

Studio Teaching and Assessments; Defects and Holistic Solutions; Part One: Students Based Defects

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Abstract—Design studio is the core module in any degree program for Architecture; it is the main focal point of all the other modules in the whole program. It is very essential and extremely important to apply effective strategies and secure smooth flow for the teaching/learning process, to assure success and achieve the targeted highest valuable outcomes of the module and of the whole program as well. Assessments form a very essential and important complementary part of the process, with great impacts on all its different phases, as well as on the final results and outcomes.

However, there are some noticeable defects in almost any design studio everywhere, some of which relate to the teaching/learning process itself, while others relate to its complementary part; the assessments. These defects badly shorten the spans and shrinkage the capabilities of the process strategies, and restrict its flow. Eventually, they obviously narrow the expectations and lower down the ceiling of the real outcomes of the process, module, and the program.

This study takes into considerations some serious and impactful defects in studio teaching and assessments, based on the researcher's almost twenty years long experience of teaching and sharing in design studios in Egyptian, Japanese, and Malaysian universities and institutes. These defects will be categorized into their different related subjects; i.e. students, staff, facilities, course, program, and school/university. How these defects impact the strategies and flow of the teaching/learning process and the assessments complementary part will be analyzed and explained.

This study is divided into three papers, as three parts; this paper is the first paper and the first part of the complete study. This paper represents the defects related to students; social based defects and technical based defects.

Finally, some holistic solutions will be suggested, discussed, and evaluated. Such solutions will be categorized into the same categories of the defects, covering wide range of possibilities and practicalities, to be as much suitable as possible to be applied in different situations and environments.

Index Terms— Design Studio, Teaching, Assessments, Defects, Holistic Solutions.

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I. INTRODUCTION

DESIGN studio is the core module in any degree program for Architecture; it is the main focal point of all the other modules in the whole program. It is very essential and extremely important to apply effective strategies and secure smooth flow for the teaching/learning process, to assure success and achieve the targeted highest valuable outcomes of the module and of the whole program as well. Assessments form a very essential and important complementary part of the process, with great impacts on all its different phases, as well as on the final results and outcomes.

II. RESEARCH METHODOLOGY

This research follows the qualitative research methodology.

III. PROCEDURES AND MEASUREMENT

This paper presents some serious and impactful defects in studio teaching and assessments, based on the researcher's almost twenty years long experience of teaching and sharing in design studios in Egyptian, Japanese, and Malaysian universities and institutes. These defects will be categorized into their different related subjects; i.e. students, staff, facilities, course, program, and school/university. This study is divided into three papers, as three parts; this paper is the first paper and the first part of the complete study. This paper represents the defects related to students; social based defects and technical based defects.

How these defects impact the strategies and flow of the teaching/learning process and the assessments complementary part will be analyzed and explained.

IV. DEFECTS IN STUDIO TEACHING

These defects have been categorised into their different related subjects; i.e. students, staff, facilities, course, program, and school/university. Moreover, each category of these is

classified into two different types according to the bases of such defects into social based defects and technical based defects. Much more detailed classifications of these defects are dealt with by the researcher in other research projects.

V. DEFECTS RELATED TO STUDENTS

Students are the core value of any teaching/learning process; they are considered as the main motive of the whole process, and the main key players in the whole game. It is a game, yet, not as any conventional as any athletic game of winners and losers; but a game for all the players are winners. Not all the defects going to be listed here are found in all the students; of course not, some students have some of these defects, some other students have some other defects, while some others have none of these. Defects mentioned below were classified into social based defects and technical based defects, as follow.

A. Social based defects

The most serious social based defects of students' related category are as follows; they are arranged from the most initial cause of other defects to the most final generated/resulted defects. The researcher believes that all these defects are generated as results of some initial ones. The hierarchy and constructions of these defects are dealt with by the researcher in other research projects.

1- Lack the identity as University students;

Well, I definitely know you're going to ask; how has this been noticed? Here how I've noticed it; I used to:

- Look carefully to the students, and observe how they sit, look, listen, and interact in the classes;
- Observe how students dress, talk, walk, act, and interact with each other out of the classes, and what are their activities in campus;
- Talk to the students indirectly, in different and general subjects, relating to their lives in and out campus;
- Ask students directly about their bonds and nature of the relations with the University, their peers, and the staff.

