Informed by Evidence:
Integrating Scientific Research into Educational Reform

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Abstract

Since the 1997 launch of the Lebanese curriculum, many publications, researches, MA theses and PhD dissertations have been carried out, critiquing the curriculum and highlighting the gaps in the used textbooks; they also proposed recommendations on how to address these gaps and what to include/exclude to ensure a successful teaching-learning process, namely targeted recommendations for curriculum revision, teacher training, and material enhancement. This repertoire has a lot of insight that can be taken advantage from, yet a disconnect remains between this academic output and actual policy action! So, this paper explores the reasons behind this gap and proposes the R.E.F.O.R.M. Model (Research–Engagement–Framework–Operations–Review–Mobilization), as a Framework for integrating academic research into educational policy, particularly curriculum reform. Through a critical review of researches and selected Lebanese MA and PhD works while considering the obstacles, this study identifies recurring themes, missed opportunities, and the institutional shortcomings that prevent research uptake. This structured pathway tends to operationalize research findings within national curriculum reform frameworks. The ultimate goal is to bridge the theory-practice divide and contribute to the development of a sustainable and responsive educational system.

Keywords

Curriculum Reform, Evidence-Based Research, Educational Policy, Lebanese Education System, R.E.F.O.R.M. Model

Résumé

Depuis le lancement du programme scolaire libanais en 1997, de nombreuses publications, recherches, mémoires de maîtrise et thèses de doctorat ont été réalisés, critiquant le programme scolaire et soulignant les lacunes des manuels utilisés. Ils ont également proposé des recommandations sur la manière de combler ces lacunes et sur ce qu'il faut inclure/exclure pour garantir un processus d'enseignement et d'apprentissage réussi, à savoir des recommandations ciblées pour la révision du programme scolaire, la formation des enseignants et l'amélioration du matériel. Ce répertoire est riche d'enseignements dont il est possible de tirer parti, mais il subsiste un fossé entre cette production académique et l'action politique réelle ! Cet article explore donc les raisons de ce décalage et propose le modèle R.E.F.O.R.M. (Recherche - Engagement - Cadre - Opérations - Révision - Mobilisation), en tant que cadre d'intégration de la recherche universitaire dans la politique éducative, en particulier la réforme des programmes scolaires. A travers une analyse critique des recherches et des travaux de maîtrise et de doctorat libanais sélectionnés, tout en tenant compte des obstacles rencontrés, cette étude identifie les thèmes récurrents, les opportunités manquées et les lacunes institutionnelles qui empêchent l'adoption des résultats de la recherche. Cette démarche structurée vise à rendre opérationnels ces résultats au sein des cadres nationaux de réforme des programmes d'études. L'objectif ultime est de combler le fossé entre la théorie et la pratique et de contribuer au développement d'un système éducatif durable et réactif.

Mots-clés

Réforme du curriculum, Recherche fondée sur des preuves, Politique éducative, Système éducatif libanais, Modèle R.E.F.O.R.M.

