



21st Century Skills and Literacies: Fundamental Reform Document of Education (FRDE) vs. P21 Framework for 21st Century Learning

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| ARTICLE INFO | ABSTRACT |
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| Received: 08 November 2022 Revised: 25 December 2023 Accepted: 08 January 2024 Online: 30 November 2024 | Policy-makers in every society refer to fundamental documents as road maps to education reforms. Therefore, examining the quality of such documents has been among the favorite topics for educational researchers. This comparative study was conducted to investigate to what extent the competencies incorporated in Iran Fundamental Reform Document of Education (FRDE) aligns with those formulated in the P21 Framework for 21 st Century Learning. To achieve the intended objective, first a code-subcodes-segments model was designed based on the P21 framework. Then, the content of FRDE was analyzed for extracting the relevant codes, using MAXQDA software. The results of the content analysis indicated that out of 16 competencies (8 skills and 8 literacies), 2 skills (critical thinking and problem-solving skills, and flexibility and adaptability skills) and 3 literacies (global awareness literacy, civic literacy, and information literacy) have been totally neglected in FRDE. Further analyses revealed that the references made to other competencies in FRDE were not considerable. Based on the findings, it can be concluded that the competencies required for life in 21 st century received scant attention in the current version of the document. It is recommended that the 21 st century skills and literacies be incorporated more adequately in later amendments or revisions of the document. |
| KEYWORDS Content Analysis FRDE Learning P21 21st Century Skills | |

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1. Introduction

The third millennium, which is characterized as the era of knowledge, entails acquiring various types of knowledge, skills, and literacies on behalf of learners to meet the needs and demands of life in various situations. In other words, in the present societies, known as *knowledge societies* (Dede, 2010; Hala'sz & Michel, 2011), in which knowledge functions as commodities (Anderson, 2008), the citizens should be equipped with several competencies if they want to participate effectively in the knowledge society (Ananiadou & Claro, 2009; Gordon et al., 2009). Among a plethora of institutions that are responsible for preparing individuals for the future life, educational system has received the most attention. Due to the rapid development of technology and flow of globalization, educational systems are in urgent need of drastic reformations in all dimensions to comply with the competencies required for life in the knowledge society (Voogt & Roblin, 2012).

In response to such an urgent need, so many efforts have been made to devise theoretical frameworks for implementing fundamental reforms in educational systems throughout the world (Voogt & Roblin, 2012). Although these frameworks highlight different dimensions of education, a large degree of overlap can be observed when it comes to the competencies which should be acquired by the graduates of learning environments. In these frameworks, the contents, goals, and curricula have been modified or redefined by policymakers to pave the way for the intended reforms in learning environments (Dede, 2010). Needless to say, there are always differences between what is intended, what is actually implemented, and what is eventually attained as a result of such education reforms.

To increase the level of attainment, these frameworks are developed based on some upstream documents in the socio-cultural context of each country. Since some frameworks have been developed by international organizations such as OECD and UNESCO (Voogt & Roblin, 2012), nearly all experts who are responsible for development of reform documents at the national level incorporate some components of these international documents into national documents. The rationale behind such incorporations is that the requirements for the future life are universal and the national documents in this realm do overlap greatly with each other. In addition to incorporating the components of international documents, a comparative analysis between a national document and international documents can also shed more light on the level of appropriacy of the intended national document. Therefore, comparative studies aiming at investigating the similarities and differences between two or more documents can indicate the areas where revisions or modifications are required.

In Iran's educational system, Fundamental Reform Document of Education (hereafter, FRDE) was initially developed and issued in 2011 but after a decade the quality and quantity of its implementation is far from satisfactory (Bayat & Ghafari (2020); Navidkia et al., 2021). The problem can be attributed to many reasons such as financial reasons, administrative reasons, and organizational ones. One of the reasons of such a deficiency may be the content of FRDE that can be investigated through a comparative study. In this line of inquiry, the current study aimed to make a comparison between FRDE as a national upstream document for education reform in Iran and the P21 Framework for 21st Century Learning as the most widely-accepted international framework. The significance of such comparative investigation for enriching the document has been underscored in Strategy (11-9) of FRDE:

Observation of the reforms in educational system and teacher training programs, as well as breakthroughs in educational science at regional, international levels and in the Islamic world, naturalization of experiences and the best practices and their wise utilization, within the framework of the Islamic norm system (p. 43).

