# Assessment and Prioritizing Approaches of Passive Defense Practices in Educational Spaces

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Abstract:-The Main goal of this research was Prioritizing the passive defense approaches in educational spaces. In this research used from method of casual comparative study or so an event. The community of research were group of engineering and relative people to building project that included 98 persons and technical expert, technical center of base-project office in contract affaire, conductors, counselors, users of project. In this research cooperating 78 person that be including 77% male and 23% female. In this research used from classifying accidental method for sampling, that used from Cochran method for obtaining sample size, in result used 78 questionnaires.

For collecting data used the questionnaire, therefore The instrument of research was questionnaire. Too used from direct looking, librarian study and documented and precedent and interview.

Validity of this research divided two superficial and structural validities. Superficial validity obtained by surveying from lectures and supervisor lecture and amended. Structural validity caring about the questionnaire starting by simple and light description from research goals and method of responding. For obtaining to reliability for instrument we were using alpha Cronbach method. The degree of alpha Cronbach was 0/7 that had reliability.

In this research analyzed information by using from Expert Choice application and too multi criteria decision making (TOPSIS). Result related that using passive defense at educational centers and space due to immunization schools and students and too building, and related that the criteria of cost of passive defense practices and performance degree of passive defense practices with 0/598 and 0/270 weight have more important to compare to other criteria.

**Keywords**: Assessment, Prioritize, Passive defense, Passive defense practices, Educational space.

#### 1. Introduction

At world the schools were as important structure and in design regulation 2800, this building in front of earthquake were as more important structures (Taghizadeh Kodi, 1393). Schools building with difference structures in majority cities don't had passive defense cause of lack of aware people from performing regulation

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Vol. 44 No.04 (2023)

that, took life many students by nature factors (Zaboli, 1390). Passive defense design of educational building was one of the government main priorities that if doesn't proper response to it, would be responsible front of future generation of country that be effected from this event. Now, main responsible for passive defense practices in country schools be modernization organization, development and equipment of schools and critic management of state centers (Farzad behtash, Aghababayi, 1387). In this research deciding in addition to using from responsible experiences of passive defense in office of state modernization and critic management of Golestan state and Gorgan city and counselors and contractors, be ordering to performing and practical proper solves for solving problems of passive defense. This survey isn't equal absolutely for all of state schools, cause of being differences in geographical, time and commercial situation. Too, doesn't be the possibility passive defense practices for all of building, cause of construction budget shortage of education and treatment, therefore to notice to finance resources shortage, will performing to ranking the methods of passive defense practices.

#### 1.1. Problem statement

Iran from point of natural and non-natural event and based on scientific documented information and recent years' observations be reckon full event and schools isn't separate from this problem that in there be together up casualties (Fesharaki, 1387). So that, complete avoiding from damage of passive defense practices is very hard; but could decreasing causalities and damage of future events by increasing information surface of passive defense, public education and increasing secure culture, identifying and certain studying of vulnerability situation of making building, underground installation and life scream and making safely, true and principle strengthening and to summary it passive defense practices (Masoudi, fotohi, 1390). Being young the Iran crowds caused the educational centers and schools being full of crowds. Noticing to security and be safe this national capital in schools have especial importance (Standard institute, 1377). When events and destroying schools, the danger important factor is students crowd density that will be event acute (Neshat, Dastorati, Ramezani & other, 1381). The obtained experiences showed, after event if students being at school, majority parents coming to children schools fast, cause of worry and lack of confidence from be safe schools and this due to getting in to trouble the relief and rescue. To notice to this problem, proposing this question that, which approaches have more excellence to relate to other approaches? For responding to this question be try to obtaining essential information by librarian studies, using projects records and too, survey from elites at state Golestan and prioritizing it by using Expert Choice application and method of multi-criteria making decision (TOPSIS).

#### 1.2. Importance and necessity of research

Based on building secure regulation of technical protection council determined, 21 dispute of building national law and passive defense dispute, promotion the HSE surface and too importance and necessity of critic management and necessity preparing for fronting to essential situation, protecting human life (Staff and personnel, clients and other people), protecting building, properties, equipment's, documents, infrastructure and ... in front of critics and essential situation be revealing the necessity of this research.

#### 1.3. Theoretical basis of research

Based on proposed definition, passive defense be named to all of performances that doesn't essential to learning armament and by performing it could be avoiding from finance damage to equipment and essential installation and military vulnerable and civilian and human causalities or decreasing the degree of damage and causalities to less. For Obtaining to passive defense in addition to compliance whole principle be essential to practices methods and compliance whole principle that it most important in ground of educational unite be including: strengthening and strength-announce news-location-moving-shelter-protection-system of fire extinguishing-system inside performance-education and making defense culture-making safe build and strengthening installation and etc. (Miremadi, 1389).

#### 1.4. Passive defense

Passive defense be named to all of performances that doesn't essential to learning armament and by performing it could be avoiding from finance damage to equipment and essential installation and military vulnerable and

Vol. 44 No.04 (2023)

civilian and human causalities or decreasing the degree of damage and causalities to less. Dr Asgharian Jedi knew the "human factor" as differentiate between passive defense and active. The active defense is factor that be need to direct management and have human using and be including war instrument, organizing, education and managing resources that in lack of human situation, those instrument don't have valid. In front of the passive defense is architect convenient in ground of war engineering, so that be increasing war and defense resource without instrument and efficiency. Difference countries in order to protecting from citizenship in front of kind of nature and human damages be using difference method based on dominant ideas in ground of passive contracting to critic, critic kind and accessible convenient that most important method be including: A) prevention and warning based on warning and announcing dangerous, making shelter. B) fronting based on extracting with practice in shelter. C) rehabilitation. Passive defense was and be as most effective and sustainable of defense methods in front of threat that be ordering majority world countries. Iran Islamic republic too, be threaten from America and strategic allies to reason of: ideological idea, relying system to Mohammad pure Islam and it theories, geopolitical idea and political geography, commercial idea and profiting from grand resources of petroleum and gas and idea of intern Iran to new technology grounds like this enriching uranium. Desired and unwanted wars be mixing to life and generation life and in many cases be ordering that isn't any escape way. Now the defense dispute has higher importance for this reason; to notice to country progress in ground of science and technologies and other ground and other side the increasing military and civilian threats of enemies. The country like Iran that being to development way and be practicing views like 1404 Iran in own action, should be preparing sustainable security that be one of the essential ground to obtaining this aims and this action be placing in sustainable defense side that to notice to us research object, we would more noticing to sustainable passive defense. Passive defense object and using from it profit don't emanating from human mind and the great god that be all of science box, too be referring to this object in Quran (Movahedinia, 1383). During travel of Islam great prophet too, great god avoiding from to access Quraysh disbelievers to his by using from hiding methods and trick that is the principle of passive defense. Using natural complications from avoiding from enemy access is one of the passive defense principle that be ordering always.

