CONTENT ANALYSIS OF CURRICULUM DEVELOPMENT RELATED STUDIES DURING: 2000 – 2019

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Abstract

This study purposes to perform a content analysis to define the general framework of studies related to curriculum development. For this reason, 100 articles were studied between 2000 to 2010 related to curriculum development in terms of journals, the year of publication, countries, aims, development mechanism, methodology. The qualitative approach was used to analyze and describe data through frequency and percentage. The findings indicated that strategies and methods of teaching and needs assessment, implementation, and evaluation are the topics that discussed in studies frequently, the most studies related to curriculum were noticed to have been that discussed between 2015 to 2019, and it was revealed the order of countries which concern to curriculum, the qualitative research approach was most utilized in studies. Future studies should concentrate on curriculum development.

Keywords: curriculum, curriculum development, content analysis.

Introduction

Nowadays, as a result of the increased evolution of scientific knowledge, and scientific openness in the world, the most important is how to use it correctly. So, the journals are the most significant sources that provide us scientific knowledge, the curriculum is considered a significant component in teaching and learning for it supplies a strategic framework to the achievement of the purposed learning results (Akdemir, Karameşe and Arslan, 2015). Effective learning environment is necessary for implementing the learning process, there are many items that form a quality learning environment, and thus that the correct understanding of the learning environment, leads to adopting it is in curriculum design (Jawabreh, Danju and Salha, 2020). So, the objective of curriculum development should be to meet the needs and requirement of educational institution including student, teacher, and society, involving all stakeholders who participate in the educational process in curriculum development can be both a challenge and an important factor in the success of curriculum development, so still curriculum development under constant change (Johnson, 2001). Curriculum development is a mechanism which goes through various stages and is implemented after every specific period defined by an educational institution concerned, an approach to develop curriculum should encompass: Designing, Selection of Content, Planning, Implementing, Strategies Methods of Teaching, Evaluating and Needs Assessment (Khan and Law, 2015). The curriculum must be effective and adaptable to changes in the educational community (Alsubaie, 2016). The curriculum development process needs the involvement of curriculum team in designing, planning, implementing and evaluating, Curriculum development is a

never-ending process, and it always aspires to continue improving (Ornstein and Hunkins, 2013).

The current era is the era of science and rapid changes that exceed human perceptions. Every individual in this world must be able to adapt to this explosion of knowledge that taking place, to advance in his community, nation and state (Jawabreh, Salha and Barakat, 2019). Because the objectives of education can be realized only through a valid, reliable curriculum for developing and meeting cognitive and scientific needs. So, in this research, content analysis will use through articles that used curriculum development in the years from 2000 to 2019.

The purpose of the research

At the turn of the twenty-first century, and the ministries of education in many countries proposed the mechanisms to develop the curriculum. So, this study purposes to accumulate and analyze studies related to curriculum development, and that has been carried out from 2000 to 2019, to identify the similar topics and learn how they relate to curriculum development. After analyzing the studies performed between 2000 and 2019, there were several aims that were grouped into three topics, at first, to discuss the literature to curriculum development in institutions of higher education on framed strategic and investigate how curriculum development was interpreted and implemented. In addition, involvement teachers and stakeholders in curriculum development, and explore their perception, and there are some studies that had more than one aim.

The research questions

The following research questions have been determined:
1. What are the journals that published studies related to curriculum development?
2. How have the studies been distributed in relation to curriculum development according to the year of publication?
3. How have the studies been distributed in relation to curriculum development according to countries?
4. What were the aims used in studies related to curriculum development?
5. What was the development mechanism used in the studies related to curriculum development?
6. What was the methodology used in the studies related to curriculum development?

Literature review

Mohanasundaram (2018) stated that designing is endeavor to process four curriculum components: Why do we study, What are the goals we want to achieve, How do we link learning with life experiences, and what actions we take according on the instructional program, and most curriculum designs is different in how they address these components, because of the curriculum philosophy according on model which a design is based. Morales (2014) said that the planning, implementing, and evaluating are as part of curriculum development, also added that there is a set of steps that must be followed in order to develop a curriculum for any subject, regardless curriculum developers choose, they will do common steps, though the order may vary.

