-fits-all governance arrangement for universities is untenable. Finally, the governance arrangements by the States and supranational bodies are a means to an end. In other words, they are aimed at steering universities to contribute to societal needs.

The study contributes to the university governance literature and practice by providing perspectives from a supranational university as a new entrant in the global higher education landscape and discourse. The findings provide insights which may be contextualised in national higher education spaces with a view to enhancing governance. Finally, the article has examined the provisions of the Revised Statute of the PAU from a scholarly point of view. Therefore, we have extended the discourse from 'what the Revised Statute stipulates' as is the case at the moment to 'what it stipulates, why it stipulates it, and the implications of what it stipulates' for university governance in particular and higher education in general.

The article used the Revised Statute as the sole data collection document. Therefore, the findings lean more towards what should be rather than what is. In the governance discourse regulatory frameworks can reflect political symbolism, hence creating a gap between statutory provisions and practice. In view of this limitation, we recommend that studies focus on the PAU's compliance with governance provisions in the Revised Statute and the effectiveness of such a governance system.

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Bibliography

African Union Commission. *Second Decade of Education for Africa (2006-2015) Plan*. Addis Ababa: AUC, 2006.

———. *Agenda 2063: First Ten-Year Implementation Plan 2014–2023*. Addis Ababa: AUC, 2015.

———. *Agenda 2063: The Africa We Want*. Addis Ababa: AUC, 2015.

———. *Revised Statute of the Pan African University*. Addis Ababa: AUC, 2016.

Birnbaum, Robert. "The end of shared governance: Looking ahead or looking back." *New Directions for Higher Education* 127(2004):1-22.

Bleiklie, Ivar. "Collegiality and hierarchy: Coordinating principles in higher education," in *The global university: Past, present and future perspectives*, edited by A. R. Nelson & I. P. Wei, 85-104 (New York, NY: Palgrave Macmillan, 2012).

Donina, Davide, and Sandra Hasanefendic. "Higher education institutional governance reforms in the Netherlands, Portugal and Italy: A policy translation perspective addressing the homogeneous/heterogeneous dilemma." *Higher Education Quarterly* 73 (2019): 29-44. https://doi.org/10.1111/hequ.12183.

Duderstadt, J. James. "Governing the twenty-first century university: A view from the bridge." (2002). Retrieved April 1, 2020 from milproj.ummu. umich.edu/publications/view_from_bridge/.../view_from_bridge. pdf.

Hénard, Fabrice, and Alexander Mitterle. *Governing and quality guidelines in higher education: A review of governance arrangements and quality assurance guidelines*. Paris: OECD, 2009.

Gornitzka, Åse, Peter Maassen, and Harry de Boer. "Change in university governance structures in continental Europe. *"Higher Education Quarterly 71*(2017): 274-89. https://doi.org/10.1111/hequ.12127.

Jessop, Bob. "The rise of governance and the risks of failure: The case of economic development." *International Social Science Journal* 155 (1998):29-45. https://onlinelibrary.wiley.com/doi/pdf/10.1111/1468-2451.00107.

Harman, Kay, and Elaine Treadgold. "Changing patterns of governance for Australian universities." *Higher Education Research & Development* 26, no.1 (2007): 13-29. DOI: 10.1080/07294360601166786.

Kennedy, Kerry J. "Higher Education governance as a key policy issue in the 21st century." *Educational Research for Policy and Practice* 2, no.1 (2003): 55-67. https://doi.org/10.1023/A:1024468018883.

Krippendorff, Klaus. *Content analysis: An introduction to its methodology*. 2nd ed. Thousand Oaks: Sage, 2004.

Lokuwaduge, Chitra, and Anona Armstrong. "The impact of governance on the performance of the higher education sector in Australia." *Education Management, Administration and Leadership* 43, no.5 (2014): 811-27. https://doi.org/10.1177%2F1741143214535740.

Marginson, Simon, and Mark Considine. *The enterprise university*. Melbourne: Cambridge University Press, 2000.

Tuning Journal for Higher Education
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doi: http://dx.doi.org/10.18543/tjhe-8(1)-2020pp27-52 • http://www.tuningjournal.org/

Moodie, Graeme, and Rowland Eustace B. *Power and authority in British universities*. London: Allen and Unwin, 1974.

Nabaho, Lazarus. "Shared governance in public universities in Uganda: Current concerns and directions for reform." *International Journal of African Higher Education* 5, no.1 (2019): 45-65. https://doi.org/10.6017/ijahe.v5i1.10962.

Nabaho, Lazarus, Wilberforce Turyasingura, Alfred K. Kiiza, Felix Andama, and Adrian Beinebyabo. "Quality Assurance of Higher Education Governance and Management: An Exploration of the Minimum Imperative for the Envisioned African Common Higher Education Space." *Higher Learning Research Communications* 10, no.2 (2020): 38-52.
DOI:10.18870/hlrc. v10i2.1183.

Neave, Guy. "The Evaluative State Reconsidered." *European Journal of Education* 33, no.3 (1998): 265-84. https://www.jstor.org/stable/1503583.

———. "Governance, power and coordination." *IAU Horizons* 12, no.1 (2006).

Núñez, Javier, and Benjamin Leiva. "The effects of a tripartite 'participative' university senate on university governance: The case of the University of Chile." *Cambridge Journal of Education* 48, no.6 (2018): 749-67. https://doi.org/10.1080/0305764X.2017.1418832.

OECD.*OECD thematic review of tertiary education* (2008).

O'Malley, Brendan. "First 17 European universities' alliances announced." University World News, 27 June 2019.

Pan African University, *Strategic Plan (2020-2024)* Yaoundé: PAU, 2020.

Pennock, Lea, Glen A. Jones, Jeff M. Leclerc, and Sharon Li X. "Challenges and opportunities for collegial governance at Canadian universities: Reflections on a survey of academic senates." *Canadian Journal of Higher Education* 46, no.3 (2016): 73-89.

Rowlands, Julie. *Academic governance in the contemporary university: Perspectives from Anglophone nations* (Singapore: Springer, 2017).

Saint, William. "Guiding Universities: Governance and Management Arrangements Around the Globe" (2009).Available at: https://teqipgoodgovernance.in/pdf/University-Governance-and-Management-FINAL-Revised-2-Feb-2010.pdf.

Sall, Ebrima, and Ibrahim Oanda. "Revitalising higher education for Africa's future." *JHEA/RESA* 12, no.2 (2014): 95-107.

Shattock, Michael. *Managing good governance in higher education*. Maidenhead: Open University Press, 2006.

———. "University governance, leadership and management in a decade of diversification and uncertainty." *Higher Education Quarterly* 67, no.3 (2013): 217-33. https://onlinelibrary.wiley.com/doi/abs/10.1111/hequ.12017.

———."The context of 'modernising' reforms in university governance." In *International trends in university governance,* edited by Michael Shattock, 1-14. Oxford: Routledge, 2014.

———. "University governance, leadership and management in a decade of diversification and uncertainty." *Higher Education Quarterly* 67 (2017): 217-33. doi:10.1111/hequ.12017.

Taylor, Mark. "Shared governance in the modern university." *Higher Education Quarterly* 67, *no.1 (2013):* 80-94. https://doi.org/10.1111/hequ.12003.

Toma, J. Douglas. "Expanding peripheral activities, increasing accountability demands and reconsidering governance in US higher education." *Higher Education Research and Development* 26, no.1 (2007): 57-72. https://doi.org/10.1080/07294360601166810.

United Nations Information Service (USIS). "Information technology should be used to tap knowledge from greatest universities to bring learning to all, Kofi Annan says." Published August 2, 2000. Accessed 3rd February 2020. https://www.un.org/press/en/2000/20000802. sgsm7502.doc.html.

World Bank. *Higher education in developing countries: Peril and promise*. Washington, DC: The World Bank, 2000.

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Using the Internationally Recognized Frameworks of Nursing Competences to address the challenges of nurse refugees without documentation

Maria Cassar*

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Abstract: Individuals seeking refuge in host countries is a global reality. Some of these individuals are qualified nurses. If, and when, the documents pertaining to a nurse qualification are not presented to the respective authorities of a host country, the challenges for these qualified nurses to secure registration and employment as nurses are numerous and often unsurmountable. Access to higher education opportunities is similarly compromised in the absence of relevant documents. This is happening against the backdrop of a widely reported global shortage of qualified nurses, and an extensive effort and investment to address this shortage in many countries. This paper explores the feasibility and appropriateness of applying internationally recognized frameworks of competences of nurses, to processes which seek to evaluate and verify the nurse training and qualification claimed by refugee nurses. The author seeks to determine whether such frameworks of nurse competences may effectively and efficiently contribute towards initiatives which are geared towards addressing the gap in (qualification) document availability, traceability, verification and reproduction of nurse refugees. A critical consideration of a few existent initiatives is presented in view of exploring, the identification of a tool which may enable a homogenous transnational approach which is consistent across salient parameters.

Keywords: Nurse refugees; competences frameworks; nurse qualification; nursing shortage; Tuning.

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I. **Background**

The world continues to witness individuals leaving their home country and seeking refuge in another country for whatever reason. The Eurostat figures available at the time of preparation of this paper demonstrate that the EU member states granted protection to more than 185,000 asylum seekers in 2014, up by almost 50% compared with 2013. In turn, during the third quarter of 2015, more than 410,00 first time asylum seekers had registered for international protection in EU members states. This figure was almost double that registered in the second quarter of 2015. The number of first-time asylum seekers in the third quarter of 2016 was almost 360,00 in member states of the EU bringing the total to almost 950,000 in Sept 2016.[1] 612 700 first-time asylum seekers applied for international protection in the Member States of the EU in 2019. Not all asylum seekers are granted refugee status in the host country where their application is processed. Nevertheless, these figures leave little scope for discussing whether refugees, to-date, are seeking to re-start their lives in different countries, and that they are doing so in large numbers.

The United Nations 1951 Refugee Convention[2]defines a refugee as:

> A person who owing to a well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion is outside the country of his nationality and is unable or, owing to such fear, is unwilling to avail himself of the protection of that country; or who, not having a nationality and being outside the country of his former habitual residence as a result of such event is unable or, owing to such fear, is unwilling to return to it.

This paper draws upon such definition and the word refugee is used in the light of this definition. When refugees reach a host country, they often arrive with educational qualifications and work experience, but with no documents. This means that refugees are often unable to use their qualifications to work or to access higher education. This entails a loss for the individual refugees, and a waste of knowledge, skills and expertise to the host country. In addition, this also comprises a loss to the refugees' home

[1] "Eurostat," European Commission, accessed August 26, 2020, http://ec.europa.eu/eurostat/search?p_auth=8Oe9bK8q&p_p_id=estatsearchportlet_WAR_estatsearchportlet&p_p_lifecycle=1&p_p_state=maximized&p_p_mode=view&_estatsearchportlet_WAR_estatsearchportlet_action=search&text=asylum+seekers.

[2] "UN Refugee Convention," UNHCR, accessed March 8, 2017, http://www.unhcr.org/pages/49da0e466.html.

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countries. Refugees are greatly needed in their home countries. Retaining and extending their competencies while they are abroad will optimize their potential to help rebuild their home countries upon their possible eventual return. The need to develop processes to be able to assess the qualification of refugees is therefore clear on various fronts and for various reasons. The challenge lies with determining a valid assessment of one's claimed qualification. The validity needs to hold, not only where the refugee first arrived but also anywhere the refugee may subsequently seek residency at a later time.[3]

Some refugees are nurses in their home country. This paper focuses on qualified general nurses. "Qualified general nurse" here refers to the trained individual who, by mean of training and qualification, is entitled to hold the protected title of a general nurse. In turn, such title is protected in the sense that it is assumed only if and when a certain level and nature of training is successfully completed. The central bearing of the qualified nurses in the workforce of any health care system is globally acknowledged. Nurses and nursing care has been widely distinguished as the backbone a health care system[4]Against the backdrop of a widely reported global shortage of qualified nurses, and the extensive effort and investment to address this shortage in many countries, the reality described above is even more concerning, perhaps ironic. This paper focuses on the context of Malta, a small independent island state in the European Union, situated in the Mediterranean seas between Sicily and North Africa. In Malta, too, a shortage of nurses is consistently reported and efforts to recruit nurses into the health system are continually prevalent. The world is experiencing a shortage of nurses, whilst, concurrently, qualified nurse refugees are unable to register and work as nurses, because of gaps in their documents when they reach a host country. This prevailing scenario suggests that in the context of nursing, the need to determine and recognize the qualifications of refugees who are nurses is not merely indicated, but it is urgent and pertinent to welfare of health care systems around the world. The application and use of the internationally recognised frameworks of competences of nurses towards addressing this need was explored by the author. This paper reports the exploration of the application of the TUNING framework.

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[3] "Imagine for a Second," Council of Europe, accessed April 1, 2017, https://www.coe.int/en/web/education/documentary-on-project-european-qualifications-passport-for-refugees.

[4] Peter I. Buerhaus, David I. Auerbach, Douglas O. Staiger, and Ulrike Muench, "Projections of the long-term growth of the registered nurse workforce: a regional analysis," *Nursing Economics* 31, no. 1 (2013): 13.

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Tuning projects have to-date functioned as instruments for promoting understanding and cooperation between institutions, countries and regions around the globe. These projects bring together different stakeholders to agree on competences necessary to enter a professional community or a community of practice in terms of employment. In Tuning projects, experienced and knowledgeable recognised experts in specific subjects, collectively, develop competence frameworks in a subject area, by focusing on competence-based criteria, which a student is expected to develop through a training programme.

The main strengths of Tuning projects are (a) openness to the different cultural contexts in which academics and students in different countries and regions work, and (b) the active quest for a mutually understood discourse.[5] Such characteristics of Tuning- its transnational and inter-regional nature - posit the outputs of these projects, that is frameworks of competences, as a possible tool for mapping the qualifications of nurses with missing or unverifiable documents who seek refuge in a host country.

II. **Initiatives directed at addressing refugees with inadequate qualification documentation**

A few initiatives have been developed over the last few years through which refugees' qualifications may be assessed when they cannot be adequately documented. This section presents the initiatives which are most widely reported in the literature, documentation and resources related to refugees in Europe which were available, in English language. The author did not scan for initiatives across the entire fifty-five signatories of the Lisbon treaty (referred to below).

The first initiative which is outlined in this section stems from an exercise in Greece, which is expanding across nations and is gathering the contribution and participation of various other European countries and partners, including the Council of Europe (CoE), and the United Nations High Commissioner for Refugees (UNHCR). National initiatives in Norway and Germany are also presented. The fourth and last initiative presents an initiative which comprises a transnational online resource.

[5] "Tuning Projects," Tuning Academy, accessed February 22, 2017, http://tuningacademy.org/.

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II.1. *The European Qualifications Passport for Refugees (EQPR) in Greece*

The issuing of a European Qualifications Passport for Refugees (EQPR) entails a process whereby an evaluation of documentation that a refugee provides is carried out, coupled with a self-evaluation of the refugee and a structured interview with two qualified credential evaluators. The EQPR can be used for access to higher education or employment. Several refugees assessed during the pilot project which tested this process in Greece have already been able to use the EQPR to access higher education studies.[6]

The EQPR has been explicitly mentioned in the recommendation made by the Lisbon Recognition Convention Committee on the recognition of qualifications held by refugees, displaced persons and persons in a refugee situation, in November 2017.[7] The European Qualifications Passport for Refugees draws largely on the concept of the Nansen Passport for Refugees of the 1930s. In line with the scope of the Nansen passport, the EQPR aims to establish a multinational, quality assured framework in Europe for the recognition of refugees' competence. It therefore provides a document that can be utilized across European countries.

II.2. *Recognition Procedure for Persons without Verifiable Documentation (UVD-procedure) in Norway*

Norwegian Agency for Quality Assurance in Education (NOKUT) developed the Recognition Procedure for Persons without Verifiable Documentation (UVD-procedure) to meet the needs of applicants with foreign higher education qualifications who cannot be granted general recognition in Norway due to missing, insufficient or unverifiable documentation. This procedure is directed specifically at refugees and persons in a refugee-like situation without verifiable documentation. The procedure comprises the completion of a survey form by an applicant refugee. The survey form is returned to NOKUT with any documentation on language skills, residence permit, a *Curriculum Vitae* (CV) and work testimonials. These are evaluated in view of determining whether the applicant fulfils the formal requirements to proceed with the recognition

[6] "EQPR: From vision to reality," EAIE, accessed March 30, 2017, https://www.eaie.org/blog/european-qualifications-passport-refugees.html.

[7] "New recommendation on recognition of qualification held by refugees," COE, accessed February 27, 2018, https://www.coe.int/en/web/education/-/new-recommendation-on-recognition-of-qualifications-held-by-refugees.

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procedure. If deemed eligible to proceed with the recognition process, the applicant is invited to a preliminary interview and subsequently to an interview with a panel of credential evaluators and experts designated by NOKUT. NOKUT will decide based on the report from the panel of experts regarding the general recognition of claimed qualifications of the applicant refugee. So far, this procedure of recognition is perceived as readily implementable and highly efficient. NOKUT will therefore continue issuing NOKUT's Qualifications Passport for Refugees.[8]

II.3. *Initiatives in Germany*

The Federal Recognition Act simplifies and standardises procedures for the evaluation of foreign professional or vocational qualifications governed by Federal Law. Article 14 of the Federal Recognition Act opened such procedures to target groups not previously accommodated. Specifically, this article notes that if the applicant cannot submit all or part of the documents required for the establishment or assessment of qualification equivalence, for reasons beyond his or her control or if submission of relevant documents involves an unreasonable expenditure of time and effort, the competent body shall apply other suitable procedures to establish the applicant's professional skills, knowledge and abilities required for comparison with corresponding German professional training. The Federal Recognition Act requests that an applicant explains the reasons for not submitting relevant documents.[9] Also, it explains that suitable procedures to ascertain professional skills, knowledge and abilities may be used, such as work samples, interviews, practical and theoretical demonstration in real or simulated environments and discussion with experts. This means that if applicants are unable to produce written evidence in the process of having their foreign professional qualifications recognised, they can have their competences assessed, as part of a recognition procedure. This option is also enshrined in the Professional Qualifications Assessment Act which identified the qualification analysis approach. This analysis is a demonstration and assessment of competency and is not a test. It is therefore based on other procedural standards than an external examination. For example, the Prototyping Transfer project is an initiative of

[8] "Nokut's qualification passport for refugees," NOKUT, accessed April 4, 2018, https://www.nokut.no/en/nyheter-2016/NOKUTs-Qualifications-Passport-for-Refugees/.

[9] Dorothea Fohrbeck, "Recognition of foreign professional qualifications – the Federal Government's new Recognition Act," *Berufsbildung in Wissenschaft und Praxis - BWP (Vocational Training in Research and Practice) Special Edition (2013): 9-13*

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the Federal Ministry of Education and Research and is coordinated by the Federal Institute for Vocational Education and Training (BIBB). The project is geared towards the recognition of professional and vocational qualifications via skills analysis.[10]

II.4. *European Network of Information Centres in the European Region (ENIC) - National Academic Recognition Information Centres in the European Union (NARIC) website*

The site is a joint system initiative of the European Commission, the Council of Europe and United Nations Educational, Scientific and Cultural Organisation (UNESCO). This system seeks to verify the vocational or academic level of a qualification awarded in a foreign country, where this is known to the system. Amongst several resources pertaining to the evaluation and assessment of qualifications, the site comprises an area titled "Recognise qualification held by refugees - Guide for credential evaluators"[11] This area stipulates that a process which is standardized, accessible, fair and transparent is to be established in dealing with refugees with missing documents. The third step of the recommended five-step process refers to the organisation of an examination/ test to allow for the demonstration of the knowledge, competences and skills of an applicant. The website falls short of providing specific examples of what such test or examination should comprise. However, it clearly suggests the use of a test or examination which accommodates a valid assessment of an applicant in relation to a profession or training in which one claims to have received training.

II.5. *Common factors across these initiatives*

Upon review of the sample of initiatives which are presented above, five common factors were elicited across the four different initiatives. Namely, all four initiatives (a) stem from the intent to satisfy the requirement of Article VII of Section VII titled "RECOGNITION OF QUALIFICATIONS HELD BY REFUGEES, DISPLACED PERSONS AND PERSONS IN A REFUGEE

[10] "Recognition of foreign professional qualifications," BIBB, accessed February 16, 2017, https://www.google.de/search?s=true&q=site:www.bibb.de Qualification recognition.

[11] "Recognise qualifications held by refugees – guide for credential evaluators," ENIC-NARIC, accessed March 23, 2018, http://www.enic-naric.net/recognise-qualifications-held-by-refugees.aspx.

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- LIKE SITUATION" of the Lisbon Treaty, No 165, Convention on the Recognition of Qualifications concerning Higher Education in the European Region of 1997. In this article, all fifty-five signatories are requested to:

> Take all feasible and reasonable steps within the framework of its education system and in conformity with its constitutional, legal, and regulatory provisions to develop procedures designed to assess fairly and expeditiously whether refugees, displaced persons and persons in a refugee-like situation fulfil the relevant requirements for access to higher education, to further higher education programmes or to employment activities, even in cases in which the qualifications obtained in one of the Parties cannot be proven through documentary evidence.[12] Also, all four initiatives comprise (b) an assessment component, and (c) the involvement of credential evaluators.(d) A main limitation of all the initiatives is that the assessment of the competences of applicants related to a profession is not guided by a tool in a consistent, structured, homogenous manner across different applicants and different sets of evaluators. (e) In addition, as noted with each initiative above, subject-specific tools or instruments for assessments are, in the norm, not available in all four initiatives; none were located for the subject of nursing and the profession of nurses.

III. **Regulation of Nurse Education**

Across the European Union (EU), nurse education is governed by Professional Qualifications Directive 2005/36/EC, amended in 2013. This directive stipulates that pre-registration nurse education programmes are to comprise (i) training across specific identified areas of care delivery and (ii) a specific number of hours of training of a theoretical and of a practical nature. The directive lists the set of knowledge and skills required by a general nurse but it does not comprehensively determine the competences which an exiting student nurse needs to hold upon completion of a nurse education programme. Therefore, although the directive for nurse education allows for the mobility and recognition of general nurses across countries wherein pre-registration programmes of nurse education include, as a minimum, the achievement of the competences of the directive, the referred directive is not an adequately apt vehicle for the assessment of nurse refugees who do not hold verifiable qualifications.

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[12] "Convention on the Recognition of Qualifications concerning Higher Education in the European Region," COE, accessed on April 3, 2018, https://www.coe.int/en/web/conventions/full-list/-/conventions/treaty/165.

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Since the regulatory function of the Professional Qualifications Directive is not well posited for addressing the opportunity to recognize and accredit nurse refugees as registered nurses in a host country, a process of assessment of the training and qualification of a nurse refugee which (a) fits the respective regulatory structures of a context where a nurse refugee is to practice, and which (b) allows for transnational professional mobility of a nurse refugee, in indicated.

The gathering of the case studies presented below was carried out in an effort to inform the analysis and further development of policy and processes in this regard.

IV. **Case studies from Malta**

This section presents snapshots of case studies from Malta. The case studies were not collected through a research study. A small number of refugees were simply invited to tell their stories, voluntarily, and permission to document their stories in this paper was sought. The scope of the exercise was to gather information and views regarding the experience of refugees in seeking registration as a nurse in Malta to inform the development of initiatives which may effectively and efficiently address their needs.

As noted earlier, geographically, the island of Malta lies between North Africa and Italy. It therefore serves as an apt conduit between two continents. Its often calm and safe surrounding seas offer a viable plethora of transportation for both regular and irregular travellers, as does its widely connected air-transportation system. Four nurse refugees and a medical doctor also a refugee, were asked by the author to share their experience of seeking professional registration in Malta, after they were granted refugee status in the country. These five refugees who shared their stories had good command of the English language. Permission was sought against a comprehensive explanation that whilst confidentiality of the interviews was secured, anonymity could not be entirely guaranteed in view of the very small context of Malta. All names used in the section below are fictitious. All were created by the author and bare no reference or association to the real names of the interviewees. In addition, the reported gender of the interviewees does not necessarily correspond to the actual gender of the refugee whose "story" is presented below.

> Jordie, 48-year old female from Eritrea, applied for asylum in Malta in 2015. She completed nursing training in Eritrea and following this she worked as a nurse for twenty-two years, mostly in operating theatres in

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public hospitals in the country. As a qualified nurse, Jordie pursued short training programmes for qualified nurses offered by various NGOs and reputable entities, including USAID, Save The Children, UK, and by the European Commission - Humanitarian Aid & Civil Protection (ECHO) and the *Coordinamento delle organizzazioni per il servizio volontario* (COSV). She was later forced to leave her home country with her family and hoped to work as nurse as soon as possible in another country. Registration as a nurse in Malta requires adequate proficiency in Maltese or English languages. Jordie's language skills met these language proficiency requirements. The documents needed to apply for recognition of her nurse training are however not all in hand. The competent authority needs additional information about the content of her nurse training. Jordie is unable to provide such information because it is not possible to contact the training entity in Eritrea because it has been burnt down during internal conflict in the country. All the buildings which housed the nursing school were destroyed through a fire, and all the staff in the building at the time perished. To-date, Jordie works as a carer in a residential home for the elderly, despite being a qualified nurse. The currency of Jordie's nurse training would need to be verified if and when the missing information about her training is ever located.

Heidi, a 26-year old female from Somalia, applied for asylum in Malta in 2017. She completed nurse training at bachelor's degree level at a university in Somalia in 2013. Heidi fled after a short working period as a qualified nurse in her homeland. Novel and passionate about her career, the only document she firmly held onto during the arduous travels to Malta was the bachelor's Degree qualification certificate. It is the only possession she held upon arrival to the host country. Her application to register as a qualified nurse in Malta has not been met because the competent authority is unable to verify the quality of her training with the respective university in Somalia, or with competent authorities in Somalia, for various political and operational reasons. Heidi works on product-manufacturing line in a private pharmaceutical company, despite being a qualified nurse.

Kimmy, is now 58 years old. She is Albanian and received her nurse training in Albania. Her journey as a refugee dates to the 1990s when she fled the then-troubled Albania in search of a better life and a career as a nurse in Malta. Her journey sheds light on the history of the struggles that refugees face when seeking registration in a host country. Kimmy had to re-enter "special" training in Malta for a year to be able to register as a nurse in the host country because the verification of the nurse qualification which she had at hand at the time did not satisfy the requirement of the respective competent authority. Establishing efficient contact with Albania to verify the document was not possible at the time.

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> Klara's circumstance, now 50, also shed retrospective information about the challenges that nurse refugees encounter. French speaking Klara fled Sierra Leone in the mid -1990s and sought refuge in Malta in the hope of re-starting her life as a qualified nurse. Klara had no documents at all to note her nurse training. The only avenue towards registering and re-starting life as a nurse was to re-start nurse training from scratch. She chose to pursue that option, only to be relocated to another European country shortly after the completion of the nurse training programme in Malta. Klara was once again unable to work as a nurse, because of language skills insufficiency in the new host country. She could not speak, understand nor write the language of her new host country. Adequate proficiency in the language of a country is a requisite for employment across most professions in the health and social sector in many countries. Unable to learn yet another language after having mastered the English language during her years in Malta, Klara worked as carer for a few years until she gained right for residency, and therefore for mobility, in Europe. She relocated back to Malta and finally could register and recommence her nursing career, after a forced pause of a decade. The currency of Klara's nurse training in the context of the Malta is, at this point, debatable, and the need and opportunity for retraining and upskilling a point of contention.

These case studies illustrate the challenges associated with time lags between one's practice as a general nurse /doctor in a home country, and one's application for entry to the register in a host country. In countries where renewal of licence / professional registration obliges evidence of completion of professional development initiatives, such time lags may pose significant challenges. Such circumstances elicit a need for "orientation" or "return to practice" initiatives on the basis of both legal requirements of the professional and the employer, and patient safety. There are also economic implications since funds are needed to support the consequences of this time lag.

These nurses experienced what many nurse refugees are believed to go through. In line with the principles of case study exploratory work[13] the author interviewed a refugee in Malta who is medical doctor, who in contrast with the above "stories" sought and acquired registration as a medical doctor in Malta despite gaps in the training documents at hand. Kyrill explained that upon application for registration as a medical, he was provided with the opportunity to practise as a medical doctor under the continual supervision of qualified staff. He did so for a few months. During these months the supervisor/s sought to verify the knowledge and competences of the surgeon against an international framework of standards. Kyrill was registered as a

[13] Peter Swanborn, *Case study research: What, why and how?* (London: Sage, 2010).

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surgeon on the register in Malta and has been practising as a surgeon, independently since.

V. **The use of Tuning frameworks of nurse competences**

This section presents a critical discussion of why and how the use of Tuning frameworks of nurse competencies may be applied towards addressing challenges associated with the registration of nurses without verifiable documents. The Tuning framework of nurse competences which was developed through the Tuning – Middle East and North Africa (T-MEDA) Project[14] is mirrored in the output of other Tuning projects. The participants in the T-MEDA project spanned the widest of world regions in that the project involved participants from several countries across the Middle East and North African regions, besides those from Europe. Its output runs parallel to the frameworks developed through Tuning-Europe[15] and Tuning-South America.[16]

With all projects, the resulting frameworks identified five overarching domains of competence. These are:

1. Professional values and the role of the nurse
2. Nursing practice and clinical decision making
3. Knowledge and cognition
4. Communication and interpersonal skills (including technology for communication)
5. Leadership, management and team working

[14] Abeer Saad Eswi, ed., *Reference Points for the Design and Delivery of Degree Programmes in Nursing* (Bilbao: University of Deusto, 2016).

