Original Article
http://mjiri.iums.ac.ir
Medical Journal of the Islamic Republic of Iran (MJIRI)

Med J Islam Repub Iran. 2018(3 Oct);32.96. https://doi.org/10.14196/mjiri.32.96

Exploring the concept of scholarship of teaching and learning (SoTL): Concept analysis

Fakhrossadat Mirhosseini[1], Neda Mehrdad[2], Shoaleh Bigdeli*[3], Hamid Peyrovi[4], Homeira Khoddam[5]

Received: 11 Jul 2018 Published: 3 Oct 2018

Abstract

Background: Researchers have contributed to the definition of SoTL; however, the literature is not conclusive on its definitions and attributes. Therefore, this study was an attempt to precisely define SoTL by its attributes, antecedents and consequences.

Methods: The Walker and Avant (2011) concept analysis method was used.

Results: The 9 emerged attributes are: Committed engagement in action, Critique-based, Disciplinary, Context-oriented, Critical enquiry process, Continuous deep reflection, Dynamic process, Shared publicly, and Learning focused.

Conclusion: This study helps promote understanding and application of SoTL.

Keywords: Concept analysis, Scholarship of teaching and learning, SoTL, Walker and Avant methodology

Conflicts of Interest: None declared
Funding: Vice-Deputy for Research,Tehran University of Medical Sciences, grant number 28192

*This work has been published under CC BY-NC-SA 1.0 license.
Copyright© Iran University of Medical Sciences

Cite this article as: Mirhosseini F, Mehrdad N, Bigdeli Sh, Peyravi H, Khoddam H. Exploring the concept of scholarship of teaching and learning (SoTL): Concept analysis. *Med J Islam Repub Iran.* 2018(3 Oct);32.96. https://doi.org/10.14196/mjiri.32.96

Introduction

This paper was a synopsis of the concept of Scholarship of Teaching and Learning (SoTL) and was aimed to clarify the notion and reduce the ambiguities raised by the dispute on its diverse definitions and attributes. Accordingly, there was an attempt to provide the reader with its attributes, antecedents, and consequences that could lead to a better understanding and application of the concept.

Concept selection

The history of Scholarship goes back to the fifth century when it was used by pharaohs of Egypt in 2500 BC to show commitment, persistence, innovation, leadership, and intelligence, which assumed to be true scholarship (1). Etymologically, scholarship originates from the term scholar in Old English scol(i)ere (schoolchild, student), late Latin scholaris, Latin schola, and Greek skholē (leisure, philosophy, and lecture-place) (2). In addition, it originates from Middle English scoler, Old English scolere, Anglo-French escoler, Medieval Latin scholaris, Late Latin "of a school", and Latin schola (school) (3). In the area of scholarship, the notion of scholar often refers to individuals who are deeply engaged in teaching and learning and directing this process.

The term "scholarship" was used for various purposes, commonly to describe "Research Excellency" until 1990 when Boyer introduced this term to the field of education with an emphasis on the importance of teaching and learning (4). Later, researchers at Carnegie Foundation encountered an ambiguity in the use of the concept in universities and educational institutes (5). However, educational institutes were in a transitional state at that time and evaluation of research activities of faculty members had priority over other activities at that time, based on which Glassick et al. criteria were defined.

Corresponding author: Dr Shoaleh Bigdeli,bigdeli.sh@iums.ac.ir, sbigdeli@alumni.sfu.ca

1. Department of Medical Education, Faculty of Medicine, Tehran University of Medical Sciences, Tehran, Iran, Trauma Research Center, Kashan University of Medical Sciences, Kashan, Iran
2. Metabolism and Endocrinology Research Institute, Tehran University of Medical Sciences, Tehran, Iran
3. Center for Educational Research in Medical Sciences (CERMS), Iran University of Medical Sciences, Tehran, Iran, Department of Medical Education, Faculty of Medicine, Iran University of Medical Sciences, Tehran, Iran
4. Nursing Care Research Center, Department of Critical Care Nursing, School of Nursing and Midwifery, Iran University of Medical Sciences, Tehran, Iran
5. Nursing Research Center, Faculty of Nursing and Midwifery, Golestan University of Medical Sciences (GOUMS), Gorgan, Iran

↑*What is "already known" in this topic:*
Scholarship of Teaching and Learning (SoTL) is an integral part of the academic discourse among the members of educational communities. The literature shows frequent efforts to address SoTL in theory and practice, but it is not conclusive on its definition and attributes.