2. Review of the Literature

In a report by UNESCO entitled, *Learning: The treasure Within*, published in 1996, an integrated vision of education for the 21st century was proposed based on four pillars of *learning to know, learning to do, learning to be, and leaning to live together* (Tawil & Cougoureux, 2013). Then, countries around the world found it necessary to incorporate a broader range of competencies, skills, and literacies in their national curriculum to meet the needs of individuals in the new millennium (Black 2009; Dunning 2000; Levy & Murnane 2004; Pigozzi 2006; Reimers, 2021). Several governments, international organizations, and institutions devised theoretical frameworks to address the range of competencies that should be cultivated in learning environments. Since education reforms in every context should draw on a theoretical framework that sees the process of educational change from cultural, psychological, professional, institutional, and political perspectives, (Reimers, 2020), they are highly context-bound in formulation and implementation.

Although the theoretical frameworks aimed at education reforms in each country are specific, several skills, literacies, qualifications, or competencies have been defined as the common core of all the frameworks. For example, World Health Organization (1999) proposed: 1) decision making and problem solving, 2) creative and critical thinking, 3) communication and interpersonal skills, 4) self-awareness and empathy, and 5) coping with emotions and stress as five basic areas of life

skills. As another example, the National Research Council of the United States (2012) produced a scientific report on 21st century skills including critical thinking, problem solving, logical reasoning, decision making, digital literacy, creativity, communication, collaboration, team work, negotiation, empathy, adaptability, and self-direction. More recently, the World Economic Forum (2020) defined eight essential skills for the fourth industrial revolution: 1) global citizenship skills, 2) innovation and creativity skills, 3) technology skills, 4) interpersonal skills, 5) personalized and self-paced learning, 6) accessible and inclusive learning, 7) problem-based and collaborative learning, and 8) lifelong and student-driven learning.

All these international guidelines suggest that national curricula need to change basically and education needs to be reconfigured fundamentally to comply with the competencies required for the 21st century. Since educational outputs are mostly universal, the overarching categories of skills and literacies required in the 21st century are roughly the same. Therefore, developing a theoretical framework for any renaissance in education entails examining other frameworks and documents to integrate all valuable perspectives for creating a coherent integrative framework for implementing education reforms. In line with the purpose of this study, the theoretical framework of an international reform movement- P21 framework for 21st century learning (2009) and FRDE (2011) as Iran's upstream document will be discussed in detail.

In 2002, an organization was founded in the United States as a coalition comprised of policy makers, educators, and several organizations from the private sector (e.g., Apple Computer, Cisco Systems, Dell Computer Corporation, Microsoft Corporation, National Education Association, etc.) to close the gap between the knowledge and skills that learners acquire in school and those they need typically in the 21st century communities and workplaces (Voogt & Roblin, 2012). This public-private organization devised a framework, known as *The Battelle for Kids P21 Framework for 21st Century Skills*, which is now the most common framework to be used as an education road map in the new millennium (Brusic & Shearer, 2014; Kivunja, 2014).

The framework has been developed cooperatively by teachers, experts in the field of education, and business leaders to define the competencies that learners would need to succeed in work, life, and citizenship in today's world. The rationale behind this movement has been stated as integrating 21st century skills and literacies into the teaching of core academic subjects. The phrase "21st century skills" encompasses a series of learning that individuals need for their full participation in society as effective citizens (Dede, 2010). The rationale behind this document was describing the skills, knowledge, and literacies that students need to succeed in work and life in the future (Santos, 2017).