Madadlou and Gharaaini (2014) suggested that content selection is a component of the curriculum development, and plays a very significant in achieving the objectives of education in the community and is viewed as a key element in all approaches and perspectives. Tyler (2013) stated that teachers are responsible to supply students with positive experiences in order to continue studying and discovering new things, so learning experiences should be meticulously planned and teachers are to think outside the box when choosing methods and materials to deliver their instruction so that they can give their students an opportunity to learn something meaningful and valuable for their life. Primrose and Alexander (2013) referred that the curriculum development process mentions the improvement, change or modification on current educational programs, because of the fact that curriculum development is a changeable variable.

According to Patankar and Jadhav (2013), curriculum development offers several strategies and methods teaching for teachers in order to assess student progress, and without monitoring of a curriculum, teachers cant' ensure that they have provided the necessary, correctly knowledge for students. Hussain, Dogar, Azeem, and Shakoor (2011) referred that evaluation is an operation part of curriculum development, plays a significant role in education process accordance with the aims of education, the curriculum development mechanism undergoes change because of many developments in education, and the evaluation keeps it valid, reliable and goes on it in the right direction. Carl (2009) explained that planning is being one of the curriculum development phases, it possesses different actions such as situation analysis, the formation of objective, and determination of criteria for the selection and classification of content.

Methodology

This study was used the content analysis method, and it is considered a reference source includes description and explanation the patterns in curriculum development, content analysis refers to analyzing articles that contain similar themes about the curriculum development.

Data collection and analysis

The main criteria used to identify which articles were analyzed are: studies that discussed curriculum development, in addition, only studies which published between 2000 and 2019, 100 articles were found. Tables were prepared to present the themes concerning each research question, and these topics are according to titles of journals, the year of publication, countries, development mechanism, aims and methodology. Content analysis is collect similar data within the framework of certain concepts and themes, and to interpret it in an organized way, and describe the data in frequency and percentage values.

Results

This section presents the results and discussions according to research questions, from 2000 to 2019. The first research question was answered by showing the frequency and percentage of the studies distributed according to the journal by Table 1.

Table. 1
Studies related to the journal

Studies related to the journal	Frequency	Percent
Journal of the Curriculum	16	16%
Journal of Education and Practice	6	6 %
Journal of Theory and Practice in Language Studies	6	6%
Journal of Canadian Center of Science and Education	4	4%
South African Journal of Education	4	4%
Journal of Nurse Education Today	2	2%
Journal of Language Teaching and Research	2	2%
Journal of Cukurova University Faculty of Education	2	2%
Kastamonu Education Journal	2	2%
The Turkish Online Journal of Educational Technology	2	2%
Journal of Medical Education and Curricular Development	2	2%
Journal of Canadian Center of Science and Education	2	2%
Journal of Australian Social Work	2	2%
Journal of University Teaching and Learning Practice	2	2%
Journal of Theory and Practice in Language Studies	2	2%
International Online Journal of Educational Sciences	2	2%
Journal of Medical Teacher	2	2%
Journal of Applied and Advanced Research	2	2%
Design & Technology Education	2	2%
International Education Studies	2	2%
European Journal of Science and Mathematics Education	2	2%
Early Childhood Education Journal	2	2%
Asia Pacific Journal of Education	2	2%
Journal of School of Education	2	2%
Journal of Scientific Research and Studies	2	2%
Journal of Scientific Research and Studies	2	2%
Journal of High Education	2	2%
Indonesian Journal of Curriculum and Educational Technology Studies	2	2%
South African Journal of Education	2	2%
Eurasia Journal of Mathematics, Science & Technology Education	2	2%
Journal of Physics	2	2%
The Journal of Physician Assistant Education	2	2%
Journal of Asia-Pacific Education	2	2%
Journal of Science Education	2	2%
International Journal of Education Policy and Leadership	2	2%
Journal of Social and Behavioral Sciences	2	2%
Journal of Cyprus University of Technology	2	2%
Journal of the Scholarship of Teaching and Learning	2	2%
International Journal of Teaching and Learning in Higher Education	2	2%
Total	100	100%