→*What this article adds:*
SoTL has an influential impact on academic activities. SoTL attributes, antecedents, and consequences are investigated through Walker and Avant concept analysis.

[Downloaded from mjiri.iums.ac.ir on 2024-03-28]

[DOI: 10.14196/mjiri.32.96]

In its later developmental process, scholarship of teaching (SoT) changed into scholarship of teaching and learning (SoTL) in which teaching and learning or educational processes appeared to be the focus of attention (6, 7). In addition, reflection (8), learning theories (transformative learning), learning processes of learners (9-13), teaching and learning (14), and the more common concepts of educational scholarship and leadership (15) were taken into consideration. Presently, some scholarly journals, such as Academic Medicine, Medical Teacher and Medical Education, publish special issues on SoTL, and there is an opportunity to register reports of scholarship and receive free feedbacks in MedEdPORTAL.

Although ambiguous, the concept of SoTL is still emphasized, even more than before (16) because it is an integral part of educational mission of universities. The ambiguity is reflected in the literature by the use of terms (17) such as "good teaching" (18), "excellent teaching" (16, 19-22) or "high quality teaching "(23), "research" and "action research" (13, 24-27).

It is quite clear that in its course of progress, the focus on learning and emphasis on learning theories have always been a concern. Accordingly, the advocates developed definition of SoTL and tried to outline its attributes. Although sharing some commonalities, definitions of SoTL are diverse and inconclusive, leading to improper or incomplete application of the concept. Moreover, in the course of time and by a paradigm change (27), the complex concepts and their applications change and become ambiguous to some extent and need a higher level of improvement and development (28).

Purposes of analysis

To apply the concept more appropriately in theory and practice, it is necessary to reconsider and analyze the concept and make its features and attributes more specific, inclusive, and well-defined (28). Therefore, this paper was an attempt to define antecedents, attributes, and consequences of the SoTL to remove its ambiguities and provide the reader with an opportunity to facilitate the understanding and application of the concept.

Methods

Concept analysis, which has been used in research in the last 2 decades, is a formal linguistic exercise, which helps examine the structure and function of a concept and define its attributes (28). Walker and Avant (2011) developed an 8-stage process to define the basic elements of a concept to produce a consistent operational definition. This method helps scrutinize the basic elements of a concept effectively and distinguish it from similar concepts (4, 20, 22, 26, 29, 30, 31, 32).

In this study, to analyze the concept of SoTL, the 8-stage approach of Walker and Avant (2011), which is a modified and simplified classic concept analysis of Wilsonian methods, was employed (Table 1).

The first 2 steps of this method were explained in the introduction, and steps 3-7 will be discussed hereafter. Stage 8, which is a summary of the results and is based on codes retrieved from the literature analysis and comparison and contrast of views of some researchers on SoTL, will be reported later in this paper.

Table 1. Concept analysis: The 8-stage process of Walker and Avant (2011)

1	Select a concept
2	Determine the aims or purpose of analysis
3	Identify all uses of the concept
4	Determine the defining attributes
5	Construct a model case
6	Construct borderline, related, contrary, invented, and illegitimate cases
7	Identify antecedents and consequences
8	Define empirical referents

Uses of the SoTL concept

The concept of SoTL is extensively used across a variety of disciplines. For example, different aspects of teaching and learning are commonly addressed in the literature pertaining to psychology, sociology, theology, and religious studies, geography, mathematics, history, nursing, etc. To narrow the research, the focus of this study was on the scholarship of teaching and learning. To expand the process of concept analysis, the applications of the concept were scrutinized and the definitions and uses were identified in dictionaries, thesauruses, and literature, including peer-reviewed articles, proceedings, theses, published books, and e-book chapters.

The exclusion criteria included a book chapter critic, pure research or teaching, introduction of a curricula, introduction of references, challenges of a curriculum, and teaching in disciplines such as history, mathematics, linguistics, law, logic, statistics, and reflection on portfolios, educational environment and class atmosphere situation analysis, quantitative research, and introducing journals.