Well, again, I definitely know you're going to ask another question; so what are the symptoms of such case; i.e. lack the identity of University students? Here we are; students used to:

- Come late to classes, eat, drink, giggle, chat, or draw "MANGA";
- Break the dress code, by dressing all the prohibited items, talk very loudly, play music with using very big and loud speakers, exercise on skating and dancing, smoking;
- Always say "Uni.", seldom say "my University";
- Look like they didn't sleep at night, not prepared at all to share in the process, not willing to be involved in any teaching/learning process.

I can hear another question rising from far away; does this really affect the teaching/learning process? Well, what do you think if a student has any/some/all of these symptoms; is there

any hope after that to consider him/her as a University student?! Lacking ethics, breaking codes, missing bonds, and losing relations with his/her University means losing the identity of being a University student, and messing the well of being involved in the teaching/learning process running there.

2- Believe some wrong values;

Due to the bad economy and political situations in almost all over the world, and the continuous shrinkages in working opportunities, many students believe that their task at the University is not to learn, get knowledge, or be specialist, rather, to get a degree and a certificate.

They believe they will never get a job working in their specialty or proficiency as Architects. Even they may have some chances sometimes, they still prefer to work in some other careers and businesses, which are more dynamic, more beneficial, with much higher incomes than those of Architects, from their point of view.

Some other students believe that being Architects is something prestigious and smart, no matter what are the tasks, roles, duties, and expectations they have to fulfil in their future. As a result of this, they don't pay much attention to whatever said, told, given, instructed, or discussed by the others, no matter what, or by whom.

3- Do concern marks much more than they concern learning;

Well, again, as a result of the previously mentioned defect, these types of students do concern marks and grades much more they do concern with the knowledge, thoughts, theories, experiences, or any item of the teaching/learning process components. They are just worried about their degree and certificate, not about their knowledge and experiences.

4- Not open minded;

Starting from the very first beginning of a design project, students start to ask about what the lecturer/s do "like". Students seem very ready and willing to sacrifice whatever they "like" towards achieving and fulfilling what lecturer/s do like.

Since then, they start to ask for information and more details about the project seeking the knowledge; not of how and what to do themselves in their proposals, but of how the lecturer/s prefer or want them to do, or on how and what the lecturer/s would have done if they would do the design by themselves.

Students are not willing to take on the challenge and start their own adventure, taking the advantage of being producing their absolute and original proposals. They always prefer to deal with the matter from a "closed minded" strategy, not to take the risk of being criticized by the lecturer/s, who are going to grade and mark them at the end.

5- Only believe themselves, don't trust anyone else;

Students always believe that they are right in whatever they think; they don't believe in any other, whoever he/she is. Even when they are keen to know and to follow whatever their lecturer/s prefer in dealing with any particular design, at the same time, some students believe that their "strategy" is correct, while what their lecturer/s prefer, which they themselves are keen to follow, is always not good, or even,

wrong!

Technically, if their lecturer/s guided them towards the procedures, factors, and techniques, which they have to consider and follow; students always feel better if they don't listen to those guides. Students absolutely prefer to do it in their own ways, until they realize it is a wrong way. Even after this, they prefer to try another way, rather than to follow the guidance instructed by their lecturer/s, until the final submission is dawning.

6- Not confident/over confident;

Those students, who are just right confident, are very few, indeed. Most of the students are divided into two extremes: not confident and over confident. The first group of students always ask for more information, details, instructions, and only their specific lecturer feedback. They always try to get the solutions from their lecturer, and blindly trace whatever said or drawn by him/her. Occasionally reply on any question of "why did you do this, that way?" by "you told me to do so"...

The other group, on the other extreme, who are over confident, do not trust their lecturers or believe what they tell. They believe that they are much more intelligent, knowledgeable, and smarter than anyone else, including their lecturers. This type of students keep questioning their lecturers' instructions and advices, not seeking more details or information, but to express that these stuffs of their lecturers are questionable, unclear, uncertain, and cause confusion and disturbance.

Students of this category always express their complaints against their lecturers, claiming that they are not speaking properly, not well at language, hard, tough, dry, boring, changing their opinions, last minute instructions, not well organized, late feedback, and late in revealing marks.

7- Not willing/hard to start an idea;

Students from the two categories, those who are not confident or those who are over confident, are found not willing, or hard to start their design idea. They all need quite long time to be able to come up with proper ideas of considerable potentials at the first beginning of the project; they may need 3 or 4 sessions long to do so. The students of the first group usually claim that they are lost and confused, while the students of the other group claims that they are overloaded...