The studies were analyzed according to the journal, as a result of that, it is detected that the 16% of articles are from Journal of the Curriculum and 6% of articles are from Journal of Education and Practice, also 6% of articles are from Journal of Theory and Practice in Language Studies, 4% of articles are from Journal of Canadian Center of Science and Education, and the same percentage from South African Journal of Education, and the proportion was 2% of articles are from others journals.

The second research question was answered by showing the frequency and percentage of the studies distributed according to the year of publication by Table 2.

Table 2.
Studies by year of publication

Studies by year of publication	Frequency	Percentage	Studies by year of publication	Frequency	Percentage
2000	0	0%	2010	6	6%
2001	0	0%	2011	2	2%
2002	0	0%	2012	4	4%
2003	0	0%	2013	4	4%
2004	0	0%	2014	4	4%
2005	0	0%	2015	14	14%
2006	6	6%	2016	14	14%
2007	0	0%	2017	2	2%
2008	4	4%	2018	18	18%
2009	2	2%	2019	20	20%
Total	50			Percentage = 100%	

With respect to analyze the studies according to the year of publication, it is obvious that 20% of them are in 2019 and 18% of them are in 2018, and the same percentage 14% in both years 2015, 2016, it is clear that the number of studies increased until 2010, and decreased after that year, and the top number of the publications is realized in 2019, it also shows that there are no studies between 2000 to 2005.

Then, the third research question was answered by showing the frequency and percentage of the studies distributed according to countries by Table 3.

Studies revealed the descending order of countries from the existing frequency in a table(3): USA and UK, Turkey, Iran, other countries.

Table 3.
Studies related to countries

Studies related to countries	Frequency	Percentage	Studies related to countries	Frequency	Percentage
USA	14	14%	India	2	2%
UK	14	14%	Kenya	2	2%
Turkey	12	12%	China	2	2%
Iran	8	8%	Singapore	2	2%
Palestine	4	4%	Nepal	2	2%
Australia	4	4%	Hong Kong	2	2%
Saudi Arabia	4	4%	Nigeria	2	2%
Denmark	4	4%	Spain	2	2%
Indonesia	4	4%	Korea	2	2%
South African	4	4%	Cyprus	2	2%
Scotland	4	4%	Sweden	2	2%
Taiwan	2	2%	Russia	2	2%
Total	100			Percentage = 100%	

In 2000 to 2019, there were 100 articles about curriculum development published in several journals, after analyzing the articles according to countries, it is realized that 14% of articles were in the USA, and the same percentage was also in the UK, was 12% in Turkey, also 8% in Iran, and the proportion of other countries is between 4% and 2%.

The fourth research question was answered by showing the frequency and percentage of the studies related to aims by table (4).

It demonstrates that studies were mostly identified by two aims, and they are: (1) To involve teachers and stakeholders in curriculum development and explore their perception, (2) To discuss the literature to curriculum development in institutions of higher education on

framed strategic and investigate how curriculum development was interpreted and implemented, (3) and there are some studies that had more than one aim. The studies' aims are consistent with their titles, additionally, the content includes how the curriculum is developed, and it presents changes occurring in the world.

