Secretariat for Secondary and Pre-secondary Education
Society of Jesus
Rome

Some Considerations on the construction of new facilities for Jesuit Schools

(Construction Manual for Educational Spaces)

Front cover photo:
Jesuit High School Chapel Of The North American Martyrs - Carmichael, California
https://www.designboom.com

INTRODUCTION

The Society of Jesus has a long history in education that begins with founder Saint Ignatius of Loyola and continues today with over 2,000 schools offering basic education as well as almost 200 universities. Often, new schools are built in a great diversity of cultural and social contexts. Many schools take on renovations, both big and small, that require careful planning. This document, Some Considerations on the Construction of New Facilities for Jesuit Schools, aims to facilitate the necessary discernment and planning required in the renovation or construction of new educational spaces. It is difficult to create a document that can respond to the particular local circumstances in which our projects are developed; therefore, this document aims to be a flexible guide to orient the decision-making process. At all times, the recommendations of Father Ignatius should be observed: everything should be done in keeping with the times, places and people.

The secretariat for education of the Society of Jesus offers this manual as a tool to help those who hold the decisions on building new educational spaces in their hands. Please feel free to send us the recommendations and modifications that you feel should be added to future editions that stem from the discernment, planning and evaluation of the construction process. These contributions will be highly useful to us for improving future editions of this text.

We would like to thank Father Gonzalo Silva SJ from the Province of Chile for his important contributions to this document. We would also like to thank all of those who helped to improve initial drafts with their comments. This group of individuals is a good representation of the cultural, social and geographical diversity our educational spaces need to respond to.

May God continue to bless the Society of Jesus' educational task, so that we can continue to be privileged apostolic instruments serving the apostolic mission of the Society as it was conceived by Saint Ignatius of Loyola and the first Jesuits.

José Alberto Mesa SJ
Secretary for Education
Society of Jesus

Seminario School
Motevideo, Uruguay
http://www.flacsi.net

Rome, July 31 st on the feast of Saint Ignatius of Loyola

OBJECTIVE

Provide the teams that plan and build new school facilities with certain criteria, considerations and suggestions that will help them in making decisions as they create new spaces. Promote facilities that are in keeping with our educational model based on active, personalized and transformative education for the individual and their local and global environment.

INITIAL CONSIDERATIONS

This document distinguishes between three types of construction and includes certain considerations for each.

The process of discernment that must take place varies significantly in the different possible scenarios. We will present three types of projects along with certain discernment criteria for each.

1. Facilities for newly-founded schools

In this scenario, our school must start from scratch. In other words, it is a new school that does not yet exist and which is to be newly founded.

Criteria: in this case, serious discernment must take place regarding the educational proposal we wish to apply. We must take advantage of the opportunity to innovate in the educational and pedagogical aspects of the new facilities.

This process requires time. A first stage must take place in which we can "feel" with "great spirit and openness" the requests and needs of the school community. At the same time, we must collect plenty of information that will allow us to build on a solid foundation, and create a fluid dialogue among actors in which the pros and cons of different options are weighed. Finally, there must be a time for confirmation in which a final decision can be made with tranquillity of spirit.

IMPORTANT: the type of architecture depends on the educational project. It is not just a matter of reproducing the traditional school in a new building. This is an opportunity to respond to the challenge to reach for the borders of evangelization and of pedagogy by offering a quality Ignatian education with the technical and pedagogical means we now have at our disposal. It is fundamental that before we begin any construction project, we have a clear pedagogical and educational project in mind (our Ignatian Educational Project). This educational project must, in addition, be in harmony with the apostolic project of the Province, the region and the universal Society. We must not forget that a Jesuit school only makes sense if it serves its mission.

The choice of a terrain and the appropriate location for the new educational establishment is VERY IMPORTANT. There are many variables to consider at this stage, so minimum preliminary studies must be conducted to guarantee that the terrain meets the necessary conditions for creating an adequate facility. For example, it is important to analyse conditions affecting safety, access and the opinion of the surrounding community regarding the new building to ensure that the new school will be successful.

Suggestions: visit and get to know existing models. Today, with internet access it is relatively easy to virtually tour different schools that have renovated their facilities or built them anew. It is a good idea to get an idea of these different experiences by requesting information and exchanging views on concrete means of application. Ignatian educational networks can be very useful in this. It is a good idea to choose a certain experience which can be visited personally by a certain member or members of the community. We must not miss the opportunity to profoundly renew and innovate in the educational model proposed for the new facilities.

2. Building new facilities for an existing school

A second possible scenario is for an existing school to move to a new location. In this case, the new facilities must be built from scratch in keeping with the Educational Project of a school that has a sustained tradition.

Criteria: the same criteria for discernment as in the previous model apply, although in this case we must be careful not to give in to the temptation to move the school into a new building which is simply a copy of a model which no longer entirely meets the educational needs of our students. Being open to the frontiers of what is known and what is yet to be known is also an important criteria that must be incorporated responsibly, thus responding to those who are called by the foundational documents of the Society of Jesus and its more recent formative documents.

Suggestions: the same suggestions as in the previous section are offered.

Saint Ignatius' College Riverview - Sydney, Australia
https://www.riverview.nsw.edu.au/

3. Reconstruction/renovation of existing facilities

Here, we are referring to a school which must be reborn in the same location, either by demolishing or partly renovating the old building, transforming its facilities according to modern criteria.