[15] Julia Gonzalez and Robert Wagenaar, eds., *Tuning Educational Structures in Europe*. (Bilbao: University of Deusto, 2003).

[16] Luz Gonzalez, ed., *Higher education in Latin America: reflections and perspectives on Nursing* (Bilbao: University of Deusto, 2014).

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Table 2

Framework of competences for qualified nurses

Adapted from Saad Eswi, Abeer, ed., *Reference Points for the Design and Delivery of Degree Programmes in Nursing* (Bilbao: University of Deusto, 2016)

Competencies associated with the professional and attitudinal values	**Competencies associated with the skills and role of the nurse**
Provide holistic care. Deliver Individual centred care. Maintain Patient safety. Practice within the respective code of ethics and legal codes. Culturally sensitive and respect for dignity. Promote life and quality of life at all stages.	Work under pressure. Use the Nursing process effectively. Meet individual, family and community needs. Work in an interdisciplinary team. Act as an educator. Act as an advocate of the individual, family, community as well as profession. Provide quality patient, family and community care. Provide life support measures across life span. Apply coping strategies. Ability to decide when to refer to other professionals. Perform basic nursing procedures. Apply universal precautions of Infection control measures.
Competencies associated with communication	**Knowledge and cognitive competencies**
Maintain therapeutic nurse patient relationship. Communicate effectively with individuals, families and communities. Provide counselling. Document and report accurately and effectively. Mentor other nurses and student nurses. Manage challenging behaviour of patient with special needs. Utilize new technology in communication.	Apply knowledge and theories into practice. Apply critical thinking and clinical judgment. Utilize research findings and evidence based in practice. Utilize health informatics.

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Leadership and management competencies	
Ability to work in a team either as a member or a leader. Ability to make and take decisions. Ability to delegate work. Accept constructive feedback and criticism. Ability to plan for future actions. Develop self and others. Risk, crisis and disaster management. Ability to appraise others objectively. Adhere to organizational policies and regulations	

Table 2 presents the list of competences determined through the T-MEDA project. The evidence which is available to-date suggests that the different competences identified in the Tuning projects are all relevant irrespective of practice context, role of the nurse or geographical location.[14]

Table 1

Questions asked to the key informants

Statement: The TUNING competences framework may be used to map the training and education of nurse refugees without verifiable qualification/s in a host or receiving country.* Question A. What are your views about this statement please? Question B. Kindly let me know your thoughts about (1) the feasibility of the proposal implied in the statement and about (2) the challenges which may be associated with such proposal please. ** Prompt: the statement refers to nurses who have been assigned refugee status by the respective authority in a host European country, and who do not have documents in hand and it is no possible for the host country to verify the nurse qualification / training which one claims to have.*

The author advocates the use of these parallel frameworks as a tool to guide the assessment and evaluation component of processes which seek to determine the qualification of nurse refugees. To inform the discussion

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around this contention, using the Key Informant Technique,[17] the author sought the views of a set of (1) key individuals from the Tuning projects, (n=5) and (2) key individuals who operate within existent processes which address the reality of undocumented refugees (n=2). The key informants were invited to answer the two questions noted in Table 1. These Key Informants were identified by the author as being the key players in the field of focus, that is nurse registration regulation.

The key informants were all convinced that a recognition problem does exist and that it needs to be solved. The information gathered from the key informants was organised into six aspects or observations pertaining to the feasibility and appropriateness of the use of the Tuning frameworks of nurse competencies, as a tool to guide the assessment and evaluation component of processes which seek to determine the qualification of nurse refugees, if and when documents are missing, incomplete, unverifiable or untraceable. There were; (1) the rights of nurse refugees for professional recognition, (2) the importance of safeguarding patients and recipients of nursing care, (3) the need to be fair with documented professionals, (4) the emphasis on discouraging irregular migration, and (5) political will and the availability of and access to adequate resources needed to deliver political will.

V.1. *«They have rights which need to be addressed!» vs «Patients need to be safeguarded from an inadequately competent workforce!»*

The two phrases noted in the title of this section were lifted from the responses of the key informants. They capture a main message which echoed in the shared views of the key informants. The key informants all emphatically highlighted the tall challenge of balancing (a) the rights of nurse refugees to be recognised as nurses, despite missing documentations, against (b) the right of a recipient of care or service user to optimal safe care delivery by a qualified nurse. A discussion about these rights is beyond the scope of this paper. On the other hand, a discussion regarding the use of the Tuning frameworks of nurse competences as a tool to address and balance these two rights is hugely relevant.

The Tuning frameworks may offer an apt tool towards adequately ensuring that nurse refugees with missing or unverifiable documents have the competences expected by experts and professionals in many countries. The

[17] Martin N. Marshall, "The key informant technique," *Family practice*, no. 13 (1996): 92-97.

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Tuning frameworks may enable a consistent, structured, fair, transparent, objective avenue towards assessing and determining an applicant's competence as a nurse. Likewise, recipients of care or services users, often ill patients, are spared from the risks and dangers associated with inadequately competent nurses. Moreover, nurse refugees are spared from the prevalent reality of being denied the opportunity to work as a nurse or of having to rely on special, ad hoc or «tailor made » consideration and treatment by respective authorities rather than structured pan European processes, comprising standardised tools.

V.2. *«The system needs to be fair with documented professionals! » vs «It would encourage irregular migration! »*

The phrases in this title once again capture the salient concerns of the key informants. A struggle between (a) the commitment to help and accommodate the needs of individuals who would have entered a country through channels of irregular migration and granted refugee status in a country, and (b) the commitment to fully respect and safeguard the rights of regular (and fully documented) individuals was revealed. The key informants commented that processes which address the rights of nurse refugees, should not jeopardise nor compromise the rights of documented professionals. Also, such processes should not, nor be seen to encourage channels of irregular migration.

These concerns once again point towards the need for a robust, objective, formal, structured approach or tool of assessment of competence of an applicant nurse refugee, which may be used across different countries and contexts in a consistent, transparent and fair manner. In turn, these concerns point toward the existent Tuning frameworks of nurse competences as an apt tool in this regard. Tuning is a political neutral process embracing different nations, cultures and political contexts. Its outputs may therefore be accommodated and utilised within varying scenarios, situations and populations.

V.3. *«There is not enough political will! » vs «Despite the political will, the resources for action are inadequate! »*

The debate over (i) the actual, and (ii) the perceived or projected political willingness in a country, to address the needs of refugees without documents is multifaceted. The key informants referred to this debate. The main line of observations which were shared with the author illustrated that often there is

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a gap between the actual willingness and the perceived or projected political willingness to address the needs of refugees. Moreover, there is often a gap between the actual political willingness and the resources available to translate willingness to action.

These observations shed further scope on the use of Tuning frameworks for nurse competences towards addressing the needs of nurse refugees. The Tuning frameworks of competences of nurses are already existent and are ready for use. They have been developed in a consultative and participative manner across a consensus spanning many countries and different regions in the world. Therefore, the use of the Tuning frameworks of nurse competence (a) would potentially introduce a transnational standard tool for assessing nurse refugees with missing or unverifiable documents, at no additional (resource) cost, and (b) may entice and encourage laggard countries to adopt such a standard tool to maintain par performance with other countries. Maintaining par is, in turn, conducive with mobility of nurses across countries and mobility of nurses is very important if the demand for nurses is to be addressed in an efficient and effective manner in any country or health system.[18,19,20]

VI. **Conclusions and recommendations**

The world continues to witness increasing numbers of individuals seeking refuge in host countries. Many refugees hold professional qualifications, including nurse qualifications. Nurse regulation carries a history of episodes of change and adjustment during its evolution in Europe.[21] The outcomes of the exercise reported in this paper suggest the need for host countries to develop regulatory structures which are valid and transferable, but which also accommodate and facilitate the mobility of nurse refugees with missing or unverifiable documentation. The exercise also revealed that

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[18] Andrea Baumann et al., *Internationally Educated Nurses in Ontario*, 2nd ed. (Nursing Health Services Research Unit, Government of Ontario), accessed on March 22, 2018, https://fhs.mcmaster.ca/nhsru/documents/SeriesReport3InternationallyEducatedNursesinOntarioMaximizingtheBrainGain.pdf.

[19] John Berry, "Integration and multiculturalism: Ways towards social solidarity," *Papers on Social Representations*, no. 20 (2011): 1-20.

[20] Jennifer Blythe et al.," Nurse migration to Canada: pathways and pitfalls of workforce integration*," Journal of Transcultural Nursing*, no. 20 (2009): 202-210.

[21] Alessandro Stievano et al., "Shaping nursing profession regulation through history–a systematic review, "*International Nursing Review,* 66, no. 1 (2018): 17–29.

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existent processes which address the challenges associated with missing, unverifiable or untraceable qualification rely heavily on panels of credential evaluators and experts. This large reliance on the contribution of evaluators and experts does not necessarily jeopardise or compromise the validity of the initiatives which are already in place across different countries. Nonetheless, against the backdrop of (a) a favourable legacy of harmonised nurse education structures for nurse education across Europe, as a result of the European directive for nurse education, and also (b) internationally recognised frameworks of competences, as are those of TUNING project and the International Council of Nurses (ICN), the observed lack of consistent use of standard tool or tools to evaluate nurse refugees' qualification and training in different countries is odd and possibly unfavourable. Since existent initiatives are not necessarily par, assessments and recognition are not automatically and immediately transferable across countries. The feasibility and appropriateness of using internationally recognised frameworks of competences to (1) harmonise the assessment component of the various existent processes and (2) to develop processes in other countries in a harmonised manner is believed to be significant. This contention draws upon the fact that, internationally recognised frameworks, as is the Tuning frameworks of competences, are the results and outputs of rigorous structured processes of wide participation, embracing extensive informed discussion and comprehensive consultation across relevant experts and stakeholders in many different countries across various world regions. Therefore, these frameworks may carry advantageous relevance to varying contexts and populations. Variations and adaptations to the frameworks of competences are indicated according to context since varying levels of pre-registration nurse training still prevail. For example, nurses' levels which are lower than a degree level (which is the training level that Tuning projects focus on) would necessitate a framework wherein the emphasis on management, leadership and clinical judgement competences are adjusted accordingly.

Nurse regulators across Europe, and overarching regulatory bodies and policy makers are invited to consider the adoption of this approach. Further pan-European and country-specific research is indicated. Such research will shed light on country-specific experiences, needs, readiness and resources in relation to adopting internationally recognised framework in this regard. The exploration, consideration and use of various international frameworks, as is the ICN's[22] framework of nurse competences and the Nursing and Midwifery

[22] International Council of Nurses, *An implementation model for the ICN framework of competencies for the generalist nurse* (Geneva: ICN - International Council of Nurses, 2003).

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Council EU Aptitude test for nurses[23] available in the UK is recommended. The different levels of qualified general nurses and nurse qualifications across the globe strongly suggest the need for the consideration of the use of different frameworks and tools. Extensive study of the ethical and legal implications of enabling the eligibility of nurse refugees without documentation to register as a nurse in a host country is indicated. This is indicated in view of honouring the obligations of a regulatory body to safeguard the interests of the population besides its obligations to honour the rights of individual nurse refugees. Other useful strategies to support the refugee, besides enabling professional registration through qualification and training verification need to be explored. These include language classes, upskilling and adjustment to societal norms and organisational cultures in simulated environments and supervised practice in clinical areas. The opportunity for temporary or probation registration in the course of pursing and receiving the above support may also be explored. Furthermore, the mechanisms for assessment, evaluation and monitoring of other requirements as are evidence of good character, clear conduct and favourable health status are to be explored and secured accordingly.

Bibliography

Baumann, Andrea., J. Blythe, K. McIntosh, and A. Rheaume. *Internationally Educated Nurses in Ontario*. 2nd ed. Nursing Health Services Research Unit. Government of Ontario. Accessed March 22, 2018. https://fhs.mcmaster.ca/nhsru/documents/SeriesReport3InternationallyEducatedNursesinOntarioMaximizingtheBrainGain.pdf.

Berry, John W. "Integration and Multiculturalism: Ways towards Social Solidarity." *Papers on Social Representations* 20, no. 1 (2011): 2–1.

BIBB (Federal Institute for Vocational Education and Training). "Recognition of foreign professional qualifications." Accessed February 16, 2017. https://www.google.de/search?s=true&q=site:www.bibb.de Qualification recognition.

Blythe, Jennifer, Andrea Baumann, Ann Rhéaume, and Karen McIntosh. "Nurse migration to Canada: Pathways and pitfalls of workforce integration." *Journal of Transcultural Nursing* 20, no. 2 (2009): 202–210.

Buerhaus, Peter I., David I. Auerbach, Douglas O. Staiger, and Ulrike Muench. "Projections of the long-term growth of the registered nurse workforce: A regional analysis." *Nursing Economics* 31, no. 1 (2013): 13-17.

[23] "Test of Competence," University of Northampton, accessed May 19, 2018, https://www.northampton.ac.uk/about-us/services-and-facilities/nmc-test-of-competence/nursing-and-midwifery-council-eu-aptitude-test/.

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doi: http://dx.doi.org/10.18543/tjhe-8(1)-2020pp53-73 • http://www.tuningjournal.org/

Council of Europe. "Convention on the Recognition of Qualifications concerning Higher Education in the European Region." Accessed 3 April 2018. https://www.coe.int/en/web/conventions/full-list/-/conventions/treaty/165.

Council of Europe. "Imagine for a Second." Accessed April 1, 2017. https://www.coe.int/en/web/education/documentary-on-project-european-qualifications-passport-for-refugees.

Council of Europe. "New recommendation on recognition of qualification held by refugees." Accessed February 27, 2018. https://www.coe.int/en/web/education/-/new-recommendation-on-recognition-of-qualifications-held-by-refugees.

EAIE. "EQPR: From vision to reality." Accessed March 30, 2018. https://www.eaie.org/blog/european-qualifications-passport-refugees.html.

ENIC-NARIC. "Recognise qualifications held by refugees – guide for credential evaluators." Accessed March 23, 2018. http://www.enic-naric.net/recognise-qualifications-held-by-refugees.aspx.

European Commission. "Eurostat." Accessed March 2, 2018. http://ec.europa.eu/eurostat/search?p_auth=8Oe9bK8q&p_p_id=estatsearchportlet_WAR_estatsearchportlet&p_p_lifecycle=1&p_p_state=maximized&p_p_mode=view&_estatsearchportlet_WAR_estatsearchportlet_action=search&text=asylum+seekers.

Fohrbeck, Dorothea. "Recognition of foreign professional qualifications – the Federal Government's new Recognition Act." *Berufsbildung in Wissenschaft und Praxis* (Vocational Training in Research and Practice), Special Edition (2013): 9–13.

González, Julia, and Robert Wagenaar, eds. *Tuning Educational Structures in Europe*. Bilbao: University of Deusto, 2003.

Gonzalez, Luz, ed. *Higher Education in Latin America: Reflections and Perspectives on Nursing*. Bilbao: University of Deusto, 2014.

International Council of Nurses. "An implementation model for the ICN framework of competencies for the generalist nurse." Geneva: ICN - International Council of Nurses, 2003.

Marshall, Martin N. "The key informant technique." *Family Practice* 13, no. 1 (1996): 92–97.

NOKUT. *"Nokut's qualification passport for refugees*." Accessed April 4, 2018. https://www.nokut.no/en/nyheter-2016/NOKUTs-Qualifications-Passport-for-Refugees/.

Saad Eswi, Abeer, ed. *Reference Points for the Design and Delivery of Degree Programmes in Nursing*. Bilbao: University of Deusto, 2016.

Stievano, Alessandro, R.Caruso, F. Pittella, A.F. Shaffer,G. Rocco, and J. Fairman. "Shaping nursing profession regulation through history – a systematic review." *International Nursing Review* 66, no.1 (2018): 17–29.

Swanborn, Peter. *Case study research: What, why and how?* London: Sage, 2010.

Tuning Academy. "Tuning Projects." Accessed February 22, 2018. http://tuningacademy.org/.

Tuning Journal for Higher Education
© University of Deusto. ISSN: 2340-8170 • ISSN-e: 2386-3137. Volume 8, Issue No. 1, November 2020, 53-73
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UNHCR. "UN Refugee Convention." Accessed March 6, 2018. http://www.unhcr.org/pages/49da0e466.html.

University of Northampton. "Test of Competence." Accessed May 19, 2018. https://www.northampton.ac.uk/about-us/services-and-facilities/nmc-test-of-competence/nursing-and-midwifery-council-eu-aptitude-test/.

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Meta-profile and competencies for harmonisation of higher education in sector-specific technology areas: A case study of Renewable Energy in Southern Africa

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Abstract: The aim of this study was to develop the profile and competencies of a harmonised curriculum for a multi-country regional sector-specific higher education programme. The study, which was based on a case study of Renewable Energy involving six countries in Southern Africa, was based on established methodologies proposed by previous studies on harmonisation and profiling of higher education programmes. The study uses a general curriculum development approach leading to

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the definition of generic and specific competencies and feeding into a learning taxonomy to create alignment with specific learning outcomes at the intended qualification level. However, the approach extends the harmonisation concept to include industrialisation potential, which is crucial in the developing-country context. This allows for the exploitation of shared resources in sector-specific technology areas and supports the development of regional standards on technology and practice, as part of developing a sustainable regional economic sector. Twenty-two competencies, encompassing both generic and specific competencies, were defined. These competencies were grouped into six key competence areas, and later transformed into four clusters of competencies: core competencies, hard skills, soft skills and attitudes. These four clusters were then placed on a planetary system to represent the meta-profile for the qualification, which forms the framework for the future design of learning materials for the qualification.

Keywords: Harmonisation; generic competencies; specific competencies; meta-profile; curriculum development; renewable energy.

I. Introduction

Globally, degree programmes in technology-based fields are often complimented by industry-based post-degree internships, especially by large state-owned and private companies, and within environments with high levels of technology diffusion. This allows these programmes to be designed with a purely technology focus and a high emphasis on the basic sciences. Within the Southern African development context, however, the adoption of technologies is still facing many barriers that include inadequate technical capacity and an inexperienced professional workforce, as evidenced by the Technology Achievement Indices of countries in this region.[1] In line with this, a considerable need for innovators and entrepreneurs to spur such new markets and industry development in developing countries has been cited.[2] In this context, it is understood that the region suffers from a weak nucleation potential for competitive enterprises. For this reason, higher education programmes are necessary that target specific niche technology areas, together with a diversification of competencies to allow for the gaps in the developmental trajectory of graduates, so that new enterprises can be

[1] Ahmet Incekara, Tugba Guz, and Gulden Sengun, "Measuring the Technology Achievement Index: Comparison and Ranking of Countries," *Journal of Economics, Finance and Accounting* 4, no. 2 (2017): 170-171, http://doi.org/10.17261/Pressacademia.2017.446.

[2] REN21, "Renewables 2015 Global Status Report," https://www.ren21.net/wp-content/uploads/2019/05/GSR2015_Full-Report_English.pdf.

Tuning Journal for Higher Education
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nucleated. At the same time, labour market orientation needs to be taken into consideration, which implies consultative inclusion of industrialisation potential (as opposed to purely industry needs) with regard to expertise, skills and competencies.

Higher education and vocational training institutions have therefore become key enablers in the development of these emerging technology sectors (or subsectors) in the region. This has seen an increase in the number of projects aimed at developing customised higher education programmes in Southern Africa, often with multi-country beneficiaries. These include programmes on space technology,[3] smart grid technology,[4,5,6] water resource development and management,[7] and wastewater treatment,[8] to mention a few.

A further such emerging technology area, which has received extensive attention over the past few years, is that of renewable energy (RE), within the broader energy sector, where the existing potential for the exploitation of RE resources and technologies can still not be realised in the face of a growing demand for qualified workers in this emerging market in the region.

The RE sector is one of the most promising economic growth areas in the Southern African region due to the massive demand for electrification in off-

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[3] Ganiyu Agbaje, Omowumi Alabi, and Etim Offiong, "Education and Training in Applied Remote Sensing in Africa: The ARCSSTE-E Experience," *ISPRS International Journal of Geo-Information* 8, no. 350 (2019): 3-10. https://doi.org/10.3390/ijgi8080350.

[4] Masoumeh Ebrahimi, Amleset Kelati, Emma Nkonoki, Aron Kondoro, Diana Rwegasira, Imed Ben Dhaou, Ville Taajamaa, and Hannu Tenhunen, "Creation of CERID: Challenge, Education, Research, Innovation, and Deployment in the Context of Smart MicroGrid," in *Proceedings of the 2019 IST-Africa Week Conference (IST-Africa)* (Nairobi, May 2019): 1-8.

[5] Edward Chikuni, Francisco Goncalves-Longatt, Emanuel Rashayi, and Ogbonnaya I. Okoro, "Power *system*, substation, automation and the smart grid, how should universities react?," in *Proceedings of the IEEE International Conference on Industrial Technology (ICIT)* (Cape Town, 2013): 906-907, https://doi.org/10.1109/ICIT.2013.6505791.

[6] Anthony Staak and Raynitchka Tzoneva, "The design of a master's curriculum in smart grid technology within the Erasmus+ K2 DAMOC project," in *Proceedings of the 11th International Conference on Engineering and Business Education* (ICEBE) (Szczecin, 2018): 27-34.

[7] Mikko Martikka, Roope Husgafvel, Olli Dahl, Andrade Egas, and Natasha Ribeiro, "Study Module Development on Environmental Engineering – Experiences from Mozambican and Finnish Higher Education Collaboration," in *Proceedings of the International Conference Environment and Water Resource Management (AfricaEWRM)* (Gaborone, 2014): 35-43.

[8] Lewis Jonker, Pieter van der Zaag, Bekithemba Gumbo, Johan Rockström, David Love, and Hubert H. G. Savenije, "A regional and multi-faceted approach to postgraduate water education – the Watered experience in Southern Africa," *Hydrology and Earth System Sciences*, no. 16 (November 2012): 4227–4228, https://doi.org/10.5194/hess-16-4225-2012

grid locations. Reports have shown that the development of RE-based micro-grids in rural locations as well as larger scale RE infrastructure in urban areas will become a growing trend to meet the energy demand of Sub-Saharan Africa.[9,10,11,12]

This study uses the case of RE education at undergraduate level, under the DAAD-funded "Academic Initiative for Renewables" (AIR) project, with participating university partners in Botswana, Malawi, Mozambique, South Africa, Zambia and Zimbabwe, and Technische Hochschule Ingolstadt as the benchmarking partner.

In addition to the aforementioned, the harmonising of technology-based education programmes can further enhance enterprise nucleation potential due to intra-African industrialisation opportunities, which includes the extension of local country markets. This is a different view to that related to mobility and credit transfer, as initiated under the Arusha Convention of 1981[13] until the more recent Tuning Africa Project[14,15] which concluded in 2015, as well as ongoing efforts under the African Union Commission.[16] Whilst the need for regional harmonisation of learning programmes has been recognised for purposes of internationalisation of higher education, learner mobility and credit transfer, and many studies have been undertaken to

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[9] IEA. "World Energy Outlook 2014," https://www.iea.org/reports/world-energy-outlook-2014.

[10] IRENA, "Renewable Energy in the Water, Energy & Food Nexus," 2015, https://www.irena.org/publications/2015/Jan/Renewable-Energy-in-the-Water-Energy--Food-Nexus.

[11] The World Bank, "State of Electricity Access Report (SEAR) 2017," https://documents.worldbank.org/en/publication/documents-reports/documentdetail/364571494517675149/full-report.

[12] REN21, "SADC Renewable Energy and Energy Efficiency Status Report," 2018, https://www.ren21.net/2018-sadc-renewable-energy-and-energy-efficiency-status-report/.

[13] Ayenachew A. Woldegiyorgis, "Harmonization of higher education in Africa and Europe: Policy convergence at supranational level," *Tuning Journal for Higher Education* 5, no. 2 (May 2018): 144. http://dx.doi.org/10.18543/tjhe-5(2)-2018pp133-157.

[14] Tuning Academy, "Feasibility Study into the Relevance of a Tuning Approach for Higher Education in Africa," Final Report, 2011, http://tuningacademy.org/tuning-africa-feasibility-study/?lang=en

[15] Karola Hahn and Damtew Teferra, "Tuning as Instrument of Systematic Higher Education Reform and Quality Enhancement: The African Experience," *Tuning Journal for Higher Education* 1, no. 1 (2014): 127, http://dx.doi.org/10.18543/tjhe-1(1)-2013pp127-163.

[16] Emnet T. Woldegiorgis, *Regionalization of Higher Education in Africa: The Operationalization of the African Union Higher Education Harmonization Strategy* (Berlin: LIT Verlag, 2017): 173-187.

Tuning Journal for Higher Education
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harmonise general degree qualifications,[17,18,19,20] this work focuses on a different need for harmonisation: the need to exploit intra-African economic development opportunities and access larger markets for economies of scale. This further points to the need for the development of regional standards on technology and practice, as part of developing sustainable regional economic sectors.

II. Profile development methodology

Education qualification frameworks (EQFs) of countries are not prescriptive about the methodology to be deployed, as long as certain programme development criteria are met. These criteria include stakeholder engagement, benchmarking and the level of the learning outcomes. Hence, in the context of the current study, the methodology must allow for a needs analysis within the national context of participating countries, to ensure relevance and policy alignment. This will need to include stakeholder engagement to establish a basis for the competencies and the professional profile linked to the qualification, as shown in Figure 1.

Methodologies for competence-based curriculum development, as used in this study, have been proposed by various authors. In particular, the work by Kouwenhoven,[21] in the stages of assigning competencies to the knowledge, skills and attitudes (KSA) orbits (categories) and to the cognitive and

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[17] Julia González and Maria Yarosh, "Building Degree Profiles. The Tuning Approach," *Tuning Journal for Higher Education* 1, no. 1 (July 2014): 37, http://dx.doi.org/10.18543/tjhe-1(1)-2013pp37-69.

[18] Samuel M. Sackey et al., "Collaborative meta-profile development to harmonise mechanical engineering education in Africa," *Tuning Journal for Higher Education* 2, no. 1 (December, 2014): 161, http://dx.doi.org/10.18543/tjhe-2(1)-2014pp161-178.

[19] Emnet T. Woldegiorgis, "Conceptualizing Harmonization of Higher Education Systems: The Application of Regional Integration Theories on Higher Education Studies," *Higher Education Studies* 3, no. 2 (2013): 12. https://doi.org/10.5539/hes.v3n2p12.

[20] Ahmed Elamrani et al., "Meta-profile development using the Tuning Methodology to support Agricultural Sciences Training in Africa" (Powerpoint presentation, International Conference on Engineering Education and Research, Marrakesh, July 1-5, 2013), https://www.researchgate.net/publication/330545209_Meta-profile_development_using_the_Tuning_Methodology_to_support_Agricultural_Sciences_Training_in_Africa.

[21] Wim Kouwenhoven, "Competence-based curriculum development in Higher Education: a globalised concept?," in *Technology Education and Development*, ed. Aleksandar Lazinica and Carlos Calafate (Rijeka: InTech Open, 2009), 3-6.

knowledge dimensions in the manner of a widely applied taxonomy,[22] represents a large convergence to the approach followed in this study. Furthermore, the study by De Vasconcelos Sampaio Suñé and De Armas Urquiza,[23] underlain by the competence-based methodology, is structured on the two principles of firstly constructing the curriculum design in a systemic approach, starting with a professional profile down to the lesson plan, and secondly infusing in these products curriculum elements that elicit intra-disciplinary and interdisciplinary cohesion. In relation to this study, there is close similarity in the emphasis on graduate competence as the guiding principle. Additionally, this study emphasises and adds the elements of integration between the generic and specific competence areas, as part of the harmonisation process.

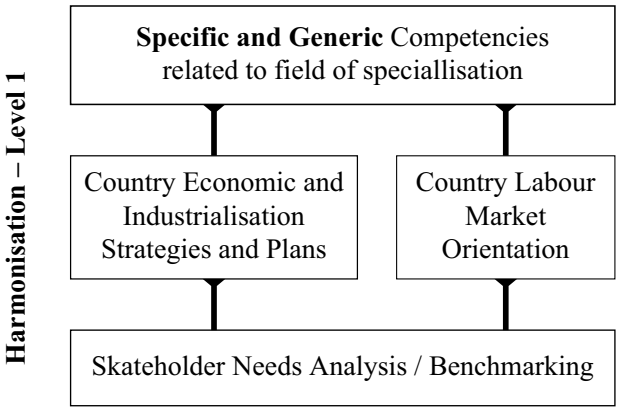

Figure 1
Harmonisation for industrialisation and labour market orientation

[22] Lorin W. Anderson, David R. Krathwohl, Peter W. Airasian, and Kathleen A. Kruikshank, *A Taxonomy for Learning, Teaching, and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives* (New York: Longman, 2001).

[23] Letícia Soares de Vasconcelos Sampaio Suñé and Roberto de Armas Urquiza, "Compared education study: curriculum design for the development of competences," *Tuning Journal for Higher Education* 3, no. 2 (2016): 321. https://doi.org/10.18543/tjhe-3(2)-2016pp319-346.