#### 1.5. Basis methods in passive defense

This method in making trouble in identifying, obtaining to information and enemy aiming certain be following from this methods:

- 1-Hiding: hiding due to protecting own resources in front of enemy and decreasing possibility the discovering and identifying resources, equipment, installation and moving.
- 2-Camouflage: the camouflage whole concept is same color and same image the installation, equipment and resources to vicinity space.
- 3-Cover: water steam and smoke could be using for protecting from vulnerable and essential point.
- 4-Trick: performing local trick method for example trying to mislead enemy notice from one real aim or compel them to consuming ability and ammunition on mistake aim.
- 5-Despersion and decomposition: this concept is vesting, opening installation and equipment, separating section from equipment and dispersion human resources and converting them to more safe place in order to decreasing them vulnerability in front of threats.
- 6-True location: basis performance in passive defense engineering is selecting true location.
- 7-Making obstacle: this concept is earth, air, sea complication or especial from of soil. Weather or artificial things, except fire power and equipment that using in order to delating, channelizing or stopping threats.
- 8-Fortifications: this concept referring to contemporary builds that made to notice to situation and convenient and importance degree and vulnerability in vulnerable point, until neutralizing damage effects of threats relatively.

9-Accessibilities: this concept is ways and navigation and relation spaces and in difference kind and scales be proposing. Relation lines of subject to external space should be obedient that threats character due to obstacle in traffic or delete traffic.

11-Habitates: in any areas that being aggregates of architect body and human resources, is reason to variety strength and body complex and other convenient and the other side lack of recognizing enemy from degree and probability strength mechanism is kind if caution and hesitate and this object is like the being avoidance abilities.

#### 1.6. Building camouflage-educational builds

This method to follow in making identification obstacle, obtaining information and enemy aiming certain by this method. First principle of camouflage be using in mold of cases like homogenous, camouflage and trick for being building and be surveying for new building (Azami, Khiali, 1386).

- Breaking forms and shadow: this working be possible by making disorder algorithm, mixing colors and deleting margin. For destroying form and shadow of building could be using this order: A) dark coloring in roof for delete or decrease reflection. B) vesting dark model of roof to walls surface, deleting margin and direct lines if building. C) making dark of build space by covering bitumen for hiding shadow, using from half burnt charcoal, carbon smoke and washed charcoal to layered and to disorder model of building vicinity for hiding shadows. D) disorder cutting jungle trees for navigation.
- **Drilling (going to intern earth):** about this object should be considering to below cases: A) drilling possible with notice to complications and earth ground and equipment practices in proper depth. B) decreasing equipment height for deleting shadow. C) cover soil damp in protecting metal builds should be being equal of soil damp of installation space vicinity.
- Covering curtains: in camouflage the more important point is deleting shadows, like wall and roof shadow. Shadows be placing continuous and be seeing from far easily and noticing to below cases be essential: a) building with excessive 31-degree slope should be covering by camouflage nets. B) hanging net with gentle and gradual slope on builds or things. C) using from wind nets and light, color absorbent and homogenous situation with vicinity ground to flexibility ability and strength in front of space situation in parking and tankers and...
- Impersonation: this method performing by this method: A) show off small the educational big building by using from shadow, tree, color, painting component. B) converting big building appearance to habitat variety building and method of converting forms of bid roof to separate slope that could be using for stores, big preparation, train building, industries and educational important centers. C) be homogenous building appearance to local building by installing builds of light wood and covering to canvas and smoking walls or other things.
- Architect necessities: noticed to passive defense as multidisciplinary and relative to other effective component in architect and urbanism. Urbanism architect as moderate be lifting the defense strength and be satisfying need to security. Effective variable in architect be proposing in 3 field of human science and engineering technical and nature and ground.
- Passive defense in architect: comprehensiveness to all of architect necessities in passive defense due to building sustainable in critic situation. Therefore, if the passive defense ability be more up the degree of protection and profiting in front of enemy threat going up. Mixing passive defense design to other abnormal bars necessities like earthquake in time of peaceful and war due to increasing building sustainable and user secure sense (Group of authors, 1385). Architect necessities in designing school or educational institution based on passive defense and with noticing to this cases: designing space (locating building-open space), designing building (form-volume and vicinity element-architect plan and internal space relation), design of secure space and preparation and architect ingredients and be using it could be decreasing damage of building and causalities in front of explosive threat danger [15]. A) locating building: this method should be order and decentralized in schools and educational centers. This action increasing space efficiency for determining secure place in front of debris fall. Too, in designing space between building and accessible way could be decreasing damage and explosive effect by ordering to moderate spaces and making proper surface difference for preparation. B) open spaces: in educational open spaces could be making edges as preparation. For example, could be making

Vol. 44 No.04 (2023)

strength edge in distance between open space and building by using length pots, until in essential situation be usable as preparation (group of authors, 1385). C) building form: windbreaker slope and vicinity elements could be acute shock scream and explosive effect. Open slopes or gradual have less effect to relative to windbreaker slopes or acute. Building with U or L form be acute explosive effect. To reason admired be avoiding from windbreaker slopes. Reflexed pressure acute on surface of circle building be less than flat building. If building aggregate making on pilots that be light from three side, this kind of pilots be helping to extracting explosive resources fast from below of building and be controlling damage effect of explosive resource in aggregate volume and open space greatly. In order to extracting explosive energy from space between building and decreasing space vulnerability, should be making heterogeneous and interruption in aggregate building in 21meter distance. Separate seam width in between two wall of parallel building blocks isn't less than 51 CM. Could be using from building forms for controlling debris fall danger to open space (Khodadad & other, 1396). D) volumes and vicinity elements: belonging things if building appearance so that, don't installing true and secure be throwing to vicinity space, especial pedestrian and inside spaces by wobble power less and pressure. In order to be essential don't using from loose and fragile decoration things and too, weak cornice in building and installed metal protection on building appearance be controlling by weld connection to metal frame. In the whole be admiring the simple geometry and external decoration less. So that, using from decoration it's better, that to use from light material like this wood or plastic. Cause of explosive time the probability is less, that converting to deadly shrapnel to relative to metal, stone or reward (Khodadad & other, 1396).