مستخلص

منذ إطلاق المنهج اللبناني عام 1997، قامت العديد من الأبحاث وأطروحات الماجستير والدكتوراه بتسليط الضوء على الثغرات الموجودة في الكتب المدرسية المعتمدة وتزايدت هذه الأبحاث مع مرور الزمن. قدمت هذه الأبحاث توصيات حول كيفية معالجة هذه الثغرات، وماذا يجب تضمينه أو استبعاده لضمان عملية تعليم وتعلم ناجحة، لا سيما من خلال توصيات موجّهة تتعلق بمراجعة المنهج، وتدريب المعلمين، وتطوير المواد التعليمية. ويزخر هذا الرصيد الأكاديمي بالكثير من الرؤى والأفكار القيّمة التي يمكن الاستفادة منها، إلا أن الفجوة لا تزال قائمة بين هذا الإنتاج الأكاديمي وبين القرارات الفعلية على مستوى السياسات التعليمية. لذلك، يستكشف هذا البحث أسباب هذه الفجوة، ويقترح نموذج R.E.F.O.R.M. /إصلاح (والذي يعني: تحقيق علمي — مشاركة — توأمة إطار العمل — التنفيذ — التقييم — مأسسة القرارات) كإطار عمل لدمج البحث الأكاديمي ضمن السياسات التعليمية، وبشكل خاص في مجال إصلاح المناهج. ومن خلال مراجعة نقدية للأبحاث وأطاريح الماجستير والدكتوراه، مع أخذ العوائق بعين الاعتبار حيث يحدد هذا البحث فرصًا ضائعة، ونقاط ضعف مؤسسية تعيق الاستفادة من نتائج البحوث. ويسعى هذا المسار المنهجي إلى تفعيل نتائج الأبحاث ضمن أطر إصلاح المناهج الوطنية. والهدف الأسمى فهو ردم الفجوة بين النظرية والممارسة والمساهمة في تطوير نظام تعليمي مستدام وفعّال يستجيب للاحتياجات الفعلية.

كلمات مفتاحية

إصلاح المنهج الدراسي، البحث القائم على الأدلة، السياسات التعليمية، النظام التعليمي اللبناني، نموذج الإصلاح

1. Introduction

"Knowledge has to be improved, challenged and increased constantly, or it vanishes" (Bernanke, 2025). Indeed, knowledge that comes from research, in specific, can be considered for continuous improvement leading to profound growth. It is this knowledge that considers previous literature as a foundation before any pursuit and builds on it to solve problems, bridge gaps, and create breakthroughs. When such yielded knowledge is not integrated in educational policies, nor translated into sustainable learning, many grand opportunities are missed. This is exactly the scenario taking place in the Lebanese educational realm. Many researches, publications, MA theses, and PhD dissertations address different issues that the Lebanese society suffers from, yet rarely are actions taken. One area in particular that studies have addressed extensively is the outdated 1997 Lebanese curriculum, highlighting the gaps in terms of content, themes, activities, skills, materials, and assessment practices. They have recommended many reforms and even provided textbooks, manuals and materials to replace the existing ones, yet these recommendations did not get through, and the outdated curriculum remains in use.

Not considering this substantial body of academic work into educational reform is the gap that this study addresses. The findings of MA theses, PhD dissertations, and scholarly articles, relevant to the Lebanese curriculum, need be considered for reforming the curriculum and eventually educational policies. This article proposes the R.E.F.O.R.M. Model, which stands for Research, Engagement, Framework, Operations, Review, and Mobilization, a systematic way to integrate recommendations from research into practice and policy.

Thus, this study analyzes the body of academic work relevant to the Lebanese curriculum, highlighting the gaps and recommendations. Then, it suggests the R.E.F.O.R.M. Model that creates a pathway for these recommendations to be integrated into academic reform. It is worth noting that this model does not replace any curriculum design the Lebanese Republic intends to adopt; it works as a model of reform that can accompany the curriculum design at different stages.

2. Background

The latest Lebanese curriculum was launched in 1997, and it is still adopted in Lebanon up to the date of publishing this article. After the end of the 15-year civil war in 1990, it was clear that a new curriculum was needed to promote national unity and citizenship. This curriculum adopted human

rights as a main philosophical underpinning to unify the different sectarian groups after the civil war (Frayha, 2003). It divided the basic education journey into 4 cycles preceded by kindergarten, specifying the processes of failing and passing for each cycle. The developed textbooks were accompanied with workbooks (where applicable) and teacher manuals.

This curriculum remained without any significant modification or update until 2018, when it underwent one update relevant to what to include, suspend, and exclude from the curriculum in specific subjects according to the Circular No. 28/M/2018 (CERD, 2018). This means that the same curriculum was decreased, awaiting a new curriculum which has not seen the light of day yet. The succeeding adjustments to the 1997 curriculum that took place between 2019 till 2022 were within the 2018 amendments. These adjustments were due to education loss because of the school closures during Covid 19 as well as teachers' strikes due to Lebanese economic crisis and currency collapse (Shuayb & Hammoud, 2024).