At the national level, FRDE was issued and approved by Supreme Council of the Cultural Revolution, Ministry of Education, and Supreme Council of Education in 2011 to be implemented in the educational system of Iran. It has been devised by authorities based on Theoretical Foundations of FRDE, another document that provides the political and ideological guidelines for FRDE (Janbozorgi et al., 2022), to revolutionize or reorient the educational system. The purpose was to revolutionize the educational system in all dimensions based on the Quranic teachings, other prominent documents such as Islamic republic of Iran's 20-year Vision Plan and the Comprehensive Scientific Map of Country (Supreme Council of Cultural Revolution, 2011). In this document, the fundamental reform aims at promoting the country to "the highest economic, scientific, and technological position at regional level with an Islamic, revolutionary identity to motivate the Islamic world through constructive and efficient interaction at international arena" (Supreme Council of Cultural Revolution, 2011, p. 7).

So many research studies have been conducted to examine the content of FRDE and its capability in achieving the intended goals. In a metanalysis, Samadi (2022) studied the findings of 50 published articles that had been conducted on FRDE. Her findings indicated that the document, despite its many strengths & capacities, faced policy challenges, conceptual challenges, managerial challenges, legislative challenges, and executive challenges. In another study, Badieian et al. (2019) investigated the status of individual self-regulation and the related concepts such as critical thinking and autonomy in FRDE. The findings of the study indicated that critical thinking and analysis as the main platforms for the realization of autonomy and self-regulation have not been considered in the document. In another related study, Shokouhi Amirabadi et al. (2018) analyzed the content of FRDE in terms of creativity. Their analysis revealed that little attention had been paid to creativity in the document. The issue of social skills in the document is another component which was examined in a study by Ebrahimi Moghadam and Dorrani (2018). The results of their study showed that the highest amount of attention had been given to relationship skills, responsibility, and the coping skills but empathy and assertiveness had received little attention. Baji (2013) also conducted a study to investigate the status of information literacy in FRDE. Her findings indicated that this competency had been neglected in the document. Finally, Madandar Arani et al. (2023) reviewed the critiques and problems of FRDE. A part of their findings revealed that some topics such as creativity, tolerance, democracy, citizenship rights, and freedom had been neglected in the document.

To the best of the author's knowledge, a few studies have been carried out with the aim of comparing FRDE with international reform documents. In one of the most relevant studies in this

regard, Saberi and Jahani (2016) conducted a study in which FRDE and the NGSS (Next Generation Science Standards) were compared in terms of the nature of science in these two reform documents. The results of the study indicated that despite some overlaps, the two documents have different conceptualizations of science, its classifications, and the tools for acquiring it. In another recent study, Farokhinia et al. (2022) carried out a comparative study on the UNESCO 2030 agenda and Iran's FRDE. Their findings revealed that out of 17 components, the two documents were different in 14 components. Most notably, these two were fundamentally different in terms of the ideology and educational philosophy in areas such as the scope of education, values, and approach to achieving educational goals. As reflected in the previously-mentioned studies, the content of FRDE is far from satisfactory and this document may fail to achieve its intended goals. The review of the literature also indicates that nearly all studies have adopted a systematic review approach to analyze the content of the document without recourse to other reform documents as benchmarks. Therefore, conducting a study that descriptively compares the FRDE with an international framework for educational reform may fill the gap in this domain.

3. Research Method

Since the purpose of this study was comparing the content of two reform documents-the Framework for 21st Century Learning and FRDE- the researcher adopted a qualitative design for performing content analyses of the two documents and comparing the patterns that emerged from the related data. The rationale behind this comparison was that these two documents were issued roughly at the same time to implement education reforms in the third millennium, one at national level and the other at international level. To collect data, first, the content of the Framework for 21st Century Learning was analyzed and the themes and subthemes were extracted using MAXQDA software (version 2020). The themes were in fact the competencies that learners should master to succeed in work and life in the 21st century (Partnership for 21st Century Skills, 2009). Then, the extracted pattern was applied as a benchmark for the content analysis of FRDE. The English version of the document was inserted into the software and the content was analyzed for finding the pre-defined codes having been emerged from the content analyses of the P21 reform document. To ensure the dependability of the analyses, two experts in the field of education were asked to codify FRDE independently. First, the definitions of the themes and subthemes published in a document entitled, "Framework for 21st Century Learning Definitions" were discussed by the experts and the ambiguous points were clarified. Then the experts analyzed the P21 document independently. The results obtained from the comparison between the two coding procedures indicated 82%

agreement between the two coders. If the observed discrepancy was related to the subthemes within a theme, it was resolved by making compromise between the two experts. If they assigned a code to different themes, the conflict was resolved by a third expert.