8- Collapsible;

It happens all the time with quite high percentage of the students that they are very easy to be collapsed, and very easy to be defeated against their ideas and logics. They are easy to through their ideas away over and over again, starting from the very first fresh beginning every time. Wasting their time, efforts, thoughts, and their lecturers' time and efforts; they much prefer starting the process every time from scratch, than starting from the potentials of their raw ideas and improving their initial and preliminary logics and thoughts.

9- Hard to adapt themselves;

Often, lecturers find it helpful to add few instructions, explanations, or details before submissions or even before the

normal tutorial sessions. Every time this happens, students get confused and interrupted; they translate these new instructions, explanations, or details as different and overloading pieces of information. They don't have the ability to absorb these new pieces of information in the light of the whole context of the course outlines, briefs, and instructions; they don't have the malleability and the ability to adapt and manage their minds, actions, reactions, and outputs accordingly.

10- Much dependent;

It happens all the time; in design studios, almost all students are just "waiting" for their respectively tutorial slots, doing nothing in their designs. They come to the studio to just show up their faces and their very little progress in their design proposal to the lecturers/tutors. Occasionally, they come with no progress or no more work done to their proposals; sometimes they come with even nothing. They keep themselves waiting to ask the lecturers/tutors to give them some pre-designed ready solutions.

11- Not willing to work hard;

As part of what mentioned above, students occasionally come to the studio with no any work done to their proposals since the previous session; sometimes they come with even nothing at all. Always they claim that they are overloaded and they were running off time. While being in the studio, they don't show up adequate well, tendency, or interest to work in improving their design proposals, to catch and utilize the possibility and the opportunity of showing their proposals to the lecturers or tutors twice, or even more each session. Their magic word is "overloaded".

12- Not willing to challenge/ take adventure;

Very few of the whole class, those who are interested in and ready to take the risk and the adventure to come up with really creative and unique design ideas. The majority of students much prefer to do their current designs based on one or more of their previous design/s to overcome the risk of being new. They prefer to be redundant than to challenge to be creative and unique.

13- Not willing/interest to listen/learn from their peers;

Every time we have open discussion and informal presentation session, students get busy preparing themselves for their turn into the presentation, not really willing to listen, learn, or interact with their peers. After finishing their turn, they get involved into side talks and giggling. Occasionally, they used to leave the venue after their turn, without any caring of their peers' presentations. In other situations and other normal personal tutorial sessions, students seldom discuss their designs with their peers, seeking peer advice, recommendation, suggestions, and feedback; they prefer much prefer joining side talks, giggling, or leaving the studio, than discussing their designs with their peers.

14- Lack the interest/attitude of design/designer and fitness;

It is very important and extremely vital for any student in any design studio to have the designer attitude and the design fitness. Too many students claim that they will eventually

never work as designers; rather, they will work in constructions and/or projects management, so why they have to have this kind of designer attitude and the design fitness? This is how those students raise it. They can't understand that the design attitude is the core of the identity and personality of any architect; no matter what his/her specialty and proficiency will be in their career. They just understand that design studio is the core for gaining, collecting, and accumulating grades and marks.

15- Not willing to work in groups, while they do much better in groups;

Although the majority of students do much better than they do individually, they don't like or prefer to work in groups/teams; rather, they prefer to do individual work. Once, I tried to encourage them to collaborate with their peers while doing their individual assignment; I recommended them to optionally work in teams. While every one of them does his/her work, they collaborate with their team mates to elevate their individual and overall work quality, and to get higher marks. The result of these encouragements was just null. No single student stepped to build their team to catch this opportunity.

16- Not willing to stay in the venue the whole time for studio;

This is not the results of a real statistic or analytical study, but I just predict that the longest period for a student being remained in the studio is no longer than one fourth the whole length of the studio session. They usually don't have the motivation of being in the studio during the session to utilize it in improving their works, learning from their lecturers/tutors, or discuss their works with their peers.

17- Not serious, but prior to markings/presentations.

We can consider this as a result of all what is mentioned above; students are in general, not serious during the whole course of any design studio. They only feel panic when the due date and time for submissions dawn; they appear to work very seriously and terribly hard only to collect marks.

B. Technical based defects

The most serious technical based defects of students' related category are as follows; similar to the social based defects; they are arranged from the most initial to the most final resulted defects. The hierarchy and constructions of these defects are dealt with by the researcher in other research projects.