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Harmonisation as an integral part of degree programme development has received significant attention through the Tuning Higher Education in Africa pilot project, which highlighted the necessity of curricula harmonisation for improved academic competitiveness on the African continent.[24] Studies emanating from this project used the Tuning approach for the harmonisation of undergraduate programmes in mechanical engineering across eleven universities in Africa,[25] in Agricultural Sciences across twelve African countries,[26] among others, through synergising generic and specific competencies into a meta-profile. This challenge of harmonisation requires international cooperation and exchange, and multi-country initiatives (such as the present study) make harmonisation an intrinsic part of the curriculum development process in the definition of specific competencies. In this context, harmonisation for learner mobility and credit transfer, as part of the meta-profile development process, is linked to industrialisation and labour market orientation.

Engineering education must provide initial competencies for engineering work and developmental competencies for careers.[27] The European Network for Accreditation of Engineering Education[28] separates generic competencies from engineering-specific competencies. In this framework, Knowledge and Understanding, Engineering Analysis, Investigations and Engineering Practice are regarded as engineering-specific competencies, while Transferable Skills represent generic competencies.

In line with this, the next phase involves the evolution of the generic and engineering-specific competencies, followed by the classification of these competencies into main competence areas, eventually leading to the definition of a meta-profile for the qualification. The design of the curriculum in terms of learning materials, practice and assessments must then reflect the required learning outcomes at the level of the qualification, as required by the country EQFs, as depicted in Figure 2. In this sense, it is crucial that country EQFs are aligned, otherwise harmonisation of the higher degree programme across the participating countries will be a challenge.

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[24] Karola Hahn and Damtew Teferra, "Tuning as Instrument of Systematic Higher Education Reform and Quality Enhancement: The African Experience," *Tuning Journal for Higher Education* 1, no. 1 (2014): 127, http://dx.doi.org/10.18543/tjhe-1(1)-2013pp127-163.

[25] Sackey et al., "Collaborative meta-profile development", 161.

[26] Elamrani et al., "Meta-profile development."

[27] Graham Elkin, "Competency-based human resource development," *Industrial and Commercial Training* 22, no. 4 (April 1990): 20-25. https://doi.org/10.1108/00197859010137009.

[28] ENAEE (European Network for Accreditation of Engineering Education), "EUR-ACE Framework Standards for the Accreditation of Engineering Programmes," 2018, https://www.enaee.eu/eur-ace-system/standards-and-guidelines/#standards-and-guidelines-for-accreditation-of-engineering-programmes.

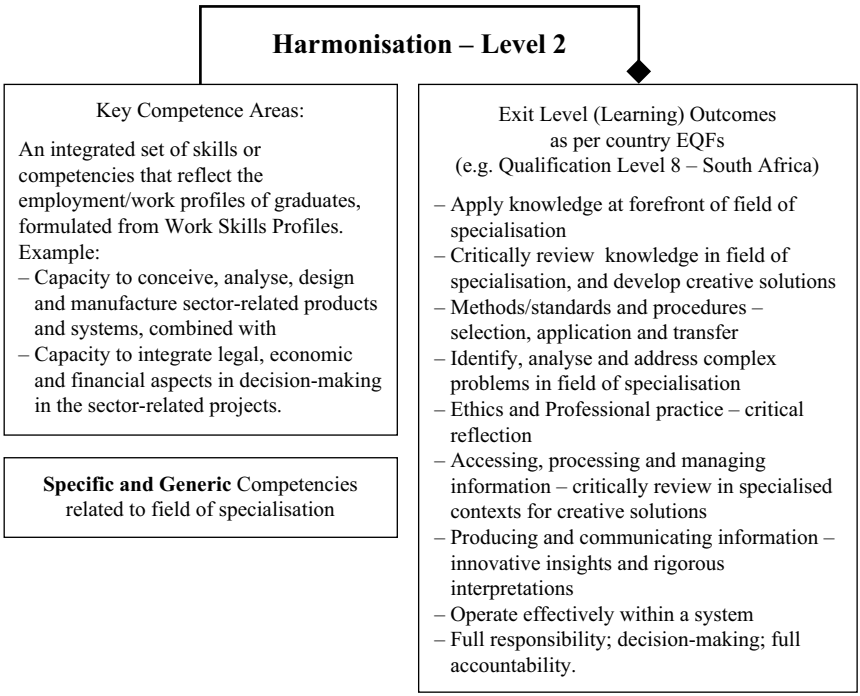

Figure 2

Harmonisation for equivalence and comparability of qualifications across participant countries

In selecting the generic competencies in this study, consideration was given to areas that are considered generic within the engineering disciplines, as opposed to across all disciplines. This allows the specific competencies to be defined such that they build onto the generic competencies, leading to specialisation (for example, in the area of RE). Otherwise there would be a disjuncture or perceived irrelevance between the two sets of competencies.

Critical to the definition of the specific competencies, which could vary from country to country depending on resources and level 1 harmonisation, is engagement with stakeholders to establish the industrialisation and labour market needs (economic, technology, human resources, etc.). This automatically incorporates a gap analysis into the process and allows the region to benchmark itself against similar education programmes offered in other regions.

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III. Renewable Energy (RE) education trends and needs in Southern Africa

In applying the methodology outlined above, focusing on the need to develop generic and specific competencies for RE higher education harmonised across the region both in terms of industrialisation and labour market orientation, as well as compatibility of qualifications, an industry stakeholder survey was conducted. In order to generate representative results, the survey targeted professionals in the RE sector. A total of 85 responses representing various stakeholders across the region were received (Figure 3).

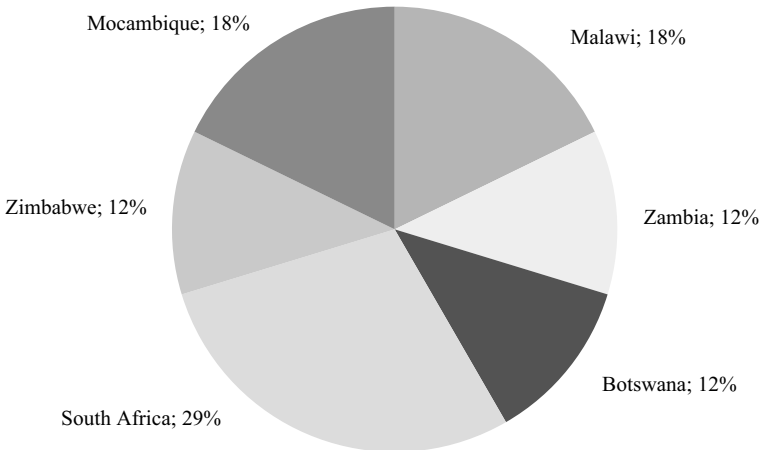

Figure 3
Distribution of respondents by country

Experienced RE professionals aged above 40 were strategically included together with young professionals in the age group 25 to 40 (58.1%), to ensure that a spectrum of ideas and experiences were considered.

In order to better assess the lack of higher education programmes in RE in Southern Africa, the survey aimed to shed light on existing barriers in the sector. The study unveiled that a lack of funding (84%) and poor exposure to RE at the introductory level of undergraduate studies (81%) feature as dominant barriers to the delivery of RE education programmes (cf. Figure 4).

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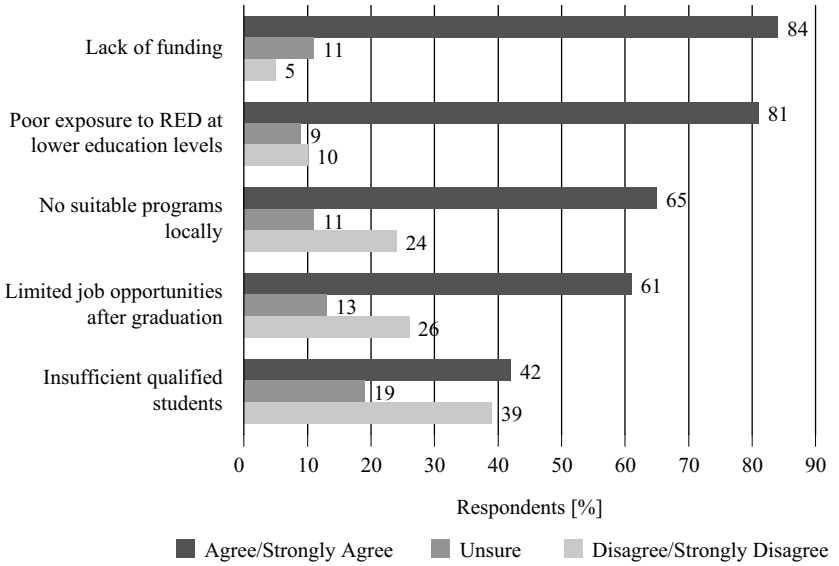

Figure 4

Barriers to delivery of RE education programs

The identified lack of funding was indicated as an obligation of governments. The poor exposure to the sector, on the one hand, predominantly pointed to the non-availability of scholarship support, and on the other hand, to a lack of internships and hands-on technology practices in introductory modules, the latter imparted mostly theoretically. As Figure 4 further shows, 65% of the respondents stated that there are no suitable study programmes in this area of technology in their respective countries; hence the need for a regional initiative to address this gap. These findings are in line with those of Pegels,[29] who argues that RE technologies lack in capacity at all levels of education. In terms of student qualifications, 39% of the respondents were convinced that students are not adequately qualified with basic skills (mathematics, physics, etc.), which challenges the assimilation of RE engineering skills by graduates in undergraduate study courses.

[29] Anna Pegels, "Renewable energy in South Africa: Potentials, barriers and options for support," *Energy Policy* 38 (2010): 4945-4954, https://doi.org/10.1016/j.enpol.2010.03.077.

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The challenges that RE education is required to address are diverse; however, the survey showed that RE education is supposed to mostly address a lack of well-trained professionals, the need for development and implementation of required RE technologies and a lack of policies and regulatory standards. The data shows that the dominant challenge in all countries is the need for local development and implementation of state-of-the-art technologies (93%), which is interdependent with the identified lack of competent professionals in the field (86%). Overcoming this lack of professionals will have a positive impact on the current lack of policies and standards (88%), through increased capacity on national committees and in government departments responsible for the development of the sector.

The survey further sheds light on the type of education necessary for growth in the sector within the region. It is evident that all types of education opportunities (undergraduate, postgraduate, industry apprenticeships, vocational training and short courses) are principally important (> 80% of respondents strongly agree or agree). Furthermore, in excess of 90% of the respondents regard undergraduate studies, postgraduate studies and industry apprenticeships as most important in imparting knowledge and competencies in this technology-intensive sector. This is in agreement with Jain *et al* (2002),[30] who recommend the strengthening of practical components of RE in tertiary education.

In order to produce young engineers with quality competencies in RE, the majority of respondents indicated that the contents of RE programmes should be defined by industry (91% strongly agree or agree) in collaboration with the academic institutions (89% strongly agree or disagree) as illustrated in Figure 5.

The data clearly shows that there is a need for an industry-led curriculum development process, with a strong agreement of 64%. This represents twice the responses with strong agreement compared to the average among all available options. Regional academic bodies (75% agree and strongly agree) and international collaborators (73% agree and strongly agree) should be involved in the development of curricula and content for RE education programmes.

[30] Pushpendra K. Jain, Edward M. Lungu, and Buti Mogotsi, "Renewable energy education in Botswana: needs, status and proposed training programs," *Renewable Energy* 25 (January 2002): 115–129. https://doi.org/10.1016/S0960-1481(01)00004-0.

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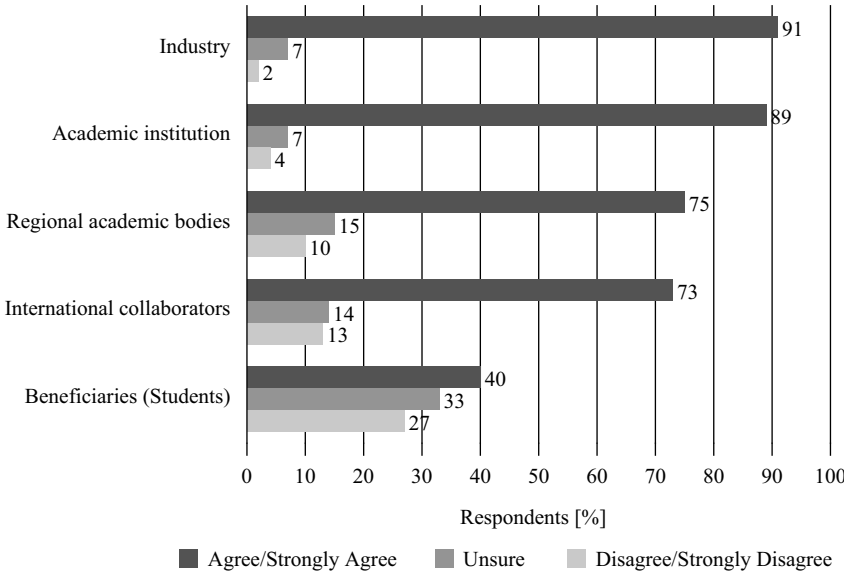

Figure 5

Parties to be involved in the decision-making process of RE programs contents

Regarding the specific competence areas, a general agreement across all countries was found, the differences being in the intensity of agreement only. This data is illustrated in a content requirement matrix, showing the content preferences for the different countries (Figure 6).

More than 75% of the respondents in all countries agree or strongly agree with the relevance of the specific competence areas. As outliers, the areas of wind energy and hydropower systems were rated between 50% and 75% in Botswana, which can be related to the low potential of these resources in that country.

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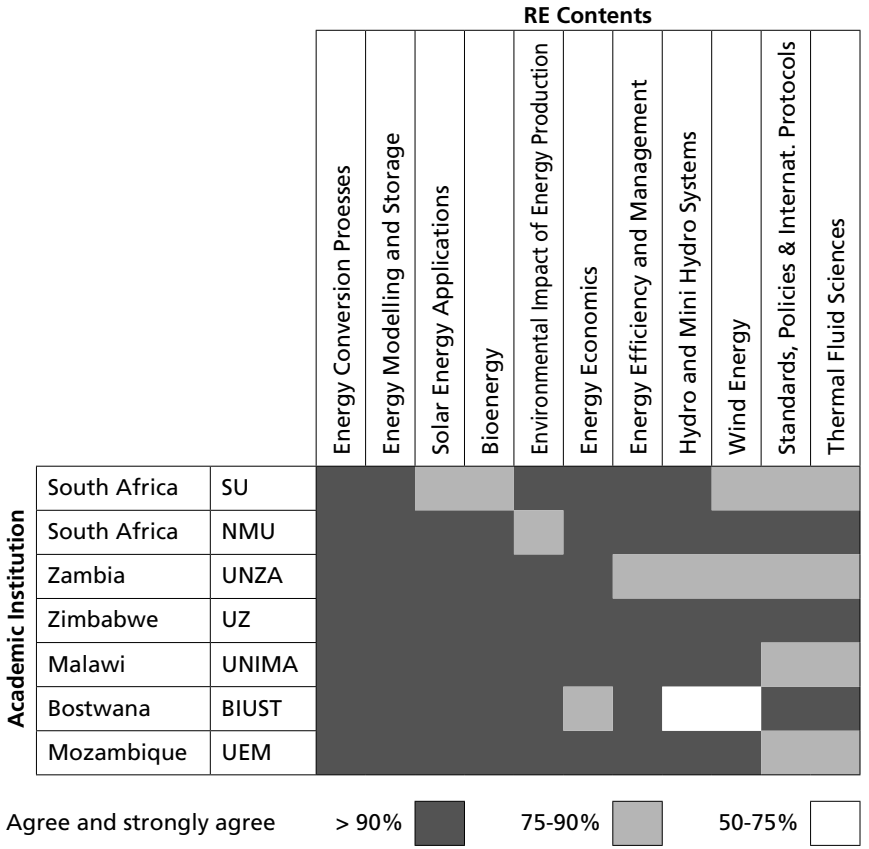

Figure 6

RET content matrix for RE programmes in the participating Southern Africa countries

IV. Evolution of competencies and meta-profile

From the general characteristics of technology-based qualifications, twenty-two competencies, encompassing both generic and specific competencies, were defined, as listed in Table 1, modelled around the work cited in Section 2. For creating relationships and incorporating the results of the survey described in Section 3, the characteristics enumerated in the list of generic and specific competencies were condensed into six generalised

elements shown in Table 2, and are termed the key competencies. Based on the outcome of the survey results, it was possible to assign these key competencies to the survey questionnaire themes and evaluate their priorities using the scores from the stakeholder responses. The assignment of the generic and subject-specific competencies to the key competencies in this work is shown in the last column of Table 1, where the numbers in the second column refer to the section numbers of the questionnaire theme.

Table 1

Generic and subject-specific competencies for the undergraduate RE qualification

	Generic and Subject-specific competence	Related Key Competencies (from Table 2)	Survey theme
1	Have basic know-how in mathematics, communication and computing	1,5	
2	Have basic engineering know-how in the field of mechanical and electrical engineering	1	
3	Ability to do engineering work by applying basic methods	1	
4	Ability to apply knowledge of the basic and applied sciences of renewable energy systems	2	
5	Ability to identify, evaluate and implement the most appropriate RE technologies for the context at hand	2,3,4	
6	Capacity to create, innovate and contribute to RE technology development	2,3	Challenges for RE and current issues
7	Capacity to conceive, analyse, design and manufacture RE products and systems	3,4	Manufacturing capacity
8	Skills in planning and executing RE projects	2,4	
9	Capacity to supervise, inspect and monitor renewable energy systems	2,4	
10	Capacity to operate, maintain and rehabilitate renewable energy systems	4,5	

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	Generic and Subject-specific competence	Related Key Competencies (from Table 2)	Survey theme
11	Skills in evaluating the environmental and socio-economic impact of renewable energy projects	2,5	Purpose of RE education
12	Capacity to model and simulate renewable processes and systems	2,3,4	Energy modelling capacity
13	Skills in selecting, mobilising and administering material resources, tools and equipment cost-effectively		
14	Capacity to integrate legal, economic and financial aspects indecision-making in RE projects	4,5	Energy economics
15	Capacity for spatial abstraction, graphic representation and engineering drawings.	1	
16	Providing resolutions to societal problems for sustainable development	4,5	Purpose of RE education
17	Skills in safety and risk management in renewable energy systems	2,4	
18	Skills in using information technologies, software and tools for renewable energy	5	
19	Capacity to interact with multidisciplinary groups towards developing integrated solutions	5	Purpose of RE education
20	Skills in employing quality control techniques in managing materials, products, resources and services	2,5	
21	Capacity to conduct life cycle assessment for products and systems	2	
22	Capacity to employ science and engineering skills to transform local national resources into products or services through value addition	4,5	Challenges for RE and current issues
22	Ability to further qualify into postgraduate programme	6	

Table 2

List of key competence areas

	Key Competence Area
1	Capacity to create(a), innovate (b) and contribute(c) to RE technology development
2	Capacity to conceive(d), analyse(e), design(f) and manufacture(g) RE products and systems
3	Skills in evaluating(h) the environmental and socio-economic impact of renewable energy projects
4	Capacity to model(i) and simulate(j) renewable processes and systems
5	Capacity to integrate legal, economic and financial aspects in decision-making in RE projects
6	Providing resolutions to societal problems for sustainable development

The first four key competence areas listed in Table 2, having a relatively higher scoring, were then crystallised into the main elements of the curriculum, the outcome of which is the statement of the core competence of the curriculum, articulated as "Analysis and creation of RE products and systems and evaluation of their impact". This statement is characterised by three clusters: *create*, *analyse* and *evaluate*. Cluster 1, '*create* RE products and systems' embodies the combined elements a, b, c, d, f, and g, identified and so denoted in Table 2. Similarly, Cluster 2, "*analyse* RE products and systems", combines elements grouping of e, i, and j, and Cluster 3, "*evaluate* impact of RE products and systems", has the element h. These descriptive clusters provide a natural flow into the intended learning outcomes (related to the learning taxonomy level) given in Figure 2.

In completing the meta-profile, adding and overlaying the generic and specific competence clusters leads to the star-planet system model of the programme as shown in Figure 7. The group of core competence skills forms the star of the planetary system, driving the planets at three orbital levels, with the first orbit comprising a set of three planets of hard skills (H1 – H3), the second orbit comprising a set of three planets of soft skills (S1 – S3), and the third orbit comprising a set of three planets of attitudes attributes (A1 – A3).

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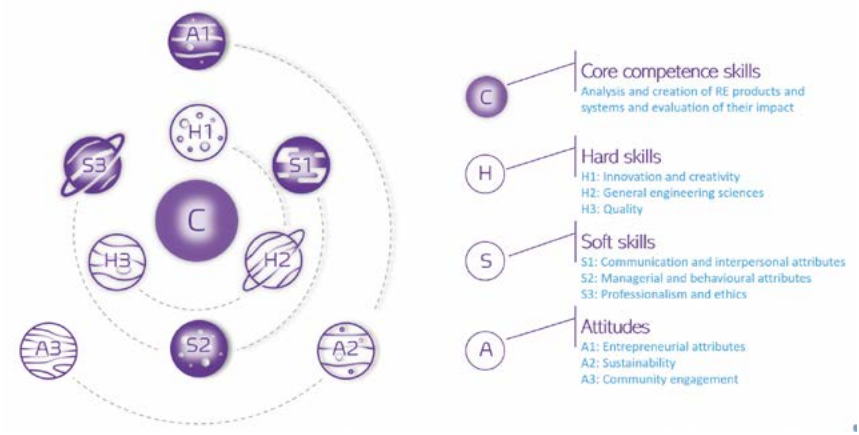

Figure 7

Planetary representation of meta-profile – case of Renewable Energy

One outcome which was absent in the general characteristics of existing graduate competencies in engineering and science programmes, but produced a strong showing in the survey results, was a requirement for entrepreneurial skills. This aspect, together with the requirement for working with communities, is seamlessly accounted for by adoption of the recommendation of Sackey et al.[15] in the third planetary orbit (A1-A3). This approach provides an effective way to identify and develop a set of core competencies for the programme. Clearly, the role and influence of stakeholders is substantial and thus a careful design of the survey instruments, which is the route for wider stakeholder participation, is cardinal. This approach can be recommended for application elsewhere as regions, and indeed the continent, move towards the development of sector-based, intra-regional harmonised engineering programmes.[31]

[31] Juma Shabani, Peter Okebukola, and Olusola Oyewole. "Qualification Recognition and Frameworks in Africa," in *Regionalization of African Higher Education: Progress and Prospects*, ed. Jane Knight and Emnet T. Woldegiorgis. Rotterdam: Sense Publishers, 2017: 135-150. https://doi.org/10.1007/978-94-6300-956-0.

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V. Conclusions and recommendations

A methodology has been proposed for the development of sector-specific technology-based qualification profiles that addresses harmonisation on two fronts. Firstly, on ensuring industrialisation and labour market orientation, and secondly, on ensuring regional equivalence and comparability of qualifications. This approach was found to be necessary in a developing-country context due to the foremost need to nucleate enterprises, as opposed to the developed-country context which makes use of an existing industrial base as part of the competence enabling trajectory of graduates. In this light, primary stakeholders in the profiling stage of a qualification include those that set the industrialisation strategies and plans of countries.

The methodology uses established processes which are extended in terms of its stakeholder engagement criteria focussing on industrialisation within a developing-country context. It was applied to the case of Renewable Energy in Southern Africa, with the aim of developing specialised, sector-specific, qualifications at undergraduate level in particular.

The study initially defined a set of twenty-two generic and specific competences in a non-disaggregated manner, directed at the sector, which were then grouped into six key competence areas. These six key competencies areas were further transformed, for the purpose of developing a meta-profile for the qualification, into a core competence (as the centre of the planetary system), followed by sets of hard, soft and attitudinal skills.

The planetary description of the meta-profile thus revealed a core set of competencies related to the analysis, creation and evaluation of technology-specific products and systems and the evaluation of their impact. Such competences cut across the various technologies within the sector, and links to the resources and industrialisation potential that exist within specific locations/countries. The first two planetary orbits encompass an integration of hard engineering and science related skills with soft communications and management related skills. The outer planetary orbit encompasses skills related to entrepreneurship and sustainable development.

Bibliography

Agbaje, Ganiyu, Omowumi Alabi, and Etim Offiong. “Education and Training in Applied Remote Sensing in Africa: The ARCSSTE-E Experience.” *ISPRS International Journal of Geo-Information* 8, no. 350 (2019): 1-14. https://doi.org/10.3390/ijgi8080350.

Tuning Journal for Higher Education
© University of Deusto. ISSN: 2340-8170 • ISSN-e: 2386-3137. Volume 8, Issue No. 1, November 2020, 75-97
doi: http://dx.doi.org/10.18543/tjhe-8(1)-2020pp75-97 • http://www.tuningjournal.org/

Anderson, Lorin W., David R. Krathwohl, Peter W. Airasian, and Kathleen A. Kruikshank. *A Taxonomy for Learning, Teaching, and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives*. New York: Longman, 2001.

Chikuni, Edward, Francisco Goncalves-Longatt, Emanuel Rashayi, and Ogbonnaya I. Okoro. "Power *system*, substation, automation and the smart grid, how should universities react?" In *Proceedings of the IEEE International Conference on Industrial Technology (ICIT)*. Cape Town, 2013: 905-909. https://doi.org/10.1109/ICIT.2013.6505791.

Suñé, Letícia Soares de Vasconcelos Sampaio, and Roberto de Armas Urquiza. "Compared education study: curriculum design for the development of competences." *Tuning Journal for Higher Education* 3, no. 2 (2016): 319-346. https://doi.org/10.18543/tjhe-3(2)-2016pp319-346

Ebrahimi, Masoumeh, Amleset Kelati, Emma Nkonoki, Aron Kondoro, Diana Rwegasira, Imed Ben Dhaou, Ville Taajamaa, and Hannu Tenhunen. "Creation of CERID: Challenge, Education, Research, Innovation, and Deployment in the Context of Smart MicroGrid." In *Proceedings of the 2019 IST-Africa Week Conference (IST-Africa)*. Nairobi, May 2019: 1-8.

Elamrani, Ahmed, Guillaume Amadji, Jean Ndimubandi, Christopher M. Tankou, Samuel K. Offei, Taky Hortense, Atta Dialo et al. "Meta-profile development using the Tuning Methodology to support Agricultural Sciences Training in Africa." Paper presented at the International Conference on Engineering Education and Research, Marrakesh, July 2013. https://www.researchgate.net/publication/330545209_Meta-profile_development_using_the_Tuning_Methodology_to_support_Agricultural_Sciences_Training_in_Africa.

Elkin, Graham. "Competency-based human resource development." *Industrial and Commercial Training* 22, no.4 (April 1990): 20-25. https://doi.org/10.1108/00197859010137009.

ENAEE (European Network for Accreditation of Engineering Education). "EUR-ACE Framework Standards for the Accreditation of Engineering Programmes." 2018. https://www.enaee.eu/eur-ace-system/standards-and-guidelines/#standards-and-guidelines-for-accreditation-of-engineering-programmes.

González, Julia, and Maria Yarosh. "Building Degree Profiles. The Tuning Approach." *Tuning Journal for Higher Education* 1, no. 1 (July 2014): 37-69. http://dx.doi.org/10.18543/tjhe-1(1)-2013pp37-69.

Hahn, Karola, and Damtew Teferra. "Tuning as Instrument of Systematic Higher Education Reform and Quality Enhancement: The African Experience." *Tuning Journal for Higher Education* 1, no. 1 (2014): 127-163. http://dx.doi.org/10.18543/tjhe-1(1)-2013pp127-163.

IEA. "World Energy Outlook 2014." https://www.iea.org/reports/world-energy-outlook-2014

Incekara, Ahmet, Tugba Guz, and Gulden Sengun, "Measuring the Technology Achievement Index: Comparison and Ranking of Countries". *Journal of Economics, Finance and Accounting* 4, no. 2 (2017): 165-174. http://doi.org/10.17261/Pressacademia.2017.446.

 ISSN: 2340-8170 • ISSN-e: 2386-3137. Volume 8, Issue No. 1, November 2020, 75-97
doi: http://dx.doi.org/10.18543/tjhe-8(1)-2020pp75-97 • http://www.tuningjournal.org/

IRENA. "Renewable Energy in the Water, Energy & Food Nexus." 2015. https://www.irena.org/publications/2015/Jan/Renewable-Energy-in-the-Water-Energy--Food-Nexus.

Jain, Pushpendra K., Edward M. Lungu, and Buti Mogotsi, "Renewable energy education in Botswana: needs, status and proposed training programs." *Renewable Energy* 25 (January 2002): 115–129. https://doi.org/10.1016/S0960-1481(01)00004-0.

Jonker, Lewis, Pieter van der Zaag, Bekithemba Gumbo, Johan Rockström, David Love, and Hubert H. G. Savenije. "A regional and multi-faceted approach to postgraduate water education – the Watered experience in Southern Africa." *Hydrology and Earth System Sciences* 16 (November 2012): 4225–4232. https://doi.org/10.5194/hess-16-4225-2012.

Kouwenhoven, Wim. "Competence-based curriculum development in Higher Education: a globalised concept?" In *Technology Education and Development*, edited by Aleksandar Lazinica and Carlos Calafate. (Rijeka: InTech Open, 2009), 1-22.

Martikka, Mikko, Roope Husgafvel, Olli Dahl, Andrade Egas, and Natasha Ribeiro. "Study Module Development on Environmental Engineering – Experiences from Mozambican and Finnish Higher Education Collaboration." In *Proceedings of the International Conference Environment and Water Resource Management (AfricaEWRM)* (Gaborone, 2014): 35-43.

Pegels, Anna. "Renewable energy in South Africa: Potentials, barriers and options for support." *Energy Policy* 38 (2010): 4945-4954. https://doi.org/10.1016/j.enpol.2010.03.077.