Table 4.
Studies related to aims

Studies related to aims	Frequency	Percentage
The first aim	62	62%
The second aim	30	30%
Had more than one aim	8	8%
Total	100	100%

As can be seen in Figure 1, studies related to aims of the 100 articles were analyzed, it revealed the following ranking of aims from the most to the least: the first aim to involve teachers and stakeholders in curriculum development, and explore their perception and its proportion was 62%, the second aim to discuss the literature to curriculum development in institutions of higher education on framed strategic and investigate how curriculum development was interpreted and implemented and its proportion was 30%, and there are some studies that had more than one aim and its proportion was 8%.
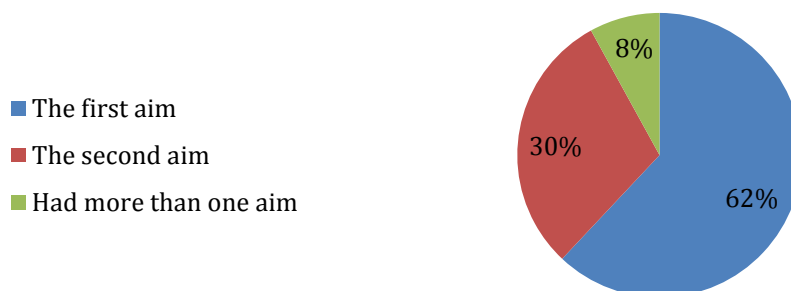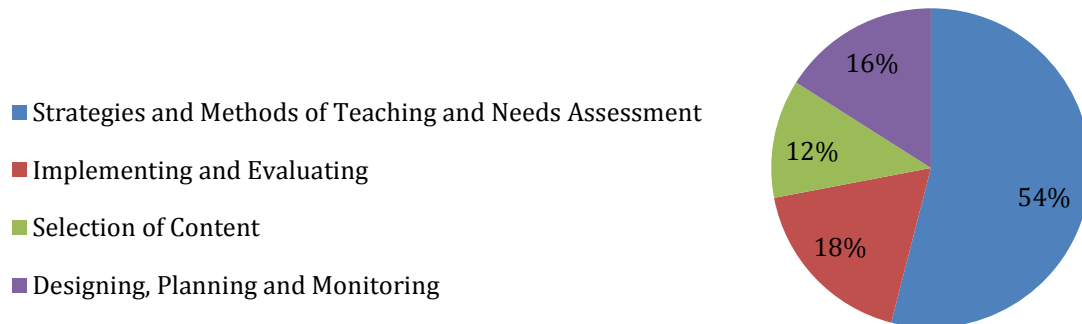

Figure 1. *Studies related to aims*

The fifth research question was answered by showing the frequency and percentage of the number of developmental mechanisms in the chosen studies by Table 5. The studies that were analyzed have several curriculum development mechanisms: Strategies and Methods of Teaching, Needs Assessment, Implementing, Evaluating, Selection of Content, Designing, Planning and Monitoring, and there are some studies that had more than one mechanism to curriculum development.

Table 5.
Studies related to curriculum development mechanism

Studies related to curriculum development mechanism	Frequency	Percentage
Strategies and Methods of Teaching and Needs Assessment	54	54%
Implementing and Evaluating	18	18%
Selection of Content	12	12%
Designing, Planning and Monitoring	16	16%
Total	100	100%

As can be seen in Figure 2, the studies related to the curriculum development mechanism of the 50 articles were analyzed, which detected the following ranking of articles from the most to the least common of the curriculum development mechanism: Strategies and Methods of Teaching and Needs Assessment and its proportion was 54%, Implementing and Evaluating proportion was 18%, Designing, Planning and Monitoring proportion was 16%, Selection of Content proportion was 12%.

- ■ Strategies and Methods of Teaching and Needs Assessment
- ■ Implementing and Evaluating
- ■ Selection of Content
- ■ Designing, Planning and Monitoring

Figure 2. *Studies related to curriculum development mechanism*

The sixth research question was answered by showing the frequency and percentage of the number of studies according to research methods in the chosen studies by table (6).

As can be seen in table (6), the qualitative research approach was utilized most often in studies, and the quantitative research was less utilized, it was observed that qualitative research design was used more than the quantitative research design, also the mixed-methods was utilized, this means that the quantitative and qualitative approach was used together, there are some studies that do not have a specific methodology, and they were related to literature review.

Table 6.