A comprehensive systematized review of the literature was conducted for scholarship of teaching in the titles or abstracts of the articles by searching national Persian and internationally accepted data bases of PubMed, Web of Science, ERIC, EBSCO, MEDLINE, PsycINFO, CINAHL, Embase, Scopus, ProQuest, education journals, and theses. Papers were selected from peer-reviewed higher education articles published in English and Persian languages during 1990-2015. To find duplicates and finalize the list of selected articles based on titles and abstracts, EndNote was used. The final list was reviewed by 2 independent researchers to check inconsistencies.

From 6552 retrieved texts (eg, articles, dissertations, and books), after exclusion of the duplicates, 1091 texts were retrieved and reviewed based on the titles and abstracts (Diagram 1). Then, full texts of articles with rich data about SoTL (460 articles) were skimmed, scanned, and ranked based on their relevance (0-5). Moreover, these papers were divided into theoretical (N= 145) and experimental (N= 315) categories, including qualitative and quantitative studies. These papers were reviewed because of their reliance on theoretical data. Two separate researchers ranked the papers twice based on the title, abstract, and full-text. In these stages, 2 of the researchers reviewed the papers individually and ranked each paper from 0

[Downloaded from mjiri.iums.ac.ir on 2024-03-28]

[DOI: 10.14196/mjiri.32.96]

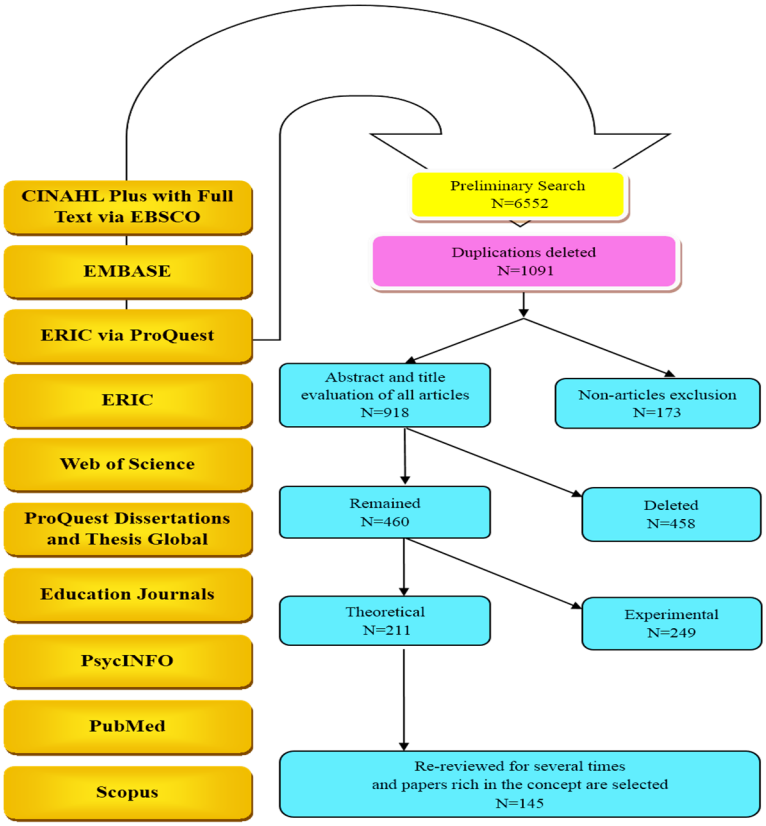


Diagram 1. Literature review process

(including poor data) to 5 (totally related or including rich data) based on detailed elaboration of the concept. Next, the scores given to each article by these researchers (N= 460) were compared by Kappa coefficient. The Kappa of 0.89 indicated an agreement between 2 reviewers about the importance and richness of the reviewed texts. The issues of inconsistency were then discussed until consensus was reached. This ranking procedure was performed due to the large number of retrieved texts and impracticality of analyzing all the papers (N= 460). The papers were then divided into 2 categories according to their concept definitions or concept applications. Finally, 145 papers, directly related to the concept, were selected for final analysis. Diagram 1 shows the process of the literature review, which is the third step of Walker and Avant approach.