4. Findings

The content analysis of the Framework for 21st Century Learning indicated that the document contains two components. The first component is a support system, embodying standards and assessments, curriculum and instructions, professional development, and learning environments, to guarantee all learners receive the instructional activities that build the required competencies for life in the 21st century. The second component includes competencies that are clustered in three categories including: 1) life and career skills, 2) learning and innovation skills, and 3) information, media, and technology skills. In order to ensure the given outcomes, the framework has incorporated core subjects such as mathematics, arts, world languages, economics, science, geography, and history. In addition to these subjects, the framework has suggested some interdisciplinary themes such as global awareness, financial literacy, civic literacy, health literacy, and environmental literacy to be woven into the key subjects (Partnership for 21st Century Skills, 2009). In the framework, life and career skills includes those skills that are required for learners to deal with complex life and work environments. These skills include flexibility and adaptability, initiative and self-direction, social and cross-cultural skills, productivity and accountability, and leadership and responsibility. In the category of learning and innovation, the soft skills that are indispensable for individuals to live in the rapidly changing society have been proposed. These skills, which are known as 4Cs, include creativity and innovation, critical thinking and problem solving, communication, and collaboration. The last set of competencies deal with the challenges of life in technology and media-driven environments in which citizens should handle the available information and use technological tools for effective communication. This category consists of information literacy, media literacy, and Information, Communications, and Technology literacy (Partnership for 21st Century Skills, 2009).

The content analysis of FRDE indicated that it contains eight chapters that elaborate on the definition of key terms, values, mission, vision, goals, strategies, and framework. After defining some key terms, thirty value statements based on six principles are proposed to ensure that all the elements of the general formal educational system of the country are compatible with the intended philosophy of the reform. In the third chapter of the document, the mission is stated as “achieving *Hayate Tayyebah* (best life) at individual, family, social and global dimensions in a systematic,

general, equitable and compulsory method in an efficient and effective structure (Supreme Council of Cultural Revolution, 2011, p. 20). In the fourth chapter, the vision of the country's educational system is created in this way: "The country's general formal educational system in 2025 vision, shall be based on the Islamic norm system as well as Islamic-Iranian culture and civilization and shall pave the ground for establishment of a global Mahdavi Just Community" (Supreme Council of Cultural Revolution, 2011, p. 21). The fifth chapter contains eight goals of the forthcoming fundamental reform in the country's educational system. For meeting the stated goals, fifteen main strategies are suggested in chapter six of the document. Chapter seven, which is the most comprehensive chapter, extensively elaborates on twenty-three operational objectives and their corresponding minor strategies. In the last chapter, the institutional framework and executive system of FRDE for initiation, implementation, evaluation, and possible amendment are mentioned.

The results of open coding conducted on FRDE indicated that forty-six references have been made in FRDE to the proposed competencies in the P21 document. Table 1 displays the number of codes to each theme and related subthemes.

Table 1

Code System of Competencies in P21 Framework and FRDE

| Code System | P21 Framework | FRDE | Frequency in FRDE |
|---|---------------|------|-------------------|
| Life and career skills | | | 18 |
| <i>Leadership and responsibility</i> | ✓ | ✓ | 4 |
| <i>Productivity and accountability</i> | ✓ | ✓ | 7 |
| <i>Social and cross-cultural skills</i> | ✓ | ✓ | 5 |
| <i>Initiative and self-direction</i> | ✓ | ✓ | 2 |
| <i>Flexibility and adaptability</i> | ✓ | ∅ | 0 |
| Information, media and technology skills | | | 6 |
| <i>ICT literacy</i> | ✓ | ✓ | 3 |
| <i>Media literacy</i> | ✓ | ✓ | 3 |
| <i>Information literacy</i> | ✓ | ∅ | 0 |
| Learning and innovation skills | | | 11 |
| <i>Communication and Collaboration</i> | ✓ | ✓ | 6 |
| <i>Critical thinking and problem solving</i> | ✓ | ∅ | 0 |
| <i>Creativity and innovation</i> | ✓ | ✓ | 5 |
| Key subjects & themes | | | 11 |
| Key themes | ✓ | ✓ | 10 |
| <i>Environmental literacy</i> | ✓ | ✓ | 2 |
| <i>Health literacy</i> | ✓ | ✓ | 4 |
| <i>Civic literacy</i> | ✓ | ∅ | 0 |
| <i>Financial, ... literacy</i> | ✓ | ✓ | 4 |
| <i>Global awareness</i> | ✓ | ∅ | 0 |
| Key subjects | ✓ | ✓ | 1 |
| Total | | | 46 |