Criteria: the discernment criteria in this case must not only take the initiative of applying a new coat of paint to what already exists; it must also serve to re-create what is worth conserving. At the same time, we must dare to do away with whatever is not helpful, and to build anew where possible in order to prepare the existing school to face the challenges of the 21st century.

Suggestions: in this last case, some things to keep in mind are: the age of the existing school facilities; how safe they are; whether they can be adapted to meet new educational demands; whether the school can grow in its existing location; an evaluation of the terrain and the quality of construction; problems with the infrastructure; the possible loss of competitiveness reflected by a continuous decrease in student registrations; and the opportunity to shift to a co ed system, if this has not already taken place, in which case new spaces will be needed. We must also consider if the school can function while construction is going on. Is it worth remodelling/rebuilding our facilities, or is it better and/or possible to build new facilities from scratch?

Our Lady of Montserrat Chapel Seattle, WA, United States
https://architizer.com

Areas of Responsibility for different Actors

In any of the three models presented above, there are three fundamental actors involved, each of whom carries out their own discernment based on their role in the Province or in the educational community:

1.The Jesuit Province must discern on the apostolic need to build, renovate, or rebuild a school in a new location. In other words, it must choose one of the three alternatives stated above, or any other variant that may arise.

Basic aspects that must be considered by the Jesuit Province as part of its own discernment are:

• The Jesuit government must have the political will to make the project a reality, from beginning to end. It is important to create a written protocol for whatever decision is made, which can guide the entire construction process and which must be known to all the members of the educational community that are involved.

• Through its provincial government, the Society must create a project management team (if it does not already have one) to deal with financial, educational and strategic matters. This team will ensure that the project has the required funding and that, at the same time, it does not stray from the pedagogical and educational objectives behind construction (the Ignatian Educational Project).

Experience has shown that in some cases, it may be necessary to name a delegate from the Society (layperson or Jesuit), who is responsible for ensuring that the objectives of the project and its technical, pedagogical and Ignatian specifications are met with. This delegate will be placed in charge of this task because it is very difficult for rectors to take on this role in addition to their existing responsibilities. The delegate must maintain constant contact with the rector, and must act as his representative in order to avoid having two project heads.

In addition, the total cost must be sufficiently analysed so that studies, terrains, construction, publicity, legal aspects, implementation, inauguration, etc. can be matched up with their means of funding. It is also important to have at least a general idea of the type of architecture to be used and of the conditions of the terrain.

• In keeping with its structures, each Jesuit Province must also involve all the opportunities for consultation needed, such as apostolic platforms, planning councils or others that may exist. In addition, in keeping with the configuration of Jesuit Conferences, assistance and advice can be sought in regional school networks, which can provide advice and contacts for improving the development of the project.

Guiding questions:

1. What apostolic benefits do we aim to get from this new school as a result of the chosen model (starting from scratch, renovating or changing facilities)?
2. How does this project fit within the provincial, regional and universal plans of the Society of Jesus?
3. How can this project respond to the apostolic priorities and preferences of the provinces and regions of the Universal Society?

2. The local Jesuit community (should it exist where the school is to be built)must discern whether or not there is an apostolic need for the project. In the case that not everyone in the community works in the institution, whoever does not must be provided with all available information so that any opinions they may form are well-founded.

In some places, Jesuit communities live on campus. This factor must necessarily be a part of the process of discernment, and it should be decided whether it is necessary to change the current location of the Jesuit community, moving it either in or out. In some countries, as a result of the cases of sexual abuse against minors by members of the clergyor other apostolic considerations, the decision has been made for the Jesuit community to live off campus. Nevertheless, in some other countries it is still considered to be important for there to be a Jesuit presence on campus that can give support to the apostolic process. As a result, it is necessary for there to be a process of discernment on this question.

Guiding questions:

1. What apostolic need is there for this project?
2. Does this project contribute sufficiently to developing the apostolic mission of the Society in this region?
3. Does the architectural design include a Jesuit community on campus? Why?
4. What educational and pedagogical project should be advanced through this project?
5. What elements of educational renewal should be incorporated in order for this project to help us respond to the call to reach for the apostolic and educational frontiers of our time and of the near future?

Instituto Cultural Tampico - Tampico, Mexico
http://www.flacsi.net

3. The School Community within the school (especially if the school already exists and is to be rebuilt or moved) must join and be involved on all levels in this serious discernment. The institutional Educational Project must be viewed as a roadmap through which all levels of the educational institution can be aware of the basic aspects of Ignatian Pedagogy. Actors from the Educational Community are normally as follows:

Within the educational community we find the Management Team. It is the principal actor in the process that takes place within the institution. It must be the recipient of all available information, and in turn must inform other sectors of the school. If necessary, the MT should plan additional meetings with the aim of ensuring the pedagogical and administrative soundness of the construction project.

It is very important to incorporate teachers and other staff so that they can make their contributions, in addition to working to make them passionate about the Project. Students should also be included, especially through their own representative entities. The Parents' Association should be an active part of the whole process as well, especially to get them involved in a first-class project that will have a clear impact on the quality of their children's education. Their participation will also dispel any doubts about the means of funding construction. Parents may have doubts about "who is paying for all of this." These are very specific worries that must be dealt with, as parents are understandably concerned about their economic situation and the price of tuition.