Results

Defining attributes

Defining attributes or distinguishing characteristics of SoTL repeatedly and emphatically appearing in the literature help differentiate it from other related concepts. They are consistently present when SoTL occurs and are critical to the notion by clarifying its meaning allowing the greatest insight into it (28). The interrelated and integrated defining attributes of SoTL are presented in Table 2.

Model case

A SoTL model case is an example of SoTL that demonstrates all its defining attributes is as follows (the defining attributes of the concept are underlined):

Our medical teacher has encountered a critical problem in the teaching and learning process. He is committedly engaged to solve the problem, while collaborating with others, He investigates the accuracy of the problem through critical enquiry and builds his work upon the best evidence and virtue, his knowledge, and experiences. Afterwards, in necessary cases, he divides the question to a set of questions to be investigated and responded. To find the response, he committedly follows a critical enquiry/inquiry process.

Indeed, he selects appropriate methods to answer the questions, implement the results, and act dynamically and iteratively. As a result, he acquires the required competencies and is deeply and committedly engaged in the natal process while enjoying a favorable experience. By creating a new learning environment and experience, the teacher presents an appropriate design and acts innovatively (committed engagement in action). In addition, before and from the beginning to and after the end of the process, he is skillfully attuned to continuous deep reflection (by itself or in a group).

Learning is the foundation of SoTL and is crucial from the beginning to the end of the teaching and learning process, providing the opportunity of life-long learning and increase of knowledge through learning by doing for himself and the beneficiaries (Learning-focused).

The teacher develops a precise portfolio, including evidence and documents of SoTL in an ongoing process. He explains the details of his action and disseminates it with

[Downloaded from mjiri.iums.ac.ir on 2024-03-28]
[DOI: 10.14196/mjiri.32.96]

Table 2. Defining attributes of SoTL

Category (Attributes)	Subcategory
Context-oriented	Institution-oriented
	Community-based
	Beneficiary oriented
Disciplinary	Inter- and Multi-meta disciplinary
	Theory-oriented
	Knowledge-based
Continuous deep reflection	Reflection:* for action /on action/ in action
	Self/group reflection
Critique-based	Critique
	Peer-review
	Evaluation (More Formative than summative)
Critical enquiry process	Enquiry
	Inquiry
	The best evidence and virtue-based strategy
Committed engagement in action	Engagement
	Action
	Innovative
	Ethical professional commitment
Shared publicly	Documented
	Disseminated
	Shared
	Public
Dynamic process	Systematic
	Developmental
	Build up
Learning focused	

others for sharing (eg, peers, colleagues, and other beneficiaries in the department, institution, and community). He further motivates them to evaluate and critique his work and encourages them to comment and feedback on it. This leads to the application of some elements of SoTL process in their own work that could be built upon (Shared publicly).

The designed and implemented process is critique-based from the beginning to the end. In other words, the work is reviewed and critiqued in a developmental loop and receives feedback from one-self, peers, etc., ensuring that the action is accurate and progressive.

Dynamism is a continuous, systematic, integrated, and developmental feature that should be planned as an important aspect of the process, the elements of which are related to each other. It is assumed that the teacher, his students, and the public are able to build upon this process, which is dynamic in nature (Dynamic Process).

The SoTL actions are disciplinary and take place through communication and collaboration between and among any related disciplines. The applied theories, knowledge, methods, and procedures are from related disciplines upon which the activities are built (Disciplinary). Different parts of the action are directed by theories in a process which is context-oriented and, in each part, interests, values, beliefs, norms, and expectations are taken into consideration (Context-oriented).

Additional cases

The defining attributes of SoTL may overlap with some related concepts that are similar or contrary to it, which might come from the literature or be constructed by the concept analyst. Therefore, the basic purpose of additional cases is to help us decide on defining attributes of the concept of interest (28). Additional cases to be discussed appear in the form of borderline, related, invented, and contrary cases, the examples of which are as follow:

Borderline case

A case (example or instance) that has "most of the defining attributes of the concept being examined but not all of them" (28).