For better visualization, the obtained thematic pattern containing the relationship between themes and the relevant subthemes of competencies in the document is presented in Figure 1. The subthemes in grey mean that for that subtheme no coded unit was observed in the document. The thickness of lines proportionally indicates the frequencies of extracted coded units. In what follows, the themes and their respective subthemes are described in detail.

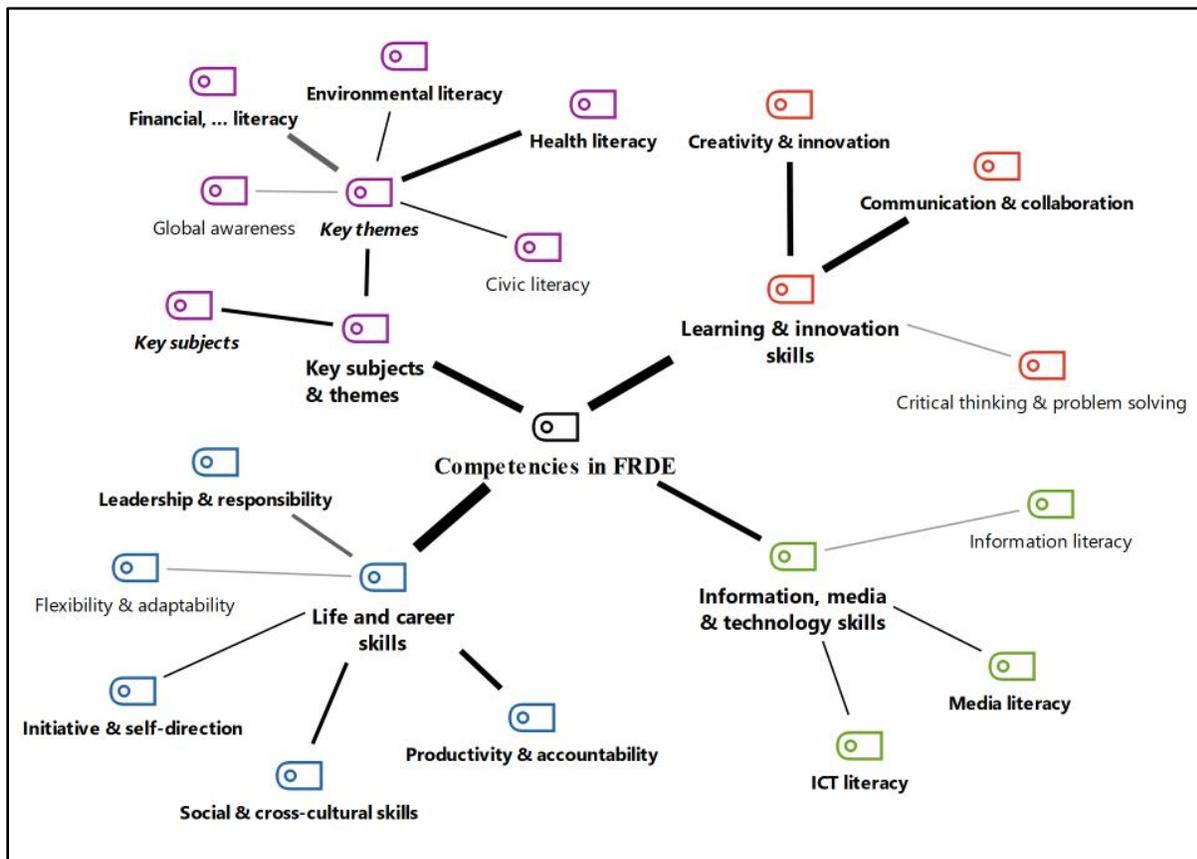


Figure 1

Code Distribution Model of Competencies in FRDE

Life and Career Skills: The rationale behind this category in the P21 document is that living in the globally competitive information age requires learners to develop a set of skills to navigate complex life and work environments. Within this category, 18 coded units were observed in FRDE. In what follows, the related subthemes are elaborated on:

Leadership and responsibility: This subtheme incorporates the ability to guide or lead others to intended goals and the ability to act responsibly in life and work environments. In FRDE, four coded units were found related to this theme. For example, in chapter five of the document, the first goal has been stated in this way: *“Fostering monotheist individuals who have faith in God and believe in the hereafter world, who are committed to the responsibilities towards God, themselves, others, and the nature”* (p. 24).

Productivity and accountability: The basic assumption of this subtheme is that the future life and work environments need the citizens who successfully handle teamwork projects to produce high quality products and are accountable to the obtained results. This subtheme has been reflected in seven statements in FRDE. In chapter two, which elaborates on the value statements, the given concern has been noted in statement (23) in this way: *“Comprehensive accountability, social participation and collective spirit and the skills needed by society”* (p. 18).

Social and cross-cultural skills: The skills in this subtheme deal with the individuals' ability to interact effectively with others and work effectively in diverse teams from a range of social and cultural backgrounds while respecting cultural differences. The given notions were observed in five coded statements in FRDE. As an example, value statement (11) has been formulated in this way: *“Evolution and excellence of humane dimension of students' identity to reinforce right-oriented, justice seeking and friendly relationships with all human beings all around the world”* (P. 17).