Depending on time, location and individuals, the rector and his management team will have the support of a construction Support Committee made up of different groups: any parents who can provide professional or economic support, experts in different areas affecting the project, perhaps some donors (alumni), authorities committed to the school, etc. These will also closely follow the project and will help to get other actors from the city or region involved in facilitating construction in its many different aspects.

Guiding questions:

1. Why is a project like this necessary?
2. As an educational community, how can we contribute to its development?
3. What educational and pedagogical project should be advanced through this new challenge?
4. What elements of educational renewal must be incorporated in order for this project to help us take on the apostolic and educational frontiers of our time and of the near future?
5. What mechanisms can we use to get the educational community involved in the process of change and renewal?
6. Some of the questions from previous sections can also be incorporated.

Publicizing the project in the area

It is necessary for us to consider publicizing the project in the region where the school is located. This will allow local authorities from different bodies to be aware of the project, allowing them to feel like they are a part of it so that they can collaborate and help navigate the difficulties any project must face. At the same time, publicity will help to get new families who wish to join the educational community excited.

On the decision-making process

Each educational project that is built or renewed must create its own map of the process when making decisions. It should reflect the structures of the Society's central government as well as local and provincial structures. We insist that a broad process of discernment, consultation and participation must always take place. We even recommend that experts be consulted when making decisions or in management processes in order to make better choices.

San José School - Barranquilla, Colombia
http://www.flacsi.net

Three important pillars: Engineering, Architecture, Education

1. Educational matters are foremost

It is important to remember that educational matters are foremost to our Project. Engineering, architecture and other means must serve to facilitate education. The new facilities should reflect a pedagogy that is both active and transformative, centred on the student as an individual. This should help to achieve the human excellence that is a part of our educational tradition.

When it comes time to design our new educational facilities, many different questions arise that must be addressed. For example: the number of students in each class, types of classrooms, whether the school will be co ed and in what manner, what laboratories are required and how students will use them, how students will be fed, the organization of playgrounds, cafeterias, libraries, chapels and sacred spaces, the distribution of hallways, etc. Many of these questions must be resolved in an initial stage of reflection involving the different sectors of the school, especially the teachers.

When it comes time to choose the engineering and construction firm and the architecture firm, one option is to hold an open contest (open to any businesses that wish to participate), a closed contest (where six or seven businesses with experience in building schools are chosen), or not to hold a contest, directly choosing a construction or architecture firm.

Once the construction firm, the architecture studio, and the building inspector have been chosen, when possible it is important to bring together all three in order to explain the pedagogical foundations of Ignatian education to them, as well as the history of the school and of the Society of Jesus' educational tradition. It is important that they be aware that the job they are about to take on is part of the over400-year educational mission of the order founded by St. Ignatius of Loyola.

The building inspector (whose title varies by country and region) is of vital importance. They are in charge of controlling the quality and the timeframe of construction according to what has been planned and agreed upon. Building inspectors are the Society of Jesus' professional eyes on the site.

On-site, these three aspects (engineering, architecture, education) must always work incomplete coordination. It is essential that every week, a building meeting be held. It helps to hold these meetings at the same time and on the same day every week. At the meetings, it is very important for some member of the educational community to be present (preferably the rector or director), together with the Society's delegate. This will ensure close control over construction and will help to guarantee the Ignatian educational orientation of the new facilities.

The architecture used must be simple, functional and modern. Whenever possible, noble and austere materials should be used in order to ensure that it will maintain a good condition over time and to ensure that minimum maintenance is needed. The local climate must be considered, together with the legal requirements for educational facilities in each region.

It is important that the Project Manager (a separate position from the Society's delegate) create a general program that includes completion dates for the different phases. For example: design period; calculation of area and evaluation; final adjustments; call for proposals and selection (engineering, architecture); beginning of construction; length of construction; moving; inauguration and receptions (municipal officials, government ministers, etc.); and beginning of classes in the new facilities.

Guiding questions:

1. *What Ignatian Educational Project (IEP) do we want to develop through this project?*
2. *What are the most important aspects of our educational tradition that this project needs to facilitate?*
3. *What type of materials should be used in order to guarantee long-lasting, simple and low-maintenance facilities?*

Dos Jesuitas School - Belo Horizonte, Brasil
http://www.flacsi.net

2. The school building as pedagogy

At a time when students and young people are so very sensitive to images and visual stimuli, it is important for the different spaces of the educational building (walls, floors, hallways, etc.) to transmit elements that activate students' capacity to learn and think.

The building should not just be a space to house students as they attend classes where they are lectured by their teachers. It should also be a welcoming space, full of meaning, which serves as a second home where the student encounters knowledge not only in the words of his teachers, but also in the architectural design, the walls, the hallways, the playground, the classrooms… Several studies have shown the positive relationship between conditions of construction and school performance in standardized tests (see McGuffey, C.W. 1982. Facilities. Chapter 10. P. 237-288 in W. Herbert, ed., Improving Educational Standards and Productivity. Berkeley, CA: McCutchan Publishing Corp.)