Despite the significant changes that the educational system has experienced worldwide and in Lebanon alike in terms of pedagogical practices, policies, and theories which have been affected mainly by technological advancements and socio-political shifts, the 1997 curriculum is still in place, largely unchanged and does not address the needs of today's generation, nor the job market. For example, the teaching of sciences and social sciences is so outdated that it creates a gap in knowledge (Aljaafil & Beyhan, 2021). The history book addresses events that happened prior to 1971 as there was no consensus on post-civil war content.

Creating a new curriculum or updating it has been met with many hurdles, mainly funding and political dis/agreement (El-Amine, 2012; Shuayb, 2015). After 2018, Lebanon was hit by consecutive catastrophes. It started with the economic crisis in 2019 where the Lebanese pound deteriorated and lost approximately 98% of its value. This was accompanied by the revolution and poltical unrest, which had a tremendous impact on all Lebanon, not just the academic realm. This economic crisis was coupled with Covid 19 in 2020 and made the case worse. All educational institutions closed and work was managed online. The educational system had to level up to the challenge and update its technological skills and knowledge with what was available. In the same year, Beirut port explosion added to the suffering and worsned the economic crisis. Affected by all of these calamities, the years 2021-2023 witnessed many repercussions, from shortage in fuel, medicine, electricty, food to name a few, to collapse in several public services and the banking system. Then, in 2024-2025, Lebanon

suffered from the Israeli war , where two million people were displaced. All through, the educational system was hit multiple times and teacers reacted with strikes and closures, augmenting education loss.

3. Methodology

This education loss and how to surmount it are addressed in this study. The design is qualitative in nature as it analyzes thematically the recommendations proposed by researches, MA theses and PhD dissertations that address the 1997 Lebanese curriculum. The data was collected through two tools: a survey and a desk review. The survey was used to extract the main gaps in the 1997 Lebanese curriculum. Based on these gaps, the desk review was done, tackling each gap and proposing recommendations.

3.1. The Survey

The survey was created via Google docs and sent via email and WhatsApp, addressing only researchers who have tackled any feature of the Lebanese curriculum. 78 participants responded to the survey, but after data cleaning, only 68 responses were considered. The majority of the respondents (95%) were from the Lebanese University and the other 5% were affiliated with these universities AUB, LIU, LAU, USEK, Sagesse, AKU, and USJ. 60% of the respondents were MA students, 30% PhD and the rest were researchers.

The main items in the survey were: identifying their status as MA, PhD, or researcher, communicating the title of their research and year, and highlighting the gaps and recommendations in the curriculum based on their research.

3.2. Desk Review

The desk review tackled six research studies that addressed the 1997 curriculum since its inception till 2025 as well as fourteen MA researches chosen from the library of the Lebanese University, Deanship of Faculty of Letters. Two MA researches were chosen on each theme of the seven highlighted in the surveys. Convenience sampling, a non-probability sampling method, was adopted; that is, the first two theses to address each theme were chosen. The date of release of the thesis was not a factor that affected the choice. The sample consisted of researches defended between 2017 and 2025. The methodology of the desk review included reading thoroughly the statement of the problem, research questions,

methodology, findings and the recommendations. Then, these results were meticulously matched with the themes already chosen.

4. Results and Analysis

The data from the surveys and the findings from desk review of relevant research studies and MA/PhD theses were analyzed thematically. This approach allowed for identifying recurrent themes, issues and concerns across the different sources. By systematically categorizing the data, the themes reflected the critiques and the recommendations related to the 1997 Lebanese curriculum.

4.1. Analysis of the Survey

After analyzing the responses of the 68 surveys, the gaps in the curriculum were categorized into seven interrelated themes, each addressing a critical area in need of reform: content (STEM and STEAM education), skills and sub-skills, technology integration, inclusive education, updated teaching methodologies, assessment, students' agency, cultural identity and citizenship.