Initiative and self-direction: This set of competencies deals with an individuals' ability to set goals and manage their time and other available resources to work independently to achieve their personal goals. In the document, two coded units were assigned to this subtheme. Operational objective (1) has pointed to this theme: *“Educating individuals who acquire at least one useful skill so as to be able to provide himself/herself and his/her family with Halal (lawful) livelihood in the event of leaving the school at any stage of the country's general formal education”* (p. 30).

Flexibility and adaptability: The subtheme encompasses an individuals' flexibility which is required for adapting to varied roles, jobs responsibilities, and contexts to function effectively in a climate of multi-cultural environment. In FRDE, no reference was found to these competencies which should be acquired by learners.

Learning and Innovation Skills: The rationale behind incorporating these skills in the P21 document is that learners need creativity, critical thinking, communication, and collaboration if they want to live a quality life in the 21st century. In FRDE, 11 references to this theme were located. In what follows, the related subthemes of these references are discussed in detail:

Communication and collaboration: This subtheme in the P21 framework highlights the ability of individuals to communicate clearly and effectively in diverse environments, and collaborate with others to achieve common goals. Out of 14 coded units, six statements in FRDE implied improving learners' communicative and collaborative skills. For instance, in the seventh chapter that deals with operational objectives, under the first objective, it has been stated that the educational system should educate individuals who *"gain competence to [cooperate], with accountability and an edification-seeking spirit and communicative skills, in their family and social lives (at national and global levels) compatible with the Islamic norm system"* (p. 30).

Creativity and innovation: Creativity and innovation requires learners to think creatively, work creatively with others, and implement innovations in their life and work environments. In FRDE, five coded statements related to creativity and innovation were found. For example, as one of the operational objectives, the educational system aims at educating individuals who *"acquire the required capabilities to create cultural and artistic works by appreciating and aesthetic understanding of God's creations and the man's artistic works by understanding the cultural and cross-cultural concepts, and by using their own imagination power"* (pp. 30-31).

Critical thinking and problem solving: This category of competencies incorporates the required cognitive abilities on behalf of learners for living in the 21st century. In the P21 document, the components of this category include effective reasoning, system thinking, decision making, and solving problems. In FRDE, no reference was made to these competencies.