One possibility that has met with success in some schools is for the walls to be covered in large murals displaying the different subjects to be taught. These images encourage the students to ask questions, to dream and to live religious devotion. This option is a significant challenge, since it forces us to be creative, to know how to summarize what is important, and to explain, or rather to suggest, so that the student will continue to explore and discover on their own. We know from experience that this is the best way of learning. In our new school facilities, every space should be educational. This way, students will feel stimulated by their surroundings, allowing the school to speak to them through its spaces. This environmental "education" can be used by teachers, parents and the students themselves to be aware of all of the knowledge acquired over the years. The images are retained in the memory of the person, and together they can help to tell a story.

Today, we have the means to design large murals that represent interesting aspects of every area of knowledge, such as the history of the school, of the Society of Jesus, of the Church, of science, art, society and its values, sports, games, technology, etc.

Guiding questions:

1. *What educational elements do we want to include in our architectural design?*

3. The type of education offered should shape our architectural design: education is foremost

Besides the walls, the recreational spaces, the hallways and the playgrounds, we can include elements or educational games related to math, science, society, art and culture, sports, etc.

The architecture of the school must be designed to give priority to spaces or themes and to ensure that they can be used by the whole of the educational community.

The architect or architects chosen must have a special awareness of Ignatian education that will influence their design. If they do not already have this awareness, they must be able to acquire it and apply it to their work. Often, we find that architects refuse to "taint" their work with images or other elements; they prefer clean, open, and transparent spaces. However, a school is not only a beautiful or attractive space. It is a functional space, which does not mean it cannot also include attractive and suggestive architectural forms. It is the interaction of the student with experiences that cause them to reflect, ask questions and look for answers. This makes the school a space that is shaped by knowledge, a space aimed more at inspiring curiosity than at facilitating lectures.

What we are trying to describe is nothing more than a practical application of the Ignatian Pedagogical Paradigm (PPI), as an adequate response to emerging educational problems. "A decisive characteristic of the Ignatian paradigm is the introduction of reflection as an essential dynamic[…] Effective learning takes place in the interaction of the student with experiences[…] which leads to the development of more complex abilities for learning: comprehension, application, analysis, synthesis and evaluation" (Ignatian Pedagogy: a Practical Approach, #31). A fruitful experience comes from living in an educational environment that speaks about all dimensions of the world while also serving as a warm home where students feel respected and welcome as they take on their educational process and acquire new knowledge. At the same time, a truly Ignatian educational experience must take action, as we are reminded by PPI itself: "love is displayed through actions, not through words". As a result, educational spaces must also manifest this openness to transformation and action that is so important to our educational philosophy.

Guiding questions:

1. *What Ignatian Educational Project (IEP) do we want to develop through this project?*
2. *What are the most important aspects of our educational tradition that this project needs to facilitate?*
3. *What type of materials should be used to guarantee long-lasting, simple and low-maintenance facilities?*

4. Technology in the service of education

The construction of a new educational space is a precious opportunity to incorporate technology that can be put to work for teaching, education and evangelization. The modernization of teaching through use of new technologies should also be incorporated into architectural designs and engineering.

As stated in Jesuit General Congregation 35, "Among the defining characteristics of our globalized world are new communications technologies. They have a tremendous impact on all of us, especially the young. They can be powerful instruments for building and supporting international networks, in our advocacy, in our work of education, and in our sharing of our spirituality and our faith. This Congregation urges Jesuit institutions to put these new technologies at the service of those at the margins" (3.29).

Today's children and young people have immediate and almost unlimited access to information; they no longer depend solely on the teacher or the textbook to access knowledge. Through other avenues such as the Internet, they can access this information; and generally, because they are natural computer experts, they can use these tools more skilfully than the teachers themselves, rapidly accessing class materials and content. Of course, we know that this is not enough for them to learn everything they are to learn. In our educational tradition, the teacher is still important because they guide the educational process in such a way that students reach the established objectives, always within the framework of respect for personal freedom.

Technology as used by the media makes it possible for an almost immediate knowledge of what is happening. World events are no longer just transmitted rapidly; they can also be "experienced" in real time. Globalization causes us to share with other cultures, enriching us with this diversity. At the same time, however, there is a risk that we will acquire unwanted values and customs. The immediate and extended communication provided by mobile phones, for example, causes us to be perpetually connected and locatable, in addition to allowing us to store, transmit and enjoy music, photos, movies and files, among other things.

Computers are another key tool that can serve students. All of humankind's previous inventions multiplied our physical capacity, whether in strength or in skill, in a way that could be measured: an invention replaced the strength of hundreds or thousands of individuals, or multiplied their speed, their skill or their vision hundreds or thousands of times. Other inventions cured illnesses and other deficiencies, extending our lifetimes.

However, computers are a special innovation. For the first time, the intellectual capacity of the human being is multiplied in such a way that it cannot be measured and has no limits. Today, we can realize millions of calculations and measurements in an ever-shorter amount of time, and our capacity to store and access information is currently limitless. We can search for similarities and compare millions of pieces of data or facts; we can communicate with almost any corner of the globe without wires. These are the tools available to today's students, and they are always being improved. However, we are aware of the fact that this technology also has its limitations, such as when a great earthquake, tornado or flood cuts off communications and forces us to fall back on older systems.