A borderline case is very similar to the model case. Theoretically, it "contains most or even all of the defining characteristics but differs substantially in one of them, such as length of time or intensity of its occurrence." (28) . Identifying a borderline case helps better recognize major prerequisite attributes of the model case. In addition, it can decrease the ambiguities of the cases and differentiates the model case from related cases.

SoTL attributes are entirely integrated and interrelated, and removal of each one puts the rest at risk and would prevent the emergence of some of the other attributes. Therefore, the question remains: is the borderline case possible for SoTL? Precise review of the SoTL attributes suggests that SoTL has no borderline case since removal of a single attribute will lead to its annihilation. In other words, SoTL has related models not borderline ones.

Related case

A related case is associated with the concept of interest but does not contain all its defining attributes (28).

A related case is apparently similar or connected to the concept of interest but it is not the same when precisely examined. Commonly, the similarities between these concepts create ambiguity, which could be removed by emphasizing their dissimilarities. The following is an example of a related case.

A teacher who is a critical enquirer confronts an educational problem in the process of teaching and learning. To design an educational process, the teacher conducts a preliminary search supported by mentors of educational mentorship office attempting to apply the results of the process in their future actions. Although the teacher is eager to solve the problem, due to lack of time, he is not deeply engaged in the process and has no reflection on it. He asks interested friends, peers, and experts of the field to conduct the proposed design of the process and sometimes he collaborates with them. They try to finalize this process as a project and publish it in peer-reviewed journals.

In this case, exclusion of one or several attributes of SoTL removes the other attributes or puts them at risk. The teacher must be actively engaged in the teaching process with generative and committed actions at all times (dynamic; critique; and continuous deep reflection) and focus on learning, and this leads to the formulation of each attribute and scholarship of teaching and learning.

Contrary case

It is a clear example of "not the concept"; "it is certainly not an instance of the concept." (28)

The following case does not reflect SoTL because it contains none of its defining attributes. SoTL contrary

[Downloaded from mjiri.iums.ac.ir on 2024-03-28]

[DOI: 10.14196/mjiri.32.96]

cases, help identify its defining attributes through clarification of what is not SoTL (37).

Our medical university teacher has some specified roles and tasks and has to publish articles in ISI or PubMed indexed journals. After asking for consultation of peers who were promoted, he finds out that there are some easily accessed topics, not necessarily related to his discipline, which could be easily designed and implemented by every teacher (e.g., him, his colleagues, etc.). Therefore, the teacher reschedules his regular academic activities according to promotion policies. He does not focus on teaching and his students because academic promotion is based on paper publication, not devotion to teaching and learning.

The teacher and all beneficiaries in the university are aware of these rules and regulations. At this stage, he understands that there are facile ways for academic promotion that his colleagues are truly aware of. Therefore, in addition to teaching in his regular classes, he decides to follow these paths to get future promotions.

The attributes of critical enquiry process, committed engagement of action, deep continuous reflection, learning-focused activity, shared publicly, critique-based, dynamic process, disciplinary, and context-oriented did not take place in the aforementioned case.

Antecedents and consequences

According to the seventh step of Walker and Avant (2011), antecedents and consequences are vital to understand social contexts. Antecedents are the incidents or events that must take place prior to the formulation of the concept, and consequences are the events that occur as a result of the presence of the concept (28).

Antecedents

The main antecedents of SoTL are responsible teaching, contextual readiness, and insight acquisition/development. Other specified antecedents of the concept are presented in Table 3. Since antecedents may appear to be very similar to attributes of the concept, the texts were reviewed, compared, and contrasted with scrutiny by 2 external auditors. In several cases, antecedents have long-term association with the concept; however, they must be developed or formed prior to the formulation of the concept.

Consequences

Consequences appear after the formulation of the concept. Major consequences of SoTL are presented in Table 4.