- Architect plan and internal space relation: about whole design of practical-space program be essential that be separating the insecure spaces and more danger from secure space and people centralized space and important performances. In perfect situation, insecure spaces be placing in outside of main building or vicinity space of building. When be siding the secure and insecure spaces, should be ordering the whole design of any floor and relation between floors. In the whole, inside spaces in building volume have more protection in front of danger of explosive and whole design of building should being that vicinity section making the privacy restriction for internal secure spaces (Khodadad & other, 1396).
- Circulation spaces: if explosive wave be missioning to spaces with line design, corridors and like this, will be more danger to reason to remarkable lack of decreasing of pressure volume in this space. In this situation the made suction in space due to throwing people and thing to vicinity. Placing the obstacle and screw in this ways due to decreasing unfavorable effect of corridor in effect acute of explosive power. Should be placing continuous doors zigzag in internal corridors, until be limiting explosive effect in building. Should be far from insecure spaces the needed stairs for essential exit and don't should be ending to insecure spaces (Khodadad & other, 1396).
- Outside appearance and building external appearance: the building external appearance have remarkable effect on identification, recognition, zin sign and damage. Therefore, in designing should be ordering the principle of anti-care and recognition. Building external appearance is being more vulnerable to relative to external explosive threat, cause of, is the more near of building section to explosive and usually be making by crispy and fragile materials. This section is defense important limitation from building habitant. Should be decreasing to less the Crispy and fragile surface in external space and building appearance surface and roofs.
- External opening: windows designing with protection from explosive effect could be effective in decreasing glass cutting hurts in spaces that isn't in front of explosive directly. To notice to breaking danger and throwing the glass surface materials to vicinity, should be making distance space between glass appearance and external spaces. This distance space maybe be to kind of balcony. One of the methods for decreasing damage from glass breaking is the decreasing number and side of windows. So that be using anti explosive walls, the using smaller or less windows due to opening the less explosive wave to building. Therefore, due to decreasing internal damage and hurts.
- Essential and common entrance and exit: designing the entrance and exit be preparing the possibility of people and vulnerable installation rescue, after destroying main entrances in this side hiding and camouflage the essential entrance and exit be more strength than main entrance and exit and to notice to aim, be performing with width and opening less. In buildings external space be essential making safety the protected buildings blocks exit by making roof or strength distance in front of debris fall.

Vol. 44 No.04 (2023)

- Designing shelter in school and educational buildings: in order to protecting the people being be essential making multi shelter in all of vulnerable and essential center, ministries, universities, schools and other public places. The entrance and exit of essential and vulnerable center shelters have remarkable importance and should be hiding from seeing of multispectral, hyperspectral satellite and recognition factor of enemy. Determining place should be coordinated to entrance and exit design until, don't closed by fall of vicinity building ruins. Shelter situation should have the maybe distance more near to difference section of educational building and in addition to have more short of secure accessible way to shelter. The lack of caring of technical principle in shelter construction have reverse result and in addition to wasting resources due to acute being damage. Therefore, have importance the favorable using from underground secure builds for shelter water design. In the other side, have especial importance the noticing to ingredient design, cases and material in secure spaces and shelters that, without it, will decreasing the shelter efficiency. Therefore, should be designing ingredients and material quality in this spaces certainly (Ghazanfarinia, 1386). Determining the shelter capacity based on building using and number of users from it and in educational building to depended to number of people. Ordering the essential area less for any people 4 meter.
- Prevalent systems for shelter build: the shelter builds of educational spaces could be performing by three methods: buried, half buried and tunnel. In method of buried and half buried the soil volume should be enough the half of smallest of shelter side or 2 meter. Using the compressible soil have preferences to relative to unite grading soil but, don't permission to use from sand and its better using from broken sand with grand grading (Azami, 1386).

#### 1.7. Politics of system in passive defense affairs

Recently leadership announced the politic of system in passive defense affairs that some of material be including: 1-heighten to passive defense is that group of lack of armed performances that due to increasing avoidance, decreasing vulnerability, continuing essential performance, promotion national permanent and possibility critic management in front of threats and enemy system performances. 2-preparation and performing passive defense designs about venters, places and being importance installation (armed and lack of armed) based on prioritizing and maximum convenient until ending sixth program and preparation essential reliability. 3-expediting essential mechanism for preparation same designs of immunization and abiding in other designs and programs and managing responsible systems in two systems of passive defense and event for synergy and decreasing costs. 4-classifying centers, places and importance installation to essential, vulnerable and important and updating it essentially. 5-making culture and public education in ground of using passive defense law principle in governmental and nongovernmental section, expecting lesson material in difference surface of educational and developing research in ground of passive defense. 6-making two or multi aims of builds, installation and relation wide for using defenses from constructive designs, especial in line and vulnerable area in country (Rezayi & Ghalandari, 1391).

#### 1.8. Suggestion of home and building research center in passive defense

Home and building research center as validation reference of building new technologies and decider of building national law be heightening about passive defense affairs: 1-draft of 21 dispute in building national laws. 2-effected steps in process of passive defense designing (evaluation values, properties, threats and vulnerability) (masoidi & fotohi, 1390).

#### 1.9. Goal of passive defense at schools

Making security in front of threats.

Permanent in critic situation.

Decreasing vulnerability (causalities and finance damage).

Protecting people life at schools.

Preparation body and soul peace of students in threat situation.

Vol. 44 No.04 (2023)

Improving school performance for progress of student character.

Making and protecting readiness for fronting any danger (Zaboli, 1390).

- 1.10. Basis approaches for immunization schools
- 1- Increasing awareness: experts and specialist be opinioned that importance of education, science and aware in homogenous society efficiency and yet in some of cases being more than reaction ability and satisfaction rehabilities in natural acute events. So that, making and keeping secure place meaning that sharing information about dangers, danger potential effects and knowing that in danger situation what could be doing, are very important. Society could be doing simple and effect for immunization building for schools by being skills and essential science. Therefore, any phases of schools making safe process is opportunity for education and learning and any people with proper aware could be quote in this working (primary children to governmental master). Continuing in education and doing exercise programs for protecting readiness and assessment education being essential.
- 2- Prevalenting belongingness cense: in order to decreasing of dangers at schools, people at school should be aware about event risk and the other side about school abilities (due to decreasing risk). Vesting belongingness cense in people that using and keeping building, be warranting secure building and this problem will be continuing in all of years that using building. For making belongingness cense in people should be undertaking role of active decider in evaluation. Designing, performing, controlling and first evaluation of building (Alipour, 1395). Belongingness cense should be vesting not any inside of school, but in between all of responsible people. Continuing partnership be establishing a time that partnership of all of partners due to mutual profit and all of responsible people seeing own fulfillment of needs, at this time will be obtaining the protecting school and have secure school.
- **3- Increasing innovation-decreasing costs and increasing resources:** innovation is meaning create process the new solve for solving problem with noticing to group of limitation, resources and abilities, this concept its meaning, changing whole idea from centralizing on how to do a work to difference methods that could be doing. In some of done research at world the new technologies and innovation be helping in immunization of schools and due to decreasing being cost by this method. Using strength and light material in builds due to increasing builds performance in front of happening events (Alipour, 1395).