Visual elements are present in everything. Students today are surrounded by electronic stimuli; they may be using the Internet while listening to an MP3/4 player, using an iPod, iPad, Whatsapp, Instagram, chatting with more than 10 friends at a time, and receiving messages through their smartphone. Cable TV offers further stimuli, with a wide range of programs offering entertainment, culture, history, local news, world news, sports, animals, and technology, although all of this is slowly being replaced by YouTube and other alternatives.

Under these circumstances, how can we maintain the attention of an entire class for a single subject, as interesting as it may be? How can we show students how to sift through all this information and understand what part of it is useful and will help them in their educational process? When faced with so many stimuli, how can we amaze them with anything new? When faced with so much information, and when it seems like there is a solution for everything, how can we keep the desire to investigate, to discover, to ask questions –or at least to try new things— alive in our students? How can we show them to be pluralist without losing their own identity? When all of this technology places everything within arm's length, without need for others, can we teach them that what is important is not to concentrate on themselves, but on others? In an increasingly virtual world, how can we show our students all dimensions of reality, what is attractive and what we feel is condemnable and worrying?

San Francisco Javier School - Puerto Montt, Chile
http://photos.wikimapia.org

With technology that allows us to do almost everything, how can we teach our students that not everything is okay and that rejecting one's own desires or even failing allow us to grow? There are many questions we need to ask ourselves, and as individuals enriched by their many experiences, our teachers will certainly play a key role in coming up with the answers. We must take on this important challenge when it comes time to design a new school.

Keeping in mind what we have just stated, the opportunity of a new or renovated facility forces us to rethink our use of modern innovations from the point of view of hybrid models in which technology is both an efficient tool and a new means of learning and teaching. Our educators must be careful not to separate modern innovations from this"hybrid" model; they must try to incorporate a technology that teaches attitudes towards knowledge, while also being efficient with regards to the result of our learning.

Guiding questions:

1. How can we incorporate new technology into our educational spaces?
2. What will the role of these new technological developments be in the educational and pedagogical model we offer in the educational spaces we are recreating?
3. What impact will the adoption of these new technologies have on the architectural design we are looking for?
4. With so much technology that places everything within arm's reach without need for others, how can we teach students that it is important not to focus on oneself, but on others?

Specific considerations

As we have already stated, our objective is to devise an architectural project that is simple, modern, practical, and austere. It must also be built with noble yet not excessively expensive materials that ensure less maintenance and an extended usefulness.

In all enclosed spaces, it is important to incorporate security elements which, in many places, are required by special laws concerning schools. This is especially important in laboratories. Security systems with state-of-the-art technology should also be incorporated.

1. Classrooms

As stated above, our design must be enriched with information gathered from teachers, administrators, other personnel, students and the school community. By organizing a consultation involving written suggestions, ideas can be gathered to perfect the design, to add to it and to minimize the changes and corrections that have to be written into the project later on, making the construction process more expensive.

It is important to always design classrooms that are larger than what is specified by local laws. This will allow for different types of activities within the classroom: group work, individual work, activities involving movement or large teaching tools, etc.

Magnetic whiteboards increase educational possibilities, as magnetic teaching tools can be used on them.

Replacing traditional cloth curtains with a system of automatic blinds or window trellises can increase ease-of-use, improve aesthetics, and save on maintenance.

As we have already stated in reference to educational technology, it is a good idea to ensure that each classroom has a direct connection to the Internet, either at each student workstation or using Wi-Fi, if possible.

Guiding questions:

1. *What type of classroom do we want and need for our IEP?*
2. *What technological fittings should our classrooms include?*
3. *Do our classrooms facilitate the active learning style that our educational proposal demands?*

Santo Inácio de Loiola School - Ulmera, Kasait, East Timor
https://timorlestejesuitsdotorg.files.wordpress.com

2. Administrative spaces

It is important to guarantee that administrative spaces can be easily accessed by outsiders: parents, suppliers, inspectors, etc. At the same time, they must be sufficiently independent of the classrooms and the spaces used by students. In many places, a "pool" of administrative staff has been created, where all administrators work together, separated by low dividers. This way, it is easier for them to work together while also saving space and maintenance costs.

Guiding questions:

1. What administrative spaces does our project require?
2. How can we design them so that the administrative area is easily accessed by family members and others without interfering with everyday educational activities?
3. How can we design an administrative area that is easily accessed by students and teachers?
4. Where will we locate our management team in order to provide them with an adequate workspace while also transmitting the sense of closeness with students that is so important to our educational proposal?

3. Athletic spaces

Athletic spaces are part of three vitally important educational axes for our children and young people with their varied development issues: sports, culture and religion/spirituality.

Where feasible in terms of space and budget, and in keeping with the uses and customs of each country and region, it is advisable to include a football/soccer pitch, tennis courts, basketball courts, an athletics course —preferably synthetic— with space for jumping and throwing activities and, of course, a gymnasium. Where possible, we would recommend a large gymnasium that could be divided in two with sliding panels or a curtain; that way, two events can be held at the same time. This space might also be used for different gatherings such as conferences, large liturgical celebrations, etc.

In addition to the spaces necessary for traditional sports, we might consider other elements such as a climbing wall that can take advantage of vertical space, or facilities for locally important sports.