Information, media, and technology skills: Based on the P21 document, people in the 21st century must be able to exhibit a range of skills related to information, media, and technology because they live in a technology and media-driven environment with access to an abundance of information and technological tools. In FRDE, six coded units were found to be clustered around this theme. In what follows, the related subthemes of these coded units are discussed in detail:

Media literacy: This competency deals with an individual's ability to understand, analyze, and interpret media messages correctly. It also concerns the individuals' capability to produce and utilize media products in diverse, multi-cultural environments. In FRDE, just three statements contained a reference to this competency. As an example of such references, strategy (4-1) in chapter seven has formulated in this way: *"Education and promotion of family management in proper utilization of the media at home in line with the objectives of the country's general formal educational system"* (p. 35).

ICT literacy: Information, communications, and technology literacy requires learners to apply digital technologies effectively as a tool to research, organize, evaluate, and communicate

information while considering the ethical/legal issues. The results revealed that the competencies related to this subtheme have been mentioned in three statements in FRDE. As an example, the seventh main strategy in chapter six has been stated in this way: *"Intelligent utilization of modern technologies in the country's general formal educational system based on the Islamic norm system"* (p. 27).

Information literacy: This subtheme deals with accessing information efficiently in terms of time and effectively in terms of sources, evaluating it critically, and using it accurately and creatively for solving the problems at hand. No reference has been made to this subtheme in FRDE.

Key subjects and themes: In the P21 framework, it is essential for learners to master several key subjects. In addition, schools are required to promote learners' understanding by weaving some interdisciplinary themes into the key subjects. The content analysis of FRDE revealed that 11 statements have referred to this category. The results are presented below:

Key subjects: The key subjects mentioned in the P21 document include English, reading or language arts, world languages, arts, mathematics, economics, science, geography, history, government, and civics. In FRDE, just one reference has been made to English language in the operational objectives and strategies section of the document: *"Provision of foreign language education within the optional (Core-elective) section of the curriculum framework by observing the principle of stabilization and enforcement of the Islamic-Iranian identity"* (p. 35).

Health literacy: This subtheme incorporates understanding basic health information and services, taking preventive measures, and monitoring physical and mental health. Four coded units in the document were assigned to this subtheme. As an example, in chapter seven, one of the operational objectives of education has been stated about educating individuals who *"gain competence to protect and promote their personal health and environmental hygiene through an understanding of personal and social health care issues..."* (p. 30).

Financial, economic, business, and entrepreneurial literacy: Within this subtheme, some competencies such as making appropriate personal economic choices, understanding the role of the economy in society, and using entrepreneurial skills to enhance workplace productivity have been proposed. The content analysis of FRDE indicated that these competencies have been mentioned in four statements. In one of these statements, the purpose of education has been stated as educating individuals who *"participate in economic activities at family, national, and global levels by understanding economic concepts within the framework of the Islamic norm system, through action, effort, revolutionary, dedicative, entrepreneurship, financial contentment and discipline, optimized consumption, and"* (p. 30).

Environmental literacy: This subtheme denotes demonstrating an understanding of the environmental issues, their effects on society, and taking actions towards addressing these environmental challenges. The given concerns have been reflected in FRDE in two statements. The first goal in chapter five contains one of these statements: “*Fostering monotheist individuals who have faith in God and believe in the hereafter world, who are committed to the responsibilities towards God, themselves, others, and the nature*” (p. 24).

Civic literacy: This subtheme includes competencies like effective participation in civic life through knowing governmental processes, exercising the rights and obligations of citizenship, and understanding the implications of civic decisions. In FRDE, no reference has been made to these competencies.

Global awareness: Within this subtheme, understanding global issues, working collaboratively with individuals from other cultures, and respecting them have been defined as the required competencies in the 21st century. Like the previous subtheme, these competencies have totally been neglected in FRDE.