Many respondents noted the outdated content and highlighted the need for interdisciplinary learning, especially between sciences, technology, engineering and mathematics. One respondent commented, "The Lebanese Curriculum needs to be updated in a way that it meets the progress and technology development."

Some respondents highlighted the need for 21st century skills, namely cooperation, collaboration, critical thinking, and problem solving. One respondent specifically stated, "Update curriculum [...] to reflect the 21et century skills like problem solving and critical thinking." Other respondents criticized the curriculum for being outdated and lacking digital literacy. They called for the inclusion of tech tools and methods in the teaching-learning process. Many voices called for AI integration in specific.

Respondents reported the negligence of students with diverse needs. They also reported the lack of resources and teacher trainings to implement inclusive strategies. One respondent dwelled extensively on this topic: "It is important that educators recognize that creating a supportive and inclusive learning environment is essential to unlocking students' potential. Teachers are advised to incorporate diverse SEL activities into their lesson plans. Curriculum developers and policymakers are encouraged to prioritize authentic learning and consider SEL integration into the broader curriculum."

Many respondents called for learner-centered approaches or even learning-centered approaches. They demanded professional teacher trainings on approaches that result in actual learning and understanding. One respondent called MEHE to establish "collaboration with international educational bodies, foster partnerships with global educational institutions to share best practices, research findings, and innovative teaching strategies."

Respondents showed their complete dissatisfaction with the current examination system. "It has become a necessity to change the specifications of the official exam as they make teachers teach only to the exam and they limit the potentials and creativity of both teachers and students," said one respondent. Many asked for the active participation of students in their learning journey. They called for students' engagement through updating the textbooks, the teaching methodologies, and the topics.

4.2. Analysis of research studies

The desk review of research studies also revealed recurrent themes. Shaaban & Ghaith (1999) criticized the curriculum for being too theoratical and highlighted the fact that it should have been accompanied by proper teacher training and adequate resources. BouJaoude & Ghaith (2006) also noted the gap between the policy documents and classroom practices; while the documents advocated for modern pedagogies, the practices showed teacher centered methods and memorization.

Six years later, El-Amine (2012) again highlighted the mismatch between the intended curricular goals and the content of textbooks, which instead of fostering unity, perpetuated sectarian biases. He also highlighted the fact that the curriculum is overloaded and heavily relies on rote learning, which does not advocate for students' agency.

In the same year, Faour (2012) revealed that the 1997 curriculum failed to meet the quality of education for all. This is clear through the disparity between the level of private schools in comparison with public ones. Faour attributed this failure to political interference, lack of proper monitoring, and shortage in professional development of teachers.

Addressing the same gap related to preparing students for the job market, but from a different perspective, Al-Hroub, Vlaardingerbroek, & Saab (2017) highlighted the fact that the curriculum restricts the career options through the tracks available for students to choose. They also higlight the fact that carrer guidance is almost non-existent in the curriculum except through non-gevernmental efforts.

Khoury (2024) criticized the stagnant curriculum and called for a "holistic approach" to address the education crisis in Lebanon. considering the interconnectedness between basic education and higher education, this approach harmonizes policy decisions, effectively allocates resources, and adopts transparent accountability mechanisms.

4.3. Analysis of MA Theses

The sample chosen via the desk review consisted of 14 MA researches, two of which address one of the seven areas that need improvement. The sample shows the recommendations and the main contribution each research suggested.