A swimming pool, heated in colder regions, will allow students to learn to swim and to practice competitive swimming.

Guiding questions:

1. What athletic spaces are possible and necessary in our project?
2. How can we design these spaces so that they can be used without interfering with the academic activities going on elsewhere?
3. What spaces can be designed to accommodate multiple sporting events?

4. Cultural spaces

An all-purpose room or theatre will allow students to put on plays and other public performances, elements that have been a part of the Ignatian educational tradition from the very beginning.

A school might include a soundproof music room, a chorus loft and musical instruments. A small soundproof recording room might also be included.

The possibilities of education through the arts are enormous. Many students tend to be very open to art-related forms of learning. A new Jesuit school must discern what kind of art they would like to promote in keeping with the culture of their area and the artistic sensibilities of the culture they would like to serve. They must, therefore, include adequate spaces for practicing whatever arts they feel are most appropriate.

Guiding questions:

1. *What cultural spaces are possible and necessary for our project?*
2. *How can we design the spaces so that their use does not interfere with academic activities going on elsewhere?*
3. *What spaces can be designed to accommodate multiple cultural events?*

Santo Ignacio El Bosque School - Santiago, Chile
http://static.panoramio.com

5. Religious/spiritual/pastoral spaces

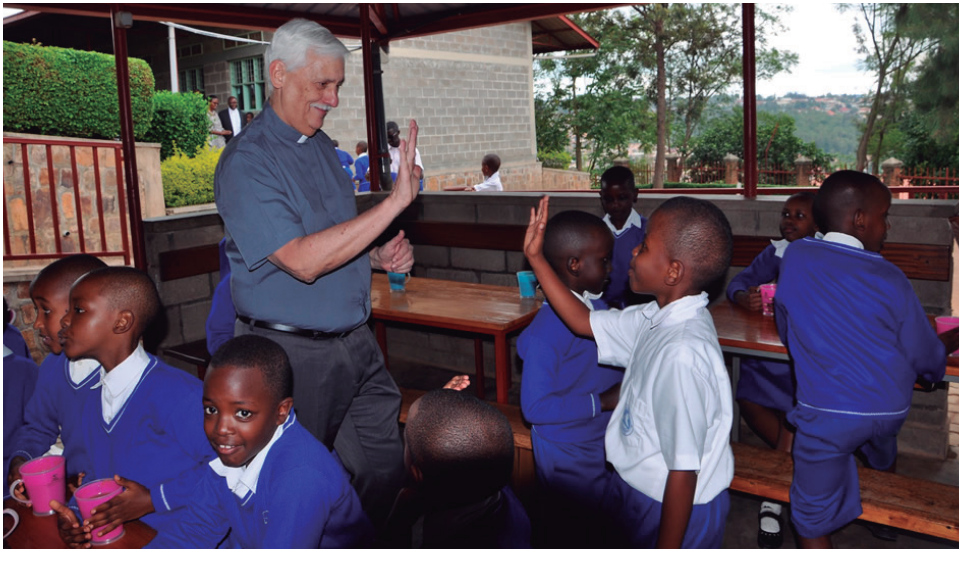
A chapel is an essential space in a Jesuit school or a school associated with Ignatian spirituality. In addition to other spaces that might be used for large liturgical events, a school should have a chapel/church that is appropriate for prayer and celebration. A space for silence, prayer and meditation, it should always be open to the mysteries of faith and spirituality.

The architecture of this space will largely determine the message regarding the formation of faith we want to transmit to our students. For this reason, it is important that the chapel/church be placed in a location that is central and easily accessed by the educational community. In some schools, the chapel is accessed both from inside and outside the building, in order to hold celebrations without needing to pass through the spaces reserved for students and staff. In addition, it allows the chapel to be easily used on holidays when most school facilities are closed.

This may also incorporate visible elements of catechism: the three stages of the Paschal mystery (Birth, Easter, Resurrection), images including the Virgin Mary, the life of the patron saint of the school or of other saints, the Sacraments of Initiation, etc.

Guiding questions:

1. What message regarding Christian / Ignatian identity do we want to transmit through our architectural project?
2. What is the most appropriate space for the chapel in order to guarantee easy access for students while also permitting use by external groups without interfering with school activities?



Ecole Primaire Saint Ignace and Saint Ignatius High School - Kigali, Rwanda
http://www.sjweb.info

6. Libraries and media centres

Our educational tradition has always placed a great deal of importance on academic excellence and therefore on easy access to information and books. Many of our schools have important libraries conceived as an essential resource for solid learning based on the student. Today, whenever a school is rebuilt or renovated it is important to understand the library more as a centre where there is easy access to information both from books, the Internet and other technological resources. In addition, the library or media centre must have spaces for quiet individual work as well as for group work. Thesefacilities should be modern, comfortable and welcoming, easily accessed and centrally located.

Guiding questions:

1. *What type of library or media centre do we want for our project?*
2. *Is our media centre placed in a central location that is easily accessible to students and educators?*
3. *Does our media centre have spaces for quiet individual study and for group work?*

7. Transparency, privacy and functionality

In keeping with the rules for a safe and healthy life, and the prevention of all types of abuses, all areas must have a certain degree of transparency —with ample use of glass— preventing blind spaces or corners where visual control is not possible. To this end, we must keep in mind the letter from Father Gen. Adolfo Nicolás to the Major Superiors on the "Protection of Minors and Vulnerable Adults" from May 18, 2015.