Method of vesting innovation in immunization schools: have vast chain of people in designing activities at schools. Active Researching for obtaining new science for sharing it. Encouraging to relating practical and innovational suggestions.

**4- Encouraging society by leadership:** leadership be proposing way that by it performing social changing easily. This people in society or government be helping to certain survey of new vision and making motivation in changing social values and mutual behaviors. Some of principle be defining by leaderships. So that, always this people not being technical specialist or leaders. In the other word, the leadership are people that could be immunizing at school by interfering (speech, behavior).

Method of encouraging society by leadership in difference surfaces: researching respected people that could be making motivation for changes. Trying for making same perceive in necessity of immunization at schools. Making same recognition for planning of changes. Supporting from people that trying for school immunization (Alipour, 1395).

5- Evaluation process and performance improvement: ordering cares of population and compatibility this needs to being resources due to the performance and action be proper and responsible. The unbiased and order evaluator be helping to progress and increasing responsibility by performance of relative systems and all of involved of school's immunization. The information collecting unbiased and clearly and be sharing to other people (from local society to national and international), until using from it for programs and politic of making secure school in future. Too, this involved due to using extracted weak and positive points as future way light by involved.

Vol. 44 No.04 (2023)

- **6- Strengthen and warranty quality:** although, doesn't need from complex method in designing strength building in front of dangers, so that, be fidelity to certain technic principle in designing and performing builds be essential, that due to more secure. Lack of noticing to this principle could be danger the future secure of people at school. Have enough notice in using qualified engineering and aware to strengthen and too, enough notice to relative principle of design/engineering, using from resource and proper material would helping to warranty secure of building (Alippour, 1395).
- **7- Caring and continuing evaluation:** danger probability for school and it habitant is obedient to some of factors. Many factors for example, method of using earth could be acute event danger in especial situation. Effect of this danger be effecting from us aware from danger and abilities in decreasing it effects. Although, all of this factor be dynamic, risk of school group be dynamic either. Making secure school, meaning that trying and continual working for selecting method of continual cares of dangers and risk of school and too, keeping and protecting building secure and educating new method for decreasing danger effect (Guidance notes, 2009).

#### 1.11. Problems in school's security

Responsibility of performing design: for performing basically and completed design and lack of personalization performing should be responsible one of the performing system that have more relation to subject that be suggesting modernization organization and school equipment. So that, don't accepting to this reason: A) school that making by modernization organization after giving don't have responsibility about it, firstly, could be increasing by regulation this responsibility to duties of school modernization, secondly, school modernization receiving the building from conductor temporally and until one years old be in school modernization the 10% price of working profit based on working law, therefore, don't cutting relation of school modernization and conductor and based on present design could be securing after giving educational space to education and training and after ordering things and equipment. B) school modernization doesn't have performing specialist resources, about building that be making could be undertaking performing responsibility to conductor or by cooperating to other companies to conductorlly performing school immunization and just controlling be undertaking on controller of school immunization. C) suggesting after this time, be preparation all of did buy things and equipment by education and training organization and school immunization and development organization with fixed equipment, yet could be placing this limitation in buying. D) in immunization regulation of tenth maneuver of installation clothes or curtain in front of windows suggested that be installing clear label on glasses completely on surface of glass or parallel strip that be covering 50% of glass surface to difference reason for example decreasing light, probability firing, high cost of buying and repairing curtain. E) the other problems of this design is that be undertaking performance or it validation on school managers or parents, so that, in result of performing this design, immunizing really and technically, should be recognizing main responsible for performing and preparation validation and controlling until, doesn't performing the design, personalization or unaware or reason to decreasing cost or shortage, that maybe those weaken point be factor that don't obtaining at event time, should be undertaking the performing and controlling responsible on governmental organization until, be responsible in front of any shortage (Attari Ghochani, 1389).

#### 1.12. Private principle of passive defense in educational buildings

Lack of essential and vulnerable centers to 1000 meter, proper strengthen of build, have secure room in all of floors, maximum of floor at primary school: two floor, secondary school; three floor, high school: four floor, fast and easily accessibility to exits, legible exit, enough distance for preparation essential exit in ordering of classes benches, security front of fall and throwing glasses to in build, possibility fast firefighting, preparation shelter exit in outside of school with proper distance from it (20meter), possibility if accessibility to essential services like this fire stations in 3 minutes, near to cure centers, possibility for transforming all of convenient, documents and key persons to secure places in restricted time distance (90 minute), connecting to open spaces and green spaces, possibility of fast changing for using this building from education to temporally habitat or essential hospital.

Vol. 44 No.04 (2023)

#### 1.13. Approaches

The school form to be flexible and soften and not to be sharp angle in form whole, notice to user ages, ordering to shelter being at universities as habitat and helping to other and at school secured shelter but temporally and arriving students to families, space design doesn't should be preparing no way opportunity for looters and danger people, not being surface difference in between main exit of build to yard, be possible the essential exit from classes in ground floor, first and second by windows, not to be slippery the ground of moving way, being escape stairs in one floor in up ground, side of staircase to be more vast from usual side for feasibility of essential exit, escape stairs at school have whole frame and protected in front of fall danger, fence design to be to model of slide for acceleration essential extracting, to have replace resources of fuel and energy, number of exit for educational building determining based on proper of build surface, floor number, habitat population number at time of activity pick (Hoseini, 1386).

#### 1.14. Passive defense and location

The location is process that to assessment physical place that preparation situation and supporting from human activities. Main goal the evaluation place for especial using earth, for it is that be confidence that in there being compatibility and abiding in development and vesting human activities with convenient and limitations and environment (Ghazbane, 1375). The profit and proper location be possible at this time that researcher could be establishing scientific and logical and proper relation between information and obtained data from relative expert to location object based in priorities (Razavian, 1381). The decreasing vulnerability of aim point and effect of enemy weapon be possible by this factors: true location, making obstacle and strength, be strength building and installation, using from natural complications of earth surface, using from earth depth, performing sider defense, making electrical and electromagnetic protector layer, caring secure law (keeping damage development factor) (Behtash and Babayi, 1387). If the location and situation of educational space be more favorable from point of hygiene, secure and safe, accessibility, space and body structure, social, cultural and commercial factor and this places be locating in proper place, would have more positive effect on qualitative promotion of education and too, protection spiritual and body health of students that being society future makers (office of technical and research, 1391). What that be effective and important in locating educational spaces be including cost, nearby, space character, hygiene, security, accessibility distance and educational cost, connecting school to society, capacity, compatibility practices the educational unite to educational needs and city (Taghizadeh kordi, 1393).