1- Not appreciating time;

Always architects complaint that they run off the time for every project or piece of work they do; why? I believe it is a kind of a custom strongly and obviously appears few years back in the architects' life, at the students' times, and been inherited from the senior students, and from the earlier students' times.

Students don't appear like they appreciate their time in studio; they always:

- Come late to the studio, sometimes after one third of the studio session is gone;

- Spend the majority of the time talking and giggling with their friends, not working nor discussing their work;
- Leave the studio earlier than the end of the session, basically after their own presentation or tutorial slot;
- Don't utilize their times in between sessions to improve their designs, nor be well prepared for the coming session.

All these "habits" of the students make them running off time for submission, with low quality outputs, much lower than the real capabilities of the students, indeed. This "custom" of running off time moves forward while the students grow, graduate, and even get work.

2- Lacking managing time;

That problematic "custom" named here as "running off time" of those students is actually the final result of their continuous failure in managing their time; having plenty of time wasted in some many minor activities, or even inactivity/ies. They lack the efficiency of dividing their whole time to do different tasks in different categories smoothly and sequentially. Rather, they dedicate all their time to do one "urgent" subject on the last minute, as much likely to be as a "strategy" for those students. This "false" strategy makes students far away from their designs and works for a considerably long time, may exceeds one whole week or so. This is one of the factors cause in other severe side effect as a severe problem called "Design Fitness Less", which will be mentioned soon later.

3- Weak previous backgrounds/fundamentals;

Once, I've been "shocked" when I noticed the drawing scale is mentioned below the floor plans of one student as "1/164.5"! What, I shouted; what is this?! The scale of the drawing, the student replied. That was quite long time ago, was the first time to me to imagine that a fourth year architecture student can really do it!

Since that incident, it became one of my standard and most repeated instruction I strongly give to my students and insist in following it; it is to follow the standard scales for all the drawings. In spite of all the precautions I take and all the instructions I give; it became quite regular and frequent to me to see this kind of absolutely unacceptable scales in students' drawings.

A part of the scales used by students, they seem they start every studio as very fresh and very first studio in their lives. Very essential basics, fundamentals, and backgrounds are frequently missed, forgotten, or may be "inactive". They need quite hard efforts and "hard times" to activate these inactive basics. Circulation, ventilation, lights, services, and staircases are the most frequent forgotten, missed, or inactive elements within those students' backgrounds.

4- Weak sketchers;

Sketching in Architecture is like a bridge joining two parts of the world passing over a deep valley. These two parts of the world in our case here, Design Studio, are the ideas and concepts of the designer as one part, while the other part is the design proposal. You can say this in different way, that one part of the world is the designer, while the other part is the

clients, and in our case, they are the lectures.

There are always gaps between the designers and their clients, between the students and their lecturers, and between the designers/the students and themselves. Designers, including students in design studios, as one part of the world, should join themselves with the other part of the world; the clients and the lecturers.

Much more important and essential than bridging the student/designer with his/her lecturers/clients is bridging himself/herself with his/her ideas and concepts. Ideas and concepts always flash like lightning in mind of the designer; if didn't succeed in capturing it/them immediately by some quick, responsive, clear, and informative sketches, these ideas and concepts may be lost, and would never be rectified.

Although they are taught sketching skills in some subjects in the early semesters, technically, students in design studios are weak sketchers, having quite limited capabilities to sketch clear and informative sketches representing their ideas and concepts. Sometimes, their sketches don't tell anything, while some other times, they tell different stories. At the end of the day, students' sketches, in general, are not helping in bridging any part of the world with any other part.

5- Too much dependent on CAD;

Because of the previous defect of being weak sketchers, students always depend on CAD software to make their drawings of their proposals from the very first start of their design process. CAD software are tools for drawing, rendering, and presenting; they are not good tools for concepts, thinking, and sketching.

They are good at the later stages of design process for adaptations, improvements, modeling, detailing, and presentations, but not at the earlier stages for initiations and starts. May be this is the reason why students always start their designs as if they finalize them; improving, adapting, and changing turn to be quite difficult in the students' minds when they initiate it using CAD software.

6- Lacking fitness of design;

Design process is quite similar to a marathon challenge. Running and completing/finishing a marathon need quite a long time; strong will; continuous effort; preserving, managing, & regulating energy; and considerably high quality fitness. Running and completing/finishing a design process need exactly the same qualifications beside the information, knowledge, and creativity. Lacking fitness of design, or what so called "Design Fitness" means inability to successfully complete/finish the process. Some students lack this design fitness.