REN21. "Renewables 2015 Global Status Report." https://www.ren21.net/wp-content/uploads/2019/05/GSR2015_Full-Report_English.pdf.

REN21. "SADC Renewable Energy and Energy Efficiency Status Report." 2018. https://www.ren21.net/2018-sadc-renewable-energy-and-energy-efficiency-status-report/.

Sackey, Samuel M., Venkata R. Ancha, Moses P.M. Chinyama, Charles A. Onana, Raïdandi Danwe, Mohammad M. Megahed, Béatrice Delpouve, Shadreck Chama et al. "Collaborative meta-profile development to harmonise mechanical engineering education in Africa." *Tuning Journal for Higher Education* 2, no. 1 (December, 2014): 161-178. http://dx.doi.org/10.18543/tjhe-2(1)-2014pp161-178.

Shabani, Juma, Peter Okebukola, and Olusola Oyewole. "Qualification Recognition and Frameworks in Africa." In *Regionalization of African Higher Education: Progress and Prospects,* edited by Jane Knight and Emnet Woldegiorgis. Rotterdam: Sense Publishers, 2017: 135-150. https://doi.org/10.1007/978-94-6300-956-0.

Staak, Anthony, and Raynitchka Tzoneva. "The design of a master's curriculum in smart grid technology within the Erasmus+ K2 DAMOC project." In *Proceedings of the 11th International Conference on Engineering and Business Education* (ICEBE). Szczecin, 2018: 27-34.

Tuning Journal for Higher Education
© University of Deusto. ISSN: 2340-8170 • ISSN-e: 2386-3137. Volume 8, Issue No. 1, November 2020, 75-97
doi: http://dx.doi.org/10.18543/tjhe-8(1)-2020pp75-97 • http://www.tuningjournal.org/

Tuning Academy. "Feasibility Study into the Relevance of a Tuning Approach for Higher Education in Africa." Final Report, 2011. http://tuningacademy.org/tuning-africa-feasibility-study/?lang=en.

Woldegiyorgis, Ayenachew A. "Harmonization of higher education in Africa and Europe: Policy convergence at supranational level." *Tuning Journal for Higher Education* 5, no. 2 (May 2018): 133-157. http://dx.doi.org/10.18543/tjhe-5(2)-2018pp133-157.

Woldegiorgis, Emnet T., "Conceptualizing Harmonization of Higher Education Systems: The Application of Regional Integration Theories on Higher Education Studies." *Higher Education Studies* 3, no. 2 (2013): 12-23. https://doi.org/10.5539/hes.v3n2p12.

Woldegiorgis, Emnet T., *Regionalization of Higher Education in Africa: The Operationalization of the African Union Higher Education Harmonization Strategy* (Berlin: LIT Verlag, 2017): 173-187.

The World Bank. "State of Electricity Access Report (SEAR) 2017." https://documents.worldbank.org/en/publication/documents-reports/documentdetail/364571494517675149/full-report.

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Evaluation of the teaching practice course carried out with the Lesson Study Model

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Abstract: The purpose of this research was to evaluate the teaching practice process carried out with the lesson study model. In this research "action research" approach was adopted. The study group of the research consisted of four Turkish Language and Literature pre-service teachers. Lesson study was carried out in nine weeks of the teaching practice course. Qualitative data collection techniques such as observation, unstructured focus group interview, and document review were used as data collection techniques. Pre-service teacher course observation forms obtained before the lesson study process, course plans, reflective diary forms, peer observation forms and student opinion forms obtained during the lesson study application process were analyzed with descriptive analysis method. At the end of the lesson study process, focus group interview data and letters written by pre-service teachers were analyzed by content analysis method. At the end of the research, it was seen that pre-service teachers' perception of teaching profession changed in line with student-centered understanding. It has been determined that pre-service teachers personally develop in terms of multi-faceted thinking, problem solving, self-confidence and patience and also improve professionally on issues such as coping with students, preparing plans, and producing activities.

Keywords: Lesson study; teaching practice; professional development; pre-service teacher; action research.

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I. Introduction

The most important aim of training pre-service teachers is to ensure their professional development and to have them ready for the profession.[1] Teachers should be best trained in both subject matter knowledge and pedagogical competencies. The fact that teachers are equipped only with subject matter knowledge does not mean that education activities are carried out completely.[2] The realization of the educational goals depends on the teachers' ability to convert their knowledge into a form that students can effectively gain. In addition to having good subject matter knowledge, teachers should both have skills to convey their knowledge effectively and knowledge necessary to manage the learning and teaching processes.[3]

Teaching practices of the pre-service teachers in schools are perceived as the most powerful component of preparation for the teaching profession. Pre-service teachers' experiences gained at practice schools have a very important place in establishing the balance between theory and practice and gaining professional maturity.[4,5] Teaching practice involves the intentional training of pre-service teachers to acquire the necessary knowledge, skills and values in both subject matter knowledge and pedagogical fields and it provides pre-service teachers with opportunities to develop basic skills in the teaching profession. Pre-service teachers' performance in this process will strengthen them, help them merge theory to practice and provide a basis for their future success.[6] In addition, teaching practice allows pre-service teacher to prepare

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[1] Serap Akbaba Dağ, "A microteaching Lesson Study Practice to Improve Pre-Service Teachers' Knowledge of Teaching Fractions" (PhD diss., Dumlupınar University, 2014), 2.

[2] Emine Gözel, "Study of Progress of Class Teachers' Knowledge of Problem-Solving Based Math Teaching by Lesson Study" (PhD diss., Pamukkale University, 2016), 11.

[3] Gülşah Özdemir Baki, "Investigating the Development Process of Secondary Mathematics Teachers' Mathematical Pedagogical Content Knowledge: Lesson Study Model" (PhD diss., Atatürk University, 2017), 4.

[4] Mustafa Arslan and Mecit Sağlam, "Evaluation of Teaching Practice Course According to Opinions of Student Teachers," *Hacettepe University Journal of Education* 33, no. 1, (2018): 145.

[5] Isabel Rots, Antonia Aelterman, Geert Devos, and Peter Vlerick, "Teacher Education and the Choice to Enter the Teaching Profession: A Prospective Study," *Teaching and Teacher Education* 26, (2010): 1628.

[6] Daudi Mika Mungure, "An Exploration of the Preparation and Organization of Teaching Practice Exercise to Prospective Science and Mathematics Teachers Toward Improving Teaching Profession at Morogoro Teachers' College," *Journal of Education and Practice* 7, no. 33, (2016): 212.

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for the real world of the teaching profession by giving them opportunity to apply teaching techniques.[7]

In Turkey, the teaching practices of the students who either study at the last year of faculties that train teachers, or participate in pedagogical formation are realized according to the provisions of the "Directive Regarding the Teaching Practice of the Pre-service Teachers in Educational Institutions Affiliated to the Ministry of National Education". In this context, the teaching practice course is carried out jointly by the provincial directorates for national education and faculties that train teachers. The teaching practice course aims to enable students to better prepare for the teaching profession. It also aims that the students should gain the ability to use their skills such as general knowledge, special field knowledge, teaching profession related skills, attitudes and behaviors that they obtained during their training, in an educational environment.

Researches show that the teaching practice process is not carried out effectively in Turkey.[8] Pre-service teachers are not provided with the necessary environments. They make observations while they are supposed to teach.[9] Moreover, they are not provided with sufficient feedback on the planning and implementation of the course.[10] Pre-service teachers behave reluctantly and can be unserious about the profession and the course, their motivation levels are low, they teach the course wrongly, and their profession and subject matter knowledge are not sufficient enough.[11] Despite the theoretical courses and teaching practice course they took in undergraduate education, it is seen that pre-service teachers do not possess enough knowledge, skills and experiences. It is also seen that they do not have the

[7] Magdeline Mannathoko, "Does Teaching Practice Effectively Prepare Student-Teachers to Teach Creative and Performing Arts? The Case of Botswana," *International Journal of Higher Education* 2, no. 2 (2013): 115.

[8] Yaşar Çelik and İbrahim Gül, "Evaluation of Teaching Practice Course According to Teacher Candidate's Opinions," *Asian Journal of Instruction* 6, no. 2 (2018): 82.

[9] Necla Dönmez Usta and Ebru Turan Güntepe, "Opinion of the Pre-service Teachers on School Experience and Teaching Practice," *Journal of International Social Research* 9, no. 42 (2016): 1221.

[10] Turan Paker, "Problems of Student Teachers Regarding the Feedback of University Supervisors and Mentors During Teaching Practice," *Pamukkale University Faculty of Education Journal* 1, no. 23 (2008): 138.

[11] Ethem Yeşilyurt and Çetin Semerci, "The Problems and Their Solutions of Practice Teachers in Teaching Practice Process," *Akademik Bakış Dergisi*, no. 27 (2011).

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necessary competencies such as planning, material preparation, time management, and effective communication with the students.[12,13]

One of the models developed to improve the subject matter knowledge and competencies of pre-service teachers and to fill the gap between theory and practice is "lesson study" model that has been put into practice with an increasing interest in the world. Lesson study has been used for the professional development of teachers in Japan for over a century and it is accepted and used as an effective method for professional development in other parts of the world.[14] Lesson study includes regularly meeting teacher/pre-service teacher groups for subject selection and for design, implementation, testing and development of the courses. It also includes steps of careful planning, observations by peers, and reflecting and discussing observations with working group members by collaborating with one or more colleagues.[15,16,17] The lesson study application allows teachers to become more knowledgeable about how their students learn, how they think and how the teaching and learning process affects student thinking. During the design phase of the course, teachers exchange ideas with students about communication.[18]

Lesson study has been shown to have important and permanent effects on improving teachers' knowledge and skills.[19] Lesson study has been shown to contribute to the development of both new teachers and experienced teachers.[20] The inclusion of lesson study in pre-service teacher education has been shown to help teachers develop a meaningful relationship with teaching profession at the beginning of their profession.[21]

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[12] Hilal Kükey, "An Investigation of the Course Planning Process of Pre-Service Primary School Mathematics Teachers on Fifth Grade Fractions Topic Based on Lesson Study Model" (PhD diss., İnonu University, 2018), 3.

[13] Şükran Tok, "The Problems of Teacher Candidate's about Teaching Skills During Teaching Practice," *Procedia Social and Behavioral Sciences* no. 2 (2010): 4143.

[14] Raymond Bjuland and Reidar Mosvold, "Lesson Study in Teacher Education: Learning From a Challenging Case," *Teaching and Teacher Education*, no. 52 (2015): 84.

[15] Fer Coenders and Nellie Verhoef, "Lesson Study: Professional Development (PD) for Beginning and Experienced Teachers," *Professional Development in Education* 45, no. 2 (2018): 218.

[16] Fouada Hamzeh, "Lesson Study-Building Communities of Learning Among Pre-Service Science Teachers" (Master diss., University of Windsor, 2014), 25.

[17] Tracy C. Rock and Cathy Wilson, "Improving Teaching Through Lesson Study," *Teacher Education Quarterly*, no. 32 (2005): 78.

[18] Tang Keow Ngang and Lim Chap Sam, "Principal Support in Lesson Study," *Procedia-Social and Behavioral Sciences*, no. 205 (2005): 135.

[19] Rock, and Wilson, "Improving Teaching," 89.

[20] Coenders and Verhoef, "Lesson Study: Professional," 218.

[21] Hamzeh, "Lesson Study-Building," 1.

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The lesson study has also been shown to increase the capacity of teachers to develop positive emotions towards their professions, making the cooperative learning approach a part of their daily lives, strengthen teachers' thoughts about their own qualifications and increase their level of ownership feelings and their control of courses.[22] Moreover, it has also been shown that it contributes significantly to planning courses, student-centered teaching, focusing more on students and developing time management skills.[23]

It was observed that most of the lesson study researches in Turkey were done in the field of Mathematics.[24,25,26,27,28,29,30,31,32,33,34,35] Apart from these,

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[22] Ayşegül Serbest, "The Examination of Lesson Study's Impacts with Meta-Synthesis" (Master diss., Karadeniz Tecnical University, 2014), 115.

[23] İlknur Bayram and Fatma Bıkmaz, "Exploring the Lesson Study Experience of EFL Instructors at Higher Education: A Pilot Study," *Journal of Qualitative Research in Education* 6, no. 3 (2018): 327.

[24] Durdu Nur Aktürk, "Examination of the Mathematics Teachers' Views on the STEM Activities Developed within the Scope of Lesson Study" (Master diss., Eskisehir Osmangazi University, 2019).

[25] Ruhşen Aldemir, "Investigation Development of Prospective Mathematic Teachers' Technological Pedagogical Content Knowledge by Micro Teaching Lesson Study: The Case of Solid Objects" (Master diss., Atatürk University, 2017).

[26] Müjgan Baki and Selahattin Arslan, "Examining the Effect of Lesson Study on Prospective Primary Teachers' Knowledge of Lesson Planning," *Turkish Journal of Computer and Mathematics Education* 6, no. 2 (2015).

[27] Gamze Kurt Birel, "A New Approach in the Context of Mathematics Education Research: Lesson Study," *Studies in Educational Research and Development* 1, no. 1 (2017).

[28] Elif Boran and Kamuran Tarım, "The Opinions of Secondary School Mathematics Teachers about the Lesson Study," *Turkish Journal of Computer and Mathematics Education* 7, no. 1 (2016).

[29] İbrahim Budak, Ayfer Budak, Işıl Bozkurt, and Bülent Kaygın, "Lesson Study Implementation with Pre-Service Mathematics Teachers," *e-Journal of New World Sciences Academy* 6, no. 2 (2011).

[30] Pınar Güner and Didem Akyüz, "Lesson Study Professional Development Model: Investigating Noticing Skills of Prospective Mathematics Teachers," *Elementary Education Online* 16, no. 2 (2017).

[31] Ümit Kaya, "Evaluation of Lesson Study Model Based Professional Development Applications of High School Mathematics Teachers" (Master diss., Cumhuriyet University, 2018).

[32] Hilal Kükey, "An Investigation of the Course Planning Process of Pre-Service Primary School Mathematics Teachers on Fifth Grade Fractions Topic Based on Lesson Study Model" (PhD diss., İnonu University, 2018).

[33] Özdemir Baki, "Investigating the Development."

[34] Deniz Özen, "Development of Geometric Thinking of Elementary School Mathematics Teachers: A Lesson Study" (PhD diss., Anadolu University, 2015).

[35] Ramazan Yurdakul, "Designing and Evaluation of a Web Site to Facilitate the Implementation Lesson Study Model in In-Service Trainings of Mathematics Teachers" (Master diss., Cumhuriyet University, 2019).

some other studies in the fields of primary school teaching,[36,37,38] Social Studies[39] and English[40] were also found. However, no studies in the field of Turkish Language and Literature, which is the common area of pre-service teachers in this study, have been encountered. In this respect, it is thought that this study conducted with pre-service teachers of Turkish Language and Literature will contribute to the field.

"Formation Certificate Program" is a program designed for students who graduated from faculties other than education faculties to obtain a teaching certificate. Formation education is offered by the universities to students who graduated from particular departments of the universities determined by the Higher Education Institution. "Teaching practice" is one of the courses in this program. The teaching Practice course is a weekly course of 8 hours, 2 of which are theoretical and 6 of which are practice. The theoretical part of the course is held at the university, and the practical part is held in a school affiliated to the Ministry of National Education during working hours. It is aimed that teacher candidates will gain teaching skills in the classroom personally. Since the teaching practice course is purely practice-oriented, it is a very suitable course for the application of the lesson study model. When the framework of the teaching practice course is designed in accordance with this model, it is thought that the teaching process will become more functional in terms of pedagogy and professionalization.[41] In this sense, the purpose of this research is to evaluate the effects of the teaching practice process carried out with the lesson study research model on Turkish Language and Literature pre-service teachers. For this purpose, the following research questions were addressed.

- What are the opinions of the pre-service teachers regarding the teaching practice process carried out with the lesson study model?
- What are the opinions about the pre lesson study process?
- What are the opinions about the lesson study process?
- What are the opinions about the post lesson study process?

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[36] Dağ, "A microteaching."

[37] Gözel, "Study of Progress."

[38] Esin Meral Kandemir, "An Application to Improve Teaching Skills of Classroom Teachers: Lesson Study" (PhD diss., Pamukkale University, 2018).

[39] Tolgahan Ayantaş, "Lesson Study Practice in The Development of Professional Teaching Knowledge of Pre-Service Teachers of Social Studies" (Master diss., Ankara University, 2019).

[40] Bayram and Bıkmaz, "Exploring the Lesson Study."

[41] Rafet Günay, Banu Yücel Toy, and Elif Bahadır, "Lesson Study Model in Teacher Education and a Proposal toward Pre-service Teaching Practices in Turkey," *Journal of International Social Research* 9, no. 42 (2016): 1226.

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II. Method

The research was carried out with the "action research" method which is one of the qualitative research designs. Action research is an applied, cyclical and problem-solving oriented approach. Action research has started to be accepted as a part of professional development, because as it is thought that it can provide new understanding about school-based problems and improve education.[42] Action research is thought to be an effective way to ensure professional development of educators and to improve educational practices.[43]

The action research was gathered in three groups as "scientific-technical action research", "practical-deliberative action research" and "critical emancipatory action research".[44] In this research, "practical-deliberative action research" approach was adopted. With this type of action research, researchers together with practitioners identify the problem, underlying causes of the problem, and possible interventions to solve the problem. Within the scope of this research, the researchers together with the pre-service teachers tried to solve the problems of the teaching practice using action research.

II.1. *Study group*

In qualitative research, the aim is to obtain maximum information from the participants who are thought to give the most comprehensive information about the research problem through purposeful sampling method.[45] The study group of the research, selected using the purposeful sampling method, consisted of four senior students enrolled in a Department of Turkish Language and Literature at a state university. These students also continued the 2019-2020 fall term "teaching certificate program" offered by the same state university and took the "teaching practice" course. All of the selected

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[42] Taylor, Claire, Min Wilkie, and Judith Baser, *Doing Action Research: A Guide for School Support Staff* (London: Paul Chapman Publishing, 2006), 2.

[43] Margaret Vaughna, Seth A. Parsons, Susan Kologi, and Melissa Saul, "Action Research as a Reflective Tool: A Multiple Case Study of Eight Rural Educators' Understandings of Instructional Practice," *Reflective Practice* 15, no. 5 (2014): 634.

[44] James McKernan, *Curriculum Action Research. A Handbook of Methods and Resources for the Reflective Practitioner* (London: Kogan Page, 1991), 15.

[45] Svend Brinkmann, *Qualitative Interviewing: Understanding Qualitative Research* (New York: Oxford University Press, 2013), 57.

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pre-service teachers were females. These pre-service teachers were coded as T1, T2, T3, and T4.

II.2. *Data collection*

Before data collection, permission was obtained from the Scientific Research and Publication Ethics Committee of Duzce University with the decision numbered 2020/109 and 2020/110 and dated 04/06/2020.

The study used observation, unstructured focus group interview and document review techniques as data collection techniques. The study used "pre-service teacher course observation forms", "course plans", "reflective diary forms", "peer observation forms", "student opinion forms", "pre-service teachers' letters" and "focus group interview forms" as data collection tools. The use of each one of these tools is described below:

- The pre-service teacher course observation forms (22 forms in total) were filled by each pre-service teacher during the first three weeks.
- Together, the researchers and pre-service teachers prepared one course plan every week (a total of 9 major course plans), and pre-service teachers prepared two revised plans (a total of 18 revised plans) each week.
- At the end of each course, the pre-service teacher who is responsible for the teaching of the course filled the reflective diary forms (27 forms in total), and the other three pre-service teachers filled the peer observation forms (27 forms in total) during teaching of the course.
- In the last five minutes of each course, volunteer students completed the student feedback form (124 forms in total), in which they wrote their views on the teaching of the course.
- Each pre-service teacher wrote a letter (4 letters in total) at the end of the semester, in which they shared their feelings and thoughts about the process.
- A focus group interview lasting about 59 minutes was held with the four pre-service teachers at the end of the semester.

II.3. *Data analysis*

Before the lesson study process, the data obtained by the pre-service teacher course observation forms and during the applications of the lesson

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study process the data obtained by course plans, reflective diary forms, peer observation forms and student opinion forms were analyzed using descriptive analysis method. In descriptive analysis, the data obtained are summarized and interpreted according to the previously determined categories.[46] The categories were determined in line with the literature review and purpose of this research while creating data collection tools. The data collected within the scope of the research were carefully read and placed in the determined categories.

At the end of the lesson study process, the focus group interview data and the letters written by pre-service teachers were analyzed using content analysis method. Content analysis can be defined as a detailed and careful examination of a particular material to define patterns, categories or meanings. Content analysis process was carried out in three stages as coding, classification and association.[47] First of all, the data collected in the form of voice recording were converted to text. The data collected from different sources were combined and grouped and made ready for analysis. The forms are coded to express each participant. These codes, which are used instead of the names of the participants, are also used in direct quotations. In this research, "data-based coding" type was adopted in the coding of the data and the codes were improved during the analysis process. In this phase, the encoded data were examined more closely and the category formation process was carried out based on the characteristics of the data. Then, the processes of distributing data into categories, combining data into upper categories, and creating subcategories were carried out. Later, the relationships and differences between the formed categories were examined. At this stage, the data that was divided into pieces by coding were brought together analytically in an orderly manner and a new conceptual framework was formed.

II.4. *Validity and reliability*

In order to ensure the validity and reliability of the research, the following processes were carried out:

- Data diversification was made.
- Expert opinion was taken during the development of data collection tools.

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[46] Abdurrahman Kılıç, Mustafa Aydın, Burcu Ökmen, and Şeyma Şahin, *Kuramdan Uygulamaya İhtiyaç Belirleme* (Ankara: Pegem Yayıncılık, 2019), 361.

[47] Kılıç, Aydın, Ökmen, and Şahin, *Kuramdan Uygulamaya,* 362.

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- In the content analysis, the creation of categories was done meticulously.
- The data upon which content analysis were done were coded twice by the researcher with an interval of four weeks. Miles and Huberman's (1994) formula of conformity was used in consistency calculations and it was observed that there was an 82.72 % conformity.
- Objectivity has been provided through direct quotations from data collection forms.

II.5. *Application process*

The application process was conducted by the faculty member responsible for the teaching practice course at the university together with his doctoral student. Literature emphasizes that inexperienced teachers and pre-service teachers require guidance of a specialist to conduct lesson study as they do not have enough experience.[48]

Teaching practice course consisted of 2 hours of a theoretical part and 6 hours of practical part at high school per week. The theoretical and practical part progressed in parallel. The theoretical parts of the teaching practice course, which lasted 14 weeks in total, were held at the university, one hour every week on Thursdays. Pre-service teachers were assigned to an Anatolian High School for application of the teaching practice course. They attended three 12th grade classes (12A, 12B, and 12E), two hours a week for a total of six hours, on Monday, Tuesday and Thursday.

Before the application started, a term plan was elaborated for the teaching practice course. In the first week, pre-service teachers, responsible faculty member and the researchers met in the theoretical course at the university, and pre-service teachers were given information about the process. In the theoretical course at the university, the curriculum of the course, sample course plans and annual plans were examined together by pre-service teachers and the researchers in the second week.

The pre-service teachers met with the guiding teachers and students at the school where they practiced teaching in the first week. In the 1st, 2nd and 3rd weeks, pre-service teachers did not teach when they went to practice schools, and filled the observation forms by observing the guiding teacher in three different 12th grade classes, in six different courses, and for a total of 12-hours, for three weeks.

[48] Serbest, "The Examination," 109.

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In the third week, in the theoretical course at the university, the pre-service teacher course observation forms filled in the first three weeks were analyzed, the problems experienced during the application process were identified, and the first action plan was prepared in line with the findings. Starting from the 4th week, in theoretical courses at the university, course plans for the following weeks continued to be prepared. Pre-service teachers prepared the plan of the final week by themselves.

Starting from the fourth week, pre-service teachers carried out their practices in their schools under the supervision of the guiding teacher, and also for one week under the guidance of the researchers. In the application phase of the course, while a pre-service teacher, who teaches the course, was responsible for both filling the "self-assessment form" and having the volunteer students fill the "student opinion form", other three pre-service teachers were responsible for filling the "peer assessment form".

Lesson study application was carried out in nine weeks of the teaching practice course actively. Each lesson study cycle lasted one week. The course plans of pre-service teachers in the lesson study process are given in Table 1:

As shown in Table 1, pre-service teachers were assigned the courses of three classes (12-A, 12-B, 12-E) of the 12th grades during the semester. Four pre-service teachers attended each class together. The application consisted of nine cycles. In each cycle, three pre-service teachers did the teaching and

Table 1
Lesson Study Term Plan

Cycles		Application Classes		
		12-A	12-B	12-E
1. Cycle	04-08 November	ÖA1	ÖA2	ÖA3
2. Cycle	11-15 November	ÖA4	ÖA1	ÖA2
3. Cycle	25-29 November	ÖA3	ÖA4	ÖA1
4. Cycle	02-06 December	ÖA2	ÖA3	ÖA4
5. Cycle	09-13 December	ÖA1	ÖA2	ÖA3
6. Cycle	16-20 December	ÖA4	ÖA1	ÖA2
7. Cycle	23-27 December	ÖA3	ÖA4	ÖA1
8. Cycle	30 December-03 January	ÖA2	ÖA3	ÖA4
9. Cycle	06-10 January	ÖA1	ÖA2	ÖA3

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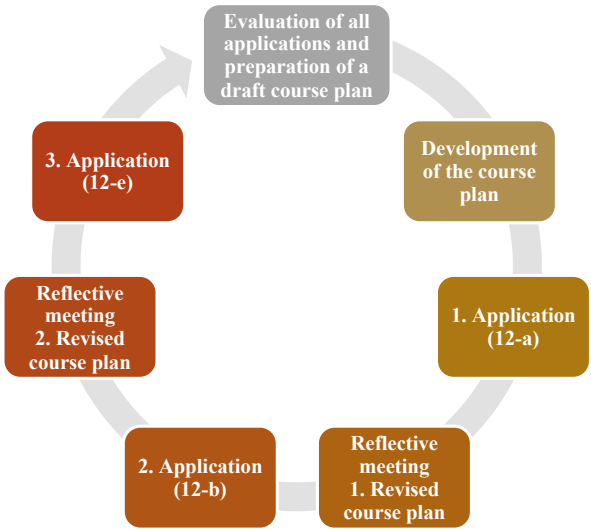

Figure 1
Lesson Study Weekly Cycle

the fourth one did only observations in that cycle. In one class, while a pre-service teacher was teaching a lesson, the other three pre-service teachers did observations. Three pre-service teachers had the opportunity to teach seven times while, one pre-service teacher taught six times.

The lesson study weekly cycle consists of seven stages. There is a course plan and two revised plans in each cycle. These stages are shown in Figure 1:

As shown in Figure 1, each lesson study cycle started with the preparation of the next week's course plan (same plan for all three classes). Every Thursday, pre-service teachers and researchers met for the theoretical course and prepared the next week's course plan in general. Course plans were prepared by considering the annual plans developed by the guiding teacher in line with the Turkish Language and Literature curriculum. Course plans were planned in accordance with the student-centered understanding, and every week different methods and techniques in which students could be active were included. The course plan, whose preliminary preparations were done together, was completed by pre-service teachers and sent to researchers via WhatsApp on weekend, and the plan was finalized through mutual messages.

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The prepared plan was applied by the selected pre-service teacher. After the application, the four pre-service teachers held the first reflective meeting and evaluated the course process. They prepared the first revised course plan by making some decisions as a result of the evaluations. Then, the plan was applied for the second time. The second reflective meeting was held after the application, and some decisions were made and the second revised plan was prepared. After that, the plan was applied for the third time. Sometimes, researchers also attended the revision meetings, and some other times pre-service teachers exchanged ideas with the researchers about application of the plan and the changes made in the revised plan via WhatsApp messages or phone calls. The guiding teacher also attended the reflective meetings in some weeks.

The evaluation of the third application of the plan along with the other two applications of it was done by pre-service teachers and researchers during the theoretical course on Thursdays. At this stage, reflective diaries of pre-service teachers, peer evaluation forms and student opinion forms were examined, and decisions were made regarding the next plan according to the results achieved. In line with these decisions, the next week's course plan was prepared and the cycle of the week was completed.

III. Results and discussion

Findings are introduced under three titles as "opinions about the pre lesson study process", "opinions about the lesson study process" and "opinions about the post lesson study process".

III.1. *Opinions about the pre-lesson study process*

Pre-service teachers' opinions related to the pre-process are given in Table 2:

Table 2

Opinions About the Pre Lesson Study Process

Categories	Codes
Attitude towards Teacher	She wanted to be a teacher She regarded teaching as a comfortable occupation
Pedagogical Information	She did not know how to make a course plan She did not know that it was necessary to make a plan before going to class She advocated plain lecturing She was against the activity, and had doubts She did not believe in the benefit of the plan She does not have any knowledge about method, technique and activity
Self-Sufficiency	She had no self-confidence and was suspicious about herself She considered herself inadequate in all respects She was inexperienced She was uneasy, stressed, nervous, excited She thought she couldn't do it; she would have a hard time
Internship Group	She was thinking that her advisor was tough person She was very upset, anxious and sleepless when she heard the name of the advisor She was comparing herself with other internship groups She was very upset when the internship school was changed
Tasks	Making a course plan felt like chore She thought the forms they would fill were unnecessary She was afraid of preparing files She knew that everything was for her own good. This made her relaxed She thought there were strict rules Their actions (activities, materials, observations) were very intimidating She thought that what she would do would not be liked by the others She thought it was too much to teach seven times in a semester

As shown in Table 2, Pre-service teachers' opinions about pre lesson study were gathered under five categories. These categories are "Attitude towards Teacher", "Pedagogical Information", "Self-Sufficiency", "Internship Group" and "Tasks".