#### 1.15. Secured school vision

Passive defense should be having below characters: practices in proper situation as one of the local balance center, have multi shelter with taking service ability to local, have build of strength relatively, have ability of educational activity continues and be placing population in critic situation, have ready students, teachers and staff for critic situation, have wisdom and science of school people from enemy threats and public areas of passive defense, have essential and ready services for supported population in critic situation (Fesharaki, 1387).

#### 1.16. Approaches of passive defense about secured school

Editing regulation of unite system of passive defense in area of education and training of country, editing essential laws and suggestion of education and training in area of passive defense, editing and teaching for familiar teachers and students to object of education and training, preparation program and performing readiness exercise with critic situation coarsely, more relation between ministry of education and training and especially modernization organization of school with familiar technical and engineering sections to passive defense, promotion more fast passive defense culture in between education and training responsible and essential of trying, prioritizing to passive defense designs in ministry of education and training, be essential performing secured school that making recently in line and beach cities, making revising and controlling system of educational centers maps and making essential amending on it, prioritizing to making secured school at boarding schools and too at grand school and educational institute, avoiding from producing or increasing physical insecure at being school and new school, covering studies and designing and technical controlling

Vol. 44 No.04 (2023)

responsibility of school maps to relative section at ministry education and training, in order to increasing school efficiency in critic situation, prioritizing and be essential being school that be placing in vicinity areas of essential and vulnerable centers, passive defense expectation in school due to increasing school efficiency as habitat space, at time transforming it to tourist and culture tour of Iran (Fesharaki, 1387).

#### 1.17. Character of secured school

#### 1.17.1. Architect designing

Whole form of vicinity building at main street of city should be designing so that be destroying it isn't due to closing main way, -isn't permission the using melted depend component in building view, -isn't permission the using broken and melted component in building view, -building inter should be secure and protected by making roof or any of strength distance in front of bribes fall, -avoiding to use melted and broken component and too windows in outside space and surface of building view and roof and installed equipment in building, -in all of building the opening glass should be strength,- should be strength the connection of outside walls to builds, in the program whole of space-practical of secured spaces, -the building should be separated and secured from other spaces, -secured spaces in any floor should be placing in plan center vicinity, -in buildings should be avoiding from designing the line design spaces with long and direct way, -be suggesting using from not broken light paper for secured and light spaces, be limiting doors, -windows and other opening frame to building, be permission the using from glass bock with keeper, -should be dividing the glass big and unite things to more smaller things by window molds, -should be opening to outside the installed doors in building external layers and it frames be yielding pressure of it at explosive time, -be ordering expectation in building that open to public way, -should be designing the non-bearing things like this wall, roof and false-faced so that, isn't due to causalities in front of explosive wave (office of emission and protection of Khamenei Ayatollah, 1389).

#### 1.17.2. Secured spaces

Secured spaces should be having below characters: -secured in front of bribes fall, -strengthen in front of wave and damage, -strengthen in front of second shrapnel, -have interfere less of smoke and Pallone to in it, -at school the secured space cold be section of public spaces for example library, group salon, prayer room, -the secured space should be separate from direct front to explosive wave, therefore be essential placing un between other spaces and building balance center that in outside layers being one row of internal wall as obstacle, -at school the inside salon, rooms and storages and other similar spaces could be this performance, -in designing secured space should be using protection layer in front of explosive, -locating secured space should be, so that being accessing to exit wat easily and security (office of emission and protection of Khamenei Ayatollah, 1389).

#### 1.17.3. Shelter

Shelter is temporally place that have more secure and permanent in front of usual threat and should be caring this cases: -be suggesting that ordering the shelters spaces multipurpose, -shelter should be locating in more near distance to difference section, -the accessible way to shelter in addition to have more short distance, -should be secured way and too shouldn't have more distance between building and intern way of shelter, -making on soil directly and lowest floor, -external layer of shelter should be have enough strength in front of shooting shrapnel of explosive wave, -shelter should be locating far from vulnerable section of building like installation spaces, - be avoiding from sharp edges in layers and floor and broken material and flammable at inside space, -any space of shelter should be expecting one wet toilet to capacity of 15 person and dried toilet for any 25 person, -any shelter should be have intern door and essential exit door far from bribes fall limitation, -interns should be covered, -if being variety of essential exit, should be locating in difference side of building and far from together, -for avoiding interning superficial water the essential exit should be continuing the 30 CM upper of earth surface, -for fronting to mental effect and convenient and character of shelter space from point of light, color and kind of material should be so that making peace in people, -be suggesting the heater and color system and costume water of shelter be electrical, -essential light with battery should be installing in salon, stairs and exit section with exit label, -in ordering to continuing activity in buildings be essential making costume water

Vol. 44 No.04 (2023)

storage based on number of people and using especial situation after building damage and probability cutting city water network (office of emission and protection of Khamenei Ayatollah, 1389).

#### 1.17.4. Other cases

Secured school and readiness for critic situation of war should be have technical and engineering condition and below factor: -have underground floor with two aim function that in critic situation have ability of establishing class room, -at school vacation be preparing possibility of using vicinity area habitants, -have equipment less for assisting and first cure, -have things and food for critic situation, -have educational programs and entertaining for critic situation, -have timing programs for exercise and essential readiness, -have labels and caution signs for critic situation to accessible way to shelter, -have fuel storage resource and system of engine room burner is hybrid, -have possibility of converting to medical urgencies, -don't using the false ceiling in main spaces and hanged things to ceiling, -all of things and equipment of walls be controlled and strength, be equipped to warning alarm (Fesharaki, 1387).