With this in mind, spaces within the school should be visually accessible. In other words, they should be easy to view from the outside in order to allow the adults that accompany students to visually monitor them and prevent dangerous situations or inappropriate actions. In many places, educational legislation establishes a series of minimums in this regard.

Guiding questions:

1. *How can we ensure that our architectural proposal is in keeping with the spirit of the letter from Father Gen. on the protection of minors and vulnerable adults?*
2. *Go over the design of windows and doors to ensure that there is plenty of transparency as well as the necessary privacy to ensure that the space works properly.*

8. Financial feasibility studies and budget

Not only must we determine the cost of construction, but we also must study the total cost of our project as a whole. We must include spending that is normally considered separately, such as building permits, professional fees, moving and inauguration. In other words, we must get as close as possible to the total cost. This is important for the budget itself, but also because these projects are often compared erroneously with other projects where only the cost of construction (price per square meter) is taken into account. When we are asked about the cost of the construction of the building, it is important that we offer the total value.

Any schools that are built anew or significantly renovated must include a serious study of financial feasibility and economic projection, which clearly determines sources of funding and project viability. Different types of funding need to be explored: funds collected through donations, loans from banks or other financial institutions, internal lending from other entities in the Society or Province, leasing/leaseback systems, sale of the previous facilities, etc. In all of this, a realistic projection of the debt to be acquired through construction and how the school can take on this debt without compromising its educational quality is the principal reason for new construction or renovation.

We must also ensure that we include a percentage for contingencies (unforeseen occurrences), which are practically unavoidable. 20% of the initial budget is a prudent and reasonable amount, but every effort must be made to keep with the established budget without having to rely on these contingency funds.

Guiding questions:

1. *Does the budget include all of the income and spending involved in the project?*
2. *Is the amount dedicated to contingencies sufficient?*
3. *Does this budget take into account the true total income and spending for the project?*

Loyola Jesuit Secondary School - Kasungu, Malawi
https://mafrsouthernafrica.files.wordpress.com

9. Accessibility

When we choose our terrain we must ensure a minimum of accessibility for students and their families. It is a good idea to organize meetings with the local authorities in order to facilitate the arrival and departure of students throughout the school year. It is also important to evaluate collective transportation to and from school and to coordinate with the frequency and use of public transportation. In some countries, an evaluation of a project's impact on traffic requires additional construction outside of school grounds which must be paid for by the school.

Schools must also be fully accessible for handicapped individuals and others with limited mobility. To this end, local legislation should be respected or may be taken even further to show our commitment to inclusiveness.

Guiding questions:

1. Have we sufficiently analysed the impact of our project on traffic?
2. Have we obtained the necessary permits and informed the necessary authorities in order to ensure that our school is sufficiently accessible both to pedestrians and vehicles?
3. Has the cost of our project's impact on traffic been included in the budget?
4. Is our project fully accessible to handicapped individuals and those with limited mobility?

St. Lawrence High School, Kolkata, India
http://www.stlawrencehighschool.edu.in/

10. Green buildings and respect for the environment

Now more than ever, it is also important to investigate green and renewable sources of energy and to incorporate them into our projects. A school always has a significant environmental impact in terms of pollution, and as a result we must try our hardest to diminish our negative impact on the environment in aspects like global warming.

In addition to this, we must keep in mind possibilities for saving energy, which can help us to significantly lower the costs of running our school. Here, we should point out that it is better to make a larger investment in the beginning in order to guarantee low running costs in the future. In general, available options for cheaper and more sustainable energy sources require a greater initial investment, but in the end they both help to keep our planet healthy and to lower maintenance costs.

In some cases, we can take advantage of geothermal energy to heat the water for heating, showers or swimming pools if present. Other sources of energy might be solar panels or wind power. LED lights instead of traditional bulbs are also a low-cost, long-term alternative. Bio energy sources can also be considered if the circumstances permit it.

Good thermal insulation in a building can also significantly lower energy requirements. Well-insulated constructions with an insulating skin can help to prevent heat from leaving and cold from entering or vice versa. Although such systems require a greater initial investment, they can bring down the cost of climate control by one fourth in comparison with traditional methods. This means that the investment can be recuperated after just two years of operation.

Tmov Keo Village - Kampong Speu, Cambodia
http://www.jscambodia.org

In some places, living rooves have been used which include grass or other plants that help to insulate the building while improving its aesthetic value and creating additional green spaces.

Classrooms and academic spaces can be oriented in such a way that natural light is plentiful without having to deal with the penetration of direct sunlight. This orientation can facilitate learning and save large amounts of money by reducing the need for artificial light or for curtains to block out bright sunlight.

Replacing traditional cloth curtains with a system of easy-to-use automatic blinds or window trellises can improve the aesthetics of our building and save on maintenance. At the same time, green waste bins should be incorporated to teach students how to separate trash and recyclables. Special bins for used batteries should also be included.

Depending on the location, systems for the reuse of grey water, for the capture of rainwater or wells can reduce dependence on the water network and on the sewer system.