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It is seen that pre-service teachers want to be teachers and they think that being a teacher is an easy profession. However, they are pedagogically insufficient and their beliefs in self-efficacy are low. It is also seen that, initially, pre-service teachers are not satisfied with the internship groups, are afraid of the tasks they will perform, and they believe that the work and procedures they will do are unnecessary.

Some quotations from the opinions of the pre-service teachers (T) under these categories are given below:

> T1: *As far as I can hear from my environment, it was mentioned that the teaching profession is always a comfortable profession. Weekends, one-month breaks and three-months breaks…*
>
> T2: *"When I started the internship process, I was faced with a surprise change and I saw that my school and guidance counselor had changed. I was very upset about this. I met you at our first meeting, what we will do was intimidating to me.*
>
> T3: *I am uneasy, since the time my guiding teacher has given us information about what to do. I was very intimidated that we had to prepare observation forms, student opinion forms, reflective diaries, activities according to our methods and techniques, and more importantly, preparing course plans.*
>
> T4: *I did not know that I had to prepare a plan when I was going to a class. I realized how inexperienced and uninformed I am about my dream job.*

The difficulties that pre-service teachers experience may be related to not being an education faculty graduate. In a research it was found that Turkish teaching pre-service teachers give more importance to practicing pedagogy education they receive in the classroom than Turkish Language and Literature pre-service teacher. Turkish Language and Literature pre-service teachers think that subject matter knowledge is the most important determinant in teacher self-efficacy.[49] In another research, it was found that the self-efficacy perceptions of education faculty students were higher than science and literature faculty students' perceptions.[50] These three studies support the results of this research. On the other hand, in an other research it was determined that there was no statistically significant difference in self-

[49] Ayla Arseven, Burcu Moroğlu, and Ebru Aldığ, "Examination of Prospective Turkish Language Teachers and Turkish Language and Literature Teachers' Self-Efficacy Beliefs," *IJOESS* 6, no. 21 (2015): 61.

[50] Gökhan Arastaman, "Examination of Education and Arts and Sciences Faculty Students' Self-Efficacy Beliefs and Their Attitudes Toward Teaching Profession," *KEFAD* 14, no. 2 (2013): 211.

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efficacy beliefs towards the profession of both the Faculty of Education students, and the Faculty of Science and Literature students who also take pedagogical formation training.[51] This result does not seem compatible with this research.

III.2. *Opinions about the lesson study process*

Pre-service teachers' opinions about the lesson study process were examined under two subtitles as; "Opinions Related to the Process" and "Opinions about the Relationships".

III.2.1. Opinions related to the process

Pre-service teachers' opinions related to the process are given in Table 3:

Table 3

Opinions About the Lesson Study Process

Categories	Codes
Preparing Course Plan	She was very angry when her course plan was not liked She was getting angry with her friends while she was preparing the course plan Getting ready for the course was a burden and difficult She has improved herself in preparing activities over time She was very angry while she was preparing the first few course plans It was difficult to produce material In the beginning, she had hard times, was exhausted and was sleepless while preparing course plans It was difficult to find motivation, draw attention, and transition to the course in the plan As time moves (after preparing 3-4 plans) preparing course plans became easier

[51] Metin Elkatmış, Murat Demirbaş, and Nurcan Ertuğrul, "Self-Efficacy Beliefs of Students Who Take the Pedagogic Training Program in the Faculty of Arts and Sciences and Students in the Education Faculty Towards Teaching Profession," *Pegem Journal of Education and Instruction* 3, no. 3 (2013): 47.

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Categories	Codes
Preparing Revised Course Plan	Revised plans enabled the improvement of the course Revised plans provided an opportunity to correct errors Revised plans helped class management In the revised plans, beautiful things done in the other courses were used as examples Revised plans gave an idea about how to approach students Revised plans contributed to group formation Revised plans helped to adjust activity times Revised plans were reorganized according to the reactions from student
Application of the Plan	The plan provided confidence and relieved the course The plan provided context through the course Time management was done easily with the plan She knew what to do through the course with the help of the plan At first, she looked at the course plan frequently, and then she internalized the plan
Activities	Students who never participated the course were participated The course was given with student-centered activities The activities enlivened the class environment, draw attention of the students, and satisfied them Activities enabled students to learn Even though there were some minor problems in the activities, they were completed with no problem All students were reached with the activities In the activities, whole of the 40-minute course time was used efficiently The students were in interaction with each other in the activities The students attended the activities of the course with pleasure and had a lot of fun All of the students worked with the group

As shown in Table 3, pre-service teachers' opinions about teaching of the course were gathered under four categories. These categories are "Preparing Course Plan", "Preparing Revised Course Plan", "Application of the Plan", and "Activities".

It is seen that initially, pre-service teachers had difficulties in preparing course plans, producing activities and materials, but they gained experience in time and did their job easily. It was also observed that the pre-service

teachers provided benefits in development of the courses in terms of adjusting timing of the revised plans, formation of the groups and controlling of the class.

Some quotations from the opinions of the pre-service teachers on this subject are given below:

> T1: *Preparing a plan was the thing that tired me the most during this process. I was both inexperienced and I had no self confidence in this matter."*
>
> T2: *We tried to prepare course plans staying sleepless all night long and by getting angry with you. You said that as time goes on this job would be very simple for us, so it really happened.*
>
> T3: *As a result of hard work, we taught students a lot of things through activities. Teaching something to students made me feel happy.*
>
> T4: *When I saw that the students attended my class without getting bored and with joy, my self-confidence increased and I felt happy. They all interested in what I did.*

This situation shows that the lesson study process has very positive effects on the preparation for the course. Similarly, in a research it was determined that pre-service teachers showed progress in designing the course and conducting student learning during the lesson study process.[52] It was also revealed in an other study that the model contributes to teachers in course planning.[53] Similarly, in an other study it was indicated that the lesson study method is very useful in the professional development of teachers.[54] In a meta-synthesis study on the influence areas of the lesson study method, it was determined that, with the lesson study, the development and change in the instructional practices and guidelines in the classroom were positive.[55] In an other research it was found that the lesson study method provided pre-service teachers with the opportunity to practice and that these studies contributed greatly to them professionally.[56] In the same way, it was revealed

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[52] Meiliasari Meiliasari, "Lesson Study with Pre-Service Teachers: Investigating the Learning of Pre-Service Teachers in Lesson Study Model of Teaching Practice Course" (Fifth International Conference on Science and Mathematics Education CoSMEd, Malaysia, 2013), 9-10.

[53] Bayram and Bıkmaz, "Exploring the Lesson Study," 325.

[54] Rock, and Wilson, "Improving Teaching," 89.

[55] Serbest, "The Examination," 105.

[56] George Zhou and Judy Xu, "Microteaching Lesson Study: An Approach to Prepare Teacher Candidates to Teach Science Through Inquiry," *International Journal of Education in Mathematics, Science and Technology* 5, no. 3 (2017): 243.

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that the application of the lesson study provides significant advances in the teaching skills of pre-service teachers.[57] In a research work, it was concluded that the activities carried out with the lesson study method are fun and interesting for the students.[58] Similarly, in an other research work it was concluded that the in-class activities carried out with lesson study contributed to students' reaching a more positive perspective towards the course or activities.[59] In the same way, in a study it was revealed that student-centered methods have a positive effect on students' attitudes towards the course compared to traditional methods.[60] In an other study, it was found that collaborative student-centered learning activities have more positive effects on students' attitudes towards courses than traditional learning and teaching methods.[61]

III.2.2. Opinions about the relationships

The pre-service teachers' opinions about the relationships are given in Table 4:

[57] K. Merdekawati, "The Implementation of Lesson Study to Improve the Teaching Skills of Chemistry Teacher Candidates" (International Conference on Science and Technology, Indonesia, 2018), 6.

[58] Abdullah Coşkun, "The Application of Lesson Study in Teaching English as a Foreign Language," *Inonu University Journal of the Faculty of Education* 18, no. 1, (2017): 151-162.

[59] Selda Şan and Zafer İbrahimoğlu, "The Impact of Using Student-Centered Activities on Students' Academic Achievement in Social Studies Course and Student's Views," *Abant Izzet Baysal University Faculty of Education Journal* 17, no. 4 (2017): 2153.

[60] Beyda Topan, "Effects of Student-Centered Methods on Academic Achievement and Attitude towards the Subject: A Meta Analysis Study" (Master diss., Kocaeli University, 2013), 115.

[61] Gökhan Baş, "The Effects of Cooperative Learning Method on Students' Achievement, Their Attitude Towards the Lesson and the Maintenance Levels of Their Achieved Knowledge in English Lessons," *National Education*, no. 184 (2009): 252.

Table 4

Opinions About the Relationships

Categories	Codes
Relationship with the Students	She became friends with the students She liked to chat with the students Student opinions improved her Her relationship and bond with students became stronger, and her communication strengthened She saw that the students' attitude was not toward her She was able to understand their interests The students showed their reactions
Relationship with the peers	She improved herself with peer reviews It was upsetting to make little contribution to her group friends She observed the good aspects of her friends and improved herself Planning in a group made a lot of contributions, she couldn't have done it alone
Relationship with the Guiding Teacher	They contributed to the guiding teacher on course plans and activities The guiding teacher sometimes contributed to them in revisions The guiding teacher was satisfied with what was done over time, her bias was changed
Relationship with the other Teachers	They became famous among the other teachers as game playing teachers The teachers wondered about them They imitated the patience and smiling face of the teachers
Relationship with himself/herself	She physically got tired She gained more experience and improved herself after each passing week At first, she was afraid, excited, felt helpless She felt valuable She was happy to be able to express herself The process was a thorny road and thorns sank in her feet Her self-confidence increased, she relaxed and her anxiety was gone

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As shown in Table 4, pre-service teachers' opinions about relations with individuals were gathered under five categories. These categories are "Relationship with the Students", "Relationship with the peers", "Relationship with the Guiding Teacher", "Relationship with the other Teachers" and "Relationship with himself/herself".

It is seen that pre-service teachers establish good relations and improved themselves with opinions of the students. Working with peers has contributed to pre-service teachers to improve themselves and to make the process easier. It is also seen that the application teacher contributed to the pre-service teachers as well as the pre-service teacher contributed to the applications teacher in terms of course plan, activity and material. It was observed that initially pre-service teachers experienced feelings such as fear and excitement in the process, but over time they gained experience had more trust in themselves, and their anxiety level was decreased.

Some quotations from the opinions of the pre-service teachers on this subject are given below:

> T1: *They were my students and also became my friends. They came to us every Thursday at lunchtime and talked to us. We were talking to them about the activities and future plans.*
>
> T2: *I learned a lot from my friends. I saw my own shortcomings while watching them.*
>
> T3: *The application teacher also contributed to the evaluations of the revisions. He also contributed to organization of the activities. Sometimes he was with us.*
>
> T4: *I couldn't write the plan alone. When my friends said let's do this in this way, we were seeing different aspects. It was very convenient to be together during the plan preparation phase.*

Thus, the study established that working with peers has positive effects during the lesson study process. This is in agreement with other studies. In a study it was emphasized that peer collaboration is very valuable for teachers' professional development.[62] In an other study it was determined within the scope of lesson study that planning done by pre-service teachers as a group is more effective than planning done by individual pre-service teachers.[63] In a study it was stated that lesson study encourages collaboration and tolerance

[62] Rock and Wilson, "Improving Teaching," 84.

[63] Hilal Kükey, "An Investigation of the Course Planning Process of Pre-Service Primary School Mathematics Teachers on Fifth Grade Fractions Topic Based on Lesson Study Model" (PhD diss., İnonu University, 2018), 93.

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in generating ideas and enables pre-service teachers to work more closely with each other.[64]

I.1. *Opinions about the post lesson study process*

Pre-service teachers' opinions related to the post-process are given in Table 5:

Table 5

Opinions About the Post Lesson Study Process

Categories	Codes
Perception of Being a Teacher	He understood how correct profession he chose He prejudices against student-centered education were demolished He understood that being a teacher in not only teaching courses He understood that being a teacher is not an easy occupation He understood that being a teacher means taking some responsibilities He has changed his perception of being a teacher in his mind She liked being teacher and wants to be a teacher
Individual Development	She started to be able to think with multiple aspects She learned how to be patient even though She is an impatient person She does not care about what people think about him She improved his self-confidence She can express himself very well She realized his potentials, proud of himself She learned how to overcome his fears She is not afraid of solving problems and he became solution She was mentally improved himself

[64] Zanaton Hj Iksan, Siti Nor Aishah Mohd Nor, Siti Nordiyana Mahmud, and Effandi Zakaria, "Applying the Principle of 'Lesson Study' in Teaching Science," *Asian Social Science* 10, no. 4 (2014): 108-113.

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Categories	Codes
Occupational Development	She understood the necessity of the forms She was thinking that he can be good teacher Occupationally improved himself and gained experiences She learned how to manage students She got used to be a teacher and overcame his excitement She learned how to prepare plans and produce and activities She believed the benefit of the pan She learned by applying all steps In seven course times, he learned things that he can learn in seven years She things that teaching seven times is great experience
Internship Process	She wanted to continue one more semester It was a good an experience, he had some difficulties but it worth it She could have taught even more courses She feels lucky about being a part of this group She felt good about seeing himself on the field She thinks that he will benefit from his internship experiences in the future She liked the process and was feeling sorry when it ended He forgot the difficulties

As shown in Table 5, pre-service teachers' opinions about post process were gathered under four categories. These categories are "Perception of Being a Teacher", "Individual Development", "Occupational Development" and "Internship Process".

At the end of the process, pre-service teachers' perceptions of teachership changed in line with student-centered understanding and they liked the teachership profession more. It has been observed that pre-service teachers personally improved themselves in terms of, multi-faceted thinking, problem solving, self-confidence and patience. They also improved themselves professionally in terms of coping with students, preparing plans, and producing activities. It is seen that at the end of the process, pre-service teachers have positive thoughts about the internship process; were satisfied with the process, felt sorry about the completion of the internship and believe that the internship will benefit them in the future. This helped them to forget the difficulties they may have encountered in the process.

Some quotations from the opinions of the pre-service teachers on this subject are given below:

> T1: *I am amazed to successfully complete all of the requirements which are internship, pedagogical formation, and university classes. Normally, I have a personality that gets bored of everything immediately. The most important thing is that I learned to be patient during this process.*
>
> *T2: I realized later that I can teach seven more times. Because every course I participated and every activity I applied taught me new things.*
>
> *T3: I am sure that this internship process and my guiding teacher will provide benefit me in my future teaching life. I was so used to the internship that it made me sad to finish the internship process and leave.*
>
> *T4: I now believe that I can do this profession on my own without asking anyone. This internship gave me self-confidence and made me realize my potentials. I realized that the main purpose of teachership is not just give lectures, but teaching something to the students.*

Supporting this research, in an other study it was determined that lesson study helps pre-service teachers to do student-centered education, where students' needs and thoughts are taken into account more, as an alternative to subject-based teaching.[65] In a study, it was determined that the teachers who participated in the lesson study indicated their desire to participate in the process again next year.[66]

I. Conclusions

For the pre lesson study process, the study concluded that although the pre-service teachers thought that they were pedagogically insufficient, their self-efficacy beliefs were low, they experienced feelings such as fear, excitement, they were afraid of the tasks they would do, and they believed that the work and operations they would do were unnecessary, yet they provided positive improvement in these matters in the process.

For the lesson study process, the study concluded that pre-service teachers had difficulties in preparing course plans, producing activities and materials during the lesson study process, but they made progress in these issues in the process. It was concluded that pre-service teachers personally improved themselves in terms of versatile thinking, problem solving, self-confidence and

[65] Ayantaş, "Lesson Study," 119.

[66] Rock and Wilson, "Improving Teaching," 90.

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patience. It was concluded that during the lesson study process, pre-service teachers had some problems that related to the application of the activities such as adjusting the duration, forming the groups, explaining the instructions, and presentation of the products. But with the revised plans prepared through lesson study, problems were reduced gradually in each class, and these revised plans contributed to the development of the course. It was concluded that in the first weeks, pre-service teachers had more problems in communicating effectively with students, controlling classroom, adjusting their voice tones, implementing the course plans, and ensuring the participation of the whole class in activities and evaluations; however, it was also concluded that they gained experience in time and problems related to these issues have been reduce in recent weeks. During the lesson study, it was concluded that the students were curious and interested in the course, they liked the activities very much, even the ones who never participated the course also participated to it, took responsibility in group works, interacted with each other, produced successful products, and learned effectively in the activities. It was concluded during the lesson study that working with peers contributed to the self-improvements of the pre-service teachers, and that while the guiding teachers contributed to the pre-service teachers, also pre-service teachers contributed to the guiding teachers.

For the post lesson study process the study concluded that pre-service teachers' perceptions of teaching changed in line with student-centered understanding. At the end of the process pre-service teachers had positive thoughts about the teaching practice process, were satisfied with the process, were feeling sad for the process to end, believed that the teaching practice course would be beneficial in the future, and forgot their difficulties.

II. Recommendations

In line with the results of the research, the following suggestions have been developed:

- The Ministry of National Education should believe in the importance of lesson study and put some efforts to popularize the model.
- Lesson study method should be shared with teachers through in-service trainings.
- This model should be adapted to the teaching practice courses of universities.
- Lesson study research studies are usually done with mathematics teachers in the literature. These studies should be carried out in different branches.

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Bibliography

Dağ, Serap Akbaba. "A microteaching Lesson Study Practice to Improve Pre-Service Teachers' Knowledge of Teaching Fractions." PhD diss., Dumlupınar University, 2014.

Aktürk, Durdu Nur. "Examination of the Mathematics Teachers' Views on the STEM Activities Developed within the Scope of Lesson Study." Master diss., Eskisehir Osmangazi University, 2019.

Aldemir, Ruhşen. "Investigation Development of Prospective Mathematic Teachers' Technological Pedagogical Content Knowledge by Micro Teaching Lesson Study: The Case of Solid Objects." Master diss., Atatürk University, 2017.

Arastaman, Gökhan. "Examination of Education and Arts and Sciences Faculty Students' Self-Efficacy Beliefs and Their Attitudes Toward Teaching Profession." *KEFAD* 14, no. 2 (2013): 205-217.

Arseven, Ayla, Burcu Moroğlu, and Ebru Aldığ. "Examination of Prospective Turkish Language Teachers and Turkish Language and Literature Teachers' Self-Efficacy Beliefs." *IJOESS* 6, no. 21 (2015): 48-66.

Aslan, Mustafa, and Mecit Sağlam. "Evaluation of Teaching Practice Course According to Opinions of Student Teachers." *Hacettepe University Journal of Education* 33, no. 1 (2018), 144-162.

Ayantaş, Tolgahan. "Lesson Study Practice in The Development of Professional Teaching Knowledge of Pre-Service Teachers of Social Studies." Master diss., Ankara University, 2019.

Baki, Müjgan, and Selahattin Arslan. "Examining the Effect of Lesson Study on Prospective Primary Teachers' Knowledge of Lesson Planning." *Turkish Journal of Computer and Mathematics Education* 6, no. 2 (2015): 209-229.

Baş, Gökhan. "The Effects of Cooperative Learning Method on Students' Achievement, Their Attitude Towards the Lesson and the Maintenance Levels of Their Achieved Knowledge in English Lessons." *National Education*, no. 184 (2009): 240-256.

Bayram, İlknur, and Fatma Bıkmaz. "Exploring the Lesson Study Experience of EFL Instructors at Higher Education: A Pilot Study." *Journal of Qualitative Research in Education* 6, no. 3 (2018): 313-340.

Birel, Gamze Kurt. "A New Approach in the Context of Mathematics Education Research: Lesson Study." *Studies in Educational Research and Development* 1, no. 1 (2017): 60-82.

Bjuland, Raymond, and Reidar Mosvold. "Lesson Study in Teacher Education: Learning From a Challenging Case." *Teaching and Teacher Education*, no. 52 (2015): 83–90.

Boran, Elif, and Kamuran Tarım. "The Opinions of Secondary School Mathematics Teachers about the Lesson Study." *Turkish Journal of Computer and Mathematics Education* 7, no. 1 (2016): 259-273.

Brinkmann, Svend. *Qualitative Interviewing: Understanding Qualitative Research*. New York: Oxford University Press, 2013.

Tuning Journal for Higher Education
© University of Deusto. ISSN: 2340-8170 • ISSN-e: 2386-3137. Volume 8, Issue No. 1, November 2020, 99-127
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Budak, İbrahim, Ayfer Budak, Işıl Bozkurt, and Bülent Kaygın. "Lesson Study Implementation with Pre-Service Mathematics Teachers." *e-Journal of New World Sciences Academy* 6, no. 2 (2011): 1606-1617.

Coenders, Fer, and Nellie Verhoef. "Lesson Study: Professional Development (PD) for Beginning and Experienced Teachers." *Professional Development in Education* 45, no. 2 (2018): 217-230.

Coşkun, Abdullah. "The Application of Lesson Study in Teaching English as a Foreign Language." *Inonu University Journal of the Faculty of Education* 18, no. 1 (2017): 151-162.

Çelik, Yaşar, and İbrahim Gül. "Evaluation of Teaching Practice Course According to Teacher Candidate's Opinions." *Asian Journal of Instruction* 6, no. 2 (2018): 81-103.

Dönmez Usta, Necla, and Ebru Turan Güntepe. "Opinion of the Pre-service Teachers on School Experience and Teaching Practice." *Journal of International Social Research* 9, no. 42 (2016): 1214-1223.

Elkatmış, Metin, Murat Demirbaş, and Nurcan Ertuğrul. "Self-Efficacy Beliefs of Students Who Take the Pedagogic Training Program in the Faculty of Arts and Sciences and Students in the Education Faculty Towards Teaching Profession." *Pegem Journal of Education and Instruction* 3, no. 3 (2013): 41-50.

Gözel, Emine. "Study of Progress of Class Teachers' Knowledge of Problem-Solving Based Math Teaching by Lesson Study." PhD diss., Pamukkale University, 2016.

Günay, Rafet, Banu Yücel Toy, and Elif Bahadır. "Lesson Study Model in Teacher Education and a Proposal toward Pre-service Teaching Practices in Turkey." *Journal of International Social Research 9,* no. 42 (2016): 1224-1236.

Güner, Pınar, and Didem Akyüz. "Lesson Study Professional Development Model: Investigating Noticing Skills of Prospective Mathematics Teachers." *Elementary Education Online* 16, no. 2 (2017): 428-452.

Hamzeh, Fouada. "Lesson Study-Building Communities of Learning Among Pre-Service Science Teachers" Master diss., University of Windsor, 2014.

Iksan, Zanaton Hj, Siti Nor Aishah Mohd Nor, Siti Nordiyana Mahmud, and Effandi Zakaria. "Applying the Principle of "Lesson Study" in Teaching Science." *Asian Social Science* 10, no. 4 (2014): 108-113.

Kandemir, Esin Meral. "An Application to Improve Teaching Skills of Classroom Teachers: Lesson Study." PhD diss., Pamukkale University, 2018.

Kaya, Ümit. "Evaluation of Lesson Study Model Based Professional Development Applications of High School Mathematics Teachers" Master diss., Cumhuriyet University, 2018.

Kılıç, Abdurrahman, Mustafa Aydın, Burcu Ökmen, and Şeyma Şahin. *Kuramdan Uygulamaya İhtiyaç Belirleme*. Ankara: Pegem Yayıncılık, 2019.

Kükey, Hilal. "An Investigation of the Course Planning Process of Pre-Service Primary School Mathematics Teachers on Fifth Grade Fractions Topic Based on Lesson Study Model" PhD diss., İnonu University, 2018.

Mannathoko, Magdeline. "Does Teaching Practice Effectively Prepare Student-Teachers to Teach Creative and Performing Arts? The Case of Botswana." *International Journal of Higher Education* 2, no. 2, (2013): 115-121.

McKernan, James. *Curriculum Action Research. A Handbook of Methods and Resources for the Reflective Practitioner*. London: Kogan Page, 1991.

Meiliasari, Meiliasari. "Lesson Study with Pre-Service Teachers: Investigating the Learning of Pre-Service Teachers in Lesson Study Model of Teaching Practice Course." Fifth International Conference on Science and Mathematics Education CoSMEd, Malaysia, 2013.

Merdekawati, K. "The Implementation of Lesson Study to Improve the Teaching Skills of Chemistry Teacher Candidates." International Conference on Science and Technology, Indonesia, 2018.

Mungure, Daudi Mika. "An Exploration of the Preparation and Organization of Teaching Practice Exercise to Prospective Science and Mathematics Teachers Toward Improving Teaching Profession at Morogoro Teachers' College." *Journal of Education and Practice* 7, no. 33 (2016): 212-220.

Ngang, Tang Keow, and Lim Chap Sam. "Principal Support in Lesson Study." *Procedia-Social and Behavioral Sciences*, no. 205 (2005): 134-139.

Özdemir Baki, Gülşah. "Investigating the Development Process of Secondary Mathematics Teachers' Mathematical Pedagogical Content Knowledge: Lesson Study Model." PhD diss., Atatürk University, 2017.

Özen, Deniz. "Development of Geometric Thinking of Elementary School Mathematics Teachers: A Lesson Study." PhD diss., Anadolu University, 2015.

Paker, Turan. "Problems of Student Teachers Regarding the Feedback of University Supervisors and Mentors During Teaching Practice." *Pamukkale University Faculty of Education Journal* 1, no. 23 (2008): 132-139.

Rock, Tracy C., and Cathy Wilson. "Improving Teaching Through Lesson Study." *Teacher Education Quarterly* 32 (2005): 77-92.

Rots, Isabel, Antonia Aelterman, Geert Devos, and Peter Vlerick. "Teacher Education and the Choice to Enter the Teaching Profession: A Prospective Study." *Teaching and Teacher Education* 26, (2010): 1619-1629.

Serbest, Ayşegül. "The Examination of Lesson Study's Impacts with Meta-Synthesis" Master diss., Karadeniz Tecnical University, 2014.

Şan, Selda, and Zafer İbrahimoğlu. "The Impact of Using Student-Centered Activities on Students' Academic Achievement in Social Studies Course and Student's Views." *Abant Izzet Baysal University Faculty of Education Journal* 17, no. 4 (2017): 2142-2159.

Taylor, C., Wilkie, M., and Baser, J. *Doing Action Research: A Guide for School Support Staff*. London: Paul Chapman Publishing, 2006.

Tok, Şükran. "The Problems of Teacher Candidate's about Teaching Skills During Teaching Practice." *Procedia Social and Behavioral Sciences*, no. 2 (2010): 4142–4146.

Tuning Journal for Higher Education
© University of Deusto. ISSN: 2340-8170 • ISSN-e: 2386-3137. Volume 8, Issue No. 1, November 2020, 99-127
doi: http://dx.doi.org/10.18543/tjhe-8(1)-2020pp99-127 • http://www.tuningjournal.org/

Topan, Beyda. "Effects of Student-Centered Methods on Academic Achievement and Attitude towards the Subject: A Meta Analysis Study." Master diss., Kocaeli University, 2013.

Vaughna, Margaret, Seth A. Parsons, Susan Kologi, and Melissa Saul. "Action Research as a Reflective Tool: A Multiple Case Study of Eight Rural Educators' Understandings of Instructional Practice." *Reflective Practice* 15, no. 5 (2014): 634–650.

Yeşilyurt, Etem, and Çetin Semerci. "The Problems and Their Solutions of Practice Teachers in Teaching Practice Process." *Akademik Bakış Dergisi*, no. 27 (2011): 1-23.

Yurdakul, Ramazan. "Designing and Evaluation of a Web Site to Facilitate the Implementation Lesson Study Model in In-Service Trainings of Mathematics Teachers." Master diss., Cumhuriyet University, 2019.

Zhou, George, and Judy Xu. "Microteaching Lesson Study: An Approach to Prepare Teacher Candidates to Teach Science Through Inquiry." *International Journal of Education in Mathematics, Science and Technology (IJEMST)* 5, no. 3 (2017): 235-247.

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The effect of Self-Directed Learning on the relationship between Self-Leadership and Online Learning among university students in Turkey

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Abstract: More and more people across the world seek a university education. Therefore, universities offer full or partial distance undergraduate and postgraduate degrees to meet that demand. Distance education has become more widespread with advances in the Internet and computer technologies and online learning and teaching software (e.g., Learning Management Systems). The spread of the Coronavirus disease (COVID-19), which broke out in early 2020, has also played a significant role in the increased popularity of distance education. Therefore, investigating and reporting upon university students' self-leadership (SL) behaviors, self-directed learning (SDL) skills, and online learning (OL) attitudes in such learning environments is both timely and critical. This empirical study used a relational survey model to investigate SL, SDL, and OL among university students. The sample consisted of 835 students in Turkey. Data were collected using the "Self-Directed Learning Scale (SDLS)," "Revised Self-Leadership Questionnaire (RSLQ)," and "Online Learning Attitude Scale (OLAS)." Data were analyzed using descriptive statistics, Pearson coefficient, Confirmatory Factor Analysis (CFA), and Structural Equation Modeling (SEM). SL was moderately and positively correlated with SDL and OL. SDL was moderately and positively correlated with OL. SDL played a fully mediating role in the relationship between SL and OL. SL predicted OL in both the indirect and total effect model. This study addressed university students' perceptions and tested a model to provide empirical evidence for the relationships and predictions of SL, SDL, and OL. Therefore, it is

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believed that the results will help advance the constructs of SDL, SL, and OL paradigms.