7- Hard to convert ideas/concepts into architecture;

Usually, students are able to tell impressive, and sometimes, magnificent "stories" about their design ideas and concepts in the first two or three sessions. However, when they start to present their proposals in the form of "Architecture", it became very obvious that their magnificent "stories" stopped at that level; only a story with no any relation, impact, application, or implementation architecturally into their design

proposals.

Once again, this is may be because of those students' limited capabilities and lacking sketching skills. While they think conceptually, they can get to have reasonably good ideas and concept yet can't get to express them it in the form of sketches and drawings, but in the form of words. That's why student's idea and concept looks very similar like impressive stories, but always fails to be translated into Architecture.

8- Hard to start over;

Because of the previous defects in how students start their design process, sometimes they are advised by their lecturers to start over, from scratch. It should be easy for a designer to do start over from scratch, in case the design proposal does not worth or is not promising.

However, only few students can do this smoothly and successfully; some of students feel very uncomfortable and extremely unpleasant to do start over from scratch, this is if they are capable to do so at all. They indeed prefer at their most to continue doing it in the way they started it, no matter what the end of such way is; they prefer to do sacrifice their ideas and concepts, not to go for starting over.

9- Willing to track whatever lecturer likes/wants/says;

Except for starting over, students find it the easiest way to collect marks is to track and do whatever their lecturer likes; that's why they prefer to stick to follow up with one lecturer. They always show their works to tutors, but not willing much to stick to their advices; students know that tutors has no marks, all the marks are with the lecturer.

10- Easy to be disturbed;

Giving students some more detailed information/instructions, they understand them as if they are some "new" information/instructions replacing some old ones, immediately they got confused and disturbed. They don't have the mechanism of sorting/rearranging the whole information they have, including the "new" detailed information with the "old" ones, according to any sort of priorities; that's why they got lost and confused with every new "edition" of information and/or instructions.

For this reason, students while showing their works to tutors, students much prefer to stick again to show them to one tutor, not to circulate their works on different tutors, to avoid any possible "confusion". Again, sticking to one opinion or idea while learning is not the proper way nor helpful to build the "Architectural Personality & Identity" of the student; this could sometimes cause in copying the architectural personality and identity of the tutor/lecturer and pasting it on to the student's one.

11- Always asking for more details about the brief;

Like they are looking for something always missing, students don't stop asking for more details, information, and instruction. Although, as mentioned above, these additional detailed information and/or instructions don't help them the most, because they don't have this kind of rearranging and prioritizing mechanism, they continue asking for the new additional information and/or instructions.

When I think in this point; why they continue asking for more details and instructions, while these additional details and instructions cause them to get lost and confused? Sometimes I feel like they want to get the “solution”, not the instructions; they keep asking until the answers give them the solution/s for their design proposals. Some other times, I feel like these students keep asking for more information and instructions to them good reasons and excuses why they failed in achieving good design proposals. If they didn’t get the answers on their question, the excuses will be the insufficient information and the non-collaborating lecturers/ tutors. On the other hand, if they did get the answers on their question, the excuses will be got lost and got confused...

12- Not convincing, even with very good talking/speaking skills;

I face this all the time with the majority of my students in the design studios; they talk very well and speak impressively; however, they are not convincing the critics regarding their design proposals. The main issue here is that they themselves are not fully convinced by their own design proposals, and that’s why they always fail in convincing the critics, and anyone else.

They always try to cover their weak certainty of their own design proposals by their high capabilities in talking, and high speaking qualities. This may help those students with some limited experienced lecturers and tutors of limited capabilities; but this shall not work with longer and deeper experienced lecturers and tutors.

13- Not strong defenders/fighters.

Due to the defect of being not certain of their own design proposal, they are not strong “fighters” against their critics to defend their works and to explain their philosophies, ideas, and concepts; they are not, the most of the time, able to prove the high qualities of their design proposals.

VI. HOLISTIC SOLUTION

In the following sector, some holistic solutions will be suggested, discussed, and evaluated. Such solutions will be categorized into the same categories of the defects, covering wide range of possibilities and practicalities, to be as much suitable as possible to be applied in different situations and environments.

A. Social based solution

Returning back to the social based defects, it is obvious that they are all like a chain with a significant start ring and a significant end ring. The start ring is “lacking the identity”, from which “lacking the identity as a university student” is derived and resulted. The end ring is “not being serious”, from which “not being serious in study” is derived and resulted.