#### 1.18. Protecting building in front of fire

- 1- Fire at school: For avoiding fire at school be essential caring this factor: -all of ways that ordering as exit accessibility for extracting people with more than 30 people should be separating from other section by structure with less than 1 hours and other doors opening to it have less than time 20 minute of fire protection. This door should be designing and installing that probability of smoke sitting from it be decreasing to less. -just those building outside stairs could be reckoning as exit that have this character: A) it structure be separating wall with 2 hours of fire strength from inside spaces and have distance from nearest opening 3 meter. B) have relation to other roof from building or vicinity of roof that have fire strength structure and secured exit way. C) ordering to avoiding from falling occupiers have strength fence and short high. -the exit door should be designing that be able to open in all of time of using from entrance side easily and fast and without factor don't be obstacle for exit timely or flee occupiers like lock, clone, drawer and... -if being difference surface between floor in two side of horizontal exit the floor should be relating by slope and be avoidance designing and performing in this cases. if be using all of internal and external stairs f building as exit should be fencing and separating from other section. -all of stairs have same kind and be performing all of method for avoidance of slippery on floor. shouldn't being more the slope maximum from 12/5% and 370 CM about light maximum. -any floor of building has separated 2 exit way, so that don't essential this law about second exit way. -exit accessible ways and exit doors should be designing unless, be discriminating, be avoidance installing any of curtain, partition and other on exit doors. -used spaces for primary children and students should be equal to extracting and used rooms for primary students be placing more up of one floor from exit extracting. -in all of building be essential being expectance and firefighting box. -be suggesting the using automatically firefighting system. -at school should not be more than 45 meter the exit accessible length unless, all of building protected by automatically raining network, that could be increasing this length to 60 meter (3 dispute of building national law, 1390).
- 2- Firefighting equipment at school: When being far the educational building from main street, be essential the accessible way for firefighting cars and have 3-meter-wide in the width of any accessible way that be possible for moving firefighting cars. —should not being any obstacle to 6-meter distance any obstacle for exercise of firefighting cars and rescue performance. Should be installing the accessible water resource in open space of educational place and in addition to be essential being one or two firefighting tap in vicinity of educational center, especially this places be far from main way. —firefighting staff shouldn't be piping more than 100 meter for firefighting, (in order to fast in performance and firefighting), to reason be permission this performance the distance of more far of building floor from more near of firefighting tap. —be ordering and designing firefighting tap at big school or educational center that have potential danger. —when fire should be installing water equipment in all of building in addition to determined turn off based on regulation and don't be excessive more than 30 meter the distance between turn off to far point s at building. —should be installing water turn off in flee way from building. —the location of water turns off in inside room and classes should being to near of exit door. —for any turnoff be ordering the boa or shelf that be locating floor of this shelf be more than 1/4 meter from upper of floor. —the most important object in time fire at school that be reckon it is fast information to occupiers

ISSN:1001-4055

Vol. 44 No.04 (2023)

from fire and extracting the place. Therefore, be essential installation discovering systems and caution of automatic and hand fire for big school and have more than 4 floor. —so that the floor of school building being in below of floor or exit should be equipping to automatic spray network unless, any classes and rooms of this floor to equipped to outside window that be possible essential extracting for people (Standard institution, 1377).

#### 1.19. Problems and obstacle in passive defense performance

- Some of school be old and need to destroying and remaking.
- The new school that be making at two or three century don't be caring passive defense warning.
- Some of school be locating in restrictive and small earth and fronting to space pressure.
- Up to now don't be preparing regulation for school immunization.
- In unite design of new cities don't be making passive defense studies for educational space.
- to notice to secure priority of essential center at country, be weaken the possible of secured school performance.
- There is much the physical number and quantity and price for secured school.
- Making secured school due to increasing cost of performance and due to decreasing trend to performance it.
- Up to now don't performing study and design for school, therefore isn't personal image from secured school character.
- Shortage earth in scattered local and city center for making secured new school.
- Be renting some of school is obstacle for performing especial changes of passive defense.
- Have acute shortage about constructor cost for making and repairing being school in comparing to number of school.
- Would be negative fancy to performance effect of passive defense.
- Being long way for accessing to view of making secured school (Fesharaki, 1387).

#### 1.20. Facade in passive defense

Facade design is the object that effective in conceptualization to urban character (Carver & other, 2009). One of the object for urban designer is ordering meaningful and efficient designs that could be preparing all of urban needs. Notice to geographic situation of Iran and locating it on earthquake fault and politic situation, should be noticing to passive defense principle in building facade that be making less of damage at event time (Zargar & other). In today life, urban habitual local be locating in more attack damage cause of development situation in any country and changing in kind and war method and army damage beside in natural event. One of the most important factor to increasing causalities in army attacks to urban local is non-standard architect (Kamran & other, 1391). Architect and urbanization as moderator to increase defense power, passive defense method in architect and urbanization in addition to could be decreasing human threats harmful like war, be benefit for decreasing dangerous in front of kind of natural dangers (Sham & other, 1388). Building external façade have more effect on identification, recognition, aiming and damage. Therefore, should be caring principle of noncaring and identification in facade design. Building external layer be vulnerable to external explosive threat, cause of being most near section of building to explosive and usually making by broken and fragile material and this section too, be important restriction of defense from building habitant (Zargar & other). Surveying about past time be identifying that human always followed to protecting habitat local. Too, by 11september event and recent war between countries be determining that notice to passive defense of urban habitual local have new phase from studies and performing programs (Stillion, David, 2002).

#### 1.21. Literature of research

Zangi abadi (1392), performing study as evaluation vulnerability in urban installation with passive defense paradigm that in this project surveying vulnerability of natural event like earthquake in old ground.

ISSN:1001-4055

Vol. 44 No.04 (2023)

Tavakoli (1392), performed in study as surveying vulnerable building danger in Hamedan city with passive defense paradigm that in those surveyed the passive defense situation in vulnerable building. In this project using local zoning and identifying important building that was effective as benefit component to presenting urban vulnerable local.

Hosseini Amini (1391), in the project performed as analyzing situation of office city at Shahryar based on passive defense principle with more than 50 books and magazine in this ground: urban geopolitics, urban planning and defense urbanization, defense exercise, avoidance, building power and reproducing power by passive defense paradigm and war.

Mr. Rashid Fathi (1388), performing a studies as passive defense in urban old ground with location and passive defense importance in urban and necessity for using passive defense system and factor and performing mechanism in urban old ground, until preparing most efficient method of interfere with unite idea based on kind and quality of urban old spaces.

Ghorbanpour and other (1388), surveyed in analyzing the situation of school secure of Kalaleh village and obtained to result that, majority of school don't have favorable situation from point of secure (windows fence, yard cover, location of fuel keeping and ...) and too, the secure situation of school has distance to hygiene scales and don't has favorable situation.

Hashemi Fesharaki (1388), in the project as editing secured school character obtaining to this result that when school as population center be damaging due to increasing human causalities and the other side so that the cities fronting to secured space shortage, the secured school could be using as shelter secured space by habitant at vicinity local. Therefore, making secured school could be very effective in increasing mental secure for student and population.

Khalili and other (1386), in the project as comparing environment hygiene and security at governmental and non-governmental school at Ghazvin city, received to result that all of governmental and non-governmental school have shortage s from point of environment hygiene and security, but governmental school to relative to non-governmental school have favorable situation.

Mahmoudzadeh and other (1388), in the study as passive defense at school heightening to necessity of software and cooperative management of educational system responsible, school educational staff, parents and students beside performing of hardware and making and developing strength stand and proposed many performable approaches in educational unite surface.