Keywords: Self-leadership; self-directed learning; online learning attitude; university students; structural equation modeling (SEM).

I. Introduction

Higher education institutions should adapt relevant advances in science, technology and education to update their educational policies or teaching methods to fulfill the learning needs of new generation students. Particularly, they should renew education delivery which has been significantly transformed by the ongoing advances in online technology.[1] The innovations in the field of education are particularly evident in online bachelor, master and doctoral degree programs offered by universities all over the world. Some of those programs include full-time online courses while others offer blended ones. Many universities offer online learning (OL). According to The Turkish Council of Higher Education (CoHE),[2] there were two hundred and eleven universities in Turkey in the academic year 2018-2019. Eighty-nine of these offered full or partial distance undergraduate and postgraduate degrees such as The Open Education Faculty of Anadolu University and Sakarya University. The global reach of distance learning can be demonstrated by Utrecht University in the Netherlands, the Open University in the UK, the Open University of Catalonia in Spain, Walden University in the USA and nine public universities in Yemen[3] as examples.

While universities provide online learning, they can benefit from advanced technology to deliver the course contents to university students as optimally as possible. According to Pearson et al.,[4] OL mainly offers

[1] Adnan H. Aldholay, Osama Isaac, Zaini Abdullah, and T. Ramayah, "The Role of Transformational Leadership as a Mediating Variable in DeLone and McLean Information System Success Model: The Context of Online Learning Usage in Yemen," *Telematics and Informatics 35*, no. 5 (2018): 1432.

[2] "Higher Education Knowledge Management System – Distance Education Statistics," The Turkish Council of Higher Education (CoHE), accessed October 20, 2020, https://istatistik.yok.gov.tr/.

[3] Adnan H. Aldholay, Osama Isaac, Zaini Abdullah, and T. Ramayah, "The Role of Transformational Leadership," *Telematics and Informatics 35*, no. 5 (2018): 1432.

[4] Victoria Pearson, Kate Lister, Elaine Mcpherson, Anne-Marie Gallen, Gareth Davies, Chetz Colwell, Kate Bradshaw, Nicholas Braithwaite, and Trevor Collins, "Embedding and Sustaining Inclusive Practice to Support Disabled Students in Online and Blended Learning," *Journal of Interactive Media in Education* 2019, no. 1 (2019): 1.

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numerous options for inclusive education practices such as providing access to digital learning resources. On the other hand, advances in technology have made it easy for learners to access information but harder for them to determine whether the information is relevant. Besides, learners do not have to learn this information in school. New learning styles replace the old ones, and therefore, self-directed learning (SDL) becomes more and more relevant. As a response to the needs of the era, schools are gradually modifying their teaching methods and providing more learner-centered environments. Individuals of information society should learn how to be self-directed learners,[5] promoting and reinforcing behavior providing people with the opportunity to learn and develop independently, constantly and reflexively is a fascinating and recurring theme in learning and development.[6] SDL as a self-regulation theory was, therefore, considered as an important issue related to OL and self-leadership (SL) as another self-regulation theory.

Not only do SL strategies improve achievement in the short run but symbolize life-long learning skills as well.[7] Efficient SL is a promising tool that provides people with the opportunity to take into consideration such self-sabotaging mechanisms as narcissism and arrogance that might create blind spots in terms of adaptation and learning and might result in reduced individual efficiency.[8] During learning, SL can help students analyze their strengths, weaknesses, opportunities, resources of motivations and challenges. SL is, therefore, an important learning element.

I.1. *The present study*

An evidence-based study on investigating the relationship among SL, SDL and OL in university students could not be found after the inclusive literature review. The aim of the study was, therefore, to investigate the relationship between SL, SDL and OL among university students and the mediating role of SDL in the relationship between SL and OL. Not only did

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[5] D. Randy Garrison, "Self-Directed Learning: Toward a Comprehensive Model," *Adult Education Quarterly* 48, no. 1 (1997): 18-33.

[6] Uwe Napiersky and Stephen A. Woods, "From the Workplace to the Classroom: Examining the Impact of Self-Leadership Learning Strategies on Higher Educational Attainment and Success," *Innovations in Education and Teaching International* 55, no. 4 (2016): 441.

[7] Napiersky and Woods, "From the Workplace to the Classroom," 443.

[8] Charles C. Manz, "Taking the Self-Leadership High Road: Smooth Surface or Potholes Ahead?" *Academy of Management Perspectives* 29, no. 1 (2015): 133.

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this study address students' perceptions of SL and its relationship with SDL and OL but also tested a model to provide empirical evidence for the understanding and implications of SL, SDL and OL. The relationships and prediction results could assist in improving SL, SRL and OL theories. The results revealed original pedagogical implications and pointed out some important issues regarding the development of policies on teaching and learning practices in higher education. Therefore, it is believed that this study will help to fill a gap in the literature as suggested by Houghton and Neck[9] and James.[10] They have proposed that further research should explore cross application of the theories with different measurements, and compare SL with other self-regulation theories.

II. Conceptual framework

II.1. *Self-Leadership*

Expanded SL is defined by Manz[11],[12] as an exhaustive self-influence perspective about performing motivating tasks as well as getting oneself to accomplish tasks that are not motivating. Expanded SL also involves the self-management of immediate behaviors[13] and a process through which one influences oneself to achieve self-direction and self-motivation which are necessary to develop desirable behavior and performance.[14] The desired behavior patterns for university students can include: good peer-to-peer communication, good communication with faculty members, sense of belonging to university, social connectedness, high motivation for high academic achievement, academic engagement, persistence, career preparation behavior, having no risky behaviors such as drug use, positive future prospects, self-efficacy assessment, etc.

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[9] Jeffery D. Houghton and Christopher P. Neck, "The Revised Self-Leadership Questionnaire," *Journal of Managerial Psychology* 17, no. 8 (2002): 686.

[10] Angela M. James, "Self-leadership and Self-Regulated Learning: An Investigation of Theoretical Relationships," *Journal of Business & Leadership: Research, Practice, and Teaching (2005-2012)* 5, no. 1 (2009): 59-67.

[11] D. Randy Garrison, "Self-Directed Learning: Toward a Comprehensive Model," *Adult Education Quarterly* 48, no. 1 (1997): 18-33.

[12] Manz, "Taking the Self-Leadership High Road," 132.

[13] Charles C. Manz, "Self-Leadership: Toward an Expanded Theory of Self-Influence Processes in Organizations," *The Academy of Management Review* 11, no. 3 (1986): 585-600.

[14] Houghton and Neck, "The Revised Self-Leadership Questionnaire," 686.

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Napiersky and Woods[15] also include a self-goal setting and self-regulation in the process. SL comprises certain behavioral and cognitive strategies that shape performance and it seems to be a promising tool for today's dynamic organizations.[16] Psychological empowerment is an expected outcome of SL.[17] According to Manz,[18] higher-level SL consists of three aspects; authenticity, responsibility and expanded capacity.

SL strategies involve three factors; behavior-focused, natural reward and constructive-thought pattern.[19],[20] *Behavior-focused strategies* focus on self-assessment, -reward and -discipline[21] and involve self-observation, -goal setting, -reward, -correcting feedback and practice.[22],[23] The behavioral aspects of SL concern setting goals with a self-administered contingent reward system combined with effective self-regulatory processes (behavioral observation and reflection and self-direction).[24]

Natural rewards are intrinsic rewards for task performance,[25] also involving a commitment to, belief in, and enjoyment of tasks for the sake of them.[26] Natural reward mechanisms also seek content and joy in tasks. Task-related perceptions or behaviors can also be altered to improve self-efficacy, self-control and task responsibility. The strategies in this category focus, in general, on the pleasant rather than the unpleasant aspects of tasks.[27] Naturally rewarding activities generally promote self-efficacy, self-control and purpose.[28]

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[15] Napiersky and Woods, "From the Workplace to the Classroom," 441

[16] Houghton and Neck, "The Revised Self-Leadership Questionnaire," 675.

[17] Jeffery D. Houghton, Andrew Carnes, and Christopher N. Ellison, "A Cross-Cultural Examination of Self-Leadership," *Journal of Leadership & Organizational Studies* 21, no. 4 (2014): 416.

[18] Manz, "Taking the Self-Leadership High Road," 133.

[19] Joe S. Anderson and Gregory E. Prussia, "The Self-Leadership Questionnaire: Preliminary Assessment of Construct Validity," *Journal of Leadership Studies* 4, no. 2 (1997): 121,141.

[20] Manz, "Taking the Self-Leadership High Road," 135-36.

[21] Houghton and Neck, "The Revised Self-Leadership Questionnaire," 673.

[22] Houghton and Neck, "The Revised Self-Leadership Questionnaire," 673.

[23] Anderson and Prussia, "The Self-Leadership Questionnaire," 121.

[24] Napiersky and Woods, "From the Workplace to the Classroom," 442

[25] Christopher P. Neck and Jeffery D. Houghton, "Two Decades of Self-Leadership Theory and Research,"*Journal of Managerial Psychology* 21, no. 4 (2006): 281.

[26] Charles C. Manz, "Self-leadership... the Heart of Empowerment," *The Journal for Quality and Participation* 15, no.4 (1992): 80-85.

[27] Anderson and Prussia, "The Self-Leadership Questionnaire," 121.

[28] Manz, "Self-Leadership: Toward," 595.

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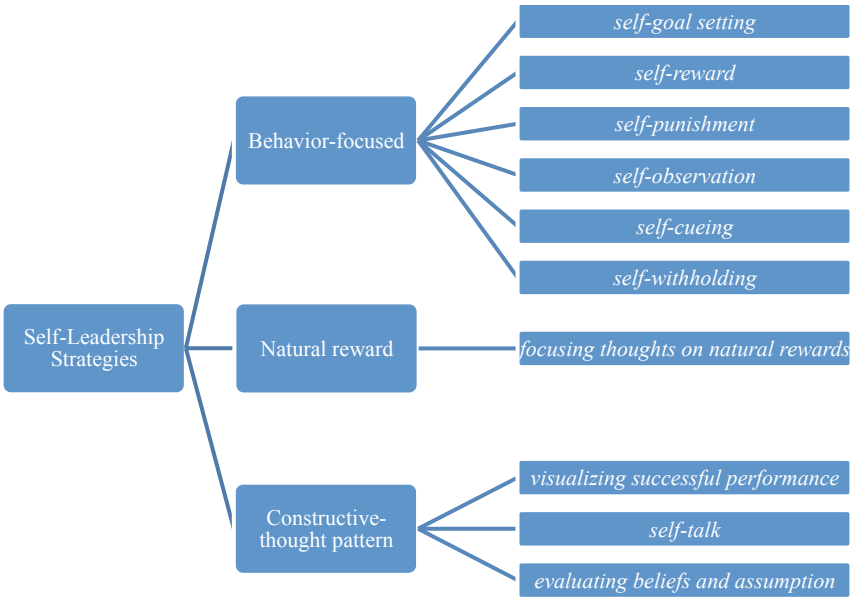

Figure 1
Self-Leadership Strategies

Constructive thought pattern strategies are based on the view that people can affect their own thoughts with an emphasis on mental activity and cognition. Effective SL focuses on self-influence of thoughts to provide people with the opportunity to make their thought processes more rigorous and consistent.[29] Four strategies can be undertaken to modify thinking dispositions and to improve SL: (1) evaluation of one's own thoughts and behaviors and development of beliefs, (2) sensory experiences addressing effective performance, (3) constructive inner speech for motivation and (4) promoting performance and utilization of constructive commands instead of ineffectual ones.[30,31]

[29] Manz, "Taking the Self-Leadership High Road," 135.
[30] Anderson and Prussia, "The Self-Leadership Questionnaire," 121.
[31] Gregory E. Prussia, Joe S. Anderson, and Charles C. Manz, "Self-Leadership and Performance Outcomes: The Mediating Influence of Self-Efficacy," *Journal of Organizational Behavior 19*, no. 5 (1998): 524.

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Six factors (self-goal setting, self-reward, self-punishment, self-observation, self-cueing, and self-withholding) evaluate the behavior-focused strategies of SL. One factor (focusing thoughts on natural rewards) symbolizes the natural reward strategies. Three factors (visualizing successful performance, self-talk, and evaluating beliefs and assumption) take into account the constructive thought pattern strategies.[32]

According to Napiersky and Woods[33] self-goal setting, pro-active goal-related behavior, behavior regulation and direction, motivational awareness and optimism are important predictors of educational achievement. Prussia, Anderson and Manz[34] argue that SL strategies have a considerable impact on self-efficacy assessment. Mullen, Limberg, Tuazon and Romagnolo[35] report that high emotional intelligence correlates with leadership self-efficacy and SL. Seo[36] states that improving SL predicts career decision-making self-efficacy and career preparation behavior in culinary college students. These results indicate that SL has a positive impact on some factors affecting university students. Both SL and SDL are integrated with individual's behavior, motivation, and cognition[37,38] and they both increase self-efficacy.[39,40] The undergraduate students' SL and SDL were correlated positively.[41] SL and SDL readiness of nursing students are correlated significantly.[42] Consequently, the following hypotheses were developed:

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[32] Houghton and Neck, "The Revised Self-Leadership Questionnaire," 766.

[33] Napiersky and Woods, "From the Workplace to the Classroom," 441.

[34] Prussia, Anderson, and Manz, "Self-Leadership and Performance Outcomes," 523.

[35] Mullen, Patrick R., Dodie Limberg, Victor Tuazon, and Shannon M. Romagnolo. "Emotional Intelligence and Leadership Attributes of School Counselor Trainees." *Counselor Education and Supervision* 58, no. 2 (2019): 112.

[36] Kyung-Hwa Seo, "The Effects of Self-Leadership on Career Decision-Making Self-Efficacy and Career Preparation Behavior- Focused on Culinary Major Students," *Culinary Science & Hospitality Research* 23, no. 2 (2017): 146.

[37] Manz, "Self-Leadership: Toward," 585-600.

[38] Dale H. Schunk and Barry J. Zimmerman, (eds.) *Self-Regulated Learning: From Teaching to Self-Reflective Practice*. (New York: Guilford Press, 1998).

[39] Peggy (Pei-Hsuan) Hsieh, Jeremy R. Sullivan, and Norma S. Guerra,"A Closer Look at College Students: Self-Efficacy and Goal Orientation," *Journal of Advanced Academics* 18, no. 3 (2007): 454.

[40] Prussia, Anderson, and Manz, "Self-Leadership and Performance Outcomes," 523.

[41] James, "Self-leadership and Self-Regulated Learning," 59,64.

[42] Sun-Young Lee and Yun-Young Kim, "The Effects of Self-Efficacy and Self-Directed Learning Readiness to Self-Leadership of Nursing Student," *Journal of Digital Convergence* 14, no. 3 (2016): 309.

Null Ha: The correlation coefficient between university students' self-leadership and their self-directed learning is zero.

Alternate Ha: The correlation coefficient between university students' self-leadership and their self-directed learning is significantly different from zero.

Moreover, perceived leadership is an influential factor for a student's own self-regulation and behavioral engagement in a small group online learning.[43] Effective leadership is positively related to academic retention/completion among PhD students' online learning.[44] Students can develop leadership skills through developing the skills of researching, taking responsibility, thinking, and solving problems in an online learning environment.[45] Consequently, the following hypotheses were designed:

Null Hb: The correlation coefficient between university students' self-leadership and their online learning is zero.

Alternate Hb: The correlation coefficient between university students' self-leadership and their online learning is significantly different from zero.

II.2. *Self-directed learning*

Knowles[46] states that SDL is a "basic human competence - the ability to learn on one's own" and "a process in which individuals take the initiative without the help of others in diagnosing their learning needs, formulating goals, identifying human and material resources, and evaluating learning outcomes". Garrison[47] defines SDL as an approach through which learners are motivated to assume personal responsibility and collaborative control of cognitive (self-monitoring) and contextual (self-management) processes to

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[43] Kui Xie, Lauren C. Hensley, Victor Law, and Zhiru Sun, "Self-Regulation as a Function of Perceived Leadership and Cohesion in Small Group Online Collaborative Learning," *British Journal of Educational Technology* 50, no. 1 (2019): 465.

[44] Gomez, Doris, "Leadership behavior and its impact on student success and retention in online graduate education," *Academy of Educational Leadership Journal* 17, no.2 (2013): 13.

[45] Nesrin Bahçelerli, Tulen Saner, Zehra Altinay, Ebba Ossiannilsson, and Fahriye Altinay, "The Impact of Online Learning Context in Fostering Open Leadership Skills," *Proceedings of the 9th International Conference on Computer Supported Education*, 2017.

[46] Malcolm S. Knowles, *Self-Directed learning: A Guide for Learners and Teachers* (Chicago: Association Press, 1975): 17, 18.

[47] Garrison, "Self-Directed Learning," 18.

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develop and affirm meaningful learning outcomes. Based on Brockett,[48] Lounsbury et al.[49] define SDL as an inclination to participate in learning activities in which learners assume responsibility for constructing and carry out learning ventures autonomously without the involvement of other people. This study focuses on SDL defined by Lounsbury et al.[50] as "a personality trait that is relatively enduring over time and across situations for individuals." Although SDL is generally associated with independent research with motivated and experienced learners, research on adult education recommend that learners be encouraged for SDL[51] as a personality trait.[52]

SDL refers to psychological processes in which learners concentrate consciously on gaining knowledge and understanding how to solve problems.[53] SDL is the main skill that promotes lifelong learning.[54] Both teacher-and learner-focused pedagogies require SDL for successful learning and completion of courses. Learner-focused pedagogies demand that students acquire knowledge through extracurricular activities as part of the active learning process, and therefore, they should participate in SDL more often to solve and complete projects.[55] Educational methods reflect cultural and ideological values.[56] In the context of Turkey, Turkey's education system has many democratic educational standards adapted from western education culture and is still trying to integrate some in the context of the chapters of the European Union. It is known that the centralized education system of

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[48] Ralph Brockett, "Self-directed learning and the hard-to-reach adult," *Lifelong Learning: The Adult Years 6, no 8* (1983): 16-18.

[49] John W. Lounsbury, Jacob J. Levy, Soo-Hee Park, Lucy W. Gibson, and Ryan Smith, "An Investigation of the Construct Validity of the Personality Trait of Self-Directed Learning," *Learning and Individual Differences* 19, no. 4 (2009): 411.

[50] Lounsbury, Levy, Park, Gibson, and Smith, "An Investigation of the Construct," 411.

[51] Susan Wilcox, "Fostering Self-Directed Learning in the University Setting," *Studies in Higher Education* 21, no. 2 (1996): 165.

[52] Susan L. Stockdale and Ralph G. Brockett, "Development of the PRO-SDLS: A Measure of Self-Direction in Learning Based on the Personal Responsibility Orientation Model," *Adult Education Quarterly* 61, no. 2 (2011): 162, 63.

[53] Huey B. Long, "Resources Related to Overcoming Resistance to Self-Direction in Learning," *New Directions for Adult and Continuing Education* 1994, no. 64 (1994): 114.

[54] Ting-Chia Hsu, "Learning English with Augmented Reality: Do Learning Styles Matter?" *Computers & Education* 106 (2017): 138. https://doi.org/10.1016/j.compedu.2016.12.007.

[55] Petra Garnjost and Leanna Lawter, "Undergraduates' Satisfaction and Perceptions of Learning Outcomes across Teacher- and Learner-Focused Pedagogies," *The International Journal of Management Education* 17, no. 2 (2019): 270.

[56] Anne K. Wong, "Culture in Medical Education: Comparing a Thai and a Canadian Residency Programme," *Medical Education* 45, no. 12 (2011): 1209-18.

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France was taken as an example when creating an education system of Turkey with a centralized structure. There are concepts such as democracy, individualism, equality, and innovation in the curriculum. In addition, there are universities that provide education in English and French. Moreover, universities offering distance education in Turkey have been becoming widespread. As a concept related to distance education, it can be said that the SDL has an important place in Turkey's university education.

The SDL concept has become progressively critical today because information processing and absorbing skills have become increasingly essential. For instance, learners today are exposed to a vast amount of information, and therefore, should learn how to self-learn.[57] From this point of view, SDL is important in any learning environment and applicable especially in web-based settings as it increases learners' control of instruction.[58] It is important also because it allows learners to decide what to learn and how to learn it.[59] According to Wilcox,[60] the emphasis of SDL on personal autonomy, responsibility and growth epitomizes some of the most fundamental principles of higher education. The general view that "universities must produce graduates who are self-directed learners" and the frequently-overheard wish of professors that "students should take responsibility for their own learning" support the view that SDL can be used in higher education.

In order to cope with the uncertainties that they may face in online learning environments, students need to set up or formulate their own best learning strategies. Self-directed students are expected to participate in more active learning activities online by asking questions and participating in discussions. SDL affects cognitive presence but not in non-blended learning environments.[61] Lee, Yeung and Ip[62] report that SDL constructs positively correlate with computer technology, and therefore, they recommend the use

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[57] Han Na Suh, Kenneth T. Wang, and Brooke J. Arterberry. "Development and Initial Validation of the Self-Directed Learning Inventory with Korean College Students." *Journal of Psychoeducational Assessment* 33, no. 7 (2015): 687.

[58] D. Randy Garrison, "Self-Directed Learning and Distance Education," In *Handbook of Distance Education* (Mahwah, NJ: Lawrence Erlbaum, 2003)

[59] Garrison, "Self-Directed Learning," 20.

[60] Wilcox, "Fostering Self-Directed Learning," 166.

[61] Shuang Geng, Kris M. Y. Law, and Ben Niu, "Investigating Self-Directed Learning and Technology Readiness in Blending Learning Environment," *International Journal of Educational Technology in Higher Education* 16, no. 1 (2019): 17.

[62] Cynthia Lee, Alexander Seeshing Yeung, and Tiffany Ip, "University English Language Learners Readiness to Use Computer Technology for Self-Directed Learning," *System* 67, (2017): 99,105. https://doi.org/10.1016/j.system.2017.05.001.

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of technology to promote SDL. Hsu and Shiue,[63] SDL is associated with distance learning performance. These results suggest that SDL is related to some important higher education factors. SDL was, therefore, considered as an important issue related to self-leadership (SL) and online learning (OL). Therefore, the following hypotheses were set:

> *Null Hc: The correlation coefficient between university students' self-directed learning and their online learning is zero.*
>
> *Alternate Hc: The correlation coefficient between university students' self-directed learning and their online learning is significantly different from zero.*

II.3. *Online learning*

"Online learning," "e-learning," "distance learning," "blended learning",[64] "digital learning" and "computer-based learning" are used interchangeably. OL refers to teaching and learning mediated by information and communication networks such as the Internet.[65] Since the title of the related scale used in this study is the Online Learning Attitude Scale, OL was used in this study instead of "e-learning," "distance learning," etc. Thanks to advances in information and communication, OL allows learners to process more knowledge than would self-directed learning (SDL) and self-leadership (SL).

The number of online associate, undergraduate and graduate programs has significantly increased[66] with students', instructors' and educational administrators' increased awareness of the advantages of OL,[67] and the transition from elite to mass higher education and increased diversity of

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[63] Yu-Chiung Hsu and Ya-Ming Shiue, "The Effect of Self-Directed Learning Readiness on Achievement Comparing Face-To-Face and Two-Way Distance Learning Instruction," *International Journal of Instructional Media* 32, no. 2 (2005): 143.

[64] Aldholay, Isaac, Abdullah, and Ramayah, "The Role of Transformational Leadership," 1421.

[65] Ruth Colvin Clark and Richard E. Mayer, *E-Learning and the Science of Instruction: Proven Guidelines for Consumers and Designers of Multimedia Learning* (San Francisco: Pfeiffer, 2008).

[66] Hale Ilgaz and Yasemin Gülbahar, "A Snapshot of Online Learners: e-Readiness, e-Satisfaction and Expectations," *The International Review of Research in Open and Distributed Learning* 16, no. 2 (2015): 172. https://doi.org/10.19173/irrodl.v16i2.2117.

[67] Hui-Ching Kayla Hsu, Cong Vivi Wang, and Chantal Levesque-Bristol, "Reexamining the Impact of Self-Determination Theory on Learning Outcomes in the Online Learning Environment," *Education and Information Technologies* 24, no. 3 (2019): 2159. https://doi.org/10.1007/s10639-019-09863-w.

students.[68] According to The Turkish Council of Higher Education (CoHE), the number of students enrolled in associate, undergraduate, and graduate levels programs is 1,981,694 in total in the academic year 2018-2019. The total number of students enrolled at these levels in all universities is 7,740,502 in Turkey.[69] 6,932,074 university students enrolled in at least one distance education course to get a degree from the universities in the United States of America in fall 2018.[70] 365,000 students took at least one online course in Canadian universities and colleges in 2016-2017.[71] The Open University, which is the largest academic organization in the UK, provided distance learning for more than 2 million international students.[72] There were 1.06 million domestic and 420 thousand international students enrolled in Australian universities in 2016. Nearly 300 thousand of them (both domestic and international) took their course online[73] and 447,164 students enrolled at Open Universities Australia since 1993.[74] It is likely that the global e-learning market will be worth $325 Billion in 2025.[75] These numbers indicate that online learning activities provided by higher education institutions have been employed both in and outside Turkey.

OL has evolved in the twenty-first century as a worldwide platform to encourage users to participate in learning and to provide them with the opportunity to connect and collaborate with each other. OL is now integrated with social networks that allow learners and educators all around the world to interact with each other and benefit from free and accessible

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[68] David Kember, Doris Leung, and Michael Prosser, "Has the Open Door Become a Revolving Door? The Impact on Attrition of Moving from Elite to Mass Higher Education," *Studies in Higher Education*, 2019: 1. https://doi.org/10.1080/03075079.2019.1629411.

[69] "Higher Education Knowledge Management System – Distance Education Statistics," The Turkish Council of Higher Education (CoHE), accessed October 20, 2020, https://istatistik.yok.gov.tr/

[70] "Fast Facts-Distance learning," National Center for Education Statistics (NCES), accessed October 20, 2020, https://nces.ed.gov/fastfacts/ display.asp?id=80

[71] "Canadian post-secondary enrolments: The role of online learning," Online Learning and Distance Education Resources, accessed October 25, 2020, https://www.tonybates.ca/2020/02/21/canadian-post-secondary-enrolments-the-role-of-online-learning/

[72] "The world's leading distance-learning provider," The Open University, accessed October 25, 2020, http://www.openuniversity.edu/

[73] Andrew Norton, Ittima Cherastidtham and Will Mackey, *Mapping Australian higher education 2018* (Grattan Institute).

[74] "Explore. Choose. Enrol.," Open Universities Australia, accessed October 26, 2020, https://www.open.edu.au/

[75] "27 Astonishing E-learning Statistics for 2020," Techjury, accessed October 27, 2020, https://techjury.net/blog/elearning-statistics/#gref

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online resources.[76] OL is generally defined as a flexible educational approach, with flexibility referring to democratizing education. OL meets the needs of learners who are location-bound due to work, familial or other responsibilities or constraints such as disabilities or limited resources. OL reaches beyond geographical barriers and allows learners to enroll in courses at flexible times anywhere in the world[77] such as at their home. With the spread of the coronavirus (Covid-19) pandemic in the world, university education has been disrupted by this unexpected crisis and home-schooling has been started for many university students. For such home-schooling, OL has been providing flexible effective solutions. Furthermore, Kraut[78] emphasizes that it can "expand the reach and equity of education", especially in some countries (e.g. Yemen) where there is also a gender gap in the tertiary enrolment.[79]

The more online courses the students take, the more the educators and researchers focus on determining the best practices for OL and teaching.[80] There are some conceptual models that encompass effective OL. For example, Money and Dean[81] developed a conceptual model that identifies the following key components by which to describe student populations: cognition, knowledge, personality traits, motivation, technology self-efficacy and preferences, demographic attributes, and learning styles. OL focuses on the (1) what, (2) how and (3) why of learning: (1) The material comprises words or graphics such as diagrams, photos, animations and videos, (2) teaching occurs via desktop computers, laptops, tablets, smartphones or virtual reality and (3) the instructional objective is to alter learners' knowledge.[82] Unlike face-to-face education, OL involves

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[76] Kaushal Kumar Bhagat, Leon Yufeng Wu, and Chang Chun-Yen, "Development and Validation of the Perception of Students towards Online Learning (POSTOL)," *Journal of Educational Technology & Society* 19, no. 1 (2016): 350.

[77] Shandell Houlden and George Veletsianos, "A Posthumanist Critique of Flexible Online Learning and its 'Anytime Anyplace' Claims," *British Journal of Educational Technology* 50, no. 3 (2019): 1007.

[78] Rebecca Kraut, ed. *Policy guidelines for mobile learning*. (UNESCO, 2013):10

[79] Aldholay, Isaac, Abdullah, and Ramayah, "The Role of Transformational Leadership," 1431.

[80] Hsu, Wang, and Levesque-Bristol, "Reexamining the Impact of Self-Determination," 2160.

[81] William H. Money and Benjamin P. Dean, "Incorporating Student Population Differences for Effective Online Education: A Content-Based Review and Integrative Model," *Computers & Education* 138, (2019): 78.

[82] Richard E. Mayer, "Thirty Years of Research on Online Learning," *Applied Cognitive Psychology* 33, no. 2 (August 2018): 152.