In regards to updating the content, Charline Elias (2021), in her MA thesis *Assessing the Secondary Cycle English Textbooks Used in Lebanese Schools*, studied textbooks used at public and private schools in Lebanon; that is, using specific validated rubrics, she compared the content, methodology, activities, and layout of textbooks published locally including the official textbook. She highlighted the urgency for replacing outdated content especially within official textbooks. Alaa Hjeij (2025) addressed the same area – content – in her MA thesis *Investigation of the Lebanese Grade 1 English Language Curriculum with Reference to the Common Core State Standards*. In her research which adopted qualitative approach using questionnaires and comparative analysis, she found that the content in Grade 1 textbook is rudimentary and does not equip students with the necessary skills needed in this era. In specific, she traced gaps in the objectives, activities, and teacher's manual, and recommended using Common Core State Standards criteria as a reference to update the Lebanese curriculum.

Ghofran Zizan (2020) and Carol Badawi (2023) tackled the area of skills, and in specific, listening skills and vocabulary acquisition respectively. In her thesis entitled *Exploiting the Media for the Enhancement of the Listening Skill in Grade Seven EFL students in Lebanese Public schools*, Zizan (2020) created a listening textbook accompanied by a teacher's guide that matches the themes of Grade seven curriculum because the listening skill is neglected in the official textbook. Badawi's (2023) thesis *A Balanced Approach to Vocabulary Instruction to Improve Learning Outcomes of Grade 10 Students* highlighted the need to teach the vocabulary subskill in Grade 10 through adopting an experimental approach.

Many theses addressed the area of technology, surveying technological software, applications, and websites, highlighting how they could transform the teaching learning process into enduring, fun, and

accessible. Amal Abdallah's (2018) thesis *A Critical Study of Acceptance and Usage of Digitalized Dialogue Across the Curriculum in Undergraduate Composition and Research Skills Classes* introduced digitalized dialogues to increase enhance writing and researching. Through a qualitative-quantitative study of undergraduate students, she showed how such technology can develop students' skills in composition. In the same line, Nicole Nacouzi (2021) proved that blogs can be used to teach effectively unmotivated students, who would give much attention to their writing as they move from the initial draft to the last one that they publish in the blog. Her thesis *The Effect of Using Blogs as Interactive Technology on Increasing Motivation and Promoting Writing Skills for 7th Graders* showed clearly the integration of technology on engagement and eventually acquisition.

Teaching methodologies goes hand in hand with technology and skills. It would not be enough to master technology without showing how it can be used effectively in the teaching process. Hikmat Jaffal's (2020) thesis *The Significance of Game- Based Learning on 8th Graders' Achievement in Vocabulary and Asking Questions* incorporated games in the teaching of Grade 8 students to increase retention. She developed the games according to the lessons in the official textbook to minimize rote and dull learning. Adapting a game-based approach as a teaching methodology showed great and lasting impact on the students. Kawthar Alameddine (2019) emphasized that professional learning communities as a teaching methodology can greatly help struggling students. Her thesis, *Professional Learning Communities: A Way to Improve Grade 11 Students' Results* explains thoroughly the process and present empirical evidence on its effectiveness in creating a learning atmosphere and considering students' multiple intelligences and learning styles.

With the many hardships the Lebanese students faced, inclusive education should be integrated into the curriculum. This is the recommendation of so many researchers including Suha Hodeifi (2024) and Zahraa Deeb (2024). Hodeifi (2024) highlighted the great need to incorporate social-emotional learning to create inclusive classrooms, develop empathy, and maintain mental-wellbeing. Her thesis *The Impact of Social-Emotional Skills in Teaching English Language for Seventh Graders* presented a guide with activities that matches the official textbooks of teaching English for Grade 7 students. She piloted it at 4 schools and it was assessed by professional. Deeb (2024) also highlighted the importance of enhancing students' self-regulatory strategies to overcome intimidation while speaking by introducing Mental Contrasting with Implementation Intentions (MCII). Her thesis *The Impact of MCII on the Speaking Skill of Grade Four students in Lebanon* shows clearly how to employ mental

contrasting – a desired goal, which is speaking – into effective actions, overcoming obstacles via implementation intentions.