It is clearly and commonly noticed that youth, no matter where they live or from where they came, lack the identity and feel like being lost. It is noticed and seen I how they speak,

listen, sit, walk, dress, and express themselves. Globalization, which has been emerged since late twentieth century, may be the core cause of this chain of social based defects; youth belong to nowhere and relate to nobody.

This starts at very young ages, when kids start receiving knowledge and perceiving ideas; from the different sources and types of media, environments, and bodies. None of these knowledge and information organizations and bodies invests in emphasizing and stressing on building the social, historical, geographical, ideological, and critical identities.

Thus, to treat this cause and overcome this defect, matured policies and effective strategies should be studied, discussed, examined, and established to invest in emphasizing and stressing on building these social, historical, geographical, ideological, and critical identities of the youth.

B. Technical based solution

Again, similar to the social based solution, and returning back to the technical based defects, it is obvious that they are all like a chain with a significant start and a significant end. In a different way, the start in this case is in fact a combination of two rings, integrated together; they are “not appreciating time”, from which “lacking managing time” is derived and resulted, and “weak previous backgrounds/fundamentals”. The end ring is “not strong defenders/fighters”, from which “not strongly defending their philosophies, ideas, concepts, and designs” is derived and resulted.

Regarding the source of the first ring of this defect; it has dual cores; social and technical. Socially, no doubts that societies burden the first role in harming or even damaging the natural quality of appreciating time embedded in the human beings. Youth, since their early ages of childhood are usually exposed to events and incidents in which their parents or other companions break this quality of time appreciation, and of course, time management. Day by day, breaking the natural quality will slowly replace the natural quality of appreciating and managing time itself.

The other core of this defect’s source is the early schooling and education; following and applying the “spoon feeding” method in teaching and education since the early school ages, which produces extremely dependent persons, who don’t really know the value of the time and the meaning of managing it.

This “spoon feeding” method in school teaching and education is again the source of the second ring at the start of this defect’s chain, which is “not strong defenders/fighters”; students are meant. In addition to its responsibility of damaging the natural quality of appreciating time and the gained quality of managing it, it causes severely harmful impacts on how those young students grow up with no motivation, need, guidance, nor experience on how they can/have to defend their opinions, philosophies, ideas, or concepts; they don’t know how to be strong fighters against any possible critique on their work/outcomes.

Thus, to treat this cause and overcome this defect, matured policies and effective strategies should be studied, discussed,

examined, and established to recall, fix, and improve the qualities of appreciating and managing time for the different parties of the society; mainly, parents, school teachers, and children of early ages. Other matured policies and effective strategies should be studied, discussed, examined, and established to improve contemporary and advanced techniques and methods of school teaching and education process, to be able to produce more self-learning students with much higher levels of independence.

VII. CONCLUSIONS

Architecture Design Studio modules are the core modules in the whole teaching and learning process for any school or department of Architecture. Teaching any studio module in any institution has some different defects caused by and related to different parties involved in to the process; one of these parties are, for sure, the students; other parties will be dealt with in the other two papers representing the two other parts of the research project.

These defects, which related to students, are classified into social based defects and technical based defects in a sequential arrangement; they are arranged from the most initial cause of other defects to the most final generated/resulted defects. The researcher believes that all these defects are generated as results of some initial ones. The hierarchy and constructions of these defects are dealt with by the researcher in other research projects.

It is found that the social based defects are all very likely to be as a chain with a significant start ring and a significant end ring. The start ring is “lacking the identity”, from which “lacking the identity as a university student” is derived and resulted. The end ring is “not being serious”, from which “not being serious in study” is derived and resulted.

Moreover, it is found that the technical based defects are all very likely to be as a chain with a significant start and a significant end. In a different way, the start in this case is in fact a combination of two rings, integrated together; they are “not appreciating time”, from which “lacking managing time” is derived and resulted, and “weak previous backgrounds/fundamentals”. The end ring is “not strong defenders/fighters”, from which “not strongly defending their philosophies, ideas, concepts, and designs” is derived and resulted.

To treat these cause and to overcome these defect, matured policies and effective strategies should be studied, discussed, examined, and established to: 1- invest in emphasizing and stressing on building these social, historical, geographical, ideological, and critical identities of the youth; 2- recall, fix, and improve the qualities of appreciating and managing time for the different parties of the society; mainly, parents, school teachers, and children of early ages; 3- improve contemporary and advanced techniques and methods of school teaching and education process, to be able to produce more self-learning students with much higher levels of independence.

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