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asynchronous or synchronous (or both) interactions between educators and learners.[83]

Tallent-Runnels et al. emphasized that the synchronized interaction established between student and instructor in OL can provide in-depth communication. Students love to move at their own pace and learning outcomes appear to be the same as in traditional courses.[84] On the other hand, students taking asynchronous online master's-level courses participated in class social media group as supplemental social spaces. After they joined the group, their social presence became more positive and their learning interaction with their peers and instructor has increased.[85] In a two-group experiment, students who had the opportunity to use cloud learning environment-integrated learning strategy as an OL activity increased their motivation and improved their learning results significantly.[86] Students who took computer courses before attending online courses can be more satisfied with the online courses.[87] However, OL has a significant effect on dropout rates. Online students are more likely to drop-out than campus-based students.[88] It was argued that blended learning methods (e.g. emporium model) may not be as effective as in-person instruction in remedial math classes.[89] Graduate-level online courses (involving adult populations) might be better received than undergraduate-level ones.[90] There has been less evidence-based research on students' perceptions of the key aspects of online

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[83] Renee Kaufmann, Deanna D. Sellnow, and Brandi N. Frisby, "The Development and Validation of the Online Learning Climate Scale (OLCS)," *Communication Education* 65, no. 3 (2016): 308.

[84] Mary K. Tallent-Runnels et al., "Teaching Courses Online: A Review of the Research," *Review of Educational Research* 76, no. 1 (Spring 2006): 93.

[85] Mete Akcaoglu and Lee, Eunbae, "Using Facebook Groups to Support Social Presence in Online Learning," *Distance Education 39, no.* 3 (2018): 334. doi: 10.1080/01587919.2018.1476842

[86] Qiusha Min, Zhifeng Wang, and Neng Liu, "Integrating a Cloud Learning Environment into English-Medium Instruction to Enhance Non-Native English-Speaking Students' Learning," *Innovations in Education and Teaching International* 56, no. 4 (2019): 493. doi:10.1080/14703297.2018.1483838

[87] Tallent-Runnels, "Teaching Courses Online," 93.

[88] Kember, Leung, and Prosser, "Has the Open Door," 8.

[89] Whitney Kozakowski, "Moving the Classroom to the Computer Lab: Can Online Learning with in-Person Support Improve Outcomes in Community Colleges?" *Economics of Education Review* 70, (2019): 170.

[90] Mirjeta S. Beqiri, Nancy M. Chase, and Atena Bishka, "Online Course Delivery: An Empirical Investigation of Factors Affecting Student Satisfaction," *Journal of Education for Business* 85, no. 2 (2009): 99.

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learning and the association between those aspects and students' learning experiences.[91]

Accordingly, taking null and alternate hypotheses (the H_a, H_b *and* H_c) development into account, the following hypotheses were constructed:

> *Null Hm: When self-directed learning added to the model as mediating variable, the correlation coefficient between university students' self-leadership and their online learning is zero.*
>
> *Alternate Hm: When self-directed learning added to the model as mediating variable, the correlation coefficient between university students' self-leadership and their online learning is significantly different from zero.*

It can be understood that SL as personal characteristics can cause SDL. That can be another reason for hypothesizing (H_m) SDL as a mediator in the relationship between SL and OL (Figure 2).

III. Methodology

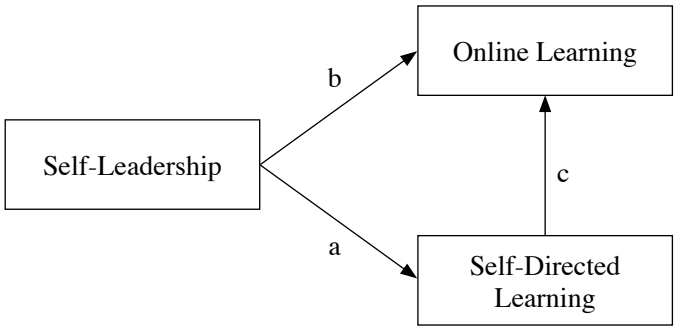

Figure 2
Theoretical research model

The study was designed in a relational survey model.[92] The theoretical research model as depicted in Figure 2, was tested with empirical evidence.

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[91] Robert A. Ellis, Paul Ginns, and Leanne Piggott, "E-Learning in Higher Education: Some Key Aspects and Their Relationship to Approaches to Study," *Higher Education Research & Development* 28, no. 3 (2009): 303.

[92] Donna M Mertens, *Research and Evaluation in Education and Psychology: Integrating Diversity With Quantitative, Qualitative, and Mixed Methods* (California: Sage Publications, 2014).

Figure 2 indicates the hypothesized relationships (H_a, H_b, H_c) between SL, SDL and OL as perceived by university students and mediating role of SDL in the relationship between SL and OL.

III.1. *Participants*

The study was carried out in the Spring Semester of 2018-2019 Academic Year. The participants were 835 students from 54 state universities in Turkey and they had participated in an online learning activity before participating in the study. The universities and students were chosen randomly. They included 472 undergraduate (%56.5), 203 master's (%24.3) and 160 doctoral (%19.2) students. 592 of them were female (%70.9) and 243 were male (% 29.1). They were mainly from the disciplines including education and teacher training, law, management, architecture, agriculture, engineering, computer sciences, sports and physical education, religion, communication, and human resource management. Firstly, the permission to use three scales were obtained from the developers. The approval was taken from Zonguldak Bülent Ecevit University's Human Research Ethics Committee as well. Protocol number of the document is 891. The research was carried out not in specific institutions and so no institutions' names were given.

III.2. *Data collection tools*

Three scales in the type of 5-point Likert ranging from *"totally disagree"* to *"totally agree"* were employed. The Revised Self-Leadership Questionnaire (RSLQ) developed and validated by Houghton and Neck.[93] And it was adapted into Turkish by Fidan.[94] RSLQ is a three-dimensional scale consists of 35 items (e.g., *"I write specific goals for my own performance."*). Cronbach's Alpha reliability coefficient of the adapted scale overall was .96; it was .97 for the *"Behavior Focused (BF)"* dimension; .89 for the *"Natural Reward (NR)"* dimension and .95 for the *"Constructive Thought (CT)"* dimension. The reliability coefficient overall was .89; .76 for *BF* dimension; .60 for *NR* dimension and .83 for *CT* dimension for this study.

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[93] Houghton and Neck, "The Revised Self-Leadership Questionnaire," 672-691.

[94] Fidan, Mustafa, "Yenilenen Öz-Liderlik Ölçeği'ni Üniversite Öğrencileri Örnekleminde Türkçe'ye Uyarlama Çalişmasi," *Uluslararası Liderlik Eğitimi Dergisi-International Journal of Leadership Training* 2, (2018): 1-16.

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Online Learning Attitude Scale (OLAS) is developed and validated by Usta, Uysal and Okur.[95] It is a four-dimensional scale consists of 20 items (e.g., *"I feel comfortable in an OL environment."*). Cronbach's Alpha reliability coefficient of the scale overall was .91; it was .77 for the *"General Acceptance(GA)"* dimension; .85 for the *"Individual Awareness(IA)"* dimension; .79 for the *"Usefulness(U)"* dimension and .68 for the *"Participation Effectiveness(PE)"* dimension. The reliability coefficient overall was .89; .86 for *IA* dimension; .80 for *U* dimension; .63 for *GA* dimension and .68 for *PE* dimension for this study.

The Self-Directed Learning Scale (SDLS) developed and validated by Lounsbury, Levy, Park, Gibson, and Smith[96] as a personality trait, rather than learning readiness or an instructional method. And it was adapted into Turkish by Demircioğlu, Öge, Fuçular, Çevik, Nazlıgül and Özçelik[97] for determining individuals' self-directed learning. SDLS is a uni-dimensional scale consists of 10 items (e.g., *"I regularly learn things on my own outside of class."*). Cronbach's Alpha reliability coefficient of the adapted scale was .85 and it was .83 for this study. All in all, the reliability coefficients of the scales indicated that the scales can be interpreted as reliable[98] for this study. In addition, because the Turkish version of the tools had been previously validated, a local pilot study was not required.

III.3. *Data collection and analysis*

Data were collected via Google Forms containing scales items and related explanations. The participation in the survey was voluntary and it is about 10 minutes to answer all scales items. The public database of YÖK AKADEMİK (https://akademik.yok.gov.tr/AkademikArama/) was used to obtain participants e-mail addresses. Then, I have sent emails including the form link to those addresses. Furthermore, online platforms such as social media groups in which

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[95] İlker Usta, Ömer Uysal, & Muhammet Recep Okur, "Online learning attitude scale: Development, validity and reliability," *Journal of International Social Research 9, no*. 43, (2016): 2215-22.

[96] Lounsbury, Levy, Park, Gibson, and Smith, "An Investigation of the Construct," 411-18.

[97] Zeynep Işıl Demircioğlu, Burak Öge, Emine Ezgi Fuçular, Tuğçe Çevik, Merve Denizci Nazlıgül, and Erol Özçelik, "Reliability, Validity and Turkish Adaptation of Self-Directed Learning Scale (SDLS)," *International Journal of Assessment Tools in Education* 5, no. 2, (2018): 235-47.

[98] Kultar Singh. *Quantitative Social Research Methods*. (New Delhi: Sage Publications, 2007).

university students participated and WhatsApp groups were used to reach participants. Nevertheless, after analyzing the missing data and outlier, the final dataset included 835 data. The skewness and kurtosis values of the SDLS overall were .13 and -.32 respectively. And they were .35 and .34 for OLAS overall; -.21 and -15 for *GA* dimension; .41 and .32 for *IA* dimension; -.27 and -.13 for *U* dimension and .10 and -.17 for *PE* dimension. And they were .38 and -.06 for RSLQ overall; .16 and .02 for *BF* dimension; .10 and -.14 for *NR* dimension and -.13 and -.51 for *CT* dimension. The skewness and kurtosis values for each of the three scales and their factors were between +1.96 and -1.96.[99] The findings indicated that the dataset met the normality assumption. 0.05 level of significance was used. Quantitative techniques (*descriptive (mean, standard deviation), correlation (Pearson coefficient), Confirmatory Factor Analysis (CFA), Structural Equation Modelling (SEM) (path analysis)*) were used to analyze the data. SPSS v. 23 and AMOS v. 23 were used.

Baron and Kenny[100,101] pointed out that:

> A variable functions as a mediator when it meets the following conditions:
> i) Variations in levels of the independent variable significantly account for variations in the presumed mediator *(i.e., path 'a' in Figure 2)*
> ii) Variations in the mediator significantly account for variations in the dependent variable *(i.e., path 'c' in Figure 2)*
> iii) When paths a and c are controlled, a previously significant relation between the independent and dependent variables is no longer significant, with the strongest demonstration of mediation occurring when path 'b' is zero…

Along with the condition 'iii' of Baron and Kenny, when the mediating variable is added to the model; if there is a nonsignificant relationship between independent variable and dependent variable, full mediation effect; if there is a decrease in the relationship between independent variable and dependent variable, it can be said that there is a partial mediation effect.[102] The bias-

[99] Andy Field, *Discovering statistics using IBM SPSS statistics* (Los Angeles: SAGE, 2009): 26,45

[100] Reuben M. Baron and David A. Kenny, "The Moderator-Mediator Variable Distinction in Social Psychological Research: Conceptual, Strategic, and Statistical Considerations," *Journal of Personality and Social Psychology* 51, no. 6 (1986): 1176.

[101] Xinshu Zhao, John G. Lynch, and Qimei Chen, "Reconsidering Baron and Kenny: Myths and Truths about Mediation Analysis," *Journal of Consumer Research* 37, no. 2 (2010): 198.

[102] Grayson N. Holmbeck, "Toward Terminological, Conceptual, and Statistical Clarity in the Study of Mediators and Moderators: Examples from the Child-Clinical and Pediatric Psychology Literatures," *Journal of Consulting and Clinical Psychology* 65, no. 4 (1997): 600.

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corrected bootstrapped confidence intervals were used for indirect effects. For descriptive interpretation of five-point Likert type scales, 1.00-1.80 interval was interpreted as "totally disagree"; 1.81-2.60 as "disagree"; 2.61-3.40 as "moderate"; 3.41-4.20 as "agree" and 4.21-5.00 as "totally agree". As indicated by Russo,[103] the correlation coefficients between .10-.29 point out a weak correlation; .30-.49 a moderate correlation and above .50 a strong correlation.

IV. Results

This study investigated the SDL, SL, and OL as perceived by university students. That is, null and alternate hypotheses were tested. Table 1 shows whether or not there is statistically a significant difference between the mean scores of scales and factors according to gender variable (*t*-test).

Table 1

t-test Results for the Scales and Factors According to Gender Variable

Scales/Factors	Female N:592		Male N:243		t	p
	M	SD	M	SD		
1 RSLQ*	3.89	0.32	3.86	0.33	1.02	0.31
2 BF	3.70	0.33	3.67	0.35	1.20	0.23
3 NR	4.09	0.45	4.08	0.43	0.30	0.77
4 CT	4.08	0.46	4.06	0.46	0.30	0.76
5 SDLS*	4.17	0.39	4.19	0.41	0.67	0.50
6 OLAS*	3.28	0.56	3.30	0.58	-0.56	0.58
7 GA	3.41	0.55	3.45	0.53	-0.60	0.55
8 IA	2.85	0.80	2.82	0.83	-0.59	0.55
9 U	3.65	0.73	3.73	0.72	-0.96	0.34
10 *PE*	3.42	0.71	3.46	0.71	0.49	0.62

p<.05; N=835;* **1. RSLQ: Revised Self-Leadership Questionnaire; *2. BF: Behavior Focused; 3. NR: Natural Reward; 4. CT: Constructive Thought;* **5. SDLS**: Self-Directed Learning Scale; **6. OLAS**: Online Learning Attitude Scale; *7. GA: General Acceptance; 8. IA: Individual Awareness; 9. U: Usefulness; 10. PE: Participation Effectiveness.*

[103] Riccardo Russo. *Statistics for the Behavioral Sciences: An Introduction* (Taylor & Francis e-Library, 2004):118,184

There is no statistically significant difference regarding mean scores of all scales and factors in terms of gender variable (p>.05). Female students' score of SL (M=3.89, SD = .32) was slightly higher than male's while male students' score of SDL (M=4.19, SD = .41) and OL (M=3.30, SD = .58) were slightly higher than female's.

Table 2 shows whether or not there is statistically a significant difference between the mean scores of scales and factors according to level of education variable (ANOVA test).

Table 2

ANOVA Test Results for the Scales and Factors According to Level of Education Variable

Scales/ Factors	A) Undergraduate N:472		B) Graduate N:203		C) Postgraduate N:160		F	p	Significant Difference
	M	SD	M	SD	M	SD			
1 RSLQ*	3.87	0.32	3.86	0.34	3.93	0.32	2.68	0.07	-
2 BF	3.67	0.33	3.67	0.35	3.74	0.31	2.86	0.06	-
3 NR	4.08	0.43	4.08	0.46	4.12	0.45	0.48	0.62	-
4 CT	4.07	0.45	4.04	0.50	4.13	0.43	1.74	0.18	-
5 SDLS*	4.13	0.39	4.17	0.39	4.29	0.40	8.80	0.00*	A-C, B-C
6 OLAS*	3.27	0.56	3.32	0.56	3.29	0.60	0.66	0.52	-
7 GA	3.40	0.55	3.45	0.54	3.44	0.56	0.97	0.38	-
8 IA	2.83	0.79	2.85	0.82	2.86	0.84	0.14	0.87	-
9 U	3.66	0.73	3.73	0.74	3.65	0.73	0.79	0.45	-
10 *PE*	3.41	0.68	3.49	0.74	3.41	0.75	0.92	0.40	-

**p<.05, Scheffe was used to determine the significant difference between groups of education level.*

It was determined that there was statistically significant difference (F=8.8; p<.05) between mean scores of SDL with regard to level of education variable. That is, postgraduate students (M=4.29, SD = .40) have higher SDL scores than undergraduate (M=4.13, SD = .39) and graduate (M=4.17, SD = .39).

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Table 3 shows the means, standard deviations and correlation coefficients' values between the variables.

Table 3

The Mean, Standard Deviation and Correlation Coefficient Values

Scales/ Factors	M	SD	1	2	3	4	5	6	7	8	9	10
1 RSLQ*	3.88	0.32	1									
2 BF	3.69	0.33	.84**	1								
3 NR	4.09	0.44	.75**	.52**	1							
4 CT	4.08	0.46	.83**	.43**	.56**	1						
5 SDLS*	4.17	0.40	**.44****	.41**	.33**	.32**	1					
6 OLAS*	3.28	0.57	**.15****	.16**	.13**	.09*	**.19****	1				
7 GA	3.42	0.55	.11**	.13**	.07*	.06	.19**	.85**	1			
8 IA	2.84	0.81	.14**	.14**	.10**	.09*	.15**	.91**	.70**	1		
9 U	3.67	0.73	.10**	.11**	.09*	.06	.16**	.73**	.53**	.57**	1	
10 *PE*	3.43	0.71	.14**	.14**	.16**	.08*	.13**	.73**	.46**	.54**	.49**	1

***p<.01; *p<.05; N=835;* **1. RSLQ**: Revised Self-Leadership Questionnaire; *2. BF: Behavior Focused; 3. NR: Natural Reward; 4. CT: Constructive Thought;* **5. SDLS**: Self-Directed Learning Scale; **6. OLAS**: Online Learning Attitude Scale; *7. GA: General Acceptance; 8. IA: Individual Awareness; 9. U: Usefulness; 10. PE: Participation Effectiveness.*

Students' perception of SL (M=3.88, SD = .32) and SDL (M=4.17, SD = .40) might be interpreted as "*agree*" and OL (M=3.28, SD = .57) might be interpreted as "*moderate*". There was a positive and "*moderate*" correlation between SL and SDL (r=.44; p<.01); a positive and "weak" correlation between SDL and OL (r=.19; p<.01) and between SL and OL (r=.15; p<. 01). These results rejected the null H_a, H_b, *and* H_c hypotheses in favor of alternate H_a, H_b, *and* H_c hypotheses.

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Table 4

Direct Effects of the Variables and Structural Routes before Adding Mediator Variable

	Independent variable	Structural Paths	Dependent variable	β
Direct effect	SL	→	OL	.17***
	SL	→	SDL	.52***
	SDL	→	OL	.22***

****p<.001; N=835*

Direct effects among the variables are presented in Table 4. Before adding the SDL variable to the model as a mediator variable, direct effects between variables were analyzed. Table 4 shows that the SL predicted OL (β =.17; p<.001) and SDL (β =.52; p<.001). The SDL predicted OL (β =.22; p<.001).

Table 5

Effects of the Variables and Structural Routes after Adding Mediator Variable

	Independent variable	Structural Paths	Dependent variable	β
Direct effect	SL	→	OL	.08
	SL	→	SDL	.52**
	SDL	→	OL	.18**
Indirect effect	SL	→	OL	.045*
Total effect	SL	→	OL	.175*

***p<.001; *p<.05; N=835*

As shown in Table 4, Table 5 and Figure 3, the standardized regression coefficients between SL and OL decreased significantly while SDL and OL decreased when SDL was added to the model as a mediator variable. The nonsignificant relationship between SL and OL indicates that SDL played a full partial mediating role in the relationship between SL and OL.[104] The SL

[104] Holmbeck, "Toward Terminological, Conceptual," 600.

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predicted SDL (β =.52; p<.001) and OL (β =.18; p<.001). On the other hand, SL predicted OL in the indirect (β =.045; p<.05) and total effect (β =.175; p<.001). The regression coefficient values proved that the assumption of the model was satisfied. Figure 3 indicates visually the path model which proved a full mediating role of SDL in the relationship between SL and OL as well. These results rejected null H_m hypothesis and confirmed the alternate H_m hypothesis.

Figure 3 shows the standardized regression coefficients for the relationship between SL and OL as mediated by SDL. The goodness of fit values for the model are as follows: [$\chi 2$ = 503.9, df = 116, $\chi 2$ / df = 4.34, the Root Mean Square Error of Approximation (RMSEA) = .06, the Incremental Fit Index (IFI) = .90, the Comparative Fit Index (CFI) = .90, Standardized Root Mean Square Residual (SRMR) =.05; Root Mean Square Residual (RMR) =.02; Goodness Fit Index (GFI) =.93, Adjusted Goodness of Fit Index (AGFI) =. 91]. These values indicate that the path model in the conceptual model (Figure 2 and Figure 3) fit the data well.[105,106,107,108] This model confirms that SL has a direct and indirect effect on OL, even if the effect reduced slightly (from .170 to .045) when adding SDL to the model as a mediator.

[105] David A. Cole, "Utility of Confirmatory Factor Analysis in Test Validation Research," *Journal of Consulting and Clinical Psychology* 55, no. 4 (1987): 585,586.

[106] Li-Tze Hu and Peter M. Bentler, "Cutoff Criteria for Fit Indexes in Covariance Structure Analysis: Conventional Criteria versus New Alternatives," *Structural Equation Modeling: A Multidisciplinary Journal* 6, no. 1 (1999):1.

[107] George A. Marcoulides and Randall E. Schumacker (eds), *New Developments and Techniques in Structural Equation Modeling* (Londra: Lawrence Erbaum Associates Publishers, 2001).

[108] Rex B Kline, *Principles and Practice of Structural Equation Modeling* (New York: Guilford Publications, 2015).

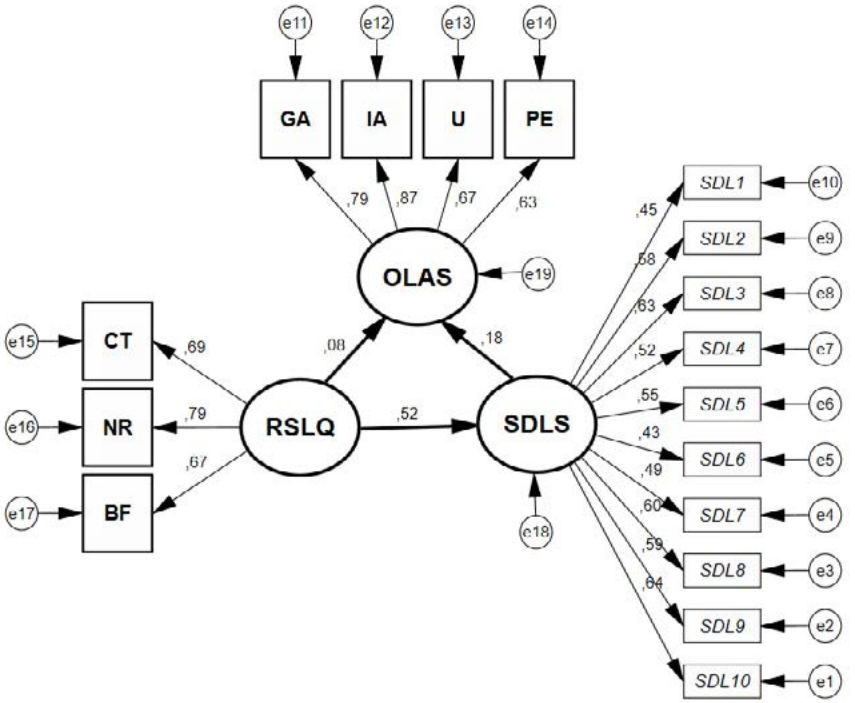

Figure 3
The path model

V. Discussion

This study examined the SL, SDL, and OL as perceived by university students. The results rejected null hypotheses (H_a, H_b, H_c, *and* H_m) and confirmed alternate hypotheses (H_a, H_b, H_c, *and* H_m) as shown in Table 6. The results showed a positive moderate correlation between SL and SDL, indicating that the higher the SL, the more the SDL and vice versa. This is in line with prior studies.[109],[110] Lee and Kim[111] found that SL and SDL readiness

[109] James, "Self-leadership and Self-Regulated Learning," 59.

[110] Lee and Kim, "The Effects of Self-Efficacy and Self-Directed Learning Readiness," 309,184.

[111] Lee and Kim, "The Effects of Self-Efficacy and Self-Directed Learning Readiness," 309,184.

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are correlated significantly. Eckton and Palfreyman[112] emphasized that the cognitive level of students could be advanced as improving SDL through making assignments active and flexible. The advanced cognitive level means students can improve success and overall SL by being equipped with knowledge and skills. James[113] emphasized that students and professionals may better learn SL first before learning SDL. Students that have a higher perception of self-leadership are expected to control their inner and outer behavior and so they are disciplined easily for self-directed learning. That can result in better online learning. Correspondingly, Okabayashi and Torrance[114] found that gifted students had a higher level of SDL.

Table 6

Hypotheses and Results

Hypotheses	Results
Null H_a: The correlation coefficient between university students' self-leadership and their self-directed learning is zero.	*Rejected*
Alternate H_a: The correlation coefficient between university students' self-leadership and their self-directed learning is significantly different from zero.	*Supported*
Null H_b: The correlation coefficient between university students' self-leadership and their online learning is zero.	*Rejected*
Alternate H_b: The correlation coefficient between university students' self-leadership and their online learning is significantly different from zero.	*Supported*
Null H_c: The correlation coefficient between university students' self-directed learning and their online learning is zero.	*Rejected*
Alternate H_c: The correlation coefficient between university students' self-directed learning and their online learning is significantly different from zero.	*Supported*

[112] Darin R. Eckton and S. Rhett Palfreyman,"Self-Directed Learning as a Form of Self-Leadership: An Exploratory Study in a First-Year Experience Student Success Course," *The Journal of Student Leadership 1*, no.2 (2017): 25.

[113] James, "Self-leadership and Self-Regulated Learning," 59.

[114] Haruo Okabayashi and E. Paul Torrance, "Role of Style of Learning and Thinking and Self-Directed Learning Readiness in the Achievement of Gifted Students," *Journal of Learning Disabilities* 17, no. 2 (1984): 106.

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Hypotheses	Results
Null H_m: When self-directed learning added to the model as mediating variable, the correlation coefficient between university students' self-leadership and their online learning is zero.	*Rejected*
Alternate H_m: When self-directed learning added to the model as mediating variable, the correlation coefficient between university students' self-leadership and their online learning is significantly different from zero.	*Supported*

The results showed a positive and low correlation between SDL and OL, indicating that the higher the SDL, the more the OL. This is in line with the prior study of Chou.[115] He found that there is a positive relationship between engineering students' SDL abilities and OL performances. Broadbent and Poon[116] reviewed the literature and concluded that self-regulated learning strategies of time management, metacognition, critical thinking, and effort regulation were found to have significant positive correlations with academic success in online settings.

The results showed a positive and low correlation between SL and OL, suggesting that the higher the SDL, the more the OL. Du, Fan, Xu, Wang, Sun and Liu[117] found that perceived leadership was correlated to online groupwork self-efficacy positively suggesting that a leader in groupwork plays an important role in improving and sustaining self-efficacy of group members. Aldholay et al.[118] found that transformational leadership has a substantial positive effect on students' inspiration, motivation and actual usage of OL.

After adding the SDL variable to the model as a mediator variable, SDL has played a full mediating role in the relationship between SL and OL. Before and after adding the SDL variable to the model as a mediator

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[115] Pao-Nan Chou, "Effect of Students' Self-Directed Learning Abilities on Online Learning Outcomes: Two Exploratory Experiments in Electronic Engineering," *International Journal of Humanities and Social Science* 2, no. 6 (2012): 172.

[116] Jaclyn Broadbent and Water l. Poon, "Self-Regulated Learning Strategies & Academic Achievement in Online Higher Education Learning Environments: A Systematic Review," *The Internet and Higher Education* 27 (2015): 11,12.

[117] Jianxia Du, Xitao Fan, Jianzhong Xu, Chuang Wang, Li Sun, and Fangtong Liu, "Predictors for Students' Self-Efficacy in Online Collaborative Groupwork," *Educational Technology Research and Development* 67, no. 4 (2019): 785.

[118] Aldholay, Isaac, Abdullah, and Ramayah, "The Role of Transformational Leadership," 1421.

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variable, SL predicted SDL. It is supposed that the higher levels of SL among university students will predict greater SDL. This is in line with the prior study of Lee and Kim.[119] They found that SL readiness is a significant predictor of SDL. However, after adding the SDL variable to the model, SL did not predict OL significantly, but SL predicted OL indirectly. It is proved that the higher levels of SL among university students will predict greater OL.

Furthermore, participants' SL total scores were at a high level. It can be inferred that the participants mostly use their imagination to picture their performing well on significant responsibilities; visualize themselves successfully performing a task before they do it; set specific goals for their own performance and work toward these goals. This result was similar to other research results (e.g., Eun-Joo and Han-Suk,[120] Ay, Karakaya, and Yilmaz,[121] Kim[122]). For example, Eun-Joo and Han-Suk[123] reported that the total score of self-leadership were at a high level among physical therapy students. Ay, Karakaya, and Yilmaz[124] shared that literature and faculty of science senior evening education students' total score of self-leadership was at a high level as well.

Participants' SDL total scores were at a high level. This result was in line with the prior studies of Chou [125] and Geng, Law, and Niu.[126] Geng, Law, and Niu[127] reported that the total score of SDL was at a high level among engineering students from a university in Hong Kong. For this study, high scores on the scale represent that participants have good personality traits of a self-directed learner. It can be stated that the participants learn somethings regularly on their own outside of campus; they view self-directed learning very important for their success in university and they set their own goals for what they will learn.

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[119] Lee and Kim, "The Effects of Self-Efficacy and Self-Directed Learning Readiness," 309.