The findings from the surveys showed clearly the discontent of researchers with assessment protocols, especially in official exams. This is why many MA theses address assessment from different angles, whether at the national level or at the school level. Rasha Itani (2024) called for making peer assessment more effective through her thesis *The Impact of Peer Assessment of Students' Digital Stories on Listening Comprehension*. She presented detailed procedures of implementation of peer assessment where side effects are minimized. Such assessment approach defies traditional testing, which is dominantly teacher centered. Eugénie Al Ramy (2024) also highlighted formative assessment through direct and indirect feedback provided by different sources, where the teacher is one of these sources but no the dominant. Her thesis *Effects of Direct and Indirect feedback on Learning Outcomes of Grade Eight students in Lebanon* clearly presents the positive effects of such type of assessment where students' involvement is maximized and affective barriers are minimized.

The last area that survey findings highlighted in the curriculum is students' agency, cultural identity and citizenship. Teachers, teaching methodologies as well as official textbooks do not efficiently advocate nor develop students' agency and cultural identity. Ola Hammoudi (2017) addressed this area in her thesis *The Impact of Self-Regulated Strategy Development on the Writing Performance* and called to increase students' agency by giving them control over their studying, in specific in writing. Similarly, Samar Kobrosi's (2022) thesis *The Effect of Peer Feedback on Developing a Writer Identity and becoming a Critical Thinker* worked on having students develop their identity in their writings. Through interaction and critical thinking, students can be better equipped with skills that promote their agency.

Table [1] summarizes the MA thesis that were desk reviewed. It presents the recommendations and contributions each researcher highlighted, whether creating complementary textbooks or guides to accompany the outdated 1997 textbooks while in use, creating activities to be used while using the textbooks, introducing teaching methodologies and methods that attend to this generation, presenting technological tools to cope up with the changes of the era, and highlighting the need for inclusive education.

Themes	Title	Author	Year	Recommendations / Contribution

Skills and subskills	Exploiting the Media for the Enhancement of the Listening Skill in Grade Seven EFL students in Lebanese Public schools	Ghofran Zizan	2020	Created a listening textbook/guide that matches the themes of the public textbook
	A Balanced Approach to Vocabulary Instruction to Improve Learning Outcomes of Grade 10 Students	Carol Badawi	2023	Attending to the vocabulary instruction and activities
Teaching Methodologies	The Significance of Game- Based Learning on 8th Graders' Achievement in Vocabulary and Asking Questions	Hikmat Jaffal	2020	The need to incorporate game based learning
	Professional Learning Communities: A Way to Improve Grade 11 Students' Results	Kawthar Alameddine	2019	Advocating for Professional Learning Communities
Technology Integration	A Critical Study of Acceptance and Usage of Digitalized Dialogue Across the Curriculum in Undergraduate Composition and Research Skills Classes	Amal Abdallah	2018	Advocating using digitalized dialogue
	The Effect of Using Blogs As Interactive Technology On Increasing Motivation And Promoting Writing Skills For 7th Graders	Nicole Nacouzi	2021	Promoting using blogs in writing
Inclusive Education	The Impact of Social-Emotional Skills in Teaching English Language for Seventh Graders	Suha Hodeifi	2024	Created a guide with activities that includes SEL activities , matching the public textbook themes
	The Impact of MCII on the Speaking Skill of Grade Four students in Lebanon	Zahraa Deeb	2024	The need to create anxiety free atmosphere which enables all students to participate
Assessment	The Impact of Peer Assessment of Students' Digital Stories on Listening Comprehension	Rasha Itani	2024	Updating assessment trends
	Effects of direct and indirect feedback on learning outcomes of grade eight students in Lebanon	Eugénie Al Ramy	2024	Including feedback as informative assessment
Students' Agency	The Effect of Peer Feedback on Developing a Writer Identity and becoming a Critical Thinker	Samar Kobrosi	2022	Giving students ownership to their learning and appreciating their input in the learning process
	The Impact of Self-Regulated Strategy Development on the Writing Performance	Ola Hammoudi	2017	