Discussion

In this study, defining attributes of the concept and their evidence are displayed in Table 2, where a brief description of each defining attribute related to the characteristics of subcategories is presented based on the retrieved codes. In the final step of concept analysis, the possibility of measuring and identifying the concept and ensuring that it takes place in practice is addressed (28). In addition,

Table 3. SoTL Antecedents

Category (Antecedents)	Subcategory
Responsive teaching	------
Contextual readiness	Interaction/ cooperation/collaboration Organizational culture Educational leadership Effective feedback/commitment to the feedback Learning culture
Insight development	Knowledge Informed dialogue

Table 4. SoTL consequences

Category (Consequences)	Subcategory
Promotion	Individual / Personal promotion Academy (Discipline/institution) improvement Professional development Curriculum/program development Teaching promotion Society improvement
all-inclusive educational change	----------
Educational enculturation	Citizenship Educational equity Ethical commitment Safety and security Support Relationship Paradigm formation
Teaching and learning process improvement	Teaching Learning Competency (capability) Educational innovation Integrated instructional design
Wisdom of practice	Knowledge Wisdom Scholar teacher Scholarly educational outcome

according to the previously mentioned scenarios, some details are presented that indicate what the concept is or is not. Therefore, comparing the findings with the literature, the concept becomes measurable and reportable as empirical referents. Empirical referents, which are retrieved from comparing the analyzed texts, make the concept more objective and visible, making its evaluation easier. This section is considered as discussion of the paper.

Empirical Referents

Clarifying questions to identify the concept in real-life situations:

The findings of the study suggest that each attribute is on a quality continuum; for scholarship to develop, each attribute is essential, and if one is excluded, the presence of the others is not sufficient for scholarship to take place. In other words, the defining attributes of the concept are interrelated and amalgamated.

Considering the essential role of each attribute, the concept can be made objective and measurable by providing answers to the following questions. For instance, the answer to the following questions must be positive so that SoTL could take place:

- Does scholarship consider the policies, assumptions,

[Downloaded from mjiri.iums.ac.ir on 2024-03-28]

[DOI: 10.14196/mjiri.32.96]

values, beliefs, norms, and politico-societal processes and societal pros and cons, procedures, and ethical concerns of the institute as starting points? Are stakeholders recognized and interacted with appropriate dialogues, and are their needs, wants, desires, and beliefs considered at each stage? (context-oriented)

- Are the issue and taken measures originated from the discipline based on the needs, priorities, standards, knowledge, and approval of the discipline, and do they facilitate communication of different related disciplines? (Disciplinary)
- Does the instructional design process include the integration and relationship between the educational elements and learning, and does it dynamically and continuously cover all beneficiaries actively along the process? Is the context prepared for learning and life-long learning? (Learning-focused)
- Does a systematic, deep, and continuous enquiry occur in all the stages of a scholarly activity? Is it clarified based on the key questions? Is it related to the previous questions? Is it direct, systematic, critical, researchable, and reflective, and does it hold a defined framework? Does it happen according to the best evidence and virtue-based strategies, and does it consider teaching and learning enquiry/inquiry based on the 3 elements of research (teacher, learner, and subject)? Does it rely on concise and precise information to achieve the best evidence? Is it concise and based on teaching subjects? (critical enquiry process)
- Deep continuous reflection refers to thinking and reflective measures happening for the process, in the process, and on the process by self (own) or group and whether the teacher's reflection is mirrored in his portfolio or not?
- Critique-based means that is the process designed in such a way that all its elements are criticizable. Are the peers, colleagues, and elements specifically reviewed? Does the process hold regular, scrutinized, more formative and summative evaluation with standard criteria approved by the discipline? Is it dynamic and does it embrace a feedback loop?
- Committed engagement in action means whether the teacher has passed through different stages of the measures enthusiastically and effectively, has he engaged in all parts of it, has he carefully observed related activities and actions, and has he immensely enjoyed the creation of a learning and experiential environment? Is the effort precisely predicted and goal-oriented? Does the teacher apply appropriate tools and consider individual's beliefs while collaborating with all beneficiaries in a flexible condition? Does he produce new knowledge from pedagogical activities, provide innovative measures, and create appropriate learning conditions for others? Is it ethical, committed to self-improvement, and environmental growth, feedback loop, and all the elements of the process?
- Shared publicly means whether the process is precisely documented and there is an opportunity for knowledge transfer and receiving critics? Does extensive goal-oriented sharing with the highest number of resources and protocols attract collaboration of not only the learners, but also all stakeholders, so that others become encouraged to criticize and build upon this knowledge? Does it provide easy access and information sharing? Does the teacher share the new knowledge to promote knowledge and learning in all the beneficiaries and others?
- Dynamic process means whether a systematic processed study is designed considering the priorities, internal consistency, and mutual support of the element? Whether a continuous developmental measure has occurred? Whether the growth of the process elements, continuous learning, and informed intentional changes have taken place? Is it based on previous activities? Is it the basis for the future ones? Is it a continuous dialogue that applies valid and reliable tools to encourage others? Is scholarship an innovative activity?