These previous points are just as important as the need to educate our young people in environmental awareness, teaching them about the value of environmentally sustainable sources of energy. Any new construction should serve as a verifiable testimony to the call made by Pope Francis in the encyclical Laudato Si'.

Guiding questions:

1. What "green" elements can we incorporate into our designs in order to transmit a message of our commitment to the environment as an essential part of our personality?
2. Does local legislation favour green construction in any way (purchasing carbon credits or other)? If so, how can we take advantage of this for our project?
3. Have we researched environmentally-friendly ways of dealing with energy, water, and waste, the orientation of our buildings, the materials used, and green spaces?

11. Earthquake- and fire-resistance standards

In countries with significant seismic activity, local standards for earthquake-resistant buildings must be followed. However, it is always worthwhile to go a little further. Of course, this will raise the cost of our project, but the greater tranquillity afforded by ensuring our school can stand up to a violent earthquake is worth it. In addition to structural aspects, we should educate our students and teachers on security procedures to be followed in case of an earthquake: means of escape, seeking refuge under tables, and adult monitors who can help to keep everyone safe and ensure an effective evacuation of the premises when necessary.

The same applies to the risk of fire, explosions or other events.

Guiding questions:

1. Does our architectural design meet with local earthquake-resistance standards? Should our buildings be more earthquake-resistant than is required by local legislation? Why?
2. Does our architectural design meet with local fire safety and emergency evacuation standards? Should our buildings hold a higher standard in these areas than local legislation? Why?

12. Future development

Oftentimes, it is not feasible to build the best possible facilities. Budget limitations or a number of other aspects may be to blame. Nevertheless, it is necessary and prudent to take into account possible future developments when designing and distributing our space. For example, in the future we may need to build an athletics building, special classrooms or additional classrooms. Our designs should take into account how these expansions can be harmoniously integrated into the present project. We should also take these factors into account when purchasing the terrain.

Guiding questions:

1. What future expansions are necessary or to be expected? Have we taken these into account in designing and distributing our facilities?

Antonio Vieira School - Salvador de Bahía, Brazil
http://www.flacsi.net

13. Other important spaces

Our schools must also consider other spaces that are important for cultural, legal or locally traditional reasons. For example, in some places spaces will need to be built for cultural or sporting activities related to local custom.

It is also important to consider including an infirmary for providing basic first aid. Other spaces like dentists' or doctors' offices must be considered if required by the circumstances.

Some of our schools offer boarding. These spaces must also be carefully considered, so that they offer an environment conducive to studying and well-rounded education. Special attention should be paid to ensuring that these spaces provide the necessary safety and comfort. There are other aspects that should be considered in the preparation of dormitories that can be obtained from schools with best practice in this area, whether or not they are part of the Society.

14. Instruction on property management

In any construction process, it is very important to consult the "Statutes on the Religious Poverty in the Society of Jesus – Instruction on the Administration of Goods", a document by the General Curia that establishes the practical procedure for the administration of goods. These criteria have been taken into account in the preparation of this document, but it is important to mention them in this section to ensure that the segments pertaining to construction projects are followed.

Specifically in the area of new construction or remodelling, criteria on the following issues are included (document numbers in parentheses):

- *Previous steps: resources and permits (557-559)*
- *Commissioning construction (554-556)*
- *Conservation and substantial modifications (489-493)*
- *Building construction (557-576)*
- *Contracting labour (586-588)*
- *Execution of construction (570-574)*
- *Selection and instruction of the architect (560-561)*
- *Style of our constructions (484-486)*
- *General rules (484-488)*
- *Permits (491, 558)*
- *Definitive project and budget (566-569)*
- *Prior project and budget (562-565)*
- *Receiving completed works (575-576)*

Final considerations

It is not easy to detail all of the elements to be taken into account for new educational buildings. Different countries and regions have very diverse circumstances.

The aspects stated above only include some of the issues that several schools have had to deal with in recent construction projects. More detailed and situation-specific instructions will have to be established by the educational communities themselves as they create their new construction or renovation project. We are aware that there are many other aspects and situations that must be taken into account and that require further detail, such as with dormitories, cultural spaces, green schools and others.

We cannot forget that the final goal of any Ignatian education project can be no other than service to the mission of the Society of Jesus today. This means service to faith, justice, care for the planet and inter-religious dialogue within the context of reconciliation: "the call to participate in reconciliation with God, with one another, and with creation" (GC 36, D.1, n. 21).

In our long educational tradition, we have understood that a school as an apostolic tool requires a well-rounded education that educates the whole person and that is currently expressed in a quality education that trains men and women for others and with others. This educational quality is expressed in the human excellence we seek: competent, conscious, compassionate and committed men and women (see document on Human Excellence, Education Secretariat, 2015).

In his years as General of the Society of Jesus in Rome, St. Ignatius encouraged others to forge ahead with the construction of schools. Faced with the problems and contradictions that arose in the process (and which never seem to be absent from any project), St. Ignatius wrote in a letter to Father Alfonso Román:

"We usually find that where there are the most problems, abundant fruits generally follow; and although our Society is generally established with fewer difficulties, it seems that you will have a great and notable spiritual edifice, because of the great foundations that your troubles will prove to be. And it is to be expected that our Lord God will build it." (Epp. 12, 119, from July 14, 1556)

AMDG


IHS