#### 2. Methodology of research

#### 2.1. Method of research

Present research with notice to goal be reckoning a practical research, cause of the goal of practical research is developing science for using in especial ground. In the other word the practical research be guiding to using science practical. The character of casual research is the surveying cause of after happen it. In the casual method researcher to following discovering ad surveying relation between factor and especial situation or kind of behavior that was past or happened by study result from it. In this research used from method of casual comparative study or so an event. After determining community of research, dividing it to 5phases unite and after to notice to relative of any of unite, obtained sample size of unite.

#### 2.2. Main goal

Prioritizing the passive defense approaches in educational spaces.

#### 2.3. Sub goal

Assessment passive defense approaches in educational spaces.

#### 2.4. Research hypothesize

Assessment and prioritizing passive defense approaches in educational spaces due to increasing secure surfaces in educational spaces.

#### 2.5. Community of research

The community of research were group of engineering and relative people to building project that included 98 persons and: first group: technical expert that performed elative cases of designing and supervising way project. Second group: technical center of base-project office in contract affaire. Third group: conductors that be undertaking main dispute of performing. Fourth group: counselors that performed study working and higher supervising in some of project. Fifth group: users of project.

#### 2.6. Sample of research

In this research cooperating 78 person that be including 77% male and 23% female. The maximum of age group included at 40-44 years old and after this were in 45-49 years old.

#### 2.7. Method of sampling

In this research used from classifying accidental method for sampling, that used from Cochran method for obtaining sample size, in result used 78 questionnaires.

$$n = \frac{98 \times 1.96^2 \times 0.6 \times 0.6}{98 \times 0.06^2 + 1.96^2 \times 0.6 \times 0.6} = 78n = \frac{NZ^2S^2}{ND^2 + Z^2S^2}$$
(1)

#### 2.8. Instrument of research

In this research for collecting data used the questionnaire, therefore The instrument of research was questionnaire. Too used from direct looking, librarian study and documented and precedent and interview.

#### 2.9. Validity and reliability

Validity of this research divided two superficial and structural validities. Superficial validity obtained by surveying from lectures and supervisor lecture and amended. Structural validity caring about the questionnaire starting by simple and light description from research goals and method of responding. The questionnaire designing so that responders answering to question easily.

For obtaining to reliability for instrument we were using alpha Cronbach method. The degree of alpha Cronbach was 0/7 that had reliability.

#### 2.10. Method of analyzing data

Descriptive section: in this section identifying and definition variable by using from obtained information and valid resource.

Inferential section: in this section analyzing information by using from Expert Choice application and too multi criteria decision making (TOPSIS).

#### 3. Result

#### 3.1. Assessment and Prioritizing the passive defense approaches in educational spaces

In order to comparing choices should be ordering scales that was unite and had less dependent. Whole scales that was independent presented.

A-cost of passive defense practices method.

B-ability development degree of passive defense practices method.

C-permanent degree of passive defense practices method.

D-performance degree of passive defense practices method.

#### Vol. 44 No.04 (2023)

All of method that in this research were as interview output with relative factors in prioritizing passive defense approaches in educational spaces be including:

1-increasing awareness.

2-vesting belongingness sense.

3-strengthening and warranty quality.

4-caring and assessment permanent.

#### 3.2. Weighting scales and choices

One of the weighting method to choices and scales using from method of AHP. Whole process of weighting is that first be surveying the obtained questionnaire output from specialist about any object in quantitative and qualitative object and then quantifying and de-scaling. In continuing comparing scales together and too surveying comparing the choices pair to any of scales and determining the scales weight. In this research for performing this process based on scales and method using from Expert Choice application. In below table could be showing the result of quantifying scales.

Table 1. Quantifying scales together

Scales		Cost passive defense practices method	of	Ability development degree of passive defense practices method	Permanent degree of passive defense practices method	Performance degree of passive defense practices method
		A		В	С	D
Cost of passive defense practices method	A	1		9	7	3
Ability development degree of passive defense practices method	В			1	1/2	1/6
Permanent degree of passive defense practices method	С				1	1/4
Performance degree of passive defense practices method	D					1

with 0 missing judgments.

## Priorities with respect to: Ranking of Passive Defense Deployment Methods in Gorgan City Schools



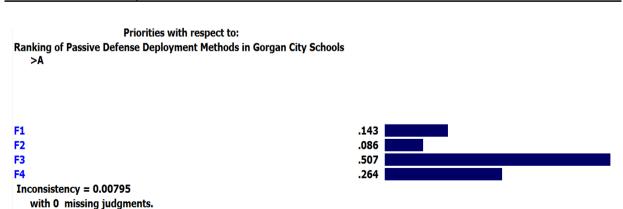
#### Graph 1. Weight of scales output from Expert choice application

- 3.3. The matrix of choices pair comparing relative to scales
- 1-Scale of cost of passive defense practices method

In this table could be showing the matrix of choices pair comparing relative to scale of cost of passive defense practices method.

Table 2. Weighting choices relative to cost of passive defense practices method

Cost of passive defense practices method		Increasing awareness	Vesting belongingness sense	Strengthening and warranty quality	Caring and assessment permanent
		F1	F2	F3	F4
Increasing awareness	F1	1	2	1/4	1/2
Vesting belongingness sense	F2		1	1/5	1/3
Strengthening and warranty quality	F3			1	2
Caring and assessment permanent	F4				1



Graph 2. Choices weight relative to cost of passive defense practices method

• 2-Scale of ability development degree of passive defense practices method

Table 3. Weighting choices relative to scale of ability development degree of passive defense practices method

Ability development degree of passive defense practices method		Increasing awareness	Vesting belongingness sense	Strengthening and warranty quality	Caring and assessment permanent
		F1	F2	F3	F4
Increasing awareness	F1	1	1/2	2	1/4
Vesting belongingness sense	F2		1	2	1/3
Strengthening and warranty quality	F3			1	1/5
Caring and assessment permanent	F4				1

Priorities with respect to:

Ranking of Passive Defense Deployment Methods in Gorgan City Schools

>B





Graph 3. Choices weight relative to scale of ability development degree of passive defense practices method

3-Scale of permanent degree of passive defense practices method

Table 4. Weighting choices relative to permanent degree of passive defense practices method

Permanent degree of passive def practices method	Increasing awareness	Vesting belongingness sense	Strengthening and warranty quality	Caring and assessment permanent	
		F1	F2	F3	F4
Increasing awareness	F1	1	1/5	1/2	1/4
Vesting belongingness sense	F2		1	3	2
Strengthening and warranty quality	F3			1	1/2
Caring and assessment permanent	F4				1