Conclusion

SoTL can be defined as a sum of defining attributes that if developed in the process of teaching and learning comprehensively and integratively, it will promote those directly engaged in teaching and learning and will also direct the process to the level of scholar. The SoTL attributes include continuous deep reflection, committed engagement in action, shared publicly, critique-based, critical enquiry process, dynamic process, learning focused, disciplinary, and context-oriented.

According to the reflection of researchers, SoTL is defined as follows: *A series of scholarly actions in the teaching-learning process that are dynamic, meta disciplinary, learning focused, critique-based, context-oriented, critically enquiring, shared publicly, consisting of continuous deep reflection, and committed engagement.*

These defining attributes need 3 important antecedents; otherwise, the concept does not take place. However, some of these antecedents are formulated along the development of the concept. Antecedents include responsive teaching, contextual readiness, and insight development. Consequences of the concept are promotion, all-inclusive educational changes, educational enculturation, improved teaching and learning, and wisdom of practice.

SoTL is an influential educational process, promoting teaching and learning and should be highlighted in medical universities if improvement of educational settings is in the agenda.

In this paper, the concept analysis method of Walker and Avant (2011) was used to analyze SoTL concept, moreover, the implications of SoTL were considered with the ultimate goal of designing an educational process with all its features. As an integral part of academic discourse, which has an influential impact on academic activities, SoTL needs to be precisely investigated from different perspectives.

Finally, the study researchers recommend conducting other qualitative studies to define the SoTL process and explore it deeply.

Acknowledgements

We are grateful to Professor Roger Boshier for his sincere

[Downloaded from mjiri.iums.ac.ir on 2024-03-28]

[DOI: 10.14196/mjiri.32.96]

encouragements and scholarly comments to promote this research. We are also thankful to Professor Carolin Kreber, Professor Kathleen McKinney, and Professor Garry Poole for their scholarly comments. Moreover, professors Lorraine Olszewski Walker and Kay Coalson Avant are appreciated for sending us extra papers and answering our questions patiently to help us gain a better understanding of the concept analysis methodology. In addition, professors Fazlollah Ahmadi and Hooman Shahsavari are highly appreciated for their methodological consultations, and Professor Afsaneh Dehnad for asking invaluable questions and comments that improved the content. Last but not the least, we are grateful to Reza Rezaee and Nahid Zandizadeh for their incredible support. In addition, we are thankful to the vice-deputy of research of Tehran University of Medical Sciences for granting this research as a part of PhD thesis entitled "To Develop an Applied Model of Scholarship of Teaching and Learning for Medical Sciences Universities in Iran" (Ethics Code: IR.TUMS.MEDICINE.REC.1396.4601/ grant number 28192).

Conflict of Interests

The authors declare that they have no competing interests.