5. Conclusion

This qualitative study aimed to analyze the content of FRDE to examine its alignment with the P21 Framework for 21st Century Learning in terms of the required competencies for life in the 21st century. The code-subcodes-segments model for the content analysis of FRDE was designed based on the P21 framework and the content of the document was analyzed carefully to find the pre-defined codes. The results of the study indicated that the competencies formulated in the P21 framework have been neglected totally or partially in the current version of FRDE. Out of 8 skills and 8 literacies proposed in the P21 framework, critical thinking, and problem-solving skills as well as flexibility and adaptability skills have been totally neglected in FRDE. Moreover, no direct reference has been made to global awareness literacy, civic literacy, and information literacy in the document.

The findings of this study are in line with those indicated in the study by Badieian et al. (2019), which revealed that critical thinking had not been considered in the document, and those of Ebrahimi Moghadam and Dorrani (2018) which showed that some social skills had received little attention in FRDE. In the domain of literacies, the findings of the study lend support to the studies by Baji (2013) and Madandar Arani et al. (2023) which, respectively, revealed the total neglect of information literacy and civic literacy in the document.

These findings indicate that FRDE as a road map to Iranian educational system in the 21st century has ignored the very important element of learner and learning. This comparative study revealed that the document partially overlaps with P21 framework as the most widely-used international framework for education reforms throughout the world. This comparison does not necessarily mean that the P21 framework is an error-free benchmark for any reformation in education.

Although the term “competencies”, along with 11 other terms, has been defined as a key term in the document as a set of individual and collective qualities and qualifications that should be acquired by learners to achieve Hayate Tayyebah (p. 11), there is no comprehensive model or framework to illustrate the competencies, qualifications, skills, and literacies which learners should acquire to succeed in their future life. A closer look at the document shows that out of 23 operational objectives with 131 strategies, just one operational objective, including seven strategies, addresses learners and the competencies that they are expected to gain because of the intended education reform.

The findings of this study have a considerable implication for the policy makers who are involved in the amendment of the document. The document does not contain a comprehensive framework for learners’ competencies. It mainly focuses on depicting an ideal society (Torkashvand, 2013) using several ambiguous terms which may hinder the process of implementation (Moghadas, 2016). Therefore, it is recommended that, like nearly all other education reforms, the document incorporate a theoretical framework to delineate the competencies that the learners are expected to acquire. In developing such a framework, a collective decision-making model can be applied instead of the current implemented authoritative model (Zaltman & Florio, 1997). The findings of this study have also a very important implication for teachers who are the main drivers of education reforms. Examining P21 framework and other international frameworks revealed that learners’ competency is an indispensable component of every education reform movement. This component has not been adequately delineated in FRDE, and teachers are supposed to define the elements of this component in their own hidden curriculum.

This study just analyzed the content of FRDE. There are two other related documents, the Theoretical Fundamentals of FRDE, and FRDE Subsystems. The former, which is a much more comprehensive document, has adopted a linear approach to the intended education reform (Abassi et al., 2019) and consequently may have addressed the learners’ competencies more adequately and clearly. The latter, which contain six minor documents for implementing FRDE, are supposed to

provide strategic frameworks for implementation of the intended objectives. Further studies can be carried out on the content of these two documents to examine whether the competencies have been adequately addressed or not. Moreover, there are several other international frameworks for the 21st century skills. A study can also be set up to compare the current national education reform with other well-known international reform frameworks.

In conclusion, the 21st century as the era of knowledge requires school graduates who are equipped with a variety of skills and literacies to meet the needs and demands of the future life. Therefore, revamping the educational system in accordance with the new demands has been among the top priorities of both developing and developed countries. In Iran, Formal National Educational system has undergone a major reform, guided by FRDE, to prepare learners for living in the new millennium. This reform, aiming at preparing students to reach certain degrees of Hayate Tayyebah in all aspects, has not achieved remarkable successes due to some barriers. The findings of this study revealed that the document, in comparison to an international reform movement (P21 framework), lacks a theoretical framework for the learners' competencies. If the end-product of an educational process is not clearly characterized truly and thoroughly, achieving the intended objectives will face some barriers. Although, in FRDE, it has been precisely stated that reaching Hayate Tayyebah "requires that those educated by this system acquire the necessary competencies" (p. 9), it can be concluded that a theoretical model of the intended competencies has not been provided. In later amendments, incorporating these competencies seems to be of major significance.

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