Content Update	Assessing the Secondary Cycle English Textbooks Used in Lebanese Schools	Charline Elias	2021	Highlighting the urgency for replacing outdated content	
	Investigation of the Lebanese Grade 1 English Language Curriculum with Reference to the Common Core State Standards	Alaa Hjeij	2025	The need to update Grade 1 curriculum	

Table 1. The Sample of MA Researches Addressing the 1997 Curriculum

4.3. The R.E.F.O.R.M. Model

These results and recommendations do not get through to policy makers and remain words on paper. To this end, the R.E.F.O.R.M. Model can be considered as a pathway to these recommendations to get in effect.

The R.E.F.O.R.M. Model stands for Research, Engagement, Framework, Operations, Review, and Mobilization. As its name suggests, it intends to reform the educational system through based evidence. It can be considered as a framework, through which academic research can be integrated into educational policy. Each stage has its own specific procedures and time frame.

The Research Stage, as the name suggests, starts with collecting studies and researches related to teaching, learning and curriculum, prioritizing the ones based on empirical classroom evidence and longitudinal studies. This stage should be organized and operated by a national entity at the university, a Research Repository (RP), and would be responsible for collecting, categorizing and synthesizing academic research. This Research Repository would be the platform that serves as database of researches by MA and PhD students as well as faculty, similar to data gathered in this study. At this stage, researches would be categorized thematically so that gaps would be easily detected, so interventions can be decided upon faster. It is worth noting that a Research Repository starts whenever any new curriculum, tool, policy, legislation and the like are introduced.

The Engagement Stage refers to engaging of all stakeholders in the process of educational reform. This can be done through Research Councils (RC) composed of academic researchers from public and private universities, teachers, coordinators, curriculum experts from CERD and representatives from MEHE. These councils would meet through bi-annual roundtables where educational challenges are discussed and findings of Research Repository are reviewed. This stage ensures that the experience

and perspective of stakeholders, especially those who are directly involved with the teaching-learning process, mainly teachers, school leaders and possibly students, are integrated with the expertise of scholars to maintain the active engagement of all parties connecting experience to expertise.

The Framework Stage is concerned with aligning the findings with national curriculum frameworks and design; that is, connecting the research outcomes with educational priorities, like technology integration, equity and inclusion, promoting citizenship, and competencies to name a few. This stage can be accomplished by creating a tool or a matrix connecting research recommendations to specific curriculum goals across all subjects. It is only after conducting the research and consulting with the right people that aligning findings makes sense. This framework alignment process is carried out by the educational personnel at CERD.

The Operational Stage is concerned with transforming insights into usable educational tools. This is accomplished by curriculum writers working with educational technologists, translating relevant findings into revisions and adapting academic insights into accessible formats. At this stage, teacher trainers would be creating classroom guides and teacher training modules. Piloting the curriculum at selected school is done at this stage before nationwide adoption.

The Review Stage is a continuous process of feedback based on classroom realities. Structured feedback through standardized tools, such as student surveys, teacher reflection forms and observation checklists, reveals how the updates are being implemented. This stage should feed back into the Research Repository.