References

1. Meleis AI. Theoretical nursing: Development and progress (5th Ed.). Philadelphia: Lippincott Williams & Wilkins. 2011.
2. https://www.oxfordlearnersdictionaries.com/definition/english/scholar
3. https://www.merriam-webster.com/dictionary/scholar
4. Boyer EL. The Scholarship of Teaching: From "Scholarship Reconsidered: Priorities of the Professoriate." Coll. Teach. 1991;39(1):11-3.
5. Glassick CE. Boyer's expanded definitions of scholarship, the standards for assessing scholarship, and the elusiveness of the scholarship of teaching. Acad Med. 2000;75(9):877-80.
6. Shulman LS. Taking learning seriously. Change. 1999 Jul/Aug Jul/Aug 1999:11-7.
7. Boshier R, Huang Y. In the House of Scholarship of Teaching and Learning (SoTL), Teaching Lives Upstairs and Learning in the Basement. Teach. High. Educ. 2008;13(6):645-56.
8. Kreber C. Reflection on Teaching and Scholarship of Teaching: Focus on Science Instructors. High. Educ.2005;50(2):323-59.
9. Trigwell K, Shale S. Student Learning and the Scholarship of University Teaching. Stud. High. Educ. 2004;29(4):523-36.
10. Kreber C, Castleden H, Erfani N, Wright T. Self-regulated learning about university teaching: an exploratory study. Teach. High. Educ. 2005; 10(1):75-97.
11. M Ossa Parra, R Gutiérrez, MF Aldana Gutierrez, Roberto. Engaging in critically reflective teaching: from theory to practice in pursuit of transformative learning. Ref Prac. 2015;16(1): 16-30
12. Shulman LS. Teaching and Teacher Education among the Professions. 38th Charles W. Hunt Memorial Lecture. AACTE PUBL S, 1998. p. 26.
13. Cranton P. A Transformative Perspective on the Scholarship of Teaching and Learning. HERD. 2011;30(1):75-86.
14. Shulman LS. Fostering a Scholarship of Teaching and Learning. Institute of Higher Education, The University of Georgia, Athens, Georgia 30602-1772.; 2000. p. 24.
15. Melle EV, Lockyer J, Curran V, Lieff S, Onge CS, Goldszmidt M. Toward a common understanding: supporting and promoting education scholarship for medical school faculty. MED EDUC. 2014; 48.
16. Hoessler C, Britnell J, Stockley D. Assessing the Impact of Educational Development through the Lens of the Scholarship of Teaching and Learning. NDTL. 2010;122:81-9.
17. Boshier R. Why Is the Scholarship of Teaching and Learning Such a Hard Sell? HERD. 2009;28(1):1-15.
18. Moutlana IN, Moloi KC. Developing the scholarship of teaching and learning at one university of technology in South Africa. MJSS. 2014; 5(1):51-9.
19. Allen MN, Field PA. Scholarly teaching and scholarship of teaching: noting the difference. Int J Nurs Educ Scholarsh. 2005;2(1):14.
20. Glanville I, Houde S. The scholarship of teaching: implications for nursing faculty. J Prof Nurs. 2004;20(1):7-14.
21. Cottrell S. A matter of explanation: assessment, scholarship of teaching and their disconnect with theoretical development. Med Teach. 2006;28(4):305-8.
22. La Lopa JM. The Scholarship of Teaching. J Cul Sci Tech. 2013; 11(2):183-202.
23. Brawley S, Kelly MT, Timmins G. SoTL and National Difference: Musings from Three Historians from Three Countries. Arts Humanit. in High. Educ. 2009;8(1):8-25.
24. Rowland SL, Myatt PM. Getting started in the scholarship of teaching and learning: A "how to" guide for science academics. BMB Educ. 2014;42(1):6-14.
25. Kreber C. Empowering the scholarship of teaching: an Arendtian and critical perspective. Stud. High. Educ. 2013;38(6):857-69.
26. Mitchell LN, Mitchell ET. Using SoTL as a Lens to Reflect and Explore for Innovation in Education and Librarianship. Tech Serv Q. 2015;32(1):46-58.
27. Badley G. Improving the Scholarship of Teaching and Learning. Innovations in Education and Teaching International. INNOV EDUC TEACH INT. 2003;40(3):303-9.
28. Walker LO, Avant KC. Strategies for Theory Construction in Nursing, 5th Edition Boston: Pearson. 2011.
29. Roxa T, Olsson T, Martensson K. Appropriate Use of Theory in the Scholarship of Teaching and Learning as a Strategy for Institutional Development. Art Hum High Edu. 2008;7(3):276-94.
30. Beattie DS. Expanding the view of scholarship: Introduction. Acad Med. 2000;75(9):871-6.
31. Gurung RA, Landrum R. Editorial. Scholar Teach Learn Psychol. 2015;1(1):1-6.
32. Toni N, Maphosa C, Wadesango N. Promoting the interplay between teaching and research in the university and the role of the academic developer. Medit J Soc Sci. 2014;5(11 SPEC. ISSUE):19-27.

[Downloaded from mjiri.iums.ac.ir on 2024-03-28]

[DOI: 10.14196/mjiri.32.96]