[120] Kim Eun-Joo and Han-Suk, Lee. "Analyzing Correlation of Self-leadership and Intrinsic Motivation among Some Physiotherapy Students," *Journal of Korean Society of Physical Medicine* 12, no 1(2017): 113. doi:10.13066/kspm.2017.12.1.113

[121] Ferda Alper Ay, Abdullah Karakaya, and Kasım Yilmaz. "Relations between self-leadership and critical thinking skills," *Procedia-social and Behavioral sciences* 207 (2015): 29.

[122] Myoung Sook Kim. "Influence of Metacognition and Emotional Intelligence on Self-leadership in Nursing Students," *Journal of Korean Academy of Nursing Administration* 25, no 2 (2019): 146. Doi: 10.11111/jkana.2019.25.2.146

[123] Eun-Joo and Han-Suk, "Analyzing Correlation of Self-leadership," 13

[124] Ay, Karakaya, and Yilmaz, "Relations between self-leadership," 36.

[125] Chou, "Effect of Students' Self-Directed," 172.

[126] Geng, Law, and Niu, "Investigating Self-Directed Learning," 13.

[127] Geng, Law, and Niu, "Investigating Self-Directed Learning," 13.

Participants' OL total scores were at a moderate level. However, this result was not consistent with the result gathered by Isaaca, Aldholay, Abdullah, and Ramayah[128] and Mohammed, Abou-Alam, Belal and Fahmi.[129] This difference may be due to the different scales used. Isaaca, Aldholay, Abdullah, and Ramayah[130] found that total scores on OL of students from nine public universities within Yemen were at a high level. For this study, moderate scores in the scale indicate that participants have a moderate attitude towards online learning.

Both female and male participants' total scores on SL (BF, NR, CT) and SDL were at a high level while their mean scores on OL (GA, IA, U, PE) were moderate levels. In other words, their mean scores on scales and scales' sub-dimensions were very close to each other. This result can be interpreted as an indication that the SDL, SL and OL constructs covers the learning enthusiasm of both male and female university students. On the other hand, specifically, the result for OL was not similar to the result gathered by Beqiri, Chase, and Bishka[131] They reported that degrees and courses that attract particularly male students are promising for online education delivery. In another study, Tekkol and Demirel[132] reported that female undergraduate students' total scores on the perception of SDL were significantly higher than males.

Undergraduate, graduate, and postgraduate participants' total scores on SL (BF, NR, CT) and SDL were at a high level while their mean scores on OL (GA, IA, U, PE) were moderate levels. There were statistically significant differences between postgraduate and undergraduate, and postgraduate and graduate participants' total scores on SDL. That is to say, postgraduate participants' total scores on SDL were higher than undergraduate and graduate. Highest SDL scores in postgraduate participants might be attributed to the fact that the postgraduate level of education requires students equipped with the skills necessary to establish learning outcomes more through SDL.

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[128] Osama Isaaca, Adnan Aldholay, Zaini Abdullah, and T. Ramayah, "Online learning usage within Yemeni higher education: The role of compatibility and task-technology fit as mediating variables in the IS success model," *Computers & Education* 136 (2019): 119. doi:10.1016/j.compedu.2019.02.012

[129] Mohammed I. Eraqi, Wesal Abou-Alam, Mayadah Belal and Toka Fahmi, "Attitudes of Undergraduate Students Toward E-Learning in Tourism: The Case of Egypt," *Journal of Teaching in Travel & Tourism* 11, no 4 (2011): 325. doi:10.1080/15313220.2011.624397

[130] Isaaca, Aldholay, Abdullah, and Ramayah, "Online learning usage," 119

[131] Beqiri, Chase, and Bishka, "Online Course Delivery," 99.

[132] İlkay Aşkin Tekkol and Melek Demirel. "An investigation of self-directed learning skills of undergraduate students." *Frontiers in Psychology* 9 (2018): 2324. doi: 10.3389/fpsyg.2018.02324.

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VI. Conclusion

This study investigated the SL, SDL and OL among university students in Turkey. It tested a distinctive conceptual model, composed of SL, SDL and OL through utilizing descriptive, CFA, correlation and SEM techniques on empirical data of 835 students. The findings provided evidence and confirmed the model for the study. The structural models revealed that self-directed learning has very critical roles in the relationship between self-leadership and online learning among university students. It is a fact that accessing educational and instructional knowledge and data is getting easier and cheaper every day for the learners from all socio-cultural levels thanks to the advent of educational technologies and new educational entrepreneurship models. Thus, online learning and teaching are developing and becoming widespread. In this context, this study shows that SL and SDL skills are important for university students to benefit from this learning style at a high level. This study has contributed to the expansion efforts of the studies carried out on improvements in university students learning.

VII. Limitations, implications, and research directions

The key strength of this study is that it tested a conceptual model through utilizing some mostly used statistic techniques (e.g. SEM) on empirical data of 835 students. Despite its strengths, this study is limited to the date of the data collection, data, perception and status of university students studying in 54 universities of Turkey in the Spring Semester of 2018-2019 Academic Year. A descriptive relational survey model and the scales used could be a delimitation. There may be other scales already developed or can be developed for the concepts handled in this study.

Higher education organizations can benefit from knowledge provided by this study for their practical and accurate higher education policies on administrating, supervising, and planning. For example, one of the implications of this study is that universities in Turkey, especially providing OL, can focus on establishing educational policies to improve their students' SL and SDL. The education policies can be developed and taken place both inside and outside Turkey in the context of the following account.

University administrations (especially online education providers) can highlight the importance of SL and SDL concepts, especially regarding the realization of online learning objectives, in various policy documents of their universities (basic policy documents, curriculum development strategic plan,

faculty member and student supervising plan, etc.). Universities that provide online education especially in the Covid-19 period can do the necessary work to keep these issues on their agenda as one of their priority strategic issues. In other words, they can include OL, SL, and SDL subjects and the importance of the relationship between them in the university's official correspondence networks, as a statement on its websites, in student guidance activities, in orientation or educational activities related to the distance education they provide. The content of the teaching\learning theories taught in education faculties can be expanded in the context of the theoretical framework of OL, SL, and SDL concepts and the relationship between them. Furthermore, universities that will use online educational software/platforms can develop a policy action plan for using software supported by SL and SDL theories.

Last but not the least, university administrations can develop active policy plans to ensure that faculty members (especially working in distance education faculties) are aware of the theoretical framework of these concepts and learn how they can teach students to be aware of the theoretical frameworks of these concepts. These plans can include organizing and supervising various in-service activities such as seminars and courses.

It can be clearly foreseen that there may be relations and predicting cases between the subjects discussed in this study and other cases such as self-efficiency and academic success of students. These relationship situations and predicting cases would be studied in future studies with using some other methods (e.g. mixed) and different scales with restructured factors of explanatory potential.

Bibliography

Akcaoglu, Mete, and Lee, Eunbae. "Using Facebook Groups to Support Social Presence in Online Learning." *Distance Education 39,* no. 3 (2018): 334-352. doi: 10.1080/01587919.2018.1476842

Aldholay, Adnan H., Osama Isaac, Zaini Abdullah, and T. Ramayah. "The Role of Transformational Leadership as a Mediating Variable in DeLone and McLean Information System Success Model: The Context of Online Learning Usage in Yemen." *Telematics and Informatics* 35, no. 5 (2018): 1421–37. https://doi.org/10.1016/j.tele.2018.03.012.

Anderson, Joe S., and Gregory E. Prussia. "The Self-Leadership Questionnaire: Preliminary Assessment of Construct Validity." *Journal of Leadership Studies* 4, no. 2 (1997): 119–43. https://doi.org/10.1177/107179199700400212.

Ay, Ferda Alper, Abdullah Karakaya, and Kasım Yilmaz. "Relations between self-leadership and critical thinking skills." *Procedia-social and Behavioral sciences* 207 (2015): 29-41.

Tuning Journal for Higher Education
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doi: http://dx.doi.org/10.18543/tjhe-8(1)-2020pp129-165 • http://www.tuningjournal.org/

Bahçelerli, Nesrin, Tulen Saner, Zehra Altinay, Ebba Ossiannilsson, and Fahriye Altinay. "The Impact of Online Learning Context in Fostering Open Leadership Skills." *Proceedings of the 9th International Conference on Computer Supported Education*, 2017. https://doi.org/10.5220/0006387107360741.

Baron, Reuben M., and David A. Kenny. "The Moderator–Mediator Variable Distinction in Social Psychological Research: Conceptual, Strategic, and Statistical Considerations." *Journal of Personality and Social Psychology* 51, no. 6 (1986): 1173–82. https://doi.org/10.1037/0022-3514.51.6.1173.

Beqiri, Mirjeta S., Nancy M. Chase, and Atena Bishka. "Online Course Delivery: An Empirical Investigation of Factors Affecting Student Satisfaction." *Journal of Education for Business* 85, no. 2 (2009): 95–100. https://doi.org/10.1080/08832320903258527.

Bhagat, Kaushal Kumar, Leon Yufeng Wu, and Chang Chun-Yen. "Development and Validation of the Perception of Students towards Online Learning (POSTOL)." *Journal of Educational Technology & Society* 19, no. 1 (2016): 350-359.

Broadbent, Jaclyn, and Water l. Poon. "Self-Regulated Learning Strategies & Academic Achievement in Online Higher Education Learning Environments: A Systematic Review." *The Internet and Higher Education* 27 (2015): 1–13. https://doi.org/10.1016/j.iheduc.2015.04.007.

Brockett, Ralph. "Self-directed learning and the hard-to-reach adult." *Lifelong Learning: The Adult Years 6,* no *8* (1983): 16-18.

Chou, Pao-Nan. "Effect of Students' Self-Directed Learning Abilities on Online Learning Outcomes: Two Exploratory Experiments in Electronic Engineering." *International Journal of Humanities and Social Science* 2, no. 6 (2012): 172-179.

Clark, Ruth Colvin, and Richard E. Mayer. *E-Learning and the Science of Instruction: Proven Guidelines for Consumers and Designers of Multimedia Learning*. San Francisco: Pfeiffer, 2016.

Cole, David A. "Utility of Confirmatory Factor Analysis in Test Validation Research." *Journal of Consulting and Clinical Psychology* 55, no. 4 (1987): 584–94. https://doi.org/10.1037/0022-006x.55.4.584.

Demircioğlu, Zeynep Işıl, Burak Öge, Emine Ezgi Fuçular, Tuğçe Çevik, Merve Denizci Nazlıgül, and Erol Özçelik. "Reliability, Validity and Turkish Adaptation of Self-Directed Learning Scale (SDLS)." *International Journal of Assessment Tools in Education* 5, no. 2, (2018): 235-47. https://doi.org/10.21449/ijate.401069.

Du, Jianxia, Xitao Fan, Jianzhong Xu, Chuang Wang, Li Sun, and Fangtong Liu. "Predictors for Students' Self-Efficacy in Online Collaborative Groupwork." *Educational Technology Research and Development* 67, no. 4 (2019): 767–91. https://doi.org/10.1007/s11423-018-9631-9.

Eckton, Darin R., and S. Rhett Palfreyman. "Self-Directed Learning as a Form of Self-Leadership: An Exploratory Study in a First-Year Experience Student Success Course." *The Journal of Student Leadership 1*, no. 2 (2017): 15-29.

Ellis, Robert A., Paul Ginns, and Leanne Piggott. "E-Learning in Higher Education: Some Key Aspects and Their Relationship to Approaches to Study." *Higher*

© University of Deusto. ISSN: 2340-8170 • ISSN-e: 2386-3137. Volume 8, Issue No. 1, November 2020, 129-165
doi: http://dx.doi.org/10.18543/tjhe-8(1)-2020pp129-165 • http://www.tuningjournal.org/

Education Research & Development 28, no. 3 (2009): 303-18. https://doi.org/10.1080/07294360902839909.

Eraqi, Mohammed I., Wesal Abou-Alam, Mayadah Belal and Toka Fahmi. "Attitudes of Undergraduate Students Toward E-Learning in Tourism: The Case of Egypt." *Journal of Teaching in Travel & Tourism* 11, no 4 (2011): 325-348. doi:10.1080/15313220.2011.624397

Eun-Joo, Kim, and Han-Suk, Lee. "Analyzing Correlation of Self-leadership and Intrinsic Motivation among Some Physiotherapy Students." *Journal of Korean Society of Physical Medicine* 12, no 1 (2017): 113-120. doi:10.13066/kspm.2017.12.1.113

Fidan, Mustafa. "Yenilenen Öz-Liderlik Ölçeği'ni Üniversite Öğrencileri Örnekleminde Türkçe'ye Uyarlama Çalişmasi." *Uluslararası Liderlik Eğitimi Dergisi-International Journal of Leadership Training* 2, (2018): 1-16.

Field, Andy. *Discovering statistics using IBM SPSS statistics*. Los Angeles: SAGE, 2009.

Garnjost, Petra, and Leanna Lawter. "Undergraduates' Satisfaction and Perceptions of Learning Outcomes across Teacher- and Learner-Focused Pedagogies." *The International Journal of Management Education* 17, no. 2 (2019): 267–75. https://doi.org/10.1016/j.ijme.2019.03.004.

Garrison, D. Randy "Self-Directed Learning: Toward a Comprehensive Model." *Adult Education Quarterly* 48, no. 1 (1997): 18-33. https://doi.org/10.1177/074171369704800103.

Garrison, D. Randy. "Self-Directed Learning and Distance Education." In *Handbook of Distance Education*. Mahwah, NJ: Lawrence Erlbaum, 2003.

Geng, Shuang, Kris M. Y. Law, and Ben Niu. "Investigating Self-Directed Learning and Technology Readiness in Blending Learning Environment." *International Journal of Educational Technology in Higher Education* 16, no. 1 (2019):1-22. https://doi.org/10.1186/s41239-019-0147-0.

Gomez, Doris. "Leadership behavior and its impact on student success and retention in online graduate education." *Academy of Educational Leadership Journal* 17, no.2 (2013): 13-37.

Holmbeck, Grayson N. "Toward Terminological, Conceptual, and Statistical Clarity in the Study of Mediators and Moderators: Examples from the Child-Clinical and Pediatric Psychology Literatures." *Journal of Consulting and Clinical Psychology* 65, no. 4 (1997): 599-610. https://doi.org/10.1037/0022-006x.65.4.599.

Houghton, Jeffery D., and Christopher P. Neck. "The Revised Self-Leadership Questionnaire." *Journal of Managerial Psychology* 17, no. 8 (2002): 672–91. https://doi.org/10.1108/02683940210450484.

Houghton, Jeffery D., Andrew Carnes, and Christopher N. Ellison. "A Cross-Cultural Examination of Self-Leadership." *Journal of Leadership & Organizational Studies* 21, no. 4 (2014): 414–30. https://doi.org/10.1177/1548051813515753.

Houlden, Shandell, and George Veletsianos. "A Posthumanist Critique of Flexible Online Learning and Its 'Anytime Anyplace' Claims." *British Journal of Educational Technology* 50, no. 3 (2019): 1005–18. https://doi.org/10.1111/bjet.12779.

Tuning Journal for Higher Education
© University of Deusto. ISSN: 2340-8170 • ISSN-e: 2386-3137. Volume 8, Issue No. 1, November 2020, 129-165
doi: http://dx.doi.org/10.18543/tjhe-8(1)-2020pp129-165 • http://www.tuningjournal.org/

Hsieh, Peggy (Pei-Hsuan), Jeremy R. Sullivan, and Norma S. Guerra. "A Closer Look at College Students: Self-Efficacy and Goal Orientation." *Journal of Advanced Academics* 18, no. 3 (2007): 454–76. https://doi.org/10.4219/jaa-2007-500.

Hsu, Hui-Ching Kayla, Cong Vivi Wang, and Chantal Levesque-Bristol. "Reexamining the Impact of Self-Determination Theory on Learning Outcomes in the Online Learning Environment." *Education and Information Technologies* 24, no. 3 (2019): 2159–74. https://doi.org/10.1007/s10639-019-09863-w.

Hsu, Ting-Chia. "Learning English with Augmented Reality: Do Learning Styles Matter?" *Computers & Education* 106, (2017): 137–49. https://doi.org/10.1016/j.compedu.2016.12.007.

Hsu, Yu-Chiung, and Ya-Ming Shiue. "The Effect of Self-Directed Learning Readiness on Achievement Comparing Face-To-Face and Two-Way Distance Learning Instruction." *International Journal of Instructional Media* 32, no. 2 (2005): 143-156.

Hu, Li-Tze, and Peter M. Bentler. "Cutoff Criteria for Fit Indexes in Covariance Structure Analysis: Conventional Criteria versus New Alternatives." *Structural Equation Modeling: A Multidisciplinary Journal* 6, no. 1 (1999): 1-55. https://doi.org/10.1080/10705519909540118.

Ilgaz, Hale, and Yasemin Gülbahar. "A Snapshot of Online Learners: e-Readiness, e-Satisfaction and Expectations." *The International Review of Research in Open and Distributed Learning* 16, no. 2 (2015): 171-187. https://doi.org/10.19173/irrodl.v16i2.2117.

Isaaca, Osama, Adnan Aldholay, Zaini Abdullah, and T. Ramayah. "Online learning usage within Yemeni higher education: The role of compatibility and task-technology fit as mediating variables in the IS success model." *Computers & Education* 136 (2019): 113-129. Doi:10.1016/j.compedu.2019.02.012

James, Angela M. "Self-leadership and Self-Regulated Learning: An Investigation of Theoretical Relationships." *Journal of Business & Leadership: Research, Practice, and Teaching (2005-2012)* 5, no. 1 (2009): 59-67.

Kaufmann, Renee, Deanna D. Sellnow, and Brandi N. Frisby. "The Development and Validation of the Online Learning Climate Scale (OLCS)." *Communication Education* 65, no. 3 (2016): 307–21. https://doi.org/10.1080/03634523.2015.1101778.

Kember, David, Doris Leung, and Michael Prosser. "Has the Open Door Become a Revolving Door? The Impact on Attrition of Moving from Elite to Mass Higher Education." *Studies in Higher Education*, (2019): 1–12. https://doi.org/10.1080/03075079.2019.1629411.

Kim, Myoung Sook. "Influence of Metacognition and Emotional Intelligence on Self-leadership in Nursing Students." *Journal of Korean Academy of Nursing Administration* 25, no 2 (2019): 146-155. https://doi.org/10.11111/jkana.2019.25.2.146

Kline, Rex B. *Principles and Practice of Structural Equation Modeling*. New York: Guilford Publications, 2015.

Knowles, Malcolm S. *Self-Directed learning: A Guide for Learners and Teachers*. Chicago: Association Press, 1975.

Kozakowski, Whitney. "Moving the Classroom to the Computer Lab: Can Online Learning with in-Person Support Improve Outcomes in Community Colleges?" *Economics of Education Review* 70, (2019): 159–72. https://doi.org/10.1016/j.econedurev.2019.03.004.

Kraut, Rebecca, ed. *Policy guidelines for mobile learning*. UNESCO, 2013. Retrieved from https://unesdoc.unesco.org/ark:/48223/pf0000219641

Lee, Cynthia, Alexander Seeshing Yeung, and Tiffany Ip. "University English Language Learners Readiness to Use Computer Technology for Self-Directed Learning." *System* 67, (2017): 99–110. https://doi.org/10.1016/j.system.2017.05.001.

Lee, Sun-Young, and Yun-Young Kim. "The Effects of Self-Efficacy and Self-Directed Learning Readiness to Self-Leadership of Nursing Student." *Journal of Digital Convergence* 14, no. 3 (2016): 309–18. https://doi.org/10.14400/jdc.2016.14.3.309.

Long, Huey B. "Resources Related to Overcoming Resistance to Self-Direction in Learning." *New Directions for Adult and Continuing Education* 1994, no. 64 (1994): 13–21. https://doi.org/10.1002/ace.36719946404.

Lounsbury, John W., Jacob J. Levy, Soo-Hee Park, Lucy W. Gibson, and Ryan Smith. "An Investigation of the Construct Validity of the Personality Trait of Self-Directed Learning." *Learning and Individual Differences* 19, no. 4 (2009): 411–18. https://doi.org/10.1016/j.lindif.2009.03.001.

Manz, Charles C. "Self-leadership... the Heart of Empowerment." *The Journal for Quality and Participation* 15, no. 4 (1992): 80-85.

Manz, Charles C. "Self-Leadership: Toward an Expanded Theory of Self-Influence Processes in Organizations." *The Academy of Management Review* 11, no. 3 (1986): 585-600. https://doi.org/10.2307/258312.

Manz, Charles C. "Taking the Self-Leadership High Road: Smooth Surface or Potholes Ahead?" *Academy of Management Perspectives* 29, no. 1 (2015): 132-51. https://doi.org/10.5465/amp.2013.0060.

Marcoulides, George A., and Randall E. Schumacker (eds). *New Developments and Techniques in Structural Equation Modeling*. Londra: Lawrence Erbaum Associates Publishers, 2001.

Mayer, Richard E. "Thirty Years of Research on Online Learning." *Applied Cognitive Psychology* 33, no. 2 (August 2018): 152–59. https://doi.org/10.1002/acp.3482.

Mertens, Donna M. *Research and Evaluation in Education and Psychology: Integrating Diversity With Quantitative, Qualitative, and Mixed Methods*. California: Sage Publications, 2014.

Min, Qiusha, Zhifeng Wang, and Neng Liu. "Integrating a Cloud Learning Environment into English-Medium Instruction to Enhance Non-Native English-Speaking Students' Learning." *Innovations in Education and Teaching International* 56, no. 4 (2019): 493-504. doi:10.1080/14703297.2018.1483838

Money, William H., and Benjamin P. Dean. "Incorporating Student Population Differences for Effective Online Education: A Content-Based Review and

Tuning Journal for Higher Education
© University of Deusto. ISSN: 2340-8170 • ISSN-e: 2386-3137. Volume 8, Issue No. 1, November 2020, 129-165
doi: http://dx.doi.org/10.18543/tjhe-8(1)-2020pp129-165 • http://www.tuningjournal.org/

Integrative Model." *Computers & Education* 138, (2019): 57–82. https://doi.org/10.1016/j.compedu.2019.03.013.

Mullen, Patrick R., Dodie Limberg, Victor Tuazon, and Shannon M. Romagnolo. "Emotional Intelligence and Leadership Attributes of School Counselor Trainees." *Counselor Education and Supervision* 58, no. 2 (2019): 112–26. https://doi.org/10.1002/ceas.12135.

Napiersky, Uwe, and Stephen A. Woods. "From the Workplace to the Classroom: Examining the Impact of Self-Leadership Learning Strategies on Higher Educational Attainment and Success." *Innovations in Education and Teaching International* 55, no. 4 (2018): 441–49. https://doi.org/10.1080/14703297.2016.1263232.

National Center for Education Statistics (NCES). "Fast Facts-Distance learning." Accessed October 20, 2020. https://nces.ed.gov/fastfacts/ display.asp?id=80

Neck, Christopher P., and Jeffery D. Houghton. "Two Decades of Self-Leadership Theory and Research." *Journal of Managerial Psychology* 21, no. 4 (2006): 270–95. https://doi.org/10.1108/02683940610663097.

Norton, Andrew, Ittima Cherastidtham and Will Mackey, *Mapping Australian higher education 2018*. Grattan Institute, 2018.

Okabayashi, Haruo, and E. Paul Torrance. "Role of Style of Learning and Thinking and Self Directed Learning Readiness in the Achievement of Gifted Students." *Journal of Learning Disabilities* 17, no. 2 (1984): 104–6. https://doi.org/10.1177/002221948401700210.

Online Learning and Distance Education Resources. "Canadian post-secondary enrolments: the role of online learning." Accessed October 25, 2020. https://www.tonybates.ca/2020/02/21/canadian-post-secondary-enrolments-the-role-of-online-learning/

Open Universities Australia. "Explore. Choose. Enrol." Accessed October 26, 2020 https://www.open.edu.au/

Pearson, Victoria, Kate Lister, Elaine Mcpherson, Anne-Marie Gallen, Gareth Davies, Chetz Colwell, Kate Bradshaw, Nicholas Braithwaite, and Trevor Collins. "Embedding and Sustaining Inclusive Practice to Support Disabled Students in Online and Blended Learning." *Journal of Interactive Media in Education* 2019, no. 1 (2019): 1-10. https://doi.org/10.5334/jime.500.

Prussia, Gregory E., Joe S. Anderson, and Charles C. Manz. "Self-Leadership and Performance Outcomes: the Mediating Influence of Self-Efficacy." *Journal of Organizational Behavior* 19, no. 5 (1998): 523–38.

Russo, Riccardo. *Statistics for the Behavioral Sciences: An Introduction*. Taylor & Francis e-Library, 2004.

Schunk, Dale H., and Barry J. Zimmerman, (eds.) *Self-Regulated Learning: From Teaching to Self-Reflective Practice*. New York: Guilford Press, 1998.

Seo, Kyung-Hwa. "The Effects of Self-Leadership on Career Decision-Making Self-Efficacy and Career Preparation Behavior - Focused on Culinary Major Students" *Culinary Science & Hospitality Research* 23, no. 2 (2017): 146–58. https://doi.org/10.20878/cshr.2017.23.2.015.

Singh, Kultar. *Quantitative Social Research Methods*. New Delhi: Sage Publications, 2007.

Stockdale, Susan L., and Ralph G. Brockett. "Development of the PRO-SDLS: A Measure of Self-Direction in Learning Based on the Personal Responsibility Orientation Model." *Adult Education Quarterly* 61, no. 2 (2011): 161–80. https://doi.org/10.1177/0741713610380447.

Suh, Han Na, Kenneth T. Wang, and Brooke J. Arterberry. "Development and Initial Validation of the Self-Directed Learning Inventory with Korean College Students." *Journal of Psychoeducational Assessment* 33, no. 7 (2015): 687–97. https://doi.org/10.1177/0734282914557728.

Tallent-Runnels, Mary K., Julie A. Thomas, William Y. Lan, and Sandi Cooper, Terence C. Ahern, Shana M. Shaw and Xiaoming Liu. "Teaching Courses Online: A Review of the Research," *Review of Educational Research* 76, no. 1 (Spring 2006): 93-135.

Techjury. "27 Astonishing E-learning Statistics for 2020." Accessed October 27, 2020. https://techjury.net/blog/elearning-statistics/#gref

Tekkol, İlkay Aşkin, and Melek Demirel. "An investigation of self-directed learning skills of undergraduate students." *Frontiers in Psychology* 9 (2018): 2324. doi: 10.3389/fpsyg.2018.02324

The Open University. "The world's leading distance-learning provider." Accessed October 25, 2020. http://www.openuniversity.edu/

The Turkish Council of Higher Education (CoHE). "Higher Education Knowledge Management System – Distance Education Statistics." Accessed October 20, 2020. https://istatistik.yok.gov.tr/

Tsai, Chia-Wen. "The Effect of Online Co-Regulated Learning in the Implementation of Team-Based Learning on Improving Students' Involvement." *Higher Education Research & Development* 34, no. 6 (2015): 1270–80. https://doi.org/10.1080/07294360.2015.1024631.

Usta, İlker, Ömer Uysal, & Muhammet Recep Okur. "Online learning attitude scale: Development, validity and reliability." *Journal of International Social Research 9, no*. 43, (2016):2215-22.

Was, Christopher A., R. Benjamin Hollis, and John Dunlosky. "Do Students Understand the Detrimental Effects of Mind Wandering during Online Learning?" *Computers & Education* 135, (2019): 113–22. https://doi.org/10.1016/j.compedu.2019.02.020.

Wilcox, Susan. "Fostering Self-Directed Learning in the University Setting." *Studies in Higher Education* 21, no. 2 (1996): 165–76. https://doi.org/10.1080/03075079612331381338.

Wong, Anne K. "Culture in Medical Education: Comparing a Thai and a Canadian Residency Programme." *Medical Education* 45, no. 12 (2011): 1209–19. https://doi.org/10.1111/j.1365-2923.2011.04059.x.

Xie, Kui, Lauren C. Hensley, Victor Law, and Zhiru Sun. "Self-Regulation as a Function of Perceived Leadership and Cohesion in Small Group Online Collaborative Learning." *British Journal of Educational Technology* 50, no. 1 (2019): 456–68. https://doi.org/10.1111/bjet.12594.

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Zhao, Xinshu, John G. Lynch, and Qimei Chen. "Reconsidering Baron and Kenny: Myths and Truths about Mediation Analysis." *Journal of Consumer Research* 37, no. 2 (2010): 197–206. https://doi.org/10.1086/651257.

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Editor's Acknowledgments

Editor's Acknowledgments

The impact of COVID 19 has been challenging for authors, reviewers and editors as we have all variously worked from home, struggled with fluctuating internet availability, and other irritations that arose as a consequence of the pandemic. Hence, the editor offers very sincere and genuine thanks to all who have helped produce this edition of the Journal. Some of the articles in this edition were 'launched' by Professor Luigi. Donà dalle Rose and Dr Anna Serbati who continue to offer their invaluable support. Particular thanks are due to Ladislas Bizimana our patient Managing Editor, who has supervised the overall production of the Journal, by supporting authors and editors in the process. Finally, I would like to thank the professors, scholars and colleagues listed below who devoted their time and expertise to assist with Assistant Editorship and/or the reviewing process of this Issue.

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TJHE
Ethical Guidelines for Publication

TJHE Ethical Guidelines for Publication

FINAL VERSION (MARCH 2015)

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Date: 16 March 2015

Approved by the TJHE Editorial Board and signed on behalf of the Tuning Academy by:

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Director, Tuning Academy (Groningen)

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From international governance to individualised learning: The complexity of contemporary higher education

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