## Priorities with respect to: Ranking of Passive Defense Deployment Methods in Gorgan City Schools >C

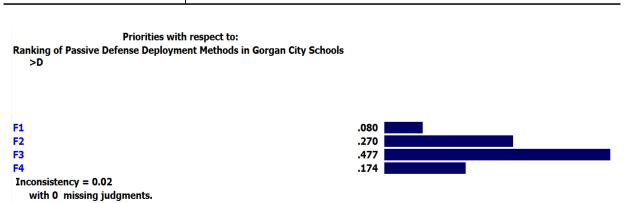


Graph 4. Choices weight relative to scale of permanent degree of passive defense practices method

4-scale of performance degree of passive defense practices method

Table 5. Weighting choices relative to performance degree of passive defense practices method

Performance degree of passive defense practices method		Increasing awareness	Vesting belongingness sense	Strengthening and warranty quality	Caring and assessment permanent
		F1	F2	F3	F4
Increasing awareness	F1	1	1/3	1/5	1/3
Vesting belongingness sense	F2		1	1/2	2
Strengthening and warranty quality	F3			1	3
Caring and assessment permanent	F4				1



Graph 5. Choices weight relative to scale of performance degree of passive defense practices method

3.4. Summary of obtained weight from comparing method pair relative to one by one of scales

Scales Choices		Cost passive defense practices method	of	Ability degree defense method	development of passive practices	Permanent degree of passive defense practices method	Performance degree of passive defense practices method
		A		В		С	D
Increasing awareness	F1	0/143		0/142		0/081	0/080
Vesting belongingness sense	F2	0/086		0/214		0/477	0/270
Strengthening and warranty quality	F3	0/507		0/094		0/154	0/477
Caring and assessment permanent	F4	0/264		0/550		0/288	0/174

3.5. Prioritizing the passive defense practices approaches inn educational spaces by using multi-criteria decision making method (TOPSIS)

After determining choices weight to relative to difference scales, should be converting decision matrix to non-scale matrix. For this action first should be counting the average any matrix surface and based on any criteria establishing N matrix.

In continues counted and established the balanced non-scale matrix, for this action, first establishing W matrix to relative to criteria weight matrix that be main diameter of criteria weight.

Table 7. Matrix of criteria weight, W matrix

Scales	Cost of passive defense practices method	Ability development degree of passive defense practices method	Permanent degree of passive defense practices method	•
	A	В	C	D
Cost of passive defense practices A method	0/598	0	0	0
Ability development degree of passive defense practices method	3 0	0/050	0	0
Permanent degree of passive defense of practices method		0	0/082	0

#### ISSN:1001-4055

Vol. 44 No.04 (2023)

Performance degree	ĺ				
of passive defense	D	0 0	0	0/270	
practices method					

In continuous will establishing the normal matrix of balanced non-scale and then will determining the positive and negative perfect choices.

Table 8. Balanced non-scale matrix, V matrix

Criteria		A-	$\mathbf{R}^{+}$	C <sup>+</sup>	D <sup>+</sup>
Choices	_	A	В	C	D
Increasing awareness	F1	0/144	0/012	0/011	0/037
Vesting belongingness sense	F2	0/086	0/017	0/067	0/126
Strengthening and warranty quality	F3	0/509	0/008	0/022	0/222
Caring and assessment permanent	F4	0/265	0/045	0/040	0/081

In addition, the scale has negative or positive aspect and determining method is that like scale performing coast if has more amount from point of finance it be harmful for project and has negative aspect and in this situation the big number isn't good sign and about performing speed scale, the big number is sign of more speed of performing method and it scale ordering as positive scale. In below table showed the positive and negative perfect solving and selecting for positive perfect from any bottom of positive criteria the biggest number and for negative criteria the smallest number and too, be performing for negative perfect reversely.

Table 9. Choices of negative and positive perfect

Criteria Solving	Cost of passive defense practices method	Ability development degree of passive defense practices method	Permanent degree of passive defense practices method	Performance degree of passive defense practices method
Positive perfect solving	0/086	0/045	0/067	0/222
Negative perfect solving	0/509	0/008	0/011	0/037

Table 10. Choices distance to perfect

Distances	D <sub>i</sub> <sup>+</sup>	D <sub>i</sub> -
choices	D <sub>j</sub>	Dj
Increasing awareness	0/204	0/365
Vesting belongingness sense	0/100	0/436
Strengthening and warranty quality	0/437	0/185
Caring and assessment permanent	0/229	0/252

So that be showing, if the choices have relative nearest to perfect solving Cli, have most priority. Therefore, choices priority of this project is respectively.

Table 11. Choices relative nearing to perfect solving

Am	Cl	
Cho	pices	Cl <sub>i</sub>
F1	Increasing awareness	0/641
F2	Vesting belongingness sense	0/813
F3	Strengthening and warranty quality	0/302
F4	Caring and assessment permanent	0/524

#### 4. Conclusion and discussion

Many challenges being for establishing school and secured educational spaces that the most important be including to being improper restructure in danger local, lack of reveal definition from responsible duties. In this situation the school as population center and using from it as shelter in critic situation and lack of space, the establishing secured school be effective for increasing mental secure of students and family. So that, especial situation of any school and all of especial factor that using for decreasing damage was a main challenge for society. So that, designing and establishing secured school be essential and should be ordering in ministry of education and training programs priority.

In this project surveyed criteria of cost of passive defense practices, ability development degree for passive defense practices, permanent degree of passive defense practices and performance degree of passive defense practices and result be relating that the criteria of cost of passive defense practices and performance degree of passive defense practices with 0/598 and 0/270 weight have more important to compare to other criteria.

4.1. Importance of choices and solving from point of cost of passive defense practices method

The method of strengthen and quality warranty with 0/507 weight from point of cost of passive defense practices method in comparing to other method is priority.

4.2. Importance of choices and solving from point of development ability of passive defense practices method

Method of caring and assessment permanent with 0/550 weight relative to other method, from point of development ability of passive defense practices method is priority.

- 4.3. Importance of choices and solving from point of permanent degree of passive defense practices method Method of vesting belongingness sense with 0/477 weight to relative to other method, fro, point of permanent degree of passive defense practices method id priority.
- 4.4. Importance of choices and solving from point of permanent degree of passive defense practices method. Method of strengthen and quality warranty with 0/477 weight to relative to other method, from point of performance degree of passive defense practices method is priority.

#### 4.5. Prioritizing all of method

To notice to ranking all of method the kind of solving based on all of criteria in deciding were in below.

1-vesting belongingness sense: 0/813 weight.

2-increasing awareness: 0/641 weight.

3-caring and assessment permanent: 0/524 weight.

4-strengthen and quality warranty: 0/302 weight.

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