Studies related to research methods

Studies related to research methods	Frequency	Percentage
Quantitative	12	12%
Qualitative	46	46%
Mixed-Methods	6	6%
Literature Review without method	36	36%
Total	100	100%

As can be seen in Figure 3, the research methodology followed in the curriculum development demonstrates that the majority of them are qualitative 46%, and the quantitative approach proportion was 12%, while a minor portion of them are 6% mixed-method studies and the proportion of studies that do not have a specific methodology 36%.

- ■ Quantitative
- ■ Qualitative
- ■ Mixed-Methods

Figure 3. *Studies related to research methods*

Discussion

Curriculum development is a renewable process, in addition, it is a changing, and ongoing process that requires lots of keeps up with the scientific explosion. consequently, curriculum developers should consider many aspects when developing a curriculum, also they must have a broad understanding of the curriculum needs, to include the student, teacher, and the entire community.

As can be seen in the Table 2, there was an increase in the number of studies related to curriculum development in 2012, 2013, 2014 and 2015. In these same years, the curriculum had been developed such as Soto (2015), Khan and Law (2015), Preez and Simmonds (2014).

Figure 3 demonstrate that the research methodology followed in curriculum development. The qualitative research methods have been generally preferred in studies, were consistent with the results of previous studies, such as Zohrabi (2011), Alsubaie (2016), Moona and Joob (2015), Hojgaard and Solberg (2019), and the quantitative research was less utilized such as Eriş and Kılıçoğlu (2019).

There is a limited number of mixed methods that combined qualitative and quantitative research that discussed the curriculum development and produces accurate data in terms of its application such as Li (2006) was used questionnaire and semi-structured interview. And in approximately half of the studies, the research methodology is not specified such as Nyabero (2016).

Figure 2, demonstrates that the strategies and methods of teaching and needs assessment, implementation and evaluation are the topics discussed in studies frequently, and these results are consistent with Zohrabi (2011), Adesoji and Tinuke (2019), Hwang and Kwon (2019). On the other hand, the least common topics are designing, planning and monitoring, and these results are consistent with Nyabero (2016), Moona and Joob (2015).

According to the results of Akşan and Baki's (2017) study which examined the curriculum development, that was used content analysis by finding frequency, percentage.

Some studies published were incomplete in their data collection and analysis, therefore they did not present any findings, they were as literature review, such as Soto (2015), Nyabero (2016).

Some studies aimed to involve teachers and stakeholders in curriculum development and explore their perception such as Alsubaie (2016), Adesoji and Tinuke (2019), Hojgaard and Solberg (2019). And the other aimed to discuss the literature to curriculum development in institutions of higher education on framed strategic and investigate how curriculum development was interpreted and implemented such as Nyabero (2016).

Conclusion

•   It is pertinent that we know who the individuals that affect the development of any curriculum, the curriculum developers should be knowledgeable about to plan, implement, and evaluate the curriculum, in addition, the teachers themselves are curriculum developers when they plan their classes, they are developing curriculum, briefly, curriculum development cannot be developed by one single person, it is a cooperative group work, so it is necessary the involvement of many people starting from the students, teachers community as sources for curriculum development.

•   Strategies and methods of teaching and needs assessment, implementation and evaluation are the topics discussed in studies frequently, on the other hand, the least common topics are designing, planning and monitoring, so, the research topics have similarities and are not complementary to each other.

• The studies should not only deal with the teachers or students and their perception, but also the perception of the parents, academic staff, and officials, In order to have detailed information on the design and implementation of the curriculum.

Recommendations

According to content analysis, this research explained the following:

- Curriculum development must focus on: Review of curriculum documents, Review of textbooks and other educational materials, Materials may need to be developed, Methods are to be trained and implemented, Evaluation of practice, Revision of curricula.
- A whole approach should be adopted for the curriculum development, and involvement of the whole staff.
- The studies should not only deal with the teachers or students and their perception, but also the perception of the parents, academic staff, and officials, In order to have detailed information on the design and implementation of the curriculum.

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