The final stage is the Mobilization – a clear pathway for turning findings into policy decisions. This liaison should be institutionalized through establishing an office within CERD or MEHE, acting as a bridge between research community and policymakers, following up on the whole process. Figure [1] displays the different components of the R.E.F.O.R.M. Model and the relation between them.
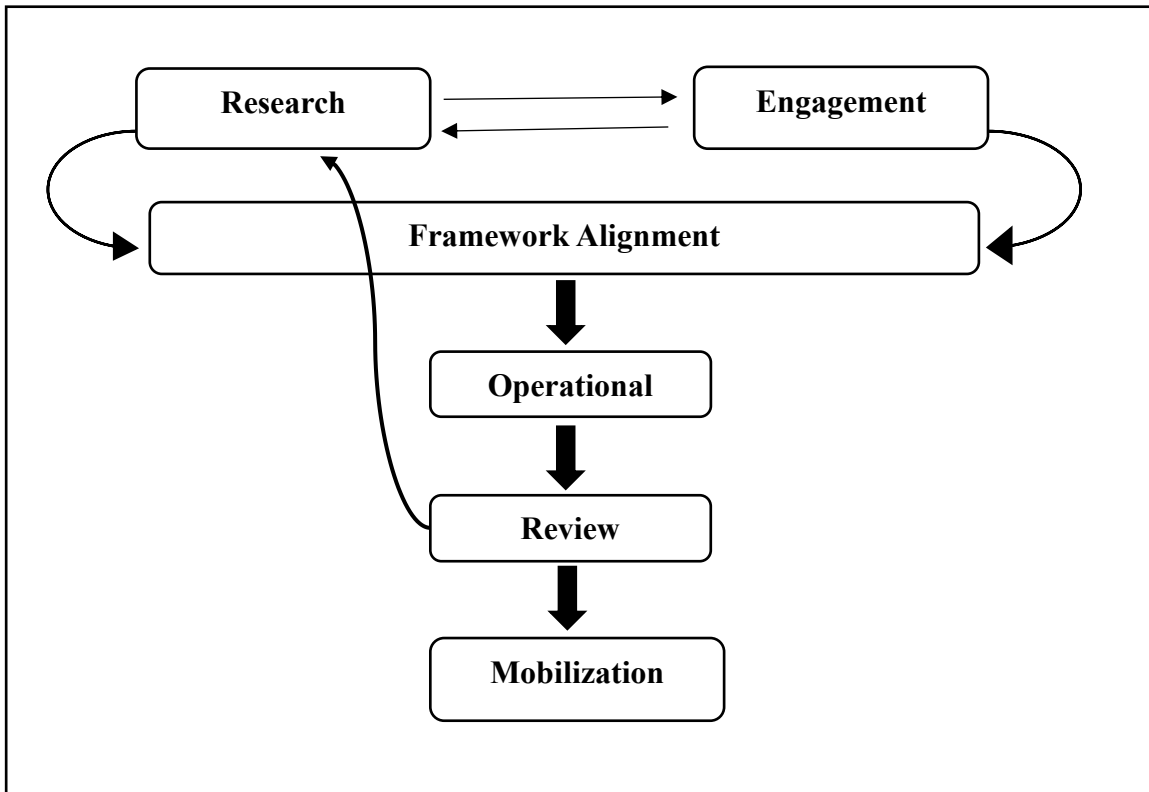
Figure 1. The R.E.F.O.R.M. Model

The R.E.F.O.R.M. Model uses existing research to reform the curriculum, so no need for extensive initial studies before updating the curriculum. This saves resources and time. It engages diverse stakeholders in the process, avoiding top-down reform. By involving CERD and MEHE, it respects the political and institutional landscape.

5. Conclusions and Recommendations

This research not only echoes the many recommendations of research studies that have tackled the 1997 Lebanese curriculum, but also provides a pathway to integrate these research findings into educational reforms by proposing the R.E.F.O.R.M. Model. The main highlighted reforms are related to the type of education we seek in this technological era, placing inclusion, technology, skills and subskills at its core. The reforms also place the student at the center of the teaching-learning process, highlighting the nature of citizen the country needs, equipped with ethics, knowledge, leadership, and empathy. Last but not least, the reforms should lay tremendous emphasis on the type and kind of resources to be available, assessment processes, teaching methodologies and professional development of teachers, so that the theoretical part of the curriculum would be translated in practice to achieve its goal.

Informed by evidence from research studies conducted by researchers and MA and PhD students, the highlighted gaps and needs necessitate an action as soon as possible. The action should take into consideration the role the scientific research plays in the educational reform. This role should be institutionalized so that it would be regularly accessed and consulted. That is, the extensive body of research taking place especially at the university should be a constituent in the